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Institutional Leadership, Innovation, and Organizational Change during Technical Transitions: A Study of Digital Transformation in Public Radio

A dissertation presented

by

Elizabeth Anne Marie Hansen

to

The Department of Business Studies

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

in the subject of

Business Studies

Harvard University

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Institutional Leadership, Innovation, and Organizational Change during Technical Transitions: A Study of Digital Transformation in Public Radio

Abstract

This dissertation explores how the pursuit of mission affects the process of innovation in a public service organization facing digital change. The dynamics of how firms manage innovation under conditions of technical change are well understood. Successful innovation is shaped by how well a firm can adapt to changes in product architecture and market demand. Less well understood are the dynamics of managing innovation inside public service organizations whose multiple stakeholders, diffuse missions, and unique characters make identifying products, outcomes, and goals very difficult. To shed light on this question, this dissertation employs the findings of a 15-month ethnography of digital innovation in a local public radio station. I examine in depth the station's launching of a semi-autonomous innovation unit, the redesign of its main web platform, its crafting of a digital revenue strategy, and its creation of a managerial metrics dashboard. My analysis focuses on the challenges of creating digital innovation in a broadcast organization, and on the relationship between the station's public service mission and its innovation efforts. I supplement my ethnographic findings with historical analysis of the evolution of the public service mission in American public radio broadcasting from its early years through the current podcasting renaissance. I further contextualize my ethnographic findings in a review of the literature on the changing values and practices of digital journalism. My findings shed light on the relationship between institutional leadership and innovation in public service contexts, and

on the challenges of creating digital change in legacy news media organizations.

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Dedications

To my beautiful backseat babies: Sophia, Abraham, and Lyra.

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I identify as an organizational sociologist, and I was very lucky to have two amazing sociologists on my committee, Julie Battilana and Chris Winship. Through her work on hybrid organizations, and her combination of sharp theoretical insight and connections to the real-world realm of social problems and new innovations, she made a vital contribution to this research. Her sociological eye is incredible and every time I thought I might be losing the sociological story,

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I am what the public radio audience researchers would call a "backseat baby." I grew up listening to my local NPR station, and I have many happy childhood memories of sneaking the radio between my bed and the wall, making a little cave for myself, and traveling the world through the NPR soundwaves. I pestered my parents to donate during pledge drives, and at one point I decided that there would be nothing I wanted to do more in life than be the next Terry Gross or Silvia Pojoli. So many interesting people! So many interesting questions! I knew the public radio world would hold my attention through a dissertation, but I didn't know it would transform my life and work. So I am thankful to the entire institution for the now countless ways it has enriched my life.

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Chapter 1: Introduction

1. Motivation

Many long-standing institutions today are facing existential threats. Decades of economic and technical changes are producing profound social and political instability that is throwing into question the usefulness of many of the traditional organizing principles and practices of the modern liberal order (Piketty 2014) Chief among these changes has been the rise of digitization—the shift of information production from analog to networked forms, along with the expanded use of computing at all scales of human activity (Brynjolfsson & McAfee 2014).

The rise of digital technologies such as mobile computing, social communication networks, analytics capabilities across huge data sets, and cloud computing are transforming large swaths of behavior (Zuboff 2019). A number of deeper structural trends are driving these changes: the low cost of computation, communication, and information storage, and the increasing modularization of products and services (Altman, Nagle, & Tushman; Baldwin & Clark 1990; Benkler 2006; Benner & Tushman 2002). As the digital revolution unfolds, sector after sector of society is being hit by digital transformation: the changes in value creation and social organization that occur when the core information component of a good or service is digitized (Baldwin & Clark 2000).

Some clear recent examples include the digital transformation of the newspaper industry, the music industry, the film industry, and the publishing industry. In all of these industries, the process of digitization has diminished incumbents (EMI, Gannett, Blockbuster) and elevated new organizations to power (Spotify, Buzzfeed, Netflix) with a much different set of assets,

capabilities, and values than the old guard.

Innovation is the primary strategy for adaptation when the technical context shifts (Shumpeter 1942). Among the most pressing questions to be posed in the digital revolution is how organizations born in the pre-digital era can successfully innovate and adapt to a digital world. We know a fair amount about how market-based industrial firms innovate in order to survive cycles of technical change. Innovation and adaptation in product market contexts have tended to unfold in evolutionary cycles of variation, selection, and retention (Anderson & Tushman). The rise and fall of industrial firms have been traced to the firms' innovation practices relative to the state of technology in a given market, the nature of market demand, and the quality of managerial decision-making (Benner & Tushman 2003, Christensen & Bower 1996; Henderson & Clark 1990; Tushman and Anderson 1986).

But not all organizations are industrial firms. Though market capitalism as a set of values and organizing principles is a global phenomenon, there are entire classes of organizations that lie, in part or entirely, outside the market, and are designed to serve different aims (Ansell 2011). These organizations take many forms: universities, social service agencies, public agencies, professional associations, hospitals, and schools. These organizations embody and articulate the values of groups, communities, or societies as a whole. They serve a purpose on behalf of society and embed certain assumptions about the communities they serve (Selznick 1957).

This dissertation focuses on one particular type of non-market organization: those that have as their mission a notion of public service. In the strong form, these organizations are public agencies like social service agencies that translate democratic policy into concrete programs with specific outputs. In a weaker form, they include other types of mission-driven organizations such as schools and universities that accept a mandate to serve certain needs and sectors of society and

thereby incorporate some notion of public service into their stated purpose.

It is these public service organizations that are facing some of the most pressing existential crises in the wake of ongoing digital transformation. As ubiquitous computing and access to unlimited information expands the reach and capacity of individuals to organize and take action outside of traditional institutional structures, the usefulness of many public service organizations is being called into question. Furthermore, as large-scale corporate monopolies such as Google and Facebook have come to dominate the provision of digital goods and services, the perceived effectiveness of non-market, public service organizations is diminishing (Zuboff 2019).

The leaders of public service organizations face common dilemmas. They must on the one hand use the technologies and practices of the digital world to innovate in order to remain legitimate and relevant to the publics they serve. Yet the widespread adoption of digital technologies and digital practices is also changing the nature of the publics they serve and throwing into question their core missions. What does innovation mean in a public service context, and what does it mean to innovate successfully?

These are not easy waters to navigate. Unlike market-based firms, public service organizations often pursue multiple goals, create a variety of products and services, and serve multiple constituencies (Selznick 1949, 1957, 1994). There is no clear price/performance curve or market capitalization that function as a proxy for the outputs of a public service organization, which makes it difficult to predict the shape of innovation and the impact of digital change using market-based theories. Public service organizations are often multi-stakeholder, which embeds them in multiple institutional contexts simultaneously, and makes them subject to co-optation and diversion of purpose (Cohen, March, & Olsen 1972; Selznick 1949). To the extent that different vectors of digital change play out differently across contexts and stakeholders, it is not

clear how public service organizations would or should innovate in response. And furthermore, because the values and meanings that adhere in public service organizations can exceed the technical requirements of their work (Selznick 1957), it is also not clear how new innovations might interact with those organizational values and meanings.

Empirically and theoretically, we simply don't know much about how public service organizations are navigating these tensions between innovation and mission. Existing theory is only partially helpful in illuminating and explaining this phenomenon. The classic organizational theorizing on public service organizations, beginning with Selznick (1949), and continuing today through Kraatz and Block (2008) and Kraatz et al. (2015) and the growing literature on mission-driven organizations (Battilana & Besharov 2017) has mostly black-boxed the technical workings of organizations that pursue a social mission. All of this points to the importance and timeliness of the question at the heart of this dissertation: how does the pursuit of mission affect the process of innovation in public service organizations?

The process of digital innovation and adaptation within public service organizations is just beginning to be explored (see for example (Lifshitz-Assaf 2018)). To build on this small body of literature, this dissertation examines the pursuit of mission and the process of digital innovation in the context of American public radio. Public radio is an ecosystem of public service organizations in the midst of a shift from a broadcast model to a digital model of production and distribution. Because organization theory surrounding the phenomenon of innovation and digital change inside public service organizations is nascent, this dissertation adopts a qualitative, inductive, ethnographic approach.

2. Empirical Setting: American Public Radio

I will explore in more depth the empirical context of my case in subsequent chapters, but offer an examination here. The empirical setting of American public radio is an especially rich one in which to explore the dynamics of how public service organizations are adapting to the digital world. The U.S. Congress established the system of public radio in the United States when it passed the Public Broadcasting Act in 1967, signed into law by Lyndon Johnson, which created the Corporation for Public Broadcasting. The Act paved the way for the founding of National Public Radio, a central content producer, distributor, and quasi-governance entity in public radio. The Act also provided support for a growing number of noncommercial stations that were broadcasting over public airwaves on the FM spectrum.

Public radio has evolved into a field of organizations pursuing a mission of providing public service media within a loose regulatory regime. As an organizational field, public radio comprises different types of organizations including networks such as National Public Radio (NPR), Public Radio International (PRI), American Public Media (APM), and Public Radio Exchange (PRX); quasi-government entities including the Federal Communication Commission (FCC) and the Corporation for Public Broadcasting (CPB); local public radio stations which are licensed by the Federal Communication Commission to community and educational institutions across the country; and professional associations including the Public Radio Program Directors Association and Greater Public (the marketing and development professionals association). The FCC and the CPB share regulatory authority over the public broadcasting system. Their work includes certifying stations for receipt of federal funds, issuing reporting requirements, funding strategic programming, ensuring public radio content does not violate decency laws, and regulating the kinds of messages that can be aired in underwriting.

Organizations in the field of public radio share a diffuse purpose and loose set of values. The purpose of public radio is to broadcast noncommercial news, educational, and cultural programming to local communities across the country. A set of values called "the Core Values," developed in the mid-nineties, describes a common approach to program decision-making. But the field is far from uniform. Local stations have autonomy over programming choices and many craft their identities in relationship to the geographically-defined communities they serve—for example, "The Public's Radio" in Rhode Island.

Public support in the form of donations, listening, and public legitimacy is an important organizing cornerstone and animating feature of public radio. Public support is the key barometer of public radio's fulfillment of its mission to serve the public through its programming. The monetary form of public support—the model of "listener membership"—is one of the most institutionalized and successful elements of public radio. Though the meaning of "member support" is increasingly contested and up for grabs, public radio members in general deeply identify with their local stations and their monetary contributions bring many members into deeper engagement with their local stations.

Public radio was established on the technology of terrestrial radio broadcast. The broadcast model assumes listeners consume programming over the radio within geographically-defined communities. Public radio broadcast programming is produced mostly inside public radio stations and networks, with some additional programming coming from independent producers. Direct public support is garnered through a model of listener donations most often solicited during on-air pledge drives. The field of public radio as a whole—its taken-for granted routines, norms, and regulatory regimes—has been built on this broadcast model.

Public radio and the rise of digital models of production and distribution

Yet in the last two decades, with the rise of various forms of digital media, some of the core assumptions of the broadcast model of public radio are being questioned. During this time, terrestrial radio ownership has decreased and the mass media landscape has fractured and diversified. Audiences have been increasingly accessing media on the web and mobile devices, and can choose from a wider array of content than ever before. In line with this trend, audience research in public radio has shown an overall flattening out of broadcast listening time and an aging of the broadcast listenership. However, these trends have developed alongside some significant growth in digital audience overall and a growth in revenue in certain stations. The overall growth of digital media is forcing a rethinking and remaking of the institutions of public radio and a shaking loose of the broadcast model.

In response, the broadcast model in public radio has begun to share space with new digital models developing alongside it. As their listeners migrated to the web and away from terrestrial radio, public radio organizations have been responding. NPR funded a massive effort to get stations online with robust digital content management systems. Larger stations created digital newsrooms with digital-only reporters, hired digital producers for programs, experimented with social media, and set up digital streaming of their broadcast feeds. Most stations now have at least one digital editorial professional, and larger stations have small digital departments that can include technical staff. Though the integration of digital production with the routines of radio broadcast remains an ongoing organizational challenge, most stations have successfully made the transition to incorporating some level of digital media into their programming. NPR itself has become a powerful digital brand with significant reach to online audiences, constrained however by its legacy governance and business model that is deeply intertwined with its local member

stations operating on the broadcast logic.

The first wave of digital technology was text-based, and tethered to clunky computer devices. Public radio's adaptation to that first wave in the form of audience-facing news and programming websites laid the foundation for a digital model in public radio. For the most part, however, the digital efforts of stations have been to support the broadcast programming.

Three developments in digital media are challenging the public radio broadcast model profoundly: the rise of mobile connectivity and mobile devices, the rise of digital audio platforms, and the development of more accessible, higher-quality digital audio production and consumption platforms. These three changes together are strengthening digital models of audio production and consumption as a whole and public radio organizations are figuring out how to adapt to it. I explain each in more detail below.

The widespread use of mobile devices and mobile audio has meant that audience attention is now more fragmented and that public radio has had to reach beyond the web to craft a mobile audio presence. The growth of mobile media consumption has also accelerated the development of different kinds of media communities, some of which overlap with traditional geographically-based identity groupings of local public radio, but many of which do not. These developments are challenging local stations to take advantage of the affordances of mobile digital media to create and nurture different types of communities beyond just "local members." The most successful public media podcast producers have built exactly these kinds of affinity-based digital media communities around their content.

The growth of third-party audio platforms like Spotify, TuneIn, Pandora, and iTunes has been a mixed blessing for public radio organizations. On the one hand, the growth of internet-scale audio platforms has meant that public radio organizations can now distribute their

programming to much bigger audiences, unbounded by geography (even if they face a wider set of competitors in the process). On the other hand, the listeners on those platforms belong to the platforms, which means engaging those audiences is also much more difficult. (A similar dynamic has played out between social media platforms and news publisher, see (Rashidian, Brown, Hansen, Bell, & Albright, 2019)).

Finally, the development of more accessible, higher-quality digital audio production and consumption in the form of podcasting has meant that many more individuals and groups are able to produce spoken word audio and reach audiences on digital audio platforms. This again, has been a mixed blessing for public radio. On the one hand, public radio as a field has the strongest audio producers and audio talent of any media ecosystem. Many public radio professionals have jumped enthusiastically into podcasting with great success. Yet on the other hand, podcasting poses perhaps the deepest threat to the broadcast model because it dis-intermediates the station/audience relationship entirely. Podcasting allows small audio producers to create and deliver "public radio" shows directly to a loyal audience. I delve more deeply into this in subsequent chapters.

Taken together, these four technological changes are strengthening digital models of audio production and distribution and challenging to an even greater degree the still-dominant broadcast model in public radio. Digital models of production and consumption push for public radio to be more open, diverse, engaged and distributed. In contrast, the broadcast model has historically structured public radio as a relatively closed production system, uniform in sound, serving geographically-based communities, and centralized inside network/station relationships. In summary, the challenge facing public radio organizations is to innovate on a public service that was traditionally based on a broadcast model and to adapt to a digital media world while

maintaining what is core to public radio's purpose, character, and values. Innovating on their public service is a monumental task: the production and distribution modes, the regulatory regime, and the origin of the values and character of public radio are all embedded in the technologies of terrestrial broadcast. Most people in public radio understand the broadcast model to be increasingly pressured by digital production and distribution of audio content in the wider media landscape. Many public radio professionals look with alarm at the collapse of newspapers and fear their institution is next. Yet how the institution should innovate its model of public service, and what that public service should look like, is an ongoing subject of debate and experimentation in the public radio field. This dissertation describes in great depth the process of innovation and experimentation in one corner of the public radio field.

3. Research Questions

This dissertation proceeds in multiple parts. The core of the dissertation is an ethnographic account of one public service organization, a public radio station, attempting to meet the existential threats it faces through innovation in a radically changing technical context. The dissertation begins by introducing the station, describing its organizational structures, and establishing its status as a public service organization.

But analyzing and understanding the ethnographic account of the station requires placing the station in its institutional context: the field of journalism and the field of public broadcasting. Thus, after introducing the station, I proceed by presenting two institutional analyses—one of journalism and one of public broadcasting. I sketch out how the rise of digital technologies is changing both. The questions driving the institutional-level analyses are as follows:

Chapter 3: What are the values of the institution of journalism and what are the major empirical

features of digital journalism?

Chapter 3: How is the incorporation of digital technologies changing the values of journalism?

Chapter 4: What are the origins and values of public radio broadcasting?

Chapter 5: How are digital technologies being incorporated into the field of public radio?

In the third chapter, I use the literature in the field of journalism studies to offer an analytic framework for understanding journalism as a set of values. In the fourth chapter, I then sketch the major changes in the field of digital journalism. From there, in the fifth and sixth chapters, I turn to a field-level analysis of public radio during a time of digital change. I trace the origins of public broadcasting as a journalistic endeavor and show how its institutional flexibility has shaped its digital innovations, including the rise of podcasting and the migration of audiences to social media platforms.

With the institutional context laid out, I then turn to the ethnographic material. Though the ethnography is arranged roughly chronologically, the empirical chapters seven through ten focus on four major station innovation efforts: the launching of a semi-autonomous innovation lab, the redesign of the station's core digital platform, the creation of a digital revenue strategy, and the creation of a digital metrics regime. The questions guiding each of those chapters are as follows:

Chapter 6: How does the pursuit of a public service mission affect the use of semi-autonomous innovation structures in a public service organization?

Chapter 7: How does the pursuit of a public service mission affect the creation of digital products in a public service organization?

Chapter 8: How does the pursuit of a public service mission affect the creation of digital revenue strategies in a public service organization?

Chapter 9: How does the pursuit of a public service mission affect the adoption of metrics

regimes in a public service organization?

I then present a Coda in Chapter 10 that concludes parts of the ethnographic account from the previous chapters and offers some final insights.

The final theory chapter revisits the core question of how the pursuit of mission affects the process of innovation in a public service organization. Using the ethnography and the institutional-level analyses, I offer some theoretical insights on this question that extend the literature on innovation as well as public service organizations.

4. Data and Methods

WABC data collection

My ethnographic data collection at the station began January 5, 2015 and ended March 28, 2016. My visits began with two to three days a week in January through May, dropped off over the summer and fall of 2015 and then intensified again in the winter of 2016. I spent a total of 88 days in the field over the course of 15 months. Because my main research interest was in understanding the process of digital adaptation at the station, I spent most of my time at the station embedded with the station's digital team, sitting in the Digital Director's office and following him around. I also observed the two weekly management meetings (the regular manager meeting and the strategy meeting), and occasionally shadowed and interviewed other members of the management team, including the General Manager. I also spent time with the head of the new innovation unit, The Innovation Lab, and followed her progress during my time in the field.

After I left the field, I continued to be in contact with most of the station managers and followed up on how things were going. When the Lab Director departed the station in July 2017,

I spent three hours conducting a debrief interview with her to understand what had happened. She also gave me the archive of her work. During my time at the station, I took notes either in a small field notebook (for more informal or sensitive settings) or on my laptop. (More on my notes below.)

Analytic strategy

To get my field notes ready for analysis, I first broke out each meeting or encounter in my raw field notes into a separate text file. For my field notebooks, this involved scanning my three main paper notebooks into pdf files and then slicing the files into smaller constituent parts. For the notes I took in Evernote on my laptop, I sliced those notes into separate files for each meeting or encounter. I then spent a considerable amount of time dating and time-stamping each field note file within a single naming convention, and a short description of the event, that would allow me to organize my notes chronologically in NVivo. I also digitized all of the station materials I had picked up along the way — meeting handouts, copies of broadcast ratings, promotional materials, etc. I named those files according to the same convention. I went through my email inbox and pulled out all the emails I had been forwarded or copied on, converted those to pdfs, and dated them as well. This yielded 417 separate pieces of field data, each between 200 and 5,000 words long. I then imported this body of data into NVivo.

Once in NVivo, I broke the data set into three main parts, which followed the major projects I had tracked during my time at the station: the launching of The Radio Lab, the redesign of the website, and the building of a metrics dashboard. I did a high-level coding of each of the field notes files that belonged to each project. Then, in early 2017, I began to construct an account of each project. I started with the Lab and then moved onto the redesign and then the dashboard

project. This initial draft of the ethnographic case was about 50,000 words and focused mostly on the facts and happenings in each project as I pieced them together from each file of my coded field notes. This formed the basis for subsequent analyses and revisions.

In crafting the second draft of my ethnographic case, my focus was on turning the case material into a narrative that I could use to address my core research question. To do this, I first consulted a number of narrative guidebooks. The most helpful was Shawn Coyne's *The Story Grid: What Good Editors Know* (2015). In this book and his accompanying website, Coyne encourages writers to lay out the essential elements of their story on a single page. This one-page summary of a narrative pushes the writer to identify the genre, the values at stake in the story, the objects of desire of their characters, and the overall controlling idea or theme of the narrative. It also guides the writer to map out the beginning, middle, and end of the narrative as well as the crucial inciting incidents, complications, crises, climaxes, and resolutions along the way.

Using the tools of the Story Grid, I returned to my ethnographic case and mapped out the elements that I wanted to compose the overall plot. I filled out my own one-page grid for the ethnography as a whole. Then, using notecards, I then mapped out the scenes that would make up each progressive development of the plot, what I wanted the scene to accomplish, and how it would push the story forward. When I was finished, I had about a dozen scenes for each chapter. I kept the narrative divisions as I had before—focusing separately on the launching of the Lab, the redesign of the website, and the metrics dashboard. But now I arranged the story elements roughly chronologically to follow my time in the field.

Because this ethnography is meant to be analytic and theory-building as well as descriptive, I also filled in a parallel narrative grid for the analytic story I saw emerging in each plot section. With the descriptive and analytic narrative arcs thus framed, I proceeded to re-write my

ethnographic case, pulling in more close readings of my raw field notes where I needed, to complete the next revision. At the end of each chapter, I wrote a summary of the analytic insights I had pulled from the descriptive narrative.

Advantages and limitations

My method of ethnographic data collection and my analytic strategy to accompany it, like all methods and analyses, had its advantages as well as limitation. For my laptop notes, I took near-verbatim notes of meetings and conversations. The advantage of this kind of detailed note-taking is that I have been able to create an account that features extremely up-close renderings of the back-and-forth, *in situ* sense-making of a group of senior managers grappling with a complex time in their organizational and institutional history.

To construct the final narrative, I used excerpts of my field notes to construct very fine-grained, close-to-the-words interpretations of what I heard people say to each other in service of answering my overall question. I brought to bear my contextual knowledge—about the field and history of public radio, about the relationship between journalists and their audience, about how the station works—in constructing these close readings. What results is both a thick description and a grounded interpretation of the conversations I heard at the station.

The limitations of this approach are that the details in the text can sometimes overwhelm the overall analysis. To help remedy methodological and analytic shortcomings, I have ended each chapter with an analytic summary that pulls back from the detail to offer a bigger story. I have also written a Coda chapter that ties together some threads of the narrative left hanging. I also provided full manuscripts to two of my key informants for their fact-checking and suggestions of contextual nuances I might have missed. They both read the entire manuscript and their feedback

has been incorporated into the final draft.

Field-level data collection

The public radio system is a very complicated and insular field. The only way I could have made sense of my ethnographic data was to have a solid grasp of the institutional context. Thus, from the beginning, my study of the station was connected to a larger investigation into the changing nature of public radio. I am including here the full range of data I collected at the system level. Though my ethnography of the station references very little of this field-level data directly, it forms the interpretive context for my analysis of the case. See Table 1 for the stations I visited during data collection.

Table 1: Station Visits During Data Collection

Station	**Location**
WAMU	Washington, DC
New Hampshire Public Radio	Concord, NH
KPCC	Los Angeles, CA
KCRW	Los Angeles, CA
KQED	San Francisco, CA
KALW	San Francisco, CA
WNYC	New York, New York
Rhode Island Public Radio	Providence, RI
WBUR	Boston, MA

PRX data collection

Beginning in September 2014, and running in parallel to my ethnographic data collection at the station, I also spent time weekly at the public radio organization PRX, The Public Radio

Exchange. PRX was founded as an internet-based distribution platform for independent producers to syndicate their work to stations (the previous system had involved sending around CD's to Program Directors). As the tools and possibilities of digital media grew, PRX expanded its work to include incubating new content, offering digital distribution services to major shows in public radio, and—during my time there—vastly expanding its podcasting strategy through the Radiotopia network. My data collection at PRX ended in June 2015, and though the PRX data is not included in this dissertation, I reference some of what I learned there in the concluding chapters.

System conferences and meetings

Public radio as "a system" comes together in a series of yearly conferences and gatherings, most notably the Public Radio Program Director's Conference (PRPD); the Public Radio Media Marketing and Development Conference (PMDMC); and the Public Radio News Director's Initiative (PRNDI). I attended PRPD once and PMDMC twice during my time in the field. The Corporation for Public Broadcasting also happened to hold its annual meeting in Boston during my field work and, remarkably, I managed to secure an invitation.

Public Radio Program Director's Conference
September 2014 Portland, Oregon

Public Media Marketing and Development Conference
July 2015, Washington, DC

Public Media Marketing and Development Conference
August 2016, Boston, MA

Corporation for Public Broadcasting Yearly Meeting
October 2015, Boston, MA

Notable interviews

Public radio is considered by those inside it, and many outside it, to be a sacred institution. Like other sacred institutions, there are keepers of the flame—people whose work and life embody the ideals of the institution, and people who sit atop important organizations. I was lucky to be able to interview some of those people, including:

Bill Siemering, co-founder of NPR and drafter of public radio Core Values
Tom Thomas Terry Clifford, co-founders of the Station Resource Group
Jay Allison, founder of Atlantic Public Media
Bill Kling, founder and former president, American Public Media

Podcasting

As I will explain more in subsequent chapters, the world of podcasting exploded during my time in the field—beginning with the breakout success of the public radio podcast *Serial* in October 2014. I tracked the rise of podcasting at the station, at PRX through the growth of Radiotopia, and in the public radio field at large. As part of this wider digital media development, and as a counterpoint to the noncommercial radio world, I also attended the 2015 RAIN summit in Los Angeles, CA to understand how podcasting was looking from outside "the system."

I will not make any claim to this being a comprehensive study of the field of public radio. For example, I spent very little time at NPR itself during my fieldwork, though I've since met and spoken with a number of people there. If anything, my two years collecting data for this project—and the many thousands of hours I've spent in public radio circles since then—has shown me just how much more there is to understand about the highways and byways of public radio. But the work I did to get a basic grasp of the institutional field has served me well in

understanding what I observed at the station.

5. Station Context

My station data has been anonymized to protect the identities of my informants. This section lays out some basics about the station and its functioning, but leaves out details that would directly identify the organization and its members.

WABC founded as a college radio station as part of a wave of small noncommercial FM stations being started at educational institutions across the country (Slotten 2009). Like many other noncommercial stations that would go on to become public radio stations, WABC was, in the early part of its life, run by community and student volunteers. In the mid-nineteen-sixties, the first professional manager was appointed to lead its operations. This station manager, along with 2 other full-time employees, helped begin its transformation from an eclectic college radio operation into a thriving local cultural institution.

By the late nineteen-sixties, before the passage of the Public Broadcasting Act, WABC was the most popular non-commercial station in its city. The station's programming was a mix of music and cultural fare typical of "educational radio" stations of the time. At first, the station, like many others, did very little news and mostly broadcasted classical music. But as the young National Public Radio found its footing and began producing national news for national distribution, the station began a slow shift towards broadcasting entirely news and information programming.

Over the next two decades, the station grew from a small staff and relatively modest budget and audience into a much bigger presence. By the early aughts, the station had a budget of about

$20M, a staff of over 100, and a growing local newsroom to go with it. The station incubated some successful national programs as well and had a large local audience.

Business model and governance

The station's business model was that of public radio as a whole: a mix of small-dollar donors, philanthropy, and corporate underwriting. By the mid 2010's the station had revenues of over $30M, with about a third of the revenue coming from small-dollar donors, another third from underwriting, and the final third from a mix of foundation and other philanthropic support and syndication revenues. The station was on strong financial footing, with 133 full-time employees and a governing board of about 40.

The station has a mixed governance structure with fiduciary responsibility lodged in the license holder, and fundraising and advisory functions maintained by an outside board. As a condition of its CPB funding, the station also maintains an Executive Advisory Council which is chaired by the license holder and also has outside membership.

The complicated and overlapping governance mechanisms split strategic, operational, and fiduciary control amongst a set of oversight bodies. In times of crisis—as well as times of innovation—this governance structure has not served the station particularly well. Yet the civic embeddedness of the station also ensures a different type of community control, as I will explore in more detail in later chapters.

Management team and organizational structure

When I entered the field, the station was structured in four major parts: a station business manager was in charge of the revenue-generated functions of the station including underwriting,

syndication, and membership; a program director was in charge of the editorial products of the station, both broadcast and digital; a director of finance was in charge of accounting and reporting; and a director of engineering oversaw broadcast engineering and IT. This was the high-level, formal structure.

The informal structure was different. The weekly "Manager Meeting" included the most important direct reports to the General Manager, and it was this group of people that constituted the senior management team of the station. Of the departments under the station business manager, this group included directors of membership, development, and marketing. The departments under Programming included the heads of the local newsroom, special projects, the major broadcast shows, and the digital team.

In the digital team, there was a deputy head of digital who oversaw the multimedia producers, the homepage producers for the station's website, the digital news reporters and editors. The director of the digital team separately oversaw the station's two programmers, another multimedia producer, and a social media producer.

The station's local newsroom at that time contained about a dozen producers, writers, and announcers who worked on the morning and evening news broadcast, and nine local radio reporters. When I entered the field, there had been a raging debate inside public radio about how to "integrate" radio and digital newsrooms. This debate was ongoing inside the station when I arrived, and the org chart reflected the structural and operationally reality of two separate newsrooms, radio and digital. Integration was an ongoing process.

Content and programming

When I entered the field, the station was producing an impressive range of broadcast content that was airing both locally and nationally. All of these shows were available as podcasts. The local newsroom produced 19 daily local newscasts, and approximately 40 minutes of local features for slotting into Morning Edition and All Things Considered each day. The station was also experimenting with launching new podcasts and other short-form audio content.

The station maintained two core digital products: a website and an app. The site was last redesigned in the late aughts and at the time garnered the station quite a bit of attention for its forward-thinking design. The station had built out an impressive range of digital content to accompany its broadcast. The stories on its broadcast—whether local news or airing in one of its national programs—were also produced for the web, often with audio files embedded. For the national shows, this was tedious and constant work done by usually a single digital producer embedded inside the broadcast show hierarchies. The digital team oversaw two full-time digital homepage producers and a rotating cast of freelancers who helps turned the hourly local newscasts into web articles.

But in addition to translating the broadcast content onto the web, the digital team also produced its own original content. The team had a digital-only reporter, two multi-media producers who could shoot video and take photos for the station's digital properties, and a social media producer who curated the station's social accounts. The station also maintained a number of digital-only content verticals and a handful of newsletters. Over time, the most popular feature on the website was the "Listen Live" link, which allowed users to listen to the broadcast on their PC. The station's mobile app also had a live listening stream.

Though the importance of in-person events to the wider media landscape was just beginning to be understood, in 2014 the station had a growing (if somewhat haphazard) events schedule. In

2014, the station hosted 100 live events. The station had a director of community engagement, who reported into marketing, that was in charge of programming events.

6. Disruption

"We want to disrupt ourselves"

For a business school student, hearing these words from a senior executive of an established firm would be a sign of hope, a signal of a certain hipness to current management thinking, and perhaps a promise of boldness in the face of threat. But coming from a senior executive at a public radio station, the words were very puzzling indeed. What does disruption mean in public radio? No more tote bags? No more Susan Stamberg? No more radios?

The old saw in fieldwork is that informants tell you everything you will ever want to know in your very first few days, but that *understanding* what they say in those first fleeting moments will take you well beyond your last day in the field — a year, two years, five years, ten years later. That has been the case for me, as in the five years after I first heard the word "disruption" uttered in the context of public radio, I have come to understand—or perhaps more accurately, am still coming to understand—what "disruption" might mean to the dedicated and mission-driven people working in the context of a venerable forty-year-old, non-commercial, public service broadcasting institution.

In retrospect, maybe I should not have been that surprised to hear "disruption" batted about in my early days in the field. My first contacts with WABC came by way of a friend and fellow scholar at HBS who had agreed to advise the station on the formation of its new innovation unit. The station had secured funding for the Digital Lab from a major foundation the year before, and it was slowly working its way towards hiring the Lab's first director. It would make sense that

HBS—the cradle of disruption theory (and, one might add, agency theory)—would be enlisted to help sort out how to make a go of "auto-disruption" in its local public radio station. And it would make sense too, by extension, that as an HBS doctoral student, who presumably knew about such things as innovation and disruption, that I should be the target for such messages.

Yet as I would learn later, the fear of "digital disruption" had been spreading like a bad cold through the community of General Managers in "the system" (public radio's term for itself). Their fears were not without warrant. At my first public radio conference, the Public Media Program Directors Conference in September 2014, there was plenty of research shared in prime-time all-conference sessions on the changing media consumption habits of public radio listeners, and on the increasingly fragmented and competitive digital audio landscape. It wasn't too much of a leap to go from changing listening habits to digital competitors to disruption, at least from a loose reading of the various versions of disruption theory that were in circulation at the time.

But what, exactly, was at the heart of the disruptive problem facing public radio? I asked the station's General Manager, Michael Davis, to explain to me what he saw as the nature of the problems facing public radio.

Michael is a charismatic white man in his sixties. His background as a news executive had influenced him deeply. His office occupied a corner of the newsroom, fronted by a make-shift sitting area and his assistant's desk. A small, windowless conference room adjoined it. Though his large oak desk dominated the back of the room, he preferred to take meetings in the front half of his office, where three arms chairs and a couch were arrayed around a small coffee table adorned with the station's pledge-drive coffee mugs.

Leaning back in his preferred armchair, he began by referencing a set of stories that would be familiar to any first-year MBA student (and readers of *The Innovator's Dilemma*): the stories of

DEC and Kodak. These giant corporations, the exemplars of excellence in their industries, were unable to navigate changing technologies, and their greatest successes sowed the seeds of their ultimate (if protracted) demise. The Lab, he hoped, would help the station avoid such a fate. Yet even in this short conversation, it became clear that there were other references for his thinking about the perils of success—beyond the disruption textbooks—that raised even more troubling questions about the future of public radio:

"One of our advisors has made this point: do we want to be data driven or inspiration driven? That gets to a question: what makes public radio work? Is it the large number of people? Or is it a deep level of engagement and relationships? There are many media outlets with large audiences, but not many with engagement. However, Minnesota Public Radio, for example, is all about data. Others say, what clicks is what makes passionate advocates versus consumers and those can be reinforcing. What sustainable business models will you build bets around? Is it inspirational and emotional calls to action? Or is it a deep understanding of behavior through data, like with Amazon? I'm not sure we can do both simultaneously — those are radically different approaches. The Amazon game is not inspirational. So are we going for transactional versus mind/heart? Why do people use Amazon? Because they click on a button and something appears at their door — it gives you a Pavlovian jolt. They are not using inspirational marketing, they are using the power of the long tail. Amazon is also loved because it becomes a part of our lives, and its supportive and not only transactional. In that ways it is like the role that the station plays for people.

Some models in public radio take Prime as a membership model. So what do you get for being a member? Is member the wrong term? Or is it the right term but the wrong content? Amazon is a membership model and they have your credit card which makes everything so easy. But it's still imperfect. Some are convinced we can have an algorithm for personalization of public radio. But is selling toothbrushes on Amazon a parallel for public radio? What is the parallel? That you sell something similar? And what would you do with that data? So the data approach gets creepy fast. That is data, not inspiration. Any data used based and our relationship with listeners goes into the tank. So for example, with email registration, where does that data go? So for example with the Overcast podcast app — you can't use it without registering, though they made it minimal with email and password. If we start with an email relationship and create a new app in iOS and Android. We would spend as much on these as any radio station. There is overlap between our site and our app, and we have to figure out whether there is a different relationship to the app versus the desktop. NPROne forces registration — Facebook registration — that is particularly creepy."

Managing with data versus inspiration, the meaning of membership, the nature of the relationship between a station and its listeners—these were beyond the disruptive concerns of price/performance curves, new entrant competition, and the blindness of incumbents. Yet above

all, Michael seemed to be most worried about how to create an urgency for change and action in his organization, in his board, and in the station's listeners.

> "No matter how much you tell people, the disruption is coming, the bundle is being unbundled, they say "I don't see that in my world" and they could put their money elsewhere. Or "I'm not sure I'm in love, I listen all the time." So that's the challenge: to act as if we might not be here tomorrow. We are rethinking what do we do with our content and product, and the whole machinery of sustaining ourselves, including our new innovation Lab. We are re-thinking our business."

Yet my early conversations about the station's managers about their digital hopes and fears left me with two puzzles. The first was whether or not a rigorous academic application of the logic of disruption should hold in the case of public radio's audience and market changes. Was I really studying a case of disruption? And even if disruption was on its death march in public radio, it was another question entirely of whether the prescriptions of market-based adaptation mechanisms should hold as well.

Chapter 2: The Profession of Journalism

Introduction

The backgrounds of the leadership of WABC, and the core of the station's work, are deeply embedded in the values and practices of journalism. Thus, this chapter begins to lay the context for my ethnographic account of the station by presenting the major features of one the station's embedding institutions: the field of journalism. Because institutionalized organizations incorporate the values of fields in which they are embedded, I focus first on the values that comprise the field of journalism. I then turn to a description of the major phenomena which make up digital journalism. This chapter is largely a descriptive one, and answers the question: what are the values of the institution of journalism and what are the major empirical features of digital journalism?

What is Journalism?

To trace the institutional influence of the station's relationship to journalism, it helps to first define what journalism is. There are, not surprisingly, different definitions of journalism. The scholarly journalism literature applies a number of different theoretical concepts for defining what journalism is: a profession, an industry, a social system, a cultural product (Deuze 2005). On the one hand, journalism can be defined as a *belief system* "that defines the appropriate practices and values of news professionals, news media, and news systems" (Nerone 2013 p447). It operates as a *discipline* governing the production of news: "Journalism is the business or practice of producing and disseminating information about contemporary affairs of general

public interest and importance" (Schudson 2003, p11). Journalists collect facts via investigative techniques that produce news in the form of information that has been deemed objective, reliable, verified, and accurate (Anderson, Downie, Schudson 2016). Journalism as a practice is thus partly about the production and dissemination of credible information. The second, more normative and functional definition of journalism is the practice of exercising and safeguarding the public's "right to know" about the inner working of powerful social actors such as government agencies and corporations (Deuze 2005, Clayman 2002, Patterson 1997). Journalism, in its agenda-setting function to define "the news of the day" has been theorized as a core component of social cohesion in democratic societies (Anderson 1991, Habermas 1987).

The development of this modern institution of journalism can be traced both politically and economically. Nerone, in his brief overview of the historical roots of the normative components of journalism, describes how the "dominant hegemonic form of Western journalism" — what I am referring to here as the institution of journalism — was the historical product of a confluence of political and market conditions that always represented an ideal type (Nerone 2013). In his reading of the historiography of Western forms of journalism, Nerone argues that some accounts emphasize the political origins and others the market origins of the institution. Political analyses focus on the inextricable link of journalism to the formation of the public sphere in liberal democracies. The public sphere, that argument goes, had the potential to host the kinds of informed debate and deliberation deemed to be essential for self-government (Habermas 1987, Sibert et al 1956). The granting of press freedom in the First Amendment of the US Constitution helped, over time, to solidify the institutionalization of the press as its own center of social power, apart from both the market and the state, that could help set the terms of debate in the public sphere. Market accounts of the history of journalism tend to emphasize the

roles played by mass communication technologies such as the telegraph, combined with federally subsidized postage rates, a national postal system, and the rise of mass-market advertising, to form the economies of scale that helped create monopoly power in newspapers (Hamilton 2004, Baldasty 1992). It was against this monopoly power in newspaper ownership that journalism's professionalization project proceeded (Soloski 1989).

Nerone argues that the components of hegemonic journalism which include objectivity, independence, and a degree of occupational autonomy for journalists, were the result of a post-First World War detente forged between news media owners, news workers, and the public in the wake of widespread wartime propaganda and monopoly ownership of presses (Nerone 2013). The autonomy and set of professional values that reporters and editors were able to craft was solidified in the church-and-state divide between the business interests of news owners and the editorial independence of their journalists' employees (Coddington 2015, Cranberg et al 2001). This autonomy was manifested organizationally in the separate reporting structures of business functions and editorial functions in news organizations. The professionalization project of journalists reached a climax in a "high modern" period in sixties and seventies in the U.S. During this period, news organizations such as The Washington Post and The New York Times were able to break stories on events of national importance (the Vietnam War, Watergate) that had a profound impact on the governance of the nation (Hallin 1992).

For the purposes of understanding how the station incorporated the institutional elements of journalism, I choose here to highlight the elements of journalism's occupational ideology (Duez 2005), an ideal-typical set of values which are widely shared and form the matrix of meaning and legitimacy on which journalists hang their work. The concept of an ideology has a long history in the social sciences — from the Marxian notions of the system of ideas which

operate to legitimize the configurations of production means and class relations to it (Marx 1845) to the Durkheimein understanding of group ideology as the basis of social solidarity and emergent formal organization (Durkheim 1893). Deuze, in his summation of the five components of modern, Western occupational ideology in journalism, defines it as, "a collection of values, strategies, and formal codes characterizing professional journalism and shared most widely by its members" (Deuze 2005 p445). Organizational scholars studying occupations have tended to understand these elements as part of occupational identities (Van Maanen and Barley 1984, Anteby 2008, Ashcraft 2013, Nelson and Irwin 2014, Howard-Greenville et al 2017).

The Occupational Ideology of Journalism

Deuze (Deuze 2005) surveys the literature and identifies five core values that define the occupational ideology of journalists: (1) public service, (2) objectivity, (3) autonomy, (4) immediacy, (5) ethics.

The close resemblance of these values to the hallmarks of professions points to the longstanding efforts of journalists to gain professional status (Soloski 1989). Yet setting aside debates about the professional status of journalism (Singer 2003, Waisbord 2013, Zelizer 2004, Meyers and Davidson 2016, Schudson and Anderson 2009), the occupational ideology of journalism accomplishes three things. First, it renders the work of journalists meaningful. These values both act as aspiration and inspiration to the practices of story selection, fact-gathering, verifying and writing that journalists engage in. Second, these values, packaged as a powerful and socially recognized ideology, can be used by actors to naturalize the organizational, technical, and social arrangements of journalistic work. Finally, in the face of criticism or challenge, the values of journalism can be mobilized to defend the work of journalists (Zelizer

2004, Deuze 2005).

What is entailed in each of these values? What is the content of journalism's occupational ideology? The first value of public service refers to the "watchdog" role that journalists claim in seeking to protect and defend the public interest. The value of public service is deeply embedded in the idea of a "public" — and there is a long history of scholarship on the relationship between the principles of democratic self-government, the constitution of the public sphere, and the history of a free press to help inform and provide safeguards for such a public (Habermas 1987, Annany 2018).

The second value of objectivity denotes the journalist's aspiration to report facts without bias. Objectivity actually implies a complex of values which include neutrality and fairness, that together are supposed to ensure the credibility of information that journalists publish (Hudson and Anderson 2009). Though objectivity has come under fire both in academic and industry circles for, more often than not, standing in for a particularly white, Western, privileged point of view — the recent debates around fake news and the desire for credible information has shown that the value of neutrality and objectivity remains as important a component of journalistic occupational ideology as ever.

The third value of autonomy is one held sacred in all professionalization projects (Abbott 2014), but takes on a particular cast in the field of journalistic practice. At the highest level in the U.S., autonomy refers to the First Amendment "freedom of the press" — enshrined along with freedom of assembly, freedom of speech, and freedom of protest. This freedom, in aspiration, decouples journalism from state power at the societal-institutional level. The autonomy of journalism, in ideal form, allows journalists to hold power to account in the service of a self-governing democratic body politic.

Autonomy also takes on meaning at lower levels of analysis. Professional projects often run into conflict with the prerequisites of organizational management and control (Abbott 1991). In journalism, the value of autonomy has also provided journalists a claim for independence from too much managerial oversight, or too much encroachment by business interests into the everyday work of news production (Soloski 1989). Though, as many have pointed out, the irony of the occupational ideology of journalism, particularly in value of autonomy, is that it can function as a form of organizational control (c.f. Anteby 2008), with the result that news coverage can come to perpetuate and validate the status quo (Soloski 1989, Deuze 2005).

The fourth value which comprises the occupational autonomy of journalism is immediacy. "News," after all, relates to what is new. As a written cultural product, the temporal rhythms of journalism distinguish it from other pursuits that could be said to have similar topics and methods — such as narrative non-fiction or, increasingly, some forms of social science (Anderson, forthcoming). The value of immediacy poses certain practical challenges for journalists and news organizations which are by necessity entrained (Ancona and Chong 1996) to events in the public sphere and to production cycles in their particular media (the nightly news broadcast, the daily paper, the 24/7 news website). Add to this the ever-increasing challenge of keeping up with expanding sources of information and revenue pressure, and the value and weight of immediacy often takes a toll Hall 2001). Some scholars have pointed to the set of routines and practices built up in journalistic practice over time to deal with such information overload and time pressure (Stephens 2007, Lule 2001, Tuchman 1973).

The final value, perhaps at meta-level to the others, is a sense of ethical conduct. The International Federation of Journalists adopted a code of ethics in 1954, amended again in 1986 (Topuz 1989). Though scholarly and practical debates continue about the cultural

appropriateness of a single ethical code, or of the need for a common code at all, cross-cultural surveys have generally shown broad consensus on journalists' ethical obligations to truth and objectivity (Hafez 2002. Ryan 2001).

The utility of adopting an ideology framework for analyzing changes in journalism is apparent when considering the kind of occupational closure that an ideology can provide. Ideology serves as a gatekeeping function — denoting membership, keeping some people and practices out and others in. It can also act as a source of legitimacy, both in society at large and when mobilized in particular conflicts. For journalists and news organizations, the occupational ideology of journalism both lends the institutional field legitimacy, and acts as a weapon against critics (Hallin 1992).

The Nature of Journalistic Gatekeeping

As should be clear from the description above, and similar to all professionalization projects (Abbott 2014), the institution of journalism came to function as a gatekeeper on the public sphere: setting the "news of the day," providing facts and stories to inform a common understanding of the nation-state, and holding other centers of power to account. As many scholars and critics have pointed out, journalists have not always been perfect stewards of their institutional mandate (Rosen 1999). Critiques both scholarly and political have been levied at all of the values of journalism — from objectivity to neutrality to independence Tuchman 1978, Merritt 1995).

The nature of this gatekeeping has two qualities, both of which have come to be in tension with digital technologies. The first quality is the arms-length nature of the traditional relationship between journalists and their audience (DeWerth-Pallmeyer 1997). The second

quality, related to the first, is the assumed authority of journalists, empowered by the First Amendment right to press freedom, to speak on behalf of the public and represent the public's interests over and against those of corporate and state powers (Overholser and Jamieson 2005).

Journalists and their Audience

The relationship between journalists and news audiences in the "high modern" period of journalism in the U.S. was shaped by organizational, technological, and economic structures of news production (Hallin 1992). Economically, most newspapers operated as very profitable monopolies in their markets and were structured as bureaucracies. Journalists' moral weight came in part from their position inside these centers of market power (Hamilton 2004). Organizationally, news production closely resembled industrial manufacturing with regular production cycles tuned to the running of the presses, finely divided divisions of labor, and vertically integrated production and distribution capabilities. "The audience" as it appeared in the high modern period was a mass market consumer audience, mostly undifferentiated in taste and demography, and defined instead by the local identity and related geographic distribution network of the publisher.

Classic newsroom ethnographies such as Tuchman's Making News (1978) and Fishman's Manufacturing the News (1988) emphasized how the bureaucratic, industrial logic structuring the work of journalists in the high modern period gave rise to particular patterns of coverage that were more responsive to the availability of official government information and access to public officials than to a particular sense of public-spiritedness or community interest. (Gans' 1979) study went even further in describing the set of middle-class values that undergirded supposedly objective editorial decision-making. Kaniss (1991) showed how network television news could

be similarly myopic in its coverage — driven by decisions around what was both visually interesting and easily accessible to camera crews.

Mapping the Phenomenon: Post-Industrial Journalism

The occupational ideology of journalism has taken on even more importance with the rise of digital technologies and the transformation of ways that information is produced, distributed, and understood in modern, Western societies (Castells 2011). The second half of this chapter considers three major changes in the practice of journalism as it has adopted digital tools and methods over the last two decades. This phenomenon has been broadly defined as "post-industrial journalism."

What is post-industrial journalism? (Anderson, Shirky, and Bell (2012) used the term "post-industrial journalism" to refer to the changing set of practices, values, and organizations which constituted the networked production and distribution of news in the digital age. The possibilities of post-industrial journalism were remarked on early and often in the professional conversation among journalists. In their introduction to a report assessing the contours and stakes of digital journalism, Anderson, Bell, and Shirky remarked:

> "If you wanted to sum up the past decade of the news ecosystem in a single phrase, it might be this: Everybody suddenly got a lot more freedom. The newsmakers, the advertisers, the startups, and, especially, the people formerly known as the audience have all been given new freedom to communicate, narrowly and broadly, outside the old strictures of the broadcast and publishing models. The past 15 years have seen an explosion of new tools and techniques, and, more importantly, new assumptions and expectations, and these changes have wrecked the old clarity" (p3).

This freedom, in other words, was in the process of breaking down old boundaries that had defined not just the journalism industry, but the values, practice, and form of journalism itself. The authors found reason for hope in this transformation, as new technologies were opening up new opportunities for journalists to do some things better than before, and leave other

things to “new entrants” who were taking advantage of digital innovations to engage in journalistic functions. Social media, crowds, and machine learning each represented opportunity for journalists to reconfigure their work such that the news they produced could take on deeper impact.

Metrics and Analytics: Convergence in the Digital Newsroom

The ability to render text, visual images, and (eventually) video on a single digital page has transformed the production processes of many news organizations Boczkowski and Ferris (2005) and expanded the types of skills journalists are expected to have Kosterich and Weber (2018). This part of post-industrial journalism has been labelled “convergence.”

The first wave of digital journalism scholarship in the early web era focused on the issue of convergence, particularly how print and digital newsrooms were mutually configured and managed (Boczkowski and Ferris 2005). Some of these scholars pointed out that — contrary to the breathless proponents of digital convergence — although the seamless integration of text, visuals, video, and interactivity on the web was a technical possibility, the realization of convergence was anything but easy. Boczkowski wrote that convergence was achieved only through the “effortful” co-mingling of bits (2005). This effort was organizational and practical, and many newsrooms struggled to converge New York Times (2014). Particularly in print newspapers, where the divisions of labor required to produce a physical product were finely honed and journalistic autonomy emerged from both market power and clearly delineated tasks and lines of authority (Cranberg et al 2001), the shift to multi-disciplinary work requires considerable organization work (Boyles 2016, Drew and Thomas 2018). In fact, Boczkowski 2005), in findings also supported by Clark (2005), found that part of the variation in how digital

news was produced across different print newspapers could be accounted for by the particular organizational and resource configurations that had grown up in the pre-digital era. This prompted Boczkowski to speculate that the shift to digital journalism would likely entail not a dissolution of boundaries, but a re-drawing of them (2005).

Metrics and Analytics: Patterns of Adoption and Use

The convergence in news formats was not the only result of the incorporation of digital technologies into journalism. Digital technologies also rendered news content—and news audiences—measurable in a way that such content and audiences were not previously (Carlson 2018, Anderson 2011, Napoli 2011). Though newspapers always tracked circulation numbers and sales volume (Napoli 2011, Beam 1995), what particular articles were read or not read was difficult to measure in the ("bundled") print format. On the web, news articles are unbundled and published separately. That means each article that is rendered as a separate page can be tracked for how many users accessed the page, how long the page is open, where the user clicked from, and what else the user clicked on.

Since its inception commercial media has been deeply entwined with the available scientific and technological methods for measuring audience consumption of news as a product (Napoli 2011, Bermejo 2009). There have likewise always been methodological limits on the kinds of audience data that can be collected, and those limits have formed the context for editorial decision-making. This is particularly true broadcast media. For example, the programming of television news was shaped by the data on audience demographics and consumption habits (Napoli 2003). Where digital metrics have departed with other forms of audience measurement in other media is both that these numbers are much closer to measure of

actual consumption (though technical and methodological problems remain, especially with the rise of bots) (MacGregor 2007, Kosterich and Napoli 2015), and that these numbers are increasingly being used in *newsrooms,* whereas similar figures were limited to the "business" side in news organizations (Coddington 2015). Thus Matt Carlson (2018), in conceptualizing measurable journalism writes, "digital media platforms alter the audience measurement dynamic when they allow news organizations to monitor, track, and interact with their audiences directly" (p408).

The early web-based metrics used in newsrooms consisted primarily of page views, time on site, and unique visitors (Nielsen and Cherubini 2016, MacGregor 2007). Through general-purpose tools like Google Analytics, newsrooms could begin to track the popularity of different pieces of content posted to their sites. Homepage placement, headline optimization, and search engine optimization were some of the early strategies digital journalists had for making use of digital information about user behaviors. As the digital news distribution landscape has become more complicated, particularly with the rise in importance of social media platforms like Facebook, the types of data can could be compiled on how users interacted with particular pieces of content have also multiplied (Cherubini and Nielsen 2016).

Zamith, in his review of the literature on audience metrics in the journalism studies field (2018), offers a useful distinction between analytics and metrics. He uses the word analytics to refer to the software systems, products which are often developed by technology companies and licensed to newsrooms, that log the digital traces left by a user's accessing a piece of digital content. As these systems, such as Chartbeat, Google Analytics, CrowdTangle, and Parse.ly, have grown more sophisticated, their analytic capability have extended beyond logging and reporting basic counts and statistics to running algorithms which can detect patterns of usage,

identify trending stories or topics, and make recommendations for what articles to promote (Cherubini and Nielsen 2016, Zamith 2018). Zamith distinguishes these analytics systems from metrics, which he defines as "quantified and aggregated measures of audience preferences and behaviors generated by those data collection and processing [analytics] systems" (2018 p422). Metrics can be further broken down into *internal* metrics, which refer to measures of user behavior that occur on a newsroom's owned and operated digital properties (e.g. their website or mobile news app) and *external* metrics, which refer to measures of user behavior on digital properties owned by other organizations, such as Facebook or Twitter (Nguyen 2013). While analytics are the systems for collecting, processing, and representing user behavior, metrics are the particular outputs that such systems are designed to provide. Time on site, scroll depth, referral source, bounce rate, unique visit, and average time on site are all examples of metrics.

What do digital metrics allow journalists or other news workers to do? Analytics systems and the metrics they provide inform different types of decisions. The first set are distribution-related decisions. For example, a reporter or editor might have to decide how to best optimize an article's headline to make sure it is properly indexed by the Google search engine and can be found in search queries. The second set are editorial decisions that have to do with story selection and coverage areas. An editor can use a tool like CrowdTangle, which can measure what is trending on Facebook, or a tool like Chartbeat, which can measure what articles are getting the most traffic on the newsroom's own site, to plan to cover particular topics or stories or to assign a particular angle on story. Analytics systems and the metrics they provide can also be used to make publishing decisions — such as what time of day is best to post certain types of stories, or how much prominence to give a story on a newsroom's homepage. At the highest level, these metrics can be used by newsroom and publishing executives to set editorial strategy,

digital product development strategy, and distribution strategy Cherubini and Nielsen 2016).

Though the intentional use of metrics to inform editorial decision-making was pioneered by digital-first media organizations like BuzzFeed and the Huffington Post, these practices have slowly diffused throughout the news industry, transforming the nature of journalistic practice and professional knowledge along the way (Anderson 2011, Cherubini and Nielsen 2016, Zamith 2018, Carlson 2018). The use of metrics and analytics systems in newsrooms has spawned entirely new role categories (Ferrer-Conill and Tandoc 2018, Kosterich and Weber 2018). Whereas the early adoption of web publishing in the late nineties and early aughts give rise to roles such as homepage producer, digital or online producer, digital or online editor, and digital reporter, the spread of metrics and analytics systems created new roles like audience growth editor, audience engagement editor, audience analyst (Boczkowski 2010, Cherubini and Nielsen 2016, Kosterich and Weber 2018).

Yet newsroom adoption of metrics, particularly in service of editorial goals, has not been monolithic (Zamith 2018). While metrics and analytics systems are widespread among the managerial and (increasingly) editorial layers of news organizations, direct access to those systems by reporters in the course of everyday work varies widely (Zamith 2018, Cherubini and Nielsen 2016, Hanush 2017). Existing literature suggests that there are a number of factors at play which are helping determine adoption and use, which can be usefully organized into a "hierarchy of influences" model (Shoemaker and Reese 2014).

At the highest level, the overall environment of tightened financial resources which face the majority of U.S. newsrooms is vital context for understanding the adoption and diffusion of audience metrics in the same time period (Lowrey and Woo 2010, Hamilton 2004). In terms of business economics, many newspapers held inside publicly-traded corporations are going

through a remarkable period of financial stress and many are closing all together (Abernathy 2016, Hamilton 2004). The precipitous decline in print advertising revenue and the failure of digital ad revenue and direct reader revenue to make up the difference, have thrown many news organizations into a two-decade long period of financial stress (Barthel 2018).

Similarly, both cable and network broadcast news media has gone through a period of intense consolidation, helped along by a series of de-regulatory policies (Pickard 2014), which have lodged newsrooms inside increasingly byzantine corporate structures and pitched battles for ratings. As Bright and Nicholls write in their study of the impact of audience metrics on political news, "The incentives to follow the audience in this way are obvious: online business models rely on increasing traffic to a particular website, in the hope of either directing it to advertising websites or convincing it to pay for certain types of content. At a time when the business model of media outlets as a whole is under great strain, and many formerly profitable outlets are facing difficulty or closure, the impetus to ''follow'' traffic may be considerable" (2014, p.172).

Indeed, there is evidence that the financial stress facing commercial newsrooms has encouraged the adoption and use of metrics in the service of seeking audience growth that can boost advertising revenue (Lowrey and Woo 2010, McKenzie et al 2011; Vu 2014). Scholars have found that newsrooms which are more market-oriented have tended to encourage their editors and reporters to actively use metrics in their everyday work (Vu 2014, Tandoc and Ferrucci 2014; Welbers et al 2015, Hanusch 2017; Lowrey and Woo 2010). Relatedly, scholars have observed that journalists in non-commercial newsrooms, while similarly resource-constrained, are not exposed to the same commercial incentives in the deployment of newsroom metrics (Hanusch 2017) and thus face different motivations and meanings around their use (Usher 2013).

Interestingly, however, the technical affordances of metrics and analytics tools often embeds a commercial motivation. Scholars studying how such tools are designed have explained how the assumptions of software developers around a profit-seeking motive get built into particular features and functions of the analytics systems companies sell to newsrooms (Belair-Gagnon and Holton 2018, Petre 2018).

Scholars have also explored the individual-level factors which help shape journalists' use of metrics. A journalist's receptivity to audience preferences is clearly one key factor shaping their use of metrics (Shoemaker and Voss 2009). Tandoc and Ferruci surveyed 360 digital journalists in the U.S. About their motivations and use of metrics and direct audience feedback (Twitter) in their work. They also found that a journalist's receptivity to audience feedback, as well as journalists' self-assessed level of skill and knowledge in using metrics shaped their intention to use and actual use of metrics. Interestingly, while organizational policy around metrics influenced journalists' use of metrics, the authors found that journalists' assessment of the professional norms and prevalence of metrics use (i.e. "Most journalists incorporate audience feedback in their editorial decisions" p152) did not influence journalists' intention or actual use of metrics in their everyday work. This finding reinforces the research on organizational-level influences on metrics adoption which gives evidence of the wide variation in metrics use according to organizational policy and strategy.

Findings about the individual differences and the role of commercial incentives influencing the adoption and use of metrics use point to other meso-level organizational factors which help shape the adoption and use of digital metrics. Metrics—and the analytics systems which produce them— are not in and of themselves meaningful (Usher 2013). Metrics are meaningful, particularly to frontline reporters, only in the context of a wider understanding of the

mission, goals, and strategy of the news organization (Cherubini and Nielsen 2016, Usher 2013). Without such contextual understanding, metrics at best lose their meaningfulness or at worst can be misinterpreted (Bunce 2017, Zamith 2016). Though tracking the popularity of their articles can give journalists a temporary feeling of positive feedback, most researchers have observed that popularity alone is a weak motivator for journalistic work (Petre 2015).

Amateurs and Crowds: Crowdsourcing, Co-Creation, and User-Generated Content

The influence of the digital audience on the practices of journalism has occurred not only in the realm of metrics and measurement. Through digital platforms, non-journalists have been able to participate in the production of news much more directly as well. It is useful to unpack the different forms of crowd and amateur participation in the journalistic process to understand how digital technologies are opening up the set of actors that can produce news.

Aitamurto created a continuum of openness in journalistic practice from crowdsourcing to customization to co-creation (Aitamurto 2013). Under this framework, crowdsourcing is the most restricted type of open practice, in which a journalist or editor invites a group of people (sometimes very targeted) to participate in a narrow and specified task — often data gathering for a particular story. Crowdsourcing thus results in very little direct interaction between journalists and readers or members of the public. On the other end of the continuum, co-creation constitutes a set of practices in which journalists bring readers into each phase of the news production process — from story ideation to topic and angle identification, finding sources, vetting outputs, and reacting to the published story (Aitamurto 2016).

Crowdsourcing and Co-Creation

Journalists have taken advantage of crowdsourcing to examine government documents (Daniel and Flew 2010, Aitamurto 2011) and to contribute to disaster coverage through live blogs and twitter hashtags and comments (Dailey and Starbird 2014). Onhoua, Pinder, and Shaffer in their review of crowdsourcing practices, define it as "the act of specifically invited a group of people to participate in a reporting task—such as news gathering, data collection, or analysis—through a targeted, open call for input, personal experiences, documents, or other contributions (p9). Crowdsourcing has been particularly useful to investigative reporting outlets like ProPublica. The time and resources which investigations can be made both more expansive and efficient through the use of crowdsourcing (Onuhoa, Pinder, Schaffer 2015).

Yet crowdsourcing is not without its difficulties. The request made to the crowd must be specific, or the task of culling through and making sense of the responses will be overwhelming. Even with a specific request, journalists must manage the process of encouraging responses through active engagement and follow-up with the publication's audience (Onhua et al 2016, Aitamurto 2016). Furthermore, verification can quickly become a major problem when the scale of crowdsourced responses increases. Aitamurto, in comparing four cases of crowdsourcing, found that journalists were often forced to compromise their professional norm of publishing only verified information because the task of verification of the crowdsourced material became too unwieldy (Aimurto 2016).

Co-creation, the most intensive form of open journalistic practice, brings the journalists in much closer and extended contact with the audience member. Co-creation is even more time and labor intensive than crowdsourcing, and is in many ways a more direct challenge to traditional journalistic norms and practices. In her study of a co-creation project at a magazine, (Aitamurto 2013) found that, at the beginning of their co-creation project, the journalists she

studied were forced to confront the difference between the "ideal" reader that the magazine was designed to serve and the interests and preferences of real readers. She observed,

> "The users suggest story topics that—according to journalists—do not fit into the magazine concept. The readers ask for service-oriented stories and introductions to inexpensive products instead of luxury items, which the magazine often portrays. The journalists perceive readers' input as too mundane, worn out, too mainstream. For example, in the food story, the participants suggest "boring" recipes, which are too simple compared to the recipes typically introduced in the article series. Journalists perceive readers' disappointing input as a sign of the users not belonging to the magazine's target group and as disapproval of the magazine concept" (p. 234-235 Aitamurto 2013).

This disconnect presented a moment of crisis for the magazine's editorial leadership, in which they had to decide how to both maintain the identity of the magazine (the "concept") and deliver on the promise to their readers of collaboration and openness. As Aitamurto continued to follow the project, she found that the journalists were able to overcome their initial skepticism of reader input, and through participation in the online forums which were the conduit for reader collaboration, the journalists were able to come to some compromises about which parts of the stories were open for co-creation and which were not.

Yet beyond the differences in taste between readers and journalists, there were also workflow challenges as the journalists struggled to adapt their regular routines for creating stories to include the input of readers:

> "It is evident that the typical journalistic work flow does not function seamlessly when working with the crowd. The journalists have less control in the process, because they cannot predict the quality and amount of readers' input; instead, they have to constantly iterate their story process…" (p238).

In the end, Aitamurto found, while the co-creation projects she studied *incorporated* the readers' inputs into stories, those inputs were segmented and set apart from the other, journalist-produced stories presented in the magazine. That is, the reader input was used but was not *synthesized*. This left both the readers and journalists feeling like the final products were unsatisfactory. Yet despite the uneven quality of the final co-created products, Aitamurto found that the readers who participated in the process felt closer to the magazine and to the community

of other contributors. And the journalists who participated questioned whether the magazine's "concept" was still accurate.

User-Generated Content and Other Forms of Participatory Journalism

Social media has also provided opportunities for non-journalists to participate in breaking news events, providing real-time, first-hand evidence and accounts of developing stories in ways that would have been incredibly resource-intensive in the old model of journalism. Bell, Anderson, and Shirky observed that under post-industrial journalism: "for many newsworthy events, it's increasingly more likely that the first available description will be produced by a connected citizen than by a professional journalist. For some kinds of events—natural disasters, mass murders—the transition is complete" (Bell, Anderson, Shirky p13). Subsequent empirical scholarship has shown how the widespread use of social media has indeed transformed the sourcing of breaking news (Hermida 2010, Broersma and Graham 2012, Belair-Gagnon et al. 2018).

As digital media usage and penetration have progressed, the scholarly conversation around user-generated content has widened to include descriptions of "open source" Deuze 2011), "citizen" or "grassroots" journalism (Gillmore 2004, 2005), or "participatory journalism" Nip 2006). Each of these concepts seeks to capture the role that user-generated content whether on social platforms like Twitter or Facebook, or related micro-publishing digital media such as blogging and commenting, are being used to complement existing journalistic practice (Williams, Wardle, Jordensen 2011).

The results of empirical studies tracing the use of "UGC" and other forms of "citizen journalism" inside newsrooms have generally shown that the content is framed by newsrooms as

an additional source of information that journalists need to subject to existing process of verification Williams Wardle et al). In other words, rather than audience-generated, participatory content precipitating major changes in journalistic practice, the use of such content often becomes "normalized" in the context of existing values and practices (Singer 2005, Domingo et al 2008). For example, Jonsson and Ornebring's 2011 study of user-generated content in online newspapers in Sweden and the UK found that opportunities for participation were mostly around lifestyle and popular culture content (as opposed to hard news), and that direct user participation in news production was limited.

Machines and Algorithms: Automated Journalism and Filter Bubbles

The final area of journalistic practice that Bell, Shirky, and Anderson stake out as a site of post-industrial change, is the role of machines and algorithms in the processing and analyzing of massive data sets, and increasingly in the curation of news (2012). In the most sophisticated use of such technologies, news organizations are using machine learning and natural language techniques to generate stories from large, structured sets of data. Companies such as Narrative Science can take sports data or financial data and generate basic stories. For example, the Associated Press works with Automated Insights technology to publish financial news.

However, there are very clear and narrow use cases for automated journalism: when the data set to be processed is not well structured or ambiguous, the resulting stories are not usable. Crime reports, little league games, and earthquake alerts are some of the other applications of automated journalism (Graefe 2016). As Andreas Graefe wrote in his review of automated journalism, "[it] works for fact-based stories for which clean, structured, and reliable data are available. In such situations, algorithms can create content on a large scale, personalizing it to the

needs of an individual reader, quicker, cheaper, and potentially with fewer errors than any human journalist" (2016, p14).

There are two other ways in which algorithms and machine learning techniques have been transforming journalism, both on the production and consumption side. The increasing importance of social platforms like Twitter and Facebook for the distribution of news content has put many news organizations at the mercy of the algorithmic curation engines which prioritize and individualize what content users see in their social feeds (Bell and Owens 2016; Rashidian, Brown, Hansen et al 2018). Facebook's NewsFeed algorithm in particular, has been the subject of much speculation, worry, and gaming on the part of news publishers who on the one hand, want to access Facebook's massive global audience, but on the other hand, resent its increasing economic and audience power on the web. Early warnings about "filter bubbles" (Pariser 2011)—the tendency of algorithmically-powered content filters meant to identify and reinforce user's particular preferences—have widened into larger concerns about the fracturing and polarization of particularly political news on social platforms (Benkler et al 2018).

Chapter Conclusion

Journalism can be seen as a belief system, or a discipline, or a set of practices for producing the news (Deuze 2005, Nerone 2013). It is also, as this chapter has laid out, a set of occupational values (an "occupational ideology") that guides the practices of news production and renders them meaningful (Deuz 2005). The journalistic values of public service, objectivity, autonomy, immediacy, and ethics have been developed in a particular economic, social, and technical context of news production.

The rise of digital technologies and the spread of their use into journalism has changed

the context in which journalists do their work and so must necessarily change those values. This chapter has laid out three sets of phenomena that constitute the practice of digital journalism: the use of metrics and analytics in newsrooms, the incorporation of amateurs and crowds into journalistic work, and the operation of machines and algorithm in producing and distributing the outputs of journalism (Bell, Anderson and Shirky 2012).

What have these phenomena done for the practice and status of journalists? The place of journalists and journalism in the post-industrial, networked landscape is both more important and more distributed than before (Bell, Shirky, Anderson 2012). The authors of the 2012 Tow assessment wrote:

> "As with so many of the changes in journalism, the erosion of the old way of doing things is accompanied by an increase in new opportunities and new needs for journalistically important work. The journalist has not been replaced but displaced, moved higher up the editorial chain from the production of initial observations to a role that emphasizes verification and interpretation, bringing sense to the streams of text, audio, photos and video produced by the public" (Shirky, Bell, Anderson 2011, p13).

How have these changes played out? Having mapped the major contours of the shift to post-industrial, networked journalism, what can be learned about how the values of journalism as changing? The next chapter takes a closer look at the value conflicts that have arisen in the context of phenomena identified above, particularly the rise of metrics. What have the stakes been of these conflicts and what can those stakes tell us about how the institutional context of the station is changing?

Chapter 3: The Digital Transformation of Journalism

Introduction

The previous chapter began to lay the context for my ethnographic case by presenting a framework for understanding the values of journalism and by providing an overview of the major empirical features of post-industrial journalism. This chapter explores what existing scholarship has to say about the tensions and conflicts generated by the incorporation of digital technologies into post-industrial journalism.

Most scholars studying the intersection of digital technologies and journalism have taken a socio-material stance — understanding the ways in which new technologies operate as assemblages of technical and social processes (Siles and Boczkowski 2012, Christin 2018). Like their cousins in organization studies (Orlikowski 2000), many of these scholars are careful to stress that technology is not an independent variable which determines particular outcomes, but rather is deeply engaged with local variations everyday practice and understandings (Boczkowski 2005). Acknowledging the socio-material stance, my tack here is somewhat different: I want to emphasize the ideological clashes — the clashes over values and assessments of what matters — that are taking place at the institutional level of post-industrial journalism as it continues to be transformed by digital technologies. This will give me analytic leverage in understanding the conflicts over adaptation which arise at the station.

To do that, in this chapter I explain how the use of digital technologies in the field of journalism has clashed with the traditional practices and occupational ideology, what shape those clashes are taking, and what consequences they are producing. To conclude, I explain that what is at stake in these conflicts are questions of transparency and control as digital technologies

reconfigure the practices, meaning, and significance of journalistic work.

Metrics and Analytics: Impacts on Journalism as an Institution

As analytics systems and the metrics those systems produced have diffused into newsrooms and throughout the field of journalism (Wang 2018), what have been the impacts on the values of journalism as an institution? How have the core values of journalism, and their associated practices, evolved over time in relationship to the possibilities that analytics systems have introduced into newswork? Early research on the impact of metrics in newsrooms—much like the early research on convergence in newsrooms (Boczkowski 2005)—uncovered evidence of resistance and suspicion amongst editors and reporters (MacGregor 2007, Anderson 2013). Yet as scholars have continued to study the phenomenon of metrics and analytics in newsrooms, the picture has shifted somewhat. More recent research suggests that the suspicion and resistance in many newsrooms is slowly giving way to optimism (Cherubini and Nielsen 2016) and normalization(Zamith 2018, Carlson 2018).

To understand the counters of this shift requires first diving deeper into the reconfigurations in journalistic practices and values that the diffusion of metrics is helping to bring about. There is no doubt that wide variation exists in journalistic practice around metrics, and this variation is still being examined empirically (Hanush 2017) and being explained conceptually (Zamith 2018, Carlson 2018). Yet two changes in practice are discernible from the empirical literature, each of which lead to a reconfiguration of values. The first is a change in the gatekeeping practices of editors. The second is a change in the daily routines of producing and publishing news.

Changes in Gatekeeping Practices

Gatekeeping refers to the practices of story selection exercised by editors in a newsroom White 1950). It is, "the process of selecting, writing, editing, positioning, scheduling, repeating and otherwise massaging information to become news" (Shoemaker et al 2008 p73). Gatekeeping in journalism studies is conceptualized in a nested model, with an individual editor's preferences being shaped by successive, nested levels of contextual factors: team, organizational, technological, institutional (Shoemaker and Vos 2009). The evolution in gatekeeping practices stems from the role of metrics in signifying *audience preference*. This is because inherent in the idea of gatekeeping is the counter-positioning of editorial judgement and audience demand — a balancing act between what the editor thinks the audience needs to know, and what the audience wants to read (Gans 1979). Gatekeeping practices are thus deeply tied to the images of the audience that editors (and really any news workers who use metrics) hold in their minds Anderson 2011) and to editors' sense of their professional obligations to the public. As discussed at the beginning of the chapter, the audience/journalist relationship has often been an arms-length and ambivalent one, with the preferences of colleagues, peers, friends and family often standing in for the editor's a generalized notion of "the public" (DeWorth-Pallmeyer 1997).

To the extent that analytics systems are used in newsrooms to produce metrics which are interpreted to be an expression of audience preferences, those preferences can then have the power to shape the practices of editorial gatekeeping. If audience tastes and editorial preferences were aligned, then the gatekeeping of editors would not change much with shifts in the quality, type, and timing of audience preference information. Yet studies of gatekeeping in both the "high modern" period of journalism (Gans 1979, DeWorth-Pallmeyer) and more recently (Mitchelstein

and Boczkowski 2013) suggest that by and large, the tastes of the audience and the professional tastes of editors tend to diverge. Editors and reporters tend to prefer "hard news," while readers tend to prefer more sensational "soft news" (Boczkowski 2010, Mitchelstein and Boczkowski 2010, Singer 2011).

The distinctions between tabloid news outlets providing soft news, and "high-quality" newspapers providing hard news have been a long-standing one in the news industry Sparks 2000). Tabloid papers have tended to pursue different editorial standards, values, and goals — sometimes out of a market-driven imperative, other times out of an anti-elitist stance (Sparks 2000, Ornebring and Jonsson 2004) What is consequential about the divergence between editorial and reader tastes in the context of digital news production and distribution is the possibility that audience preferences, expressed in and through a metrics regime, can be accounted for much more precisely in everyday editorial practices of story selection and story presentation (Petre 2015, Bunce 2017). This has been termed "the agenda of the audience" (Anderson 2011 p529) and the potential for this agenda to influence editorial decision-making has prompted a revision of the traditional editorial gatekeeping model Shoemaker and Reece 2014).

Yet the possibility of audience influence on editorial decision-making does not guarantee that such influence is in operation, in the same way, in every newsroom. The handful of studies which have traced the influence of metrics on the configuration of the digital news product itself (which is the output of editorial gatekeeping decisions) have uncovered interesting variation (Welbers et al 2016, Lee et al 2014, Petre 2015). While audience clicks have been found to influence the placement of news on homepages (Lee, Lewis and Powers 2014), the influence of audience behavior on the editorial process of story selection is more nuanced.

Welbers et al. conducted a time series analysis of how a particular storyline's popularity with the audience influenced subsequent editorial coverage decisions in both print and online newspapers found that, overall, while popular stories drove increased coverage, the effects were different in different types of papers (2015). In "quality" newspapers — those that were guided by a traditional set of professional journalistic values — audience clicks generally had *less* effect on subsequent story selection decisions than in "popular" (e.g. Tabloid) newspapers (Welbers et al 2015). Yet a complementary set of interviews the authors performed at each newspaper in the sample revealed an interesting discrepancy: while (with one exception) the statistical analysis of news coverage showed an effect of audience clicks on subsequent coverage regardless of the type of newspaper, in the "quality" newspapers, editors denied or nuanced any effect of metrics on editorial decision-making.

The authors concluded that there is a push-and-pull at play between managerial mandates for the incorporation of audience feedback on the one hand, and the sense of professional identity of editors tasked with monitoring metrics on the other. The discrepancy between what editors say and what the quantitative analysis revealed, the authors wrote, "reflects that the availability and top-down management of tools for the monitoring of audience clicks promote an influence of audience clicks [on editorial judgement], and a strong traditional role conception suppressed this influence" (Welbers et al 2015 p13).

The identity implications of metrics use were nicely summed up by an editor at one of the newspapers which showed no effect of audience clicks on coverage: "120 people died for [the paper] in the [Second World] War and we are not going to write just anything. We do not make the newspaper that sells best, but the one we think we should make. We have a foundation that

safeguards our identity. We are very aware of that identity" (qtd in Welbers et al 2015, p13).

Changes in Daily News Production Routines

Underlying these changes in gatekeeping are deeper changes in the workflows and routines which constitute news production. Tandoc's (2014) study of three large commercial newspapers' newsrooms found that web analytics were used to inform decision-making in successive stages of news production: the monitoring of popular storylines that might merit more coverage, the filtering and curating of stories for the homepage, the editing of headlines and complementary media, making distribution decisions, and assessing audience demand. Tandoc traced the willingness of editors to use metrics in service of audience growth to their perception of the economic instability of their employers. "These are the people who pay the bill," explained one web editor (qtd. in Tandoc 2014, p569). One of his informants rejected the notion that norms of quality journalism would push against the search for traffic: "I don't think we have the luxury of thinking that way because if the company's not making money then I might get laid off. I mean, that's just the way it is" (qtd. in Tandoc 2014, p570).

Yet further up the editorial hierarchy, the newsroom managers Tandoc spoke with were more circumspect about the "balancing act" they had to maintain: "I think our value to readers still is in telling them what is new and what should be news, what are the important stories. But we have to listen to the audience more than we have in the past" (qtd. in Tandoc 2014, p570).

This finding was echoed in Vu's (2014) survey of 318 editors about the influence of reader metrics on their story selection practices. He found that the more an editor believed in the economic benefit of increased traffic, the more likely the editor would be to report making editorial adjustments based on audience metrics Vu 2014). However, Vu also found that the

more journalism training an editor had, the less likely the editor would be to be monitoring audience traffic in the first place. This reinforces the push and pull between occupational values and commercial concerns.

Petre, in her comparative study of metrics at Gawker and *The New York Times*, points out that as much as metrics are built and marketed as engines of rationalization, feelings are very much tied up in the use of metrics (Petre 2015). Journalists can feel "crushed" when their traffic numbers are small. "Metrics have earned a reputation as ego-busters, as journalists discover that their readership is considerably smaller and less engaged than they imagined" (Petre 2015 p29). She observed the Chartbeat sales and client relations people actively tried to manage journalists' feelings of disappointment and frustration at what the traffic dashboard was telling them about their audience — to minimize such feelings, or redirect journalists to other, happier indicators.

Petre recounts a fascinating interaction between a Chartbeat sales team and an editor client in which the editor explains that one of the most compelling parts of the Chartbeat dashboard is the cap on the concurrents dial - a product feature tied to the tiered pricing model of Chartbeat, in which there is a limit on how many concurrent visitors the system will measure before the dial "breaks" and users are tagged for a higher priced service package. Strangely, Petre notes, it was the ability for the dial to be broken and to stop measuring concurrent visitors, that this editor found so compelling:

> "We're capped at 2,000 concurrent users, so if we always think—if we're at 1,999, we always imagine we're at 2,450 or 5,150 but we probably [just] can't see it 'cause we're capped. So we always have that kind of illusion, like that optimism going on" (qtd in Petre p30).

The irony here, as Petre points out, is that "rather than providing unvarnished information about her audience, [the metrics tool] allowed her and her team to imagine an audience size that was more than twice the size of their cap, regardless of whether or not the imagined number had

any basis in reality" (2015, p31). Thus, Petre finds, the social and emotional effects of metrics tools on the life of a newsroom can be just as powerful as the rationalization — and these effects stem from explicit product design choices made by people in technology companies and their imperatives to sell that product and have good relationships with their clients.

Cultural Contingencies in the Interpretation of Metrics

Existing literature suggests that the particular ways in which the routines of news production are being reconfigured by metrics is strongly shaped by local organizational cultures. In her study comparing the adoption and use of metrics at Gawker and *The New York Times*, Petre finds the same analytics tool — Chartbeat — being used very differently.

At Gawker, a born-digital publication which began as a celebrity gossip blog and grew into a series of topical news sites, a culture of measurement was the defining feature of the organization. The "Big Board" — a wall-sized screen showing the real-time traffic to each Gawker site — greeted visitors to the organization's main office. This display was later accompanied by a leaderboard showing which of the site's writers had attracted the most traffic in the last 30 days. These public manifestations of Gawker's values of measurement and metrics extended to experiments with pay-for-performance incentive schemes both for individual writers and editorial teams that exceeded their traffic targets.

Petre found that reporters at Gawker both reveled in the emotional ups and downs of chasing traffic and said that the transparency around metrics created intense internal competitiveness between teams Gawker. Writers and editors, in a perpetual quest for better traffic numbers, tended to stick to formats that they had learned were successful (e.g. "Unhinged letters… cute things that kids did" (qtd in Petre 2015, p38) and publish as much possible. The

drag on quality was regarded with ambivalence, Petre found. Yet she also found that writers and editors claimed they valued the particular kind of independence that Gawker offered them,

> "[At Gawker] you're really visible and you're allowed to be yourself. And I think that's one of the great things about writing for any of the Gawker sites, is that they encourage you to have an opinion and to have a voice. Whereas as [one of these magazines], they'd be like, "be yourself but through us."" (qtd. in Petre 2015, pg. 39).

At the New York Times, Petre found, metrics were much more closely guarded: she described the use of metrics at the Times as *restricted*, *discretionary*, and *rare* (2015). *Restricted* referred to her observation that only certain people and roles were granted routine access to analytics tools and specific metrics report. In general, she found that access followed the organizational hierarchy, with editors and senior management having access as opposed to reporters. Furthermore, those who did have access to metrics had wide *discretion* in how to interpret and use them. "There were no newsroom-wide expectations around metrics, nor were there formalized systems for asking questions of data or drawing conclusions from it" (Petre 2015, p45).

Finally, *rare* referred to her observations that metrics were not included in major editorial decisions or performance evaluations. In many ways, metrics operated at *The Times* in a mirrored inverse of Gawker. While metrics were the guiding light of editorial decision-making at Gawker, Times leadership worried that exposure to metrics would create an unwanted influence on the judgements of newsworthiness. But the deeper concern, Petre found, was related to the "interpretive ambiguity" of metrics. *The Times* had multiple, sometimes conflicting goals: "They want to attract large audiences and grow their subscriber base, but they also want to bring about outcomes that are far more difficult to measure and quantify, such as having an impact and causing change" (Petre 2015, p47).

The commensuration effects of metrics—to render different things alike—was deeply

unsettling to the Times leadership, who worried that the ability to make facile comparisons would at best lead editors and reporters astray and demoralize them, and at worst distract them from the difficult task of balancing multiple objectives, and that this would create conflict up and down the hierarchy.

In many ways, the data from metrics was interpreted as a threat to the editor role at the *Times*. Both in terms of knowledge and hierarchal position, Petre found the *Times* editors concerned about what widespread use of metrics could mean. Said one online editor, "…replacing [editorial judgement] with metrics is some sort of massive threat to their livelihood and value on the job" (qtd in Petre 2015, p49). Yet the system of status at the *Times* also mitigated against too much influence of metrics. At the time Petre studied the *Times* (and consonant with both academic studies of the Times (Usher 2013) and the Times' own internal research), the print edition of the paper was held as the standard of professional accomplishment. For a reporter's work to be featured on Page 1 of the printed paper was considered much more prestigious than, for example, to to appear on the "most emailed" list.

And yet, Petre found that online editors could and did make targeted use of metrics data to emphasize to reporters who were reluctant to write online-only articles how much of an impact their work could have.

From Content Analytics to Editorial Analytics - Normalizing the Use of Metrics

A decade after the first scholarship on metrics in newsrooms, and a dozen or so years after the introduction of such metrics into newsrooms, metrics are now a fixture of newsrooms which maintain a digital presence. Alongside this diffusion and the normalization of metrics has come an increasing shift in emphasis from the use of simple content metrics to a realization of the

strategic possibilities of analytics inside newsrooms. In the most recent survey of metrics use in a range of US and UK newsrooms, the Reuters Institute for the Study of Journalism at Oxford University found evidence of a new regime of editorial analytics(Nielsen and Cherubini 2016).

Editorial analytics, the authors wrote, "differ from more rudimentary generic approaches (1) in being more aligned with the editorial priorities and organizational imperatives (whether commercial, non-profit, or public service) of specific news organizations, (2) in informing both short-term day-to-day decisions and longer-term strategic development, and (3) in continually evolving to keep pace with a changing media environment" (Nielsen and Cherubini 2016, p7).

Though the authors found wide variation in the sophistication of metrics use, the most advanced use of metrics in newsrooms involved not just technical tools but the creation of an entirely new *analytics capability* that was supported by the organizational structure of the newsroom and incorporated into a culture of measurement (Nielsen and Cherubini 2016). This development is a marked evolution from early evidence of resistance and skepticism (MacGregor 2007, Anderson 2011). And yet local context continues to play a role in shaping how and when metrics are used inside newsrooms (Zamith 2018).

Reconfiguring the Occupational Ideology and Professional Identity of Journalism

The major pattern apparent in the digital transformation of journalism is a reconfiguring of the journalist/audience relationship to include more openness as well as more rationalization. The openness has come through digital opportunities for journalists to interact with their audiences in new ways (through comments sections, through social media, through practices such as crowdsourcing). The rationalization has come through the use of metrics and analytics in newsrooms to track, measure, and quantify audience behavior. This reconfiguration is leading to

a transformation in the professional identity of journalists via changes in the practices and values that are core to the profession. I elaborate on this argument below.

The journalist-audience relationship is a central component of the social role of journalists, and helps constitute their professional identity (Helmueller and Mellado 2015). Sociologically, role theory explains how institutionalized patterns of reciprocal behavior and mutual expectations constitute a set of roles (Mead 1934, Blumer 1969). These social relations are the basis on which identification arises, as actors come to accept the web of expectations and enact the institutionalized patterns of role-appropriate behavior (Goffman 1959). Thus, a change in the content of a role implies both a change in a complex of related roles, and a change in identity.

The role of the audience (or, as Rosen (2006) famously coined, "the people formerly known as the audience") has shifted with changes in digital media that have brought readers/users into different relationships to media content. As this has unfolded, the role of journalists has changed as well. The nexus of that change—and the one of interest theoretically here—has been in how journalists construct and orient to the images of the audience that they carry in their minds (Anderson 2011). The role of the *imagined* audience in constituting the role and identity of the journalist is important to understand because, unlike face-to-face social roles, such as doctor and patient, or mother and daughter, the typical journalist goes about his or her work without much face-to-face interaction with members of the audience. Thus the cognitive typifications of the audience are an essential component of the role of journalists, the identity of journalists, and the institution of journalism (Douglas 1976).

In the high-modern period of journalism, the audience was constituted for journalists most often as colleagues, editors, sources, and immediate friends and family (DeWerth-Pallmeyer 1997, Gans 1979). Much of the sociology of news in that period focused on unpacking what kind

of an impact those face-to-face relationships had on journalists and on the production of news as those roles functioned as proxies for the audience (Tuchman 1978, Fishman 1988). Many scholars found that journalists were writing for other journalists, for the sources they interviewed, and from their experiences with friends and family outside the workplace (DeWerth-Pallmeyer 1997). Though the business side of news organizations engaged in market research to understand typical readers and their motivations, this knowledge rarely made it into the newsroom.

The rise of metrics and algorithms (information about the audience), and crowdsourcing and co-creation (digitally mediated interactions with the audience) are transformative because they change the knowledge that the journalist has about the social world and the types of interactions that are possible with the audience. The metrics-mediated audience has given rise to the "agenda of the audience" (Anderson 2011) as an independent influence on the newsworthiness, apart from editorial judgement. The textually-mediated audience has expanded from "letters to the editor" to a torrent of comments, tweets, posts, likes, shares, and emails that can influence the images that journalists hold in their minds of their audience. Audience participation has expanded from phoned-in tips and sources to a whole range of user-generated media content that journalists can incorporate into their newswork (or not). And finally, the algorithmically-mediated audience expresses its preferences through the the curation engines built into new social platforms that journalists must take into account when publishing their work Tandoc and Vos 2016). Through the mediation of digital technologies, the audience is present in journalists' everyday work in new and different ways.

The values of openness and rationalization operate in and through these shifts in the audience-journalist relationship, with consequences for the role set, the professional identity of

journalists, and the occupational ideology of journalism. I turn first to the effects of openness and rationalization on the occupational ideology of journalism — the set of values that journalists use to guide their work. In the last chapter, I laid out the four core values that make up the occupational ideology of journalists: autonomy, ethics, immediacy, and public service (Deuze 2005).

Transformed Values

Autonomy is a core value of journalists—the ability to make independent judgements of newsworthiness, and the first amendment freedom to publish free of interference or censorship are two of the most important defining features of journalism. How is autonomy reconfigured by openness and rationalization? The rationalization of digital metrics has been clearly interpreted as a threat to editorial autonomy, as the metrics-driven "agenda of the audiences" impresses itself on the editorial process. The standards of performance for journalists is also shifting under the rationalizing force of digital metrics — think of the Kinja leader board at Gawker, which ranks writers and editors by their traffic numbers Petre 2015). A set of critical scholars in journalism studies have pointed out that the rationalization of journalistic labor led by metrics is eroding the autonomy of journalists, and empowering managers of news organizations to control ever larger parts of the labor process (Bunce 2017).

The autonomy of journalists is being reconfigured by the value of openness in other ways as well. The freedom of the press is deeply entwined with the modes of publishing available to journalists. As the networked press migrates to large-scale technology platforms which dominate the application layers of the internet—Google, Facebook, Twitter—the architectures and policy choices of those platforms exert a powerful influence on what the public sees, reads, and hears

(Annany 2018). The autonomy that print journalists have enjoyed until very recently was in large part dependent on the monopolies their employers enjoyed over publishing channels. As the publishing function has become disaggregated from news production (Bell and Owens 2016), the autonomy of journalists to shape the news agenda has also been eroded (Rashidian, Brown, Hansen 2018). The openness that these platforms have provided to audiences—the ability for anyone to participate in the production and publishing of media content—has also ironically consolidated considerable power in the hands of a few companies and away from the press as an institution.

The ethics of this digital transformation in journalism are also in flux as the openness of digital technologies brings new actors into the journalistic field. What does verification and accuracy mean when news organizations are deluged with information, some of it credible but much of it misinformation (Benkler et al 2018)? The revelations of targeted mis and disinformation attacks on social platforms (Kim et al 2018) has raised the question of the ethical responsibility of journalists in the new digital media landscape to a fever pitch. Credibility has been a core ethical principle of journalism and a key outcome of the gatekeeping role of editors (Kovach and Rosenstiel 2014). And yet, given the ongoing migration of publishing power away from news organizations and towards digital technology companies, the question of how precisely to exercise that gatekeeping power in an effective way is ever more vexing.

The value of immediacy in the reporting of events has mostly intensified with the digital transformation of journalism. The openness of participation in the breaking news process, which social media has brought about, increases the pace at which breaking news can be reported. In these arenas too, journalists are grappling with questions of verification and credibility. A number of recent controversies are illustrative. For example, shortly after the terrorist attack on

the Las Vegas music festival, Google search results surfaced inaccurate and unverified identification of the shooter's identity. Those results were picked up and reported by some news organizations. This prompted a debate within the profession — where does the responsibility lie for the spread of such misinformation? When the public demands for real-time information and immediate answers from social media pull against the journalistic process of verification and promise of credible information, where does the culpability lie when lies are spread on the internet?

Neutrality and objectivity are similarly occupational values in flux. The monopoly on publishing power in industrial journalism meant that very few editorial points of view could be expressed in any given information space and that journalists could claim the mantle of objectivity and neutrality without much challenge (Hamilton 2004). Indeed, in historical perspective the rise of an independent and neutral press was deeply related to the monopoly power publishers held in their markets, and the need to appeal to as wide a swath of the public as possible (Hamilton 2004).

The radical openness of digital platforms at one point promised a new networked public sphere (Benkler 2006), the right of any citizen to contribute their voice and opinion to the public debate on issues of importance to civic society. The monopoly of the press to claim neutrality and moral authority, and thereby shape public opinion would be supplanted, the thinking went, by a symphony of new publics (Benkler 2006, Gillmor 2004, Shirky, 2008).

To some extent this has been true, as the value of digital openness has ushered new and different voices have entered the public sphere. The challenges leveled at the neutrality and objectivity of the press have only gotten louder (the current President being the loudest example). In addition to verification and editorial gatekeeping, neutrality and objectivity are also

inputs to the production of credibility that has been the mandate of professional journalism. Thus the challenge to press neutrality via the value of openness has also contributed to the erosion of press credibility and a threat to its legacy (e.g. “Fake news”).

Finally, what does it mean to serve the public in an open and rationalized digital media environment? The notion of a singular public has almost completely collapsed in the digital media space. The networked public sphere evolved to be a network of micro communities, each insulated in their own filter bubbles (Pariser 2011). The principles of homophily and emotional contagion which drive information flow on social platforms Stieglitz and Dang-Xuan 2013) and the rationalized curation algorithms which ensure that like content follows like content (Benkler et al 2018), have now thoroughly fractured the digital public into a series of disconnected publics Hindman 2008). Public service in this new milieu is a truly vexing question. Some scholars have argued for a “right to hear” in this new networked space, with reimagined notions of tree freedom to support that right (Annany 2018).

Ascendant Values

Alongside the unfolding transformation in the traditional values of journalism is a new set of ascendant values brought about by the new types of interactions between journalists and audiences made possible in digital media. The rise of *impact*, *engagement*, and *user-as-consumer*, each have roots in older conceptions of journalism, but are coming to the fore in new ways.

The value of *impact* refers to the effects that a piece of journalism has in the world of politics, policy, and ideas (Green and Patel 2013, Green-Barber and Pitt 2017, Powers 2018). Impact is something of an antidote to rationalized metrics—as an occupational ideology,

journalists often use it as a standard to assess the value of a piece of work apart from its digital performance (Powers 2018). *Engagement* is another ascendant value. This refers to the quality and amount of interactions (sometimes digital, sometimes face-to-face) between journalists as particular audience members (Nelson 2018). In the context of fracturing publics and audience gatekeepers, engagement is like a twin to public service and is increasingly considered a good unto itself, though it can also boost the relative competitive advantage of publications (Hansen and Goligoski 2018).

Finally, some scholars have pointed out the shifting journalistic language around the audience as a user-consumer (Bruns 2008). In a highly commercial media context such as the U.S., the audience member has always been both a consumer and a citizen—the consumer was identified, measured, and served to an advertiser by the business side of the news organization, and the citizen was served by the newsroom. Digital technologies have introduced a new role of the audience member as a *user*—a person on the other end of a news article who is not just embedded in the state as a citizen and in the market as a consumer, but is embedded in the digital world as a user of technology (Lewis 2012). This user has a smartphone with some apps, a desktop computer with a browser, a smart-home speaker. This user has particular needs and is seeking particular gratifications that news organizations and increasingly journalists are expected to provide through the practice of user experience design (Hansen and Goligoski 2018).

At the same time, the commercialization of web services has exaggerated the role of the audience member as a consumer (Wu 2016). The harvesting of user data and the use of such data to hyper-target digital advertising to users is the most obvious example of user-as-consumer that dominates the digital media space (Zuboff 2019).

Some scholars have termed these new values “entrepreneurial” and see their ascendancy as

the product of both digital trends and the disintegration of traditional employment and career paths in the news industry (Vos and Singer 2016, Meyers and Davidson 2016). It is true that these values are more present in some of the new organizational forms that have begun to dot the news landscape—digital-first non-profit newsrooms, for example (Carlson and Usher 2016). At the same time, the evolution of these values inside legacy news organizations suggests that these entrepreneurial values are not only embedded in edge experiments in the profession of journalism, but are part and parcel of the wider transformation of journalism as a field and the news industry as a whole. (And it might be more accurate to say that "entrepreneurial" values are in fact more accurately described as part of a "product" design and product lifecycle mindset.)

Yet it is also important to note that the profound challenges, reconfigurations, and extensions of the occupational ideology of journalism, brought about in extended contact with digital technologies, is not limited to the realm of ideals and norms. As Petre has shown in her fieldwork, the intersection of professional practice and digital technologies is also a deeply emotional experience for journalists. The turns of exuberance of seeing your work "go viral" — and the disappointment when the metrics look like no one is reading — come together in what journalists described to Petre as an addictive drug (a common metaphor, it turns out, when trying to understand the effect of digital technologies on everyday life (Turkle 2011).

Yet other emotions turned out to be wrapped up in the clash of the digital logic and the occupational ideology of journalism — the fear of increasingly precarious labor (Bunce 2017), the sometimes stressful, sometimes exhilarating competitiveness of chasing traffic numbers. And even more menacing, the emotional turmoil and depression that female and minority journalists face in vicious trolling on comment boards and Twitter posts (Chen et al 2018).

Role and Identity Transformations

Overall, as this chapter has tried to show, the digital transformation of journalism as an institution, through its clash with values of openness and rationalization, has led to both de-professionalizing and a re-professionalizing (Meyers and Davidson 2016). On the one hand, some of journalism's long-held practices and values have collapsed. As Petre pointed out in her observations of Gawker:

> "Many online-only media companies, including Gawker, have dispensed with, or at least scaled back, the stylistic and ethical norms of twentieth-century journalistic professionalism, such as objectivity, nonpartisanship, and the prohibition on paying for scoops. They also tend to have a flatter organizational structure than legacy media organizations, such that writers face far less editorial oversight. Yet such freedoms coexist with levels of metrics-driven surveillance that would be unthinkable at more traditional news organizations like The Times. This suggests that the contemporary digital media landscape encompasses multiple conceptions of editorial freedom— and those who populate it have conflicting notions of what constitutes the most onerous constraints for working journalists." (Petre 2015, p40)

The variation and conflict seem to be permanent features of the new journalism landscape.

New roles and sub-occupations are being formed almost yearly in response to this evolving change (Kosterich and Weber 2018). Social media teams, audience growth editors, audience engagement editors, are a few of the newer roles that have grown up in response to the new possibilities (Ferrer-Conill and Tandoc 2018). Organizationally, the digital transformation of journalism is eroding and reworking the traditional boundaries between business and editorial functions inside news outlets (Hansen and Goligoski 2018). These new roles often sit at the intersection of business and editorial functions — feeding insights about the audience to the business and marketing teams, while translating those insights to editors who can make informed choices about content strategy.

As emphasized in the preceding chapter, these changes are not the same everywhere. The digital transformation of journalism, far from bringing about convergence to a single model, has led to a fracturing of the news media ecosystem. There are many different types of news

organizations serving many different needs, and the operation of the digital logic manifests in very context-specific ways.

On the consumption side, scholars and practitioners worry that the digitized news which is the product of a transformed institution of journalism — personalized, measured, and widely distributed — is eroding the common knowledge and public understanding that were central outcomes of the ethical and public service values of journalism (Tandoc and Thomas 2014). For journalists as workers, the digital transformation of journalism and the economic fragility of news organizations have thrown them into a class of precarious workers, in which the tension between openness, rationalization, and their traditional occupational values confronts them very clearly and has prompted conflicts with professional norms. As one scholar noted, "journalism as an institution is still struggling to define clear professional norms for the use of audience clicks and at present sticks - at least in words - to traditional norms" (Welbers et at 2015 p14).

Reconciling Rationalization and Participation in Post-Industrial Journalism

One final question to be raised in this first analysis of the transformative effects of digital technologies on the institution of journalism is how the values of openness and rationalization are themselves held in dynamic tension. The simultaneous rationalization and democratization of newswork would seem to be a contradiction. How can digital transformation of an institution like journalism produce both more rationalization and more openness? Wouldn't an openness to the contributions of actors outside the traditional boundaries of an institution — readers, lay experts, bloggers — suggest less rationalization in the practices of production? Rationalization through metrics, after all, has typically been theorized in the sociological literature as leading to more standardization and centralization of control (Espeland and Stevens 1998, Espeland and Stevens

2008). And the scientific management literature has long taken for granted that increasing rationalization leads to more formalization and more efficiency, qualities that would seem to be at odds with open participation by anyone with an interest or motivation to join in a particular form of institutional work. How do these two values become reconciled?

Anderson, in his fieldwork of digital newsrooms in Philadelphia and New Jersey (2011), uncovers and theorizes this underlying tension between openness and rationalization in the nature of digital newswork. He writes, "[the] specific puzzle that emerged over the course of my research [was] the tension between the common rhetorical invocation of the news audience as a 'productive and generative' entity, and the simultaneous, increasingly common institutional reduction of the audience to a quantifiable, rationalizable, largely consumptive aggregate" (Anderson 2011 p551). How is it, Anderson asks, that these two logics — one of generative, open audiences, and one of quantified audiences — can operate simultaneously?

To answer this question, Anderson compares three empirical patterns: how managers and executives of his newsroom conceive of the web audience, how web producers interact with the article comments of the web audience, and how both sets of actors orient to audience web metrics. He finds that it is mostly the news managers and executives (and consultants who they hire) who hold a generative view of the audience. Anderson quotes one consultant who hold a typical generative audience view:

> "Philly.com should do what only the web can really do. Brands across the board have shifted. You can't push from the mountaintop any more ... unless you let your users have some kind intimacy with the brand, and maybe even some control, you're going to fail. They have to play with it. It has to be 'of the people, by the people, for the people.' (Interview, 30 May 2008)" (qtd. In Anderson 2011, p558).

Yet this kind of democratization in practice, in the form of comments on articles, he finds produced much more ambivalence among the web producers and reporters themselves. While some reporters were interested in what their readers had to say about their articles, others were

repelled by the ugliness and abuse that was often leveled at them in the comments section (this presages much of the current scholarly findings and popular debate around comments (Chen 2017, Coe et al 2014)). Anderson found that while some reporters he observed believed it was now part of their job to care about what readers were thinking and interact with them, others were not so sure.

In some ways, this ambivalence is continuous with the findings of older newsroom ethnographies about how journalists orient to their audience (Gans 1979). And yet, Anderson argued, there was one key difference: "Whereas reporters were once surprised by reader feedback, it seems that they now *expect* reader feedback, even if they do not like it, agree with it, or see it as enhancing their ultimate journalistic product" (2011, p558). This shift in expectations of the audience was one dimension of change that seemed to be at work in the spread of digital journalism.

Yet this shift in expectations of audience involvement was accompanied, Anderson argued, by a deeper and more consequential change in practice he observed in the field. Because while he saw evidence of ambivalence on behalf of his reporters and web producers about this new, participatory audience role, there was no doubt that web metrics — particularly web traffic numbers — were exerting a powerful influence on newsroom practice. In exploring how reporters and web editors actually went about their story production work, Anderson observed that the quantification of audience behavior made possible by web metrics tools like Omniture, when combined with the right organizational and managerial conditions, were indeed influencing news judgement.

Specifically, the ability to see which types of stories were doing well (being read by more visitors) versus which types of stories were doing poorly (being read by fewer web visitors), was

changing how editors and reporters felt about their work, and how they assessed story quality and newsworthiness. Anderson clearly shows in his ethnographic data that although there was a fascination with traffic numbers, particularly in the Philly.com newsroom, that the gap these numbers exposed between traditional judgements of newsworthiness and the demonstrated preferences of the audience, was both changing practice and generating some mixed feelings. One producer reporter to Anderson:

> "But in the old days, we thought different things were more important than they are. You know a lot of [story selection] used to go by editor's interests. And of course maybe we went more with the paper and what it's strong with also, as opposed to looking at traffic reports. And realizing exactly what people click on. And you know, I've always had this argument – because I did work on the Knight-Ridder national news team – I've always had this argument that just because people are not going to click on a story about Iraq doesn't mean that you shouldn't have a headline up there. Because some people just want to read the headline. And it just makes you look bad if you're a big news site and you don't have the right news there. ... And I think we always knew that sports was big, and gossip was big, and big talker stories were big, but, when we saw the cold numbers ... I think that was kind of when a lot of people woke up. (Interview, 23 July 2008)" (qtd. In Anderson 2011 p560).

In other words, informing this professional change in assessment of newsworthiness was a numbers-driven rationalization of what the audience wanted to read. The tension between a quantified audience (whose behavior has been measured and analyzed through digital traces) and a creative audience (who has agency and can participate and influence the news process) is thus, Anderson argues, resolved at the level of professional motivation and self-conception. If being a good digital journalist means being responsive to the needs of the digital audience, then the digital data available to quantify and rationalize audience behavior is a key piece of the knowledge required to produce valuable digital journalism. Thus, the rationalization of digital technology becomes the mechanism which promotes digital democratization, and vice versa. As Anderson writes, "The preferences of active audiences, in other words, need to be measured and taken into account" (p564). This is not a complete revision of previous professional values, however, as Anderson's case of audience comments clearly shows. In the qualitative arena of digital interaction, the professional code of distance and skepticism between journalists and their

audiences still seemed to hold sway.

At the theoretical level, I want to take Anderson's analysis a step further. The reconciliation of rationalized audiences and participatory audiences precipitated a shift in the identity of the journalists he studied. That is, their self-conceptions of what it means to be a good journalist were shifting as a result of the reconfiguration of the journalist-audience relationship. Anderson found evidence that the rationalized journalist-audience role relationship and the participatory journalist-audience role relationship both existed simultaneously in a more complex professional identity than what preceded it. This suggests one of the core transformative effects of digital technologies, in conflict and cooperation with other institutions, is the evolution of actors' identities to contain more complex role relationships, which are complemented by a reconfigured set of values, and undergirded by a transformed set of practices.

The Stakes: Control and Transparency, Continuities and Discontinuities

The previous section reviewed the changes to the occupational ideology of journalism that have evolved in the ongoing clash between the values of openness and participation encouraged by the use of digital technologies, and the traditional institutional values of journalism. At this point, I want to abstract up another level to ask what is at stake in the adoption of digital technologies into journalism. I have traced the contours of digital changes in practice, values, and role identity produced by the transformative nature of digital technologies but have so far left the deeper question of the so what. Why does it matter? What is at stake for the institution of journalism as it transforms?

Schulz, in his phenomenology of knowledge, explains how individuals' understanding of society is built up from face-to-face experience to knowledge of the social whole. He theorizes

that social knowledge accretes through a series of increasingly abstract typifications (Schultz 1970). Understanding the relationship between face-to-face knowledge and abstract knowledge of the whole can help shed light on the stakes of the digital transformation of journalism. The journalist, through the production of news, creates and shares knowledge about society with her audience. Yet in any particular moment, the only access she has to information about both society and the audience is through (1) existing knowledge/typifications and (2) face-to-face interactions. The transformative effect of digital media has been to remake the immediate information environment such that much more information exists, and alongside face-to-face interactions are digitally-mediated interactions.

The stakes of this change in the immediate information and interactional environment surrounding journalist's everyday work is the level of control they can exert over their production of knowledge about society, and the level of transparency and exposure their work is subjected to. Digital metrics provide a level of informational transparency into the reception of a journalists' work in ways that were not and are not possible in other media. Audience metrics in television and radio are probabilistic, and provide much less information granularity than sophisticated digital metrics (especially those collected from social media platforms).

Similarly, the ability for journalists to engage in new types of digitally-mediated interactions with individual audience members provides the potential for more transparency between a journalist, her process, and the user. This transparency can be mobilized for a productive two-way exchange between a journalist and her readers in ways that enhance the quality of the final product (e.g. ProPublica's use of crowdsourcing), or it can devolve into digital abuse. Either way, the journalistic process, and the journalist as an individual, is laid bare in the digital space. Under these conditions of enhanced transparency—both in terms of

quantification and visibility of process— some of the mystification of expertise can dissolve.

The second, related, set of stakes in the digital transformation of journalism is the level of control that journalists can exert in their work. The agenda-setting role of the audience—through the information that metrics and algorithms can provide, and through the possibilities for collaborative and co-creative interactions on digital platforms—has shifted both the level of control over the news agenda and core journalistic values of newsworthiness (Anderson 2011). In other words, the openness and participation of amateurs, and the rationalizing force of metrics and algorithms, has displaced a degree of professional control that was enjoyed by journalists in purely monopoly media contexts. This control has not been given up lightly, and not ceded fully (Singer 2005, Deuze 2003). Yet newsrooms of every stripe have had to wrestle with just how much control over knowledge and process to cede to the openness and rationalization of digital tools, and how much to retain in order to justify their (economic and social) value and maintain the moral authority to speak on behalf of the public.

Chapter Conclusion

Yet it would be a mistake to conclude that the transformative effects of digital technologies, and the stakes of their operation, are completely *sui generis*. What stands out in the analysis of how the incorporation of digital technologies are changing the institution of journalism is how many of the conflicts were present in the institutional complexities of journalism to begin with. Though scholars have pointed to a high modern period, particularly in the U.S., the practice of journalism has varied widely across regions, types of media, and types of organizations. Journalism as practiced in public service broadcasting is and was different than journalism practiced in metro newspapers or in network television newsrooms. Because of this

variation, the "same" technologies introduced into different social contexts have had very different trajectories (Boczkowski 2005). As Boczkowski pointed out in his groundbreaking early study of digital transformation in newspapers — digital technologies evolve inside of different newsrooms facing different local contexts, each with their own particular technical histories.

Yet there is one, obvious, persistent tension in the institution of journalism, which the incorporation of digital technologies has not resolved but rather exacerbated. The market logic of capitalism has existed uneasily alongside the occupational logic of journalism from its early days (Shudson 2003). In the ideal-typical case, the editorial integrity of the newsroom is insulated from the demands of the market, represented in the commercial interests of the news outlet and its advertisers. Yet in actuality, there has been almost ceaseless public and scholarly debate over whether and how the commercial interests of advertisers influence the editorial agenda of newsrooms (Hamilton 2004).

The rise of digital technologies in journalism has heightened and aggravated this tension. This is partially because the level of competition in the digital media environment—and the eventual consolidation of advertising market power in the hands of a few big internet companies—has meant that news organizations stood very little chance of exercising the kind of monopoly power in digital media that they enjoyed in print or broadcast. The search for financial viability in digital news has come to entail the incorporation of commercial concerns into parts of the journalistic process (particularly audience growth and publishing) that were not so strongly present in other media.

Nevertheless, as digital technologies have developed and spread in the field of journalism, the values of openness and rationalization have created new conflicts and tensions, many of

which I have laid out in this chapter. Tracing how the values and practices of digital openness and participation are changing the values and practice of journalism has revealed continuities, discontinuities, and radical reconfigurations.

Chapter 4: The Institution of Public Radio

Introduction

The previous two chapters have laid out descriptive accounts of the institutional values of the field of journalism and the features of post-industrial journalism, and have provided an analytic account of how the incorporation of digital technologies is changing the values and practices of journalists. The field of journalism is one of the major embedding institutions of WABC. But, obviously, so is the field of public broadcasting.

The next two chapters present a description of the origins and development of public radio broadcasting and its core values, and a description of how digital technologies are being incorporated into public radio at the field level. These two historical surveys provide vital immediate context for understanding my ethnographic account of how WABC went about addressing the existential threats facing the station. These surveys also begin to shed light on the theoretical question at the heart of this dissertation: how does digital innovation affect the pursuit of mission in a public service organization?

This chapter lays out the origin and values of public radio broadcasting in the U.S. It describes the closed nature of the public radio system with its constellation of professional associations, routine systems of production, syndication and broadcast, and federal licensing and funding. It also historically situates the relative flexibility of the institution (in terms of funding, governance and journalism) compared to other national public broadcasting systems such as the BBC. And, importantly, this chapter sets the stage for the core institutional tension at the heart of public radio: the push and pull between serving a large audience and fulfilling a public service mission.

Introduction to the Field of Public Broadcasting

The U.S. Congress established the system of public radio in the United States when it passed the Public Broadcasting Act in 1967, signed into law by Lyndon Johnson, which created the Corporation for Public Broadcasting. The Act and the Corporation for Public Broadcasting paved the way for the founding of National Public Radio (NPR). NPR is a central content producer, distributor, and quasi-governance entity in public radio. The Act also provided support for a growing number of noncommercial stations that were broadcasting over public airwaves on the FM spectrum.

Public radio has evolved over the last fifty years into a field of organizations pursuing a shared purpose with a shared set of values and shared regulatory regime. As an organizational field, public radio comprises different types of organizations including *networks* such as National Public Radio, Public Radio International, American Public Media, and Public Radio Exchange; *federal entities* including the Federal Communication Commission (FCC) and the Corporation for Public Broadcasting (CPB); *local public radio stations* which are licensed by the Federal Communication Commission to community and educational institutions across the country; and *professional associations* including the Public Radio Program Directors Association and Greater Public (the marketing and development professionals association). The FCC and the CPB share regulatory authority over the public broadcasting system. Their work includes certifying stations for receipt of federal funds, issuing reporting requirements, ensuring public radio content does not violate federal broadcast decency laws, and regulating the kinds of commercial language that can be aired in broadcast underwriting messages.

Organizations in the field of public radio share a broad purpose and set of values. The

purpose of public radio is to broadcast noncommercial news, educational, and cultural programming to local communities across the country. A set of values called "the Core Values" guides modern program decision-making (see Table 1). Local stations have autonomy over programming and craft their identities in response to the geographically-defined communities they serve..

Public support in the form of financial contributions, listening, and public legitimacy are each an important organizing cornerstone and animating value of public radio. Public support is the key barometer of public radio's fulfillment of its mission to serve the public through its programming. The monetary form of public support—the model of "listener membership"—and its associated on-air pledge drive, is one of the most highly institutionalized elements of public radio. Yet most public radio professionals agree that the current broadcast model of "member support" has become taken-for-granted and transactional: membership means donations solicited on-air during pledge drives in exchange for tote bags and umbrellas.

There are a little over 1,000 local public radio stations in the U.S. Though CPB exists to support public broadcasting, on the whole, public radio stations receive only a fraction of their total revenue from CPB grants. In 2016, CPB appropriations in the form of Community Service Grants to stations represented just under 9% of all revenue in the public radio system. The largest source of support for public radio was from individual donors, whose collective contributions made up 37% of total revenue or just under $465M. Corporate underwriting brought in 20% of total revenue in 2016, and foundations accounted for an additional 10%. The remainder of revenue came from state and local governments, and from the colleges and universities which hold a significant proportion of public broadcasting licenses. Among CPB grantees, 48% of CSG grants go to college or university licensees Waldman 2011, p167).

The Mission of Public Broadcasting

The public broadcasting mission is not solely, or even particularly, a journalistic one. The Public Broadcasting Act of 1967 reads, in part:

Sec. 396. [47 U.S.C. 396] Corporation for Public Broadcasting

(a) Congressional declaration of policy—The Congress hereby finds and declares that—

(1) it is in the public interest to encourage the growth and development of public radio and television broadcasting, including the use of such media for instructional, educational, and cultural purposes;

(2) it is in the public interest to encourage the growth and development of non-broadcast telecommunications technologies for the delivery of public telecommunications services;

(3) expansion and development of public telecommunications and of diversity of its programming depend on freedom, imagination, and initiative on both local and national levels;

(4) the encouragement and support of public telecommunications, while matters of importance for private and local development, are also of appropriate and important concern to the Federal Government;

(5) it furthers the general welfare to encourage public telecommunications services which will be responsive to the interests of people both in particular localities and throughout the United States, which will constitute an expression of diversity and excellence, and which will constitute a source of alternative telecommunications services for all the citizens of the Nation;

(6) it is in the public interest to encourage the development of programming that involves creative risks and that addresses the needs of unserved and underserved audiences, particularly children and minorities;

(7) it is necessary and appropriate for the Federal Government to complement, assist, and support a national policy that will most effectively make public telecommunications services available to all citizens of the United States;

(8) public television and radio stations and public telecommunications services constitute valuable local community resources for utilizing electronic media to address national concerns and solve local problems through community programs and outreach programs;

(9) it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services through all appropriate available telecommunications distribution technologies; and

(10) a private corporation should be created to facilitate the development of public telecommunications and to afford maximum protection from extraneous interference and control.

The "instructional, educational, and cultural" purposes of public media were not elaborated any further. Neither was the directive to "be responsive to the interests of people both in particular localities and throughout the United States." It was left up to particular station broadcasters to interpret their organizational missions in light of these general principles, and for CPB as well to shape its funding priorities according to its own interpretation.

Yet underlying the language of the Act, and forming the core of its motivation, was the recognition by lawmakers of the limitations of market-based models of media. As Waldman

comments in the 2011 FCC report on the information needs of communities, regarding the mission of public broadcasting: “In economic terms, the goal has been to serve the public with media content that is not sufficiently profitable for commercial broadcasters” (2011, p155).

Indeed, public broadcasting was brought into existence because of market failure in commercial broadcasting, and its mission was thus crafted in response to what were considered the shortcomings of the commercial broadcasting landscape Slotten 2009). Yet the vagueness of the Act has lodged both strengths and weaknesses into the heart of public radio as an institution.

Institutional Flexibility in Public Radio Broadcasting: Local News vs. Cultural Programming

Though the creation of CPB as a funding intermediary was meant to insulate public broadcasting stations from political interference on the one hand, and market forces on the other, the overall level of federal appropriation relative to the costs of broadcast production has produced a series of unintended consequences relating to the mission of serving the public. I explain this in more detail below.

Public Radio and Local News

While public television has never developed a strong capacity for producing local news, public radio has had relative success. NPR produces and distributes over 100 hours of news and information programming per week of local, national, and international interest. In an era in which foreign bureaus of commercial newspapers and broadcasters have been shrinking or shuttering, NPR maintains 17 international bureaus, 17 domestic bureaus, and a news division staff of 379 (Fact Sheet NPR 2018). NPR news is popular — its weekly programs and newscasts

reach 30.2M Americans, and the weekly listeners to all NPR member stations reached 37.7M in 2018 (Fact Sheet NPR 2018). Waldman (2011 p159) cites a study suggesting 4 out of every 10 hours of public radio listening are devoted to news, with 185 public radio stations adopting all-news/talk formats, and 480 stations adopting mixed formats (combining news and music). This number has no doubt increased since 2011, as many stations continue to move from mixed formats to all news/talk formats.

The NPR "clock" (its division of minutes in the broadcast hour) that comprise its most popular weekday news magazines — Morning Edition and All Things Considered — makes room for member stations to insert their own locally-produced news segments inside the daily episodes. Yet while major market stations often have well-staffed newsrooms, small and medium-sized stations, often in rural areas, have struggled to fund their own news operations.

For smaller, rural stations, CPB funds provide a significant portion of their operating budgets. From the CPB website:

- **248 of the 572 station grantees currently receiving CPB support are considered rural.** Of these, 86 are public television station grantees and 162 are public radio station grantees.
- **During FY 2017, CPB provided more than $127 million to support operations and programming at these stations,** which represents 29 percent of our total appropriation. Rural stations leveraged this funding to raise $446 million in non-federal funds, including $147 million in state funding, $56 million from colleges and universities, $31 million from foundations, $41 million from local businesses and $172 million from individual donors. All told, this represents a return of over $3.5 for every appropriated dollar.
- **These rural stations employ over 5,990 people.**
- According to stations' most recent financial reports to CPB: **Rural stations depend more on CPB funding than urban stations.** CPB grants represented 19 percent of an average rural station's revenue, versus 11 percent for the rest of the industry. Nearly half of all rural grantees – 113 stations – relied on CPB for at least 25 percent of their revenue while 30 rural stations – many on Native American reservations – relied on CPB funding for at least 50 percent of their revenue.
  Rural stations depend more on state government funding than urban stations. State funding represented 24 percent of an average rural station's revenue, versus 7 percent for the rest of the industry. Nearly a quarter of all rural grantees – 54 stations – relied on state government funding for at least 25 percent of their revenue while 16 rural stations relied on state funding for at least 50 percent of their revenue.
  Rural stations have harder time raising money from individual donors than urban stations. Individual donations represented 27 percent of an average rural station's total revenue, versus 39 percent for the rest of the industry.
- Due to the low population density of its audience, and the fact that they often operate multiple transmitters to reach remote areas, **broadcasting and engineering costs are higher at rural station than at urban ones,** and represent 19 percent of the average station's total expenses, versus 15 percent for the rest of the industry.

The resources needed to hire a full-time local reporter remain out of reach of these smaller stations, even though these stations serve rural areas that are often considered news deserts — meaning they have no local newspaper coverage.

Institutional Weaknesses: Governance, and Centralization Versus Decentralization of Control

One additional long-standing tension has shaped the evolution of public radio, and is a dominant force in the responses to innovation today. That is the tension between centralization and decentralization in the governance structures of public radio. Governance across the public radio system is something of a fractal — governance conundrums are lower levels are repeated at higher levels, with increasing complexities along the way.

At the station level, the problem of governance stems from the origin of public radio broadcasting in educational radio Slotten 2009). As Slotten details in his history of the origins of public broadcasting in the U.S., in the early days of radio broadcast, many educational institutions began their own stations to experiment with airing educational content Slotten 2009). The radio stations of universities and colleges were usually attached to departments such as speech, drama, or communications. Though over time many stations came to form their own quasi-external governance structures in the form of Advisory Boards, for many stations major decision-making related to personnel, budgets, and capital expenditures are still bound to university departmental budgeting and oversight systems Waldman 2011).

This governance challenge has had profound implications for how stations have been able to grow and adapt over time. The Advisory Boards that university stations have been able to put

in place are often fundraising boards that lack any formal fiduciary responsibility. While these boards, when effective, can help tie a station closer to its local community, the lack of oversight responsibility means that major decisions related to innovation and change must be squeezed into university governance processes.

This governance challenge at the station level is amplified at the public radio system level. National Public Radio was founded as both a distributor of content and a content producer itself. This dual role — of making sure high-quality programming circulates in the system, and of making its own programming — often puts the organization at odds with itself McCauley 2005). On the one hand, NPR maintains core infrastructure for the public radio system: the Public Radio Satellite System, which provides up and downlinks to stations; and National Public Media, which helps sell sponsorship into public radio and television shows. Yet on the other hand, it produces many hours of its own original programming that it distributes to stations in exchange for fees. This dual role is exacerbated by the governance structure of NPR itself. NPR is governed by its member stations. Member stations are local public radio stations that pay yearly dues to NPR and air its programs. NPR member stations also make up the majority of its board seats.

The governance and role conflict at NPR also contribute to perpetual questions around who "owns" the public radio audience. NPR is prohibited by its by-laws from accepting listener donations directly (which is by far the largest source of funding in public radio). Instead, NPR receives listener funds *indirectly*, in the form of station member dues and carriage fees for the programs it distributes. Yet of all its member stations, NPR has the strongest brand. Many public radio listeners can't identify the call letters of their local public radio station, but can readily recall, "I heard it on NPR."

Some stations align their local identities to the NPR brand and believe that their survival will rise and fall on how closely they can make the link between their station and NPR. Others stations, usually large ones like WNYC in New York, prefer to distance themselves as far as they can from the NPR brand and instead build their own local identity. So who owns the public radio audience? Is it NPR, which has the strongest brand affinity? Or is it the local public radio stations, who go on the air every day and routinely ask their communities for financial support?

The governance and control questions in public radio have made leadership in the system perpetually vexed. The long-running difficulties that NPR has had retaining chief executives is in no small part due to these governance and system leadership challenges. Any strategic decision which NPR makes can be read as benefitting the stations or benefiting NPR — and either reading is bound to make some stakeholders upset.

In summary, the U.S. System of public radio broadcasting has been plagued with institutional weakness from its inception — insufficient federal funding, a tension between news and cultural programming, a diffuse notion of public service, and vexed governance regimes rooted in a prior system of university radio stations. These institutional weaknesses were held in fragile tension by the evolution of a station business model which relied on local community support and was driven by programming that very explicitly catered to a well-educated audience. The funds raised by local stations support local operations but also feed an ecosystem of national content networks, and feed back to National Public Radio, which holds a quasi-system governance role. The fragility of this radio-based institutional ecosystem has been tested in the rise of digital media in interesting and paradoxical ways.

Audience versus Mission

The weak federal funding for public radio has been a mixed blessing for stations. On the one hand, larger stations in relatively wealthy urban areas have had to develop philanthropic links to their communities in ways that other types of news organizations have not. The diversified business model for large public broadcasting stations — including small-dollar donations, large philanthropic gifts, foundation funding, corporate underwriting, and syndication — has made these organizations remarkably robust in the context of the collapsing advertising revenue used to fund commercial news production models in other types of organizations.

Yet the reliance on audience support has also shaped the content and programming of public radio in specific ways. The audience of NPR, and of public radio in general, is overwhelmingly white, educated, and affluent. The Station Resource Group's 2010 "Grow the Audience" study showed that in the largest public radio markets, college-educated African-Americans were only 80% as likely and Hispanics only 42% as likely to tune into public radio stations as their white counterparts Station Resource Group 2010, Waldman 2011). The most robust predictor of public radio listening and public radio support is educational attainment Station Resource Group 2010; Waldman 2011). To the extent that the distribution of educational attainment favors white, upper-middle-class Americans, public radio's audience similarly reflects underlying racial and economic disparities.

This composition of listenership is an outgrowth of the business model for public radio, the nature of its programming, and its weakly specified institutional mission to serve the public. An important inflection point in public radio history helps explain the composition of the audience over time. In his history of NPR, McCauley explains how the threat of proposed budget cuts to public broadcasting appropriations in the 1980's pushed stations to seek other sources of funding:

> "Public broadcasters took stock of the political winds in Washington, along with their future needs, and

began to look for other ways to raise money. From 1983, the year of the [NPR] debt crisis, through 1993… the growth in public radio revenue from listeners and business underwriters (listener-sensitive funds) outstripped the growth in tax-based funds (From governments and universities) by about seven to one. How were listeners, and the businesses they might frequent, convinced to pick up more of the tab? Simply put, the public radio industry learn much more about its audience and then put this knowledge to good use" McCauley 2005, p77).

Audience versus Mission: Audience88

The release of the "Audience88" study marked a watershed moment in the editorial and financial development of public radio. The study, conducted by SRG and led by David Giovannoni, was the largest systematic study of the public radio listening audience up until that time. It used segmentation analysis to try to understand who was listening to public radio, who was not, and why listeners tuned in. The conclusion of Audience88 was that public radio stations could thrive, and fulfill their missions, by focusing on the educated, socially-conscious portion of the audience who appreciated the news/talk programming elements and who would be most likely to give to the station. The primary mechanism for doing this, Audience88 recommended, was for stations to aim for consistent programming *appeal* across day parts.

What did programming appeal mean? In the synthesis of the reports findings, by Thomas and Clifford, defined programming appeal as, "the special attraction that specific programming holds for specific listeners. Appeal is the mechanism through which programming shapes the audience, with a cascade of ramifications for the entire public media enterprise" (v. Audience88: Issues and Implications).

Audience88 is in many ways riddled with contradictions that only make sense in light of the diffuse institutional mandate for public broadcasting and lack of adequate federal support for realizing it. For example, in the final, synthesizing portion of the study, the authors lay out a case for why public radio should be considered niche programming: "It is simply a fact, though, that as long as public radio broadcasts alongside over 9,000 commercial competitors, it can aspire to

truly serve only a portion of America's radio listeners…. In sum, whatever public radio's aspirations and whatever its accomplishments, its role is to fill a special niche within a larger broadcasting enterprise" (2, Issues and Implications).

Those niches might look different in each station's community, the authors argued, but the audiences would be niche nonetheless. The key to unlocking the niche audience — to serving it well and growing the audience size — was to understand their audience and focus on programming appeal. "The more knowledge public radio broadcasters have about the people who are attracted to the formats and programs they present, the more effectively they can serve those listeners' needs and interests. They can be more efficient in programming, more persuasive in asking for listeners' financial support, and take a better case to the businesses that underwrite many of their efforts" (2, Issues and Implications).

The importance of appeal as a differentiating factor between listeners and non-listeners was so important to the study that it was marked as both the guiding theory and the conclusion of the research: "The underlying theory of Audience88 — and its important continuing theme — is that people to whom one kind of station or programming appeals are different from people to whom that station or programming does not appeal… Audience88 has emphatically confirmed the theory. Among the central findings are these: Listeners who choose public radio are significantly different from those who do not" (Issues and Implications, p3). If public radio was to grow its audience, the report authors remarked, the best route would be to focus on cultivating consistent, reliable programming that appealed to the types of listeners that enjoyed public radio the most: highly educated, socially-conscious professionals of middle age.

Yet this left a paradoxical question unanswered: how could public radio fulfill the public broadcasting mission to "serve all citizens" by serving a niche audience of highly educated

professionals? Thomas and Clifford were circumspect on the challenges of interpreting and operationalizing such a mission. On the one hand, they observed, stations were complex, multi-stakeholder organizations: “Public radio stations are created for complex reasons and to achieve diverse objectives. The potpourri of purposes, goals, responsibilities, and rationales for continued existence and public support that guide a station’s management is generally termed the station’s mission” (Issues and Implications, p27). These missions were not well specified, and not measurable or assessable. On this point, the authors quoted a well-known audience researcher, Tom Church, “many stations could fulfill their mission without so much as a single person ever listening” (p27 Issues and Implications).

Though this institutional pluralism was beginning to be resolved, they remarked, through the introduction of audience research techniques and rationalization of programming, the Audience88 study aimed to put a different cast on the audience versus mission debate. “We believe Audience88 introduces a new round of strategic issues for public radio that extend and refine this recent debate… If the controversy of the mission-versus-audience dialogue can be simplified as sometimes difficult choices between *content* and *numbers* of listeners, the extension of that dialogue, informed by Audience88, is of further choices between *content* and *kinds* of listeners” (p28, emphasis in original).

The content-focused interpretation of the mission of public radio — to serve the public with “quality, excellence, and diversity” of content — had been the dominant one up until that time (the late 1980’s) because the idea of public radio broadcasting was institutionalized on top of an older system of noncommercial, educational radio based in America’s colleges and universities Slotten 2005). Those stations were founded in the 1920’s to use the airwaves to further the educational missions of their home institutions Slotten 2005). So, while in the late

1980's, a handful of minority-owned stations supported by CPB (and outside the NPR member network) worried about *who* was the public being served by public radio, the legacy educational stations worried mostly about the *content* of public radio — and those programming decisions, the audience researchers of 1988 concluded, had come to define the audience.

It is important, though, to point out just how heterogeneous the earlier set of stations which became "public radio stations" had been. These stations, often university-owned, were staffed by students and amateurs and thrived on an eclectic mix of programs with different appeals to different types of listeners. Anyone who has listened to a college radio station with a rotating cast of undergraduate DJ's can easily picture what the results often sounded like: a hodgepodge of voices, styles, topics, and levels of professionalism which ebbed and flowed throughout the day.

The educational roots of public radio impacted not just the first generation of content formats, but the quality of station missions. Yet at the same time, the general set of higher education values provided some commonalities across stations. Thomas and Clifford remarked in Audience88, "Journalism, music and cultural choices have been filtered through the standards and worldview of the higher education community" (28, Issues). The core insight of Audience88 was that, despite the heterogeneity of formats, the core public radio audience — and the audience most likely to support their local station — was an educated audience which deeply resonated with the values of public radio and that a certain kind of programming. If stations could figure out how to create more of the kind of programming which appealed to an educated audience, the theory was, it could turn to that audience for financial support.

Thus, Audience88 marked an important evolution in the so-far short history of public radio from its network of highly localized, varied approaches to public service, towards a more

standardized sound and schedule across stations. But it wasn't until the second major audience study ten years later — Audience98 — that the problem of institutional weakness was really tackled. Because while the idea of standardized programming appeal took shape and spread throughout the 1990's, it was public radio's continuing financial problems that created the context for a link between program appeal, audience, and revenue to be made in Audience98.

Audience versus Mission**: **Audience98 — "Public Service Begets Public Support"

It is worth dissecting the rationale and language of Audience98 to understand how it offered a solution to the problems of institutional weakness in public radio. The context for Audience98 was in many ways an intensification of trends already apparent at the time of Audience88. Commercial broadcasters were entering a wave of consolidation, the commercial, consumer-facing internet was starting to gain traction, and, to quote the opening paragraphs of the report, "This year, Arbitron begins offering information about listeners' education in its basic subscriber report, putting our upscale, college-educated audience in easy aim [of commercial stations]" (p3 Audience98).

If the core insight of Audience88 was that programming shapes and attracts a particular audience, the core insight of Audience98 took this logic a step further: "Programming not only causes audience, it also causes audience support" (p3 Essential Findings). Rather than treating fundraising and programming as two different operations (a split reflected in traditional journalism between business and editorial), Audience88 urged public radio professionals to treat the two as inseparable. "Public service begets public support. Listeners send money to public radio when they rely upon its service and consider it important in their lives."

From an institutional lens, the linking of a revenue imperative to a mission imperative

was a subtle but powerful move that if it did not solve, at least attempted to reconcile the institutional weaknesses of public radio. If a large and diffuse "public" could not be identified, at least a specific public who liked the content could be served, and if that service could not be directly measurable, then at least the dollars that it brought in could be counted. The substitution of public (monetary) support for public service was a remarkably clever solution to what had become unmanageable institution complexity: "Public service and public support are linked so tightly that listener support can be used as a proxy for the public service that causes it" (p4 Essential Findings).

But while Audience88 recommended conceiving of the public radio audience in educational attainment terms, Audience98 focused much more on the ways in which appeal could be defined as the values, beliefs, and interests of that audience. "Public radio transcends simple demographics to speak to listeners' interests, values, and beliefs. People listen to public radio programming because it resonates with their interests, values, and beliefs. This appeal generally cuts across age, sex, and race" (p4, Essential Findings, emphasis in original).

Audience98 directly took on the question of how to serve minority listeners by arguing that it was public radio's demonstrated and unique ability to appeal to listeners based on educational attainment alone — educating being a "transcendent" value — that ensured public radio was already fulfilling its mission of public service. Under this logic, fracturing programming appeal by broadcasting programs for minority listeners risked undermining the overall level of public service value that stations could provide: "the strategy to transcend racial heritage and the strategy to target it are at direct operational odds" (p30, "Rounding Up the Usual Suspects").

Thus, by continuing to focus on a programming strategy that served the college-educated,

the Audience98 report authors concluded that the combination of demographic changes and expanded access to higher education would naturally increase the minority listenership of public radio: “As the number of well-educated minority citizens grows, so grows public radio’s minority audience” (p32 “Rounding up the Usual Suspects”). And even more, the authors argued, given that minorities are under-represented in educational attainment, the minority audience that public radio actually did manage to serve were the very definition of the “unserved audiences” referenced in the Public Broadcasting Act. The needs of college-educated minorities, “would be virtually unfulfilled were not public radio currently meeting them through its strategy to transcend” (p35, Audience98).

It is important to remember that NPR member stations are not the only type of public radio station. About 40 stations are classified as minority-owned community radio stations. These stations receive CPB funds but do not air NPR content. The largest contingent of community stations is in the Pacifica Radio Network. Pacifica was founded in the mid 1940’s in Berkeley, California with the establishment of KPFA. It expanded in the next 2 decades to include stations in Los Angeles, Washington, DC, New York City, and eventually Houston, Texas. The Pacifica Foundation also operates a network that provides programming to about 200 stations in the US and Canada, with a few stations abroad. Pacifica has been considered a liberal-left in its political leanings, and it positions itself as a truly “alternative” noncommercial news and information source.

Audience98 is notable for taking on an assessment of these stations directly, and critiquing their interpretation of the public broadcasting mission to serve under-served and minority audiences. Its first assessment was that community radio stations (like their public-access television counterparts) were more often about giving citizens the means to broadcast than

necessarily about building and serving audiences: “and so from the beginning, community radio’s pioneers emphasized the needs of those behind the microphones rather than the needs of the public at large” (p77, Audience98).

Yet the Audience98 research revealed that in fact, community radio’s listeners were younger, less educated, and less affluent than core public radio listeners. Though with a slight majority of college graduates in their listening audience, they could be plausible cousins to the mainstream public radio audience. “There is one difference, however, and that is the racial composition of the audience. In markets where Arbitron measures race, community radio’s listeners are three times more likely to be black or Hispanic than are network-affiliated listeners” (p79). These differences, the authors of Audience98 reported, were because of programming choices at community stations — an eclectic mix of news and music, and no NPR content. The authors presented data showing that these listeners were not as loyal, reliant, or generous to their community stations as mainstream public radio listeners were to theirs — and at 6% these minority audiences composed a tiny fraction of overall public radio listening.

Despite its overall somewhat bleak assessment of the success of community stations in terms of audience size and composition, Audience98 did make room for an impassioned plea from the then-president of the National Federation of Community Broadcasters, Carol Piersen. Buried in the middle of Audience98’s 175 pages, she poses a re-examination of public radio’s values, and specifically questions the link between public service and public support in the context of the needs of “under-served” audiences.

Her section begins: “Does public radio have the responsibility to ensure that all segments of the American population are served?” Her answer is yes, and that this mission is still relevant and important to community broadcasters, even though the data from Audience98 (and the

assessment of its main authors) was that community radio serves some of the same types of listeners as network-affiliated stations, just less well because of community radio's fractured programming.

Yet her probing goes deeper, and she poses the question of what the mission of serving the under-served might mean "at this pivotal moment when public radio is moving to a more listener-sensitive economy" (p85). For community stations to super-serve the same audience as network public radio, (the white, upper middle-class, educated audience who love NPR programming) would be to duplicate a service that already existed. But to focus on the audiences left outside the mainstream public radio audience would be to risk a smaller, fractured audience that might not have the means to support the station. Community broadcasters could choose to serve one segment of under-served audiences - say, Native Americans — but their size and poorer means would not necessarily be able to produce enough financial support the station. Community broadcasters could trade audience size for listener loyalty, "But the ability of a smaller audience of perhaps poorer listeners to support the station is a big question. *At what income level does public service disconnect from public support*?" (p85 emphasis in original).

This key question exposes the institutional weakness of public broadcasting all over again. Pierson ended her section by suggesting that public broadcasters team up to figure out how to serve each audience segment, "to fulfill the promise envisioned by public radio's founders - of a radio alternative, free of commercial pressures, offering the best possible public service to all Americans" (p86).

The irony, of course, is that it was precisely commercial pressures on public broadcasters—to compete effectively against commercial radio for audience size in order to support underwriting rates, and to convince enough well-heeled listeners to financially support

station operations—that was throwing the mission and effectiveness of community broadcasting into question. Yet Piersen's section touched on a paradox that Audience98's authors could barely seem to grasp: that public support in terms of dollars might not be the only measure of public service, and that treating public support as a proxy for public service could in fact undermine parts of the public broadcasting mission itself.

Throughout Audience88 and Audience98, one very important point about the mission of public radio stands out. As described above, the federal legislation which gave birth to public broadcasting in the U.S. did not specify a definition of public service beyond a vague notion of quality and excellence in content, and free access. Furthermore, the public service aspirations of public broadcasting were transposed onto a system of educational broadcasting that was rooted in the cultural values of higher education. Those two factors—weak legislation and an existing system of values—combined with a third factor, inherent in the medium of radio itself—to shape the particular audience, sound and ethos of modern public radio.

That third factor was the competitive nature of local radio markets. Though the motivation behind the public broadcasting act was to set a medium apart from market forces, the nature of competitive local radio markets (and limited federal support) meant that in order for public radio stations to survive, they had to build a loyal, niche audience. The loyal niche audience turned out to be those that were already pre-disposed to the format: highly-educated, socially-conscious, affluent citizens. Thus the lofty aspirations of serving "the public," when operationalized in many local communities and in the specific medium of radio—ended up falling far short of what a more inclusive interpretation of "the public" might have been.

Chapter Conclusion

This chapter has argued that the system of public radio in the U.S., founded to provide noncommercial programming alternatives that could serve the public, evolved into a pluralistic, but weak, institution. Its governance structures are vexed by nested levels of oversight and the overlapping interests and procedures of university, community, federal, and national players like NPR. The level of federal support for public radio has always been far below the costs of running a station and producing content. On the one hand, that economic fact prompted a search for sustainable resources at the system level which produced an organizational innovation in the form of a diversified business model reliant on listener and community support. Yet along with that business model, and the professionalization of public radio programming, the field came to measure public service by the amount of audience dollars stations could attract.

The business model of public radio stations, combined with a set of programming values rooted in higher education, has created a particular kind of audience: white, affluent, well-educated. The nature of the audience/station relationship is rooted in a combination of programming choices, the need for listener dollars, and the affordances (and market dynamics) of broadcast radio. The irony of public radio as a complex and pluralistic institution is that its diffuse public service mission—when translated through the economic, social, and technical realities facing stations—came to serve a segment of the public that had cultural, economic, and social power. Other definitions of public service were mostly left to the side in the process.

Yet the tension between audience and mission at the heart of public radio was never fully resolved. A set of minority-owned stations and community stations continues to hold alternative definitions of public service. And a set of independent producers who operate outside the public radio station/national producer network has continued to grow and provide content for niche audiences. It was these independent producers who would be the source of the most innovative

content and new audience strategies when podcasting experienced a resurgence in 2014.

Chapter 5: The Digital Transformation of Public Radio

Introduction

The previous chapter described the origin and values of public radio. It highlighted the institutional pluralism, as well as the institutional weakness, of public radio broadcasting, and its perpetual conflict between audience and mission.

This chapter takes a step closer to the empirical case by describing how digital technologies have been incorporated into public radio since the early 2000's through the rise of podcasting. I also begin to sketch how the growth of digital media has stressed the institution of public radio, and aggravated its long-standing conflicts between audience and mission. It is these tensions which will be explored more fully in the station ethnography.

Public Radio and the Rise of the Digital Models of Production and Distribution

The last two decades since Audience98 have seen an almost complete re-shuffling of the media landscape. During that time, radio listenership has stayed strong but also flattened, while the newspaper industry has collapsed, and the mass media landscape fractured and diversified. Audiences have been increasingly accessing media on the web and mobile devices, and can choose from a wider array of content than ever before. In line with this trend, audience research in public radio has shown a flattening out of listening time and a flattening out of the number of listener donations to stations Waldman 2011). The growth of the digital media ecosystem is stressing the institution of public radio and its founding broadcast model.

In response, the broadcast model in public radio has slowly begun to share space with a new digital model developing alongside it. As their listeners migrated to the web, public radio

organizations have tried to respond. In the late 1990's, NPR funded a massive effort to get stations online with robust digital content management systems. Over the last two decades, larger stations created digital newsrooms with digital-only reporters, hired digital producers for programs, experimented with social media, and set up digital streaming of their broadcast feeds. Most stations now have at least one digital professional, and larger stations have entire digital departments. The integration of digital news production with the routines of radio broadcast remains an ongoing organizational and operational challenge.

In 2010, the Station Resource Group, which had helped shape the previous audience studies, released another report which took the temperate of the public radio system as it faced the network age. Its framework of recommendations captured the concerns of public radio as a field heading into the Web 2.0 era. Their recommendations included: "1. Commit to a more inclusive public service. 2. Become the most-trusted, most-used daily journalism in America. 3. Create a 21st century public radio music service. 4. Embrace the networked environment as a primary platform. 5. Strengthen core competencies throughout public radio. 6. Develop market-by-market strategies for audience growth. 7. Support follow-up and accountability for this plan."

In seeking to articulate a set of recommendations for how public radio as a field should adapt to the rise of the Internet, the report authors identified four "vectors of change" related to digital media which in their view were the most profound sources of transformation for the field. The first was a "shift in delivery platforms." The report explained how the values of quality programming which had guided public radio broadcasting could be easily translated into a rich variety of digital media products, but that those opportunities were also in the sites of other publishers. Listeners were facing an explosion of choice in the digital media landscape, such that "all public radio organizations must rethink the competitive landscape and their respective

place(s) within it."

The second vector of change was in public radio's relationship with the audience. The affordances of the digital landscape were allowing users to search for curate their own unique media selections, share the things they like with friends, create their own content, and talk back to media institutions. This marked a significant change in behavior from the broadcast channel.

> "At some point on this path, the relationship shifts from presentation to conversation, from one-to-many to many-to-many—not in everything (far from it) but in important ways felt by the institution and the user" (Grow the Audience, p44).

The nature of radio broadcasting cut against this kind of participation. The one-to-many world of radio broadcast "presentation" had put a heavy burden on station Program Directors to develop a savvy understanding of the local audience and its place in the local radio market. Yet the Grow the Audience Task Force (the author of the report) was equally savvy in its assessment of where this opportunity for a new kind of audience relationship could take public radio:

> "These changes can advance public radio's aspirations to connect and convene individuals and communities on civic and cultural issues, add depth and perspective to public radio content, and strengthen stations' positions as genuine community institutions. But they can also diffuse the stature and clarity of a station's identity, pose complicated questions about editorial integrity, redefine concepts of authority and authenticity within public radio's core content franchises of news and music, and claim time and resources far out of proportion to actual gains in use and value."

Thus, the potential for more openness and participation in the enterprise of public radio which was on offer in the digital landscape cut two ways. Forging closer relationships with audiences and fostering community by digital means could in many ways represent an evolution and deeper fulfillment of public radio's mission. Yet a fundamental reconfiguring of the audience/station relationship in the digital space would also challenge the gatekeeping authority and identity coherence of local stations - all for a payoff that could be marginal given the array of content choices on the Internet.

Yet it was not just the reconfiguring of the audience/station relationship which the report authors identified as being at stake in the digital transformation. The relationships between

players in the field were also beginning to shift as a result of networked technologies. “Content creators of all sorts have increasing opportunities to connect directly with listeners and users, bypassing conventional distributors and stations (p44).”

The authors feared that the direct connection of creators and users would threaten the fragile institutional balance that had grown up between stations and content networks — particularly stations and NPR. “These shifts strain relationships within the public radio field and put both national and local business models at risk” (p44). If listeners could give directly to content creators and by-pass their local stations, then not only would station business models be at risk, but the kinds of heavily subsidized activities which stations supported (like training new producers, or investing in local news), would also be at risk.

The final threat posed in “Grow the Audience” was posed as question of “A shift in who is us” (p45). “The networked environment lowers barriers to entry and allows many new entrants to claim a role as public radio or, more likely, public service media. These emerging entities are staking claims to public attention, public policy support, and public funding” (p45). On the one hand, radio broadcasting was partly born from such a question of “who is us” when the CPB was forced to come up with guidelines for Community Service Grants — sorting which noncommercial stations would receive public broadcasting support and which would not. Yet the report authors feared that the digital space added even more complexity to the question of who could claim the public media mantle:

> “At the leading edge of the public service media organizations that work entirely in the non-broadcast, networked space are entities with greater use, visibility, and support than those at the trailing edge of the public radio system. A growing number of communities have nonprofit, online-only media groups that, though they may lag far behind the local public radio station in daily reach, are the equal or more with respect to community partnerships, number of journalists, or foundation support. Public radio has only just begun thinking about how it will relate to these online-only efforts – as competitors, as colleagues, as partners, or something else” (p45).

The authors had put their fingers on the existential threat at the heart of digital

transformation in public radio. The affordances of digital media technologies would strain and perhaps re-arrange the relationships between existing institutions. But it would also raise a deeper definitional question as a new breed of digital publishers could use the language, mission, and business model of public radio to craft stories and build audiences of their own.

It was this final possibility — a shift in who is us — that roared onto the scene with the rise of podcasting.

Public Radio Responses

The response from stations to changes in the media landscape has been varied, reflecting local conditions and the mix of staff and resources. Some large, well-resourced stations, such as WNYC in New York and KQED in San Francisco, have been able to build out strong digital media capabilities. Other small stations have struggled. Three main trends have predominated in digital news, digital membership, and digital audio.

Digital News

While the first wave of station digital efforts was simply to get online, often with nothing more than a schedule and station staff list, over time stations with resources and news reporters built out their own digital news offerings to complement radio broadcasts. Digital stories were often simply re-writes of radio stories, accompanied by an audio clip and a photo. Nationally distributed shows, such as Marketplace and Here and Now, employ full-time digital producers who sole job is to "webify" audio stories and post them to the show's website. NPR itself has built a huge online audience to its digital news site. Indeed, while NPR doesn't own its own broadcast tower, it does own NPR.org — and in the age of digital media, that property has

proved very powerful indeed.

Yet outside of NPR, digital news (local and otherwise) in public radio is a difficult endeavor. Conforming to the cycles of broadcast production means that digital producers are often scrambling to complete their work around the radio broadcast. And as the digital news distribution landscape has become more complicated — with social media platforms driving most of the traffic — simply putting a radio story on the web is not a guarantee of audience.

In an effort to boost local stations' ability to create high quality, digital text content, NPR with CPB funding launched Project Argo in 2010. The goal of Project Argo was to help local stations develop digital content verticals that catered to the interests of their local audiences. Though the stories generated in the verticals could find their way onto the air, the primary purpose of the verticals was to help stations develop robust digital news audiences. In 2011, NPR announced the official end to Project Argo support, and with the absence of outside funding, some stations shut down their verticals but some continued producing them, rolling the sites into regular station operation budgets.

Digital Membership

There is perhaps no more hot issue in public radio digital debates than the status of digital membership. The financial and governance agreement between local stations and NPR, with its origins in the NPR budget crisis of the late 80's, states that NPR will under no conditions solicit donations from the public radio audience. All listener support is to be funneled through the NPR member stations and to NPR itself in the form of carriage and membership fees. In the radio broadcast medium, this configuration makes sense: the stations own the broadcast towers, hold the noncommercial broadcast licenses, and those are the means by which audiences can access

NPR radio content. In the digital media world, there is no such natural technical gating function. NPR.org has been called by some station managers the "original sin" of public radio in the digital era — and for good reason. The moment NPR decided to launch NPR.org, it opened up a pathway for audiences to access NPR directly, without any intermediation of stations. The history of NPR digital efforts since the launch of NPR.org has been a series of contortions and negotiations to try to fit the NPR/station broadcast relationship into a digital frame, often with quite awkward results.

This is nowhere more obvious than in the realm of digital membership. Compared to individual stations, NPR.org receives the bulk of web traffic to public radio properties. But if a user feels so inspired as to want to support NPR, the only way to donate is through a local station portal. NPR.org asks users to localize their site experience by selecting their local station. If the user chooses to disclose their local station (if they know which one it is), then the "donate" button on the NPR page will take the user to the digital donation portal of that local station.

That all of the brand loyalty and audience engagement that NPR cultivates with its listeners in digital media has to be funneled through a patchwork of local station sites is problematic for recruiting new donors, especially those who don't have an affinity with their local public radio station. The lead generation for new members which NPR.org could build has not been fully taken advantage of because of the complication station/NPR relationship. The NPROne app, which requires an email address and local station choice to use, collects and sends those addresses to local stations. But local stations vary widely in their ability to use those email addresses to solicit new members.

Public Radio and the Podcasting Renaissance of 2014

Yet of all the developments in digital media, the one with the potential to be the truly existential threat to stations and to the whole of public radio, is the resurgence of podcasting. Originally the province of audio nerds with iPods, podcasting retains a close link to the internet as it is based on a web protocol: a "podcast" is an mp3 files encased in an RSS feed. This format made podcasting an easy and simply distribution format for public radio shows, many of which were available as podcasts long before the podcasting boom of late 2014.

A number of technical and cultural factors came together to launch podcasting from the margins towards the mainstream in 2014. First, mobile smartphone penetration rates in the US and Europe had reached almost full saturation. What had been a popular but clunky user experience for finding and downloading podcasts—hooking up an iPod to a computer with iTunes and syncing the downloaded mp3 files—became much easier with the default iOS podcasts app which came pre-installed in iOS version X. Better mobile connectivity, and cheaper data, meant that users were less concerned about the data usage to download a podcast. And the on-demand media consumption behavior made popular by Netflix and Spotify made on-demand audio an understandable and desirable media habit.

Public radio content producers were early podcasting adopters. In fact, while there are a number of mythologies surrounding the birth of podcasting, the most compelling and important one entwines public radio, the birth of podcasting, and the Berkman Klein Center at Harvard University. The journalist Chris Lydon was a popular public radio host of the show *The Connection*, produced at WBUR and syndicated around the country. In 2003, a contract dispute between WBUR management and Lydon led to Lydon's firing. Lydon, without a radio show and figuring out what to do next, became a fellow at the Berkman Klein Center (then the Berkman

Center), around the same time that blogging was taking off as a distributed digital media format. Lydon wasn't so interested in starting a text blog, but he was interested in the potential of blogging for audio. Dave Winer, a software developer who was also a fellow at Berkman at the time, was interested in adopting the RSS to audio blogging. Together, Dave and Chris (and his now-unemployed public radio podcast production team — Mary McGrath and Jake Shapiro), set out to release a series of interviews on the web, produced as mp3 files wrapped in RSS. This innovation — a combination of blogging syndication and audio technology — is what eventually launched the podcasting revolution.

Since the mid 2000's, NPR and other major radio producers have released popular national shows like Here and Now, Marketplace, and OnPoint as podcasts for time-shifted listening. NPR had also experimented with hosting and launching new, digital-only shows as podcasts under its brand "alt.npr". In fact, NPR launched its own directory of podcasts on August 31, 2005. Podcasting was an easy step for stations and program looking to increase their audience through digital distribution. And given the poor fit of audio for the web—which was born as a text-first medium— podcasting was one of the few internet protocols that could help audio producers find a digital audience. https://www.npr.org/about/press/060523.podcast.html

Perhaps it makes sense, then, that the mainstream cultural renaissance of podcasting in 2014 would spring from the world of public radio. Two podcasting innovations grabbed national attention in the fall of 2014. The first was the release of Serial by the producers of This American Life (TAL). Serial was created by TAL staffer Sarah Koenig as a series of episodes following the unsolved murder of a teenager in Baltimore, Maryland.

The intimate, audio-rich, narrative documentary style of Serial was a hallmark of its parent radio show. TAL was, and still is, one of the most popular public radio programs, and its

podcast in 2014 was consistently in the top two dozen downloaded shows on iTunes (and still is). Its eclectic host Ira Glass has influenced the sound of a generation of young audio storytellers. The national radio distribution of TAL, its popular podcast, and its loyal fan base made it an ideal platform from which to launch a new show that could kick-start a cultural phenomenon. Before the first episode of Serial was released, Glass promoted the podcast on his radio show, after which Serial topped iTunes' download charts without a single episode having been released. Suddenly, people who had never heard of a "podcast," much less how to find one, were fiddling with their phones to search and download the podcast.

Writing in the New Yorker at the time, Sarah Larson explained the magic formula that came together to produce the outsized success of Serial:

> "Serial" has an irresistible concept, one that seems obvious and inevitable as a form: a season-long exploration of a single story, unfolding over a series of episodes. Combining the drama of prestige-television-style episodic storytelling, the portability of podcasts, and the reliability of "This American Life," the show has been, perhaps not surprisingly, ranked at No. 1 on iTunes for much of the past couple of weeks. It held that position even before it débuted. (October 9, 2014)

Yet this was not the only important podcasting development to come out of public radio in the fall of 2014. In February of that year, The Public Radio Exchange (PRX) and the veteran audio producer Roman Mars had launched a new podcast network, *Radiotopia* with a grant from the Knight Foundation, sponsorship money from MailChimp, and funds from Mars' successful Kickstarter campaign. The network's podcasters—who could be more accurately described at the time as "independent audio producers"—had each worked in public radio, at various stations and shows, but had also created their own shows on the side. Some of them—Mars in particular—had been able to run their own successful fundraisers through platforms. Much like Glass, these audio creators were *from* the public radio system, but not completely embedded *in* it.

The purpose of the network was to help the shows grow their digital audiences and bring in more revenue than each could on their own. To do this, in contrast to the wholly-owned

relationship between Serial and This American Life, the Radiotopia producers were formed into a loose federation with each other and with PRX as the fiscal sponsor and distributor. The network was bound by a set of agreements to help the podcasters promote each other's shows, share the sponsorship revenue that PRX was able to raise for the network, and engage in joint fundraising. Shapiro and Mars compared the network to an "indie label" — and the branding, visual design and messaging of Radiotopia indeed took on a tone and feel much like the indie SubPop or Saddle Creek record labels. The shows shared an "affinity around sound and an aesthetic approach" Shapiro told the public radio trade magazine *Current*, but the shows continued to operate independently (Lapin 2014). Later that summer, American Public Media — a producer, distributor, and station operator based in Minnesota — launched its own podcast network, Infinite Guest, with a set of existing broadcast shows, independent shows and new programs.

On October 14, 2014 — eleven days after the debut of the first episode of Serial — Radiotopia launched a Kickstarter campaign to raise funds for the network's shows. The staff of PRX thought the $200,000 goal was reasonably ambitious. Mars' 2012 Kickstarter campaign for his popular podcast 99% Invisible raised $170,000 on the platform — and became the most successful campaign in the "journalism" category of Kickstarter. Within the first four days, the campaign had exceeded its $200,000 goal and was on the way to having 5,000 backers. By October 21st, it had reached $250,000, and on October 24th, Mars announced a stretch goal of $400,000 and 20,000 backers with the intention to bring on three, new female-hosted shows into the network. By the first week of November, the campaign had reached its stretch goal (double the amount of its initial goal) and set a new goal of $500,000. A week later, the campaign reached 20,000 backers. When the campaign closed on November 15, 2014, it had raised

$620,412 with 21,808 backers. This was an astounding number to PRX staff and the Radiotopians, and became the highest-funded radio/podcast project on Kickstarter.

A final public radio podcasting experiment unfolded in 2014, this one also originating in This American Life, but firmly and intentionally outside the bounds of the public radio system. In June 2014, Alex Blumberg, who had been an Executive Producer at This American Life and co-hosted the popular NPR/TAL economics project *Planet Money*, announced his plans to launch his own for-profit podcast production company. In September 2014, a month before the debut of Serial, Blumberg released the first episode of his new podcast Start-Up, which chronicled his efforts, along with his partner Matt Lieber, to raise funds for the podcast company that would become Gimlet Media.

Blumberg, like Mars, was inspired by a successful Kickstarter campaign experience. In 2013, for *Planet Money*, Blumberg had run a campaign to fund an investigative reporting project that would track the production and distribution of t-shirts through the global supply chain. Each contributor to the campaign would get one of the t-shirts tracked in the reporting. The Kickstarter page for the project explained: "Almost every single t-shirt out there -- from the cheesiest vacation tank top to the fanciest boutique designer tee -- is the result of a complicated global odyssey. We will take you on that odyssey and document the route our t-shirt took to your back." And similar to Radiotopia's later success, the campaign—run for 2 weeks in May 2013—set out to raise a modest $50,000 but ended up raising $590,807 with 20,159 backers.

On October 9 2014, in the few days between the launch of the first episode of Serial and the start of the Radiotopia Kickstarter campaign, Technical.ly Brooklyn reported that Blumberg and Lieber had raised a little over a million dollars in seed funding for their "American Podcasting Corporation" (later renamed Gimlet Media). The Start-Up podcast rose to the top ten

charts on iTunes, alongside Serial. Eventually, Gimlet raised a total of $1.5M in seed funding in late 2014, a Series A round of $6M in December 2015, a Series B round of $15M in August 2017, and a $5M investment from WPP in September 2017. The company now owns and operates 17 podcasts, with revenue coming from advertising, membership, and branded podcasting content.

Chapter 6: Innovation

Introduction

The standard managerial prescription for dealing with many forms of technical change, including disruption, is the creation of semi-autonomous innovation units. In fact, the use of autonomous and semi-autonomous organizational units for exploring new technologies, new markets, or new business models is a well-established in the organizational adaptation literature (Smith and Tushman 2005, Adler et al 1999, Gibson and Birkinshaw 2004, Tushman and O'Reilly 1997, Christensen and Raynor 2003). These units have the advantage of operating outside of the everyday routines and pressures of life at the core of the organization. The innovative products and services developed in these units, once proven, can become the basis of a new organization or be adopted by the main organization as a replacement for obsolete products or services (Tushman and Smith 2002).

This chapter follows the launching of the station's semi-autonomous innovation unit, The Innovation Lab. The question driving my description and analysis of the station's launching of the Lab is as follows: How did the station's pursuit of its public service mission influence the launching of the Lab? What problems did the Lab encounter in its early days and how did it resolve them?

1. The Innovation Lab

The Lab was clearly modeled on the academic literature surrounding semi-autonomous innovation units. An early report on the activities of the Lab stated this rationale explicitly:

"We have learned that we need to step back from the day to day business of running a leading public radio station, if we are going to have any success solving the challenges the system faces as it transitions to a digital platform. The timing to take on this challenge is when our station is on strong financial footing rather than wait for the inevitable disruption that has already taken its toll on other media outlets like newspapers and television."

The ambitions for the Lab were both institutionally selfish and self-less: a gift to the public radio field and a laudable show of strength and resolve in the midst of massive changes in the media landscape. The original grant application described the problems facing public radio in this way:

WABC wants to invest in its future now that it still has the means to do so and proactively chart out a business model through a time of disruption. Traditional, on-air public media fundraising and underwriting have been challenged by audiences shifting to online and mobile listening platforms with significantly lower advertising rates. Another challenge to the public radio business model is the growing trend of unbundling content. Podcasts like This American Life and Planet Money are experimenting with their own fundraising campaigns. Finally, the Knight-funded NPR One digital listening platform currently in beta may further disrupt fundraising patterns.

At an abstract level, it was a fine reading of the fundamentals of disruption. There were more places for listeners to get their news and talk audio than just on the radio, and many of them were cheaper and of lower-quality. Many were also simpler: while podcasting was just beginning to hit the mainstream when the grant was finalized in early 2014, some marquee public radio shows had already been using their podcasts to test out their abilities to reach and monetization audiences beyond the distribution system of local public radio stations. Unbundling and technical innovation were shifting the basis for how people listened to radio shows. And, of course, no one really ever liked the on-air pledge drive.

These three themes of Lab's design — the importance of finding new revenue models, the separation from day-to-day station operations, and the motivation to act while the station was on strong financial footing — were constructed in large part against the station—and the system's—fear of disruption.

But just how good of a fit was the idea of disruption and the prescription of a semi-

autonomous innovation structure for the challenges the station was facing? As it turned out, the fit was somewhat odd. This chapter will show how the Lab encountered three types of problems in its early days: problems of autonomy, problems of audience identification, and problems of audience definition. The Lab encountered these problems because the diffuse nature of the station's traditional public service mission clashed with some of the fundamental principles of semi-autonomous innovation structures, in particular the Lab's audience-first approach to public service.

2. The Passionate Alien

Semi-autonomous innovation structures are fundamentally tools for exploration (Benner and Tushman 2015). That is, they allow organizations to continue pursuing business as usual—exploitation—while also exploring what new products, services, or markets might be profitably served next. Especially in the context of technical change, the exploratory activities of segmented innovation units can be a particularly powerful way to prompt organizational evolution and change (Gibson and Birkinshaw 2015). But the trick with balancing exploration and exploitation is for senior teams to understand from the beginning that the cultures, practices, and orientations of the people who do the exploring and the people who do the exploiting will, by design, be very different (O'Reilly and Tushman 2013).

These principles were in operation at the station. The station managers were well aware that the person who should run their Lab should not be a traditional public radio professional. Thus, a crucial early decision for how to get the Lab off the ground involved finding the right first director. Yet this was not an easy task. On the one hand, the station could look for a public radio person—someone familiar enough with the fundamentals of the system and with stations to understand the kind of context they would operating in. Public radio is in many ways a highly

closed and idiosyncratic group of practices, organizations, and values. Figuring out what was there to be used and repurposed (and avoided) in the creation of a new business model would not be an easy task for someone with no public radio experience. But on the other hand, The General Manager Michael was clear that he wanted an outsider to public radio. He told me: "I am not going to try to run this, I want a "passionate alien" who can run it. We are not looking to optimize on current models. We want someone who can do "landscaping" — who can look around and see what's out there."

But just what an "outsider" meant was also not clear. Someone with experience in digital news? Someone with experience in digital media? Someone with a product innovation experience? The job posting for the director position was ambiguous on the precise nature of the background and experience in an ideal candidate, and equivocal on the role of public radio experience:

- Visionary capacity to think outside existing business models while embracing the enduring values of public radio.
- Proven ability to successfully build products that have had an impact.
- Experience leading a team of makers and innovators.
- Comfortable in beta.
- Effective communication skills that can focus the energy and the effort of the WABC Lab team AND communicate effectively with station management team.
- Relentlessly persistent and resourceful. Data-driven.
- Strong project management skills.

Finding this person would not be easy, and ultimately it was the Digital Director, Aaron Morris, who found her. Because although Michael, the General Manager, was the sponsor of the Lab and took ultimately responsibility for its launch, from the beginning the Lab's internal champion was Aaron, the executive in charge of the station's digital products. He was similar in age and background to the General Manager. A white man in his early sixties, he was also a local newsman with a long career in television before making the leap to public radio. But while

Michael was, whether by temperament or training or role, more focused on broadcast, Aaron—despite his years in television—was a digital evangelist. He saw himself and his team as the grain of sand in the proverbial oyster of the station—the constant irritant necessary to transform the organization from a radio station into a truly multi-platform media organization.

That Aaron was not always successful at this, and the toll it took on him and his team, shall become apparent. The role of internal change agent is not an easy one. Aaron could be both hard-charging and disengaged from his station colleagues. He could build things and protect them from station interference, but he could also isolate his projects and end up with surprises he had not anticipated. His relationship with Michael the General Manager, could swing wildly (and sometimes unpredictably) from adulation to bitter misunderstandings to outright conflict. As much as the General Manager spoke about "digital" becoming the saving grace of the station, he also found it to be a "cost center" with confusing needs, metrics, and, above all, consistently underwhelming results. These aspersions, as much as their clash of management styles, could wear on Aaron.

But for the story of the Lab, suffice to say that Aaron was, by turns, its promoter, protector, and guide. It was Aaron who met regularly with the HBS kitchen cabinet in the early days of the Lab, made sure there was a pipeline of qualified Lab director candidates to choose from, pushed the General Manager to make decisions, and worried about how to get the Lab off to as best a start as possible. Aaron was also my first contact in the field—the kindred spirit and guide that every fieldworker hopes for—who sat me down at his desk on my first day at the station and pulled out the station org chart and walked me through it. And our first conversations were also about the Lab.

Aaron, by that time more deeply steeped in digital media culture than Michael had a vision

for the Lab that was much more experimental and free-wheeling in its approach than the General Manager's. While it became obvious that the General Manager's ideal Lab would be akin to the iconic Bell Labs—with highly trained scientists driven by precision and the scientific method seeking the next big product innovation—Aaron's ideal Lab more closely tracked the cultural attributes of Silicon Valley start-ups. Constant iteration and testing, "beta" products, speed over perfection: those were some of the values latent in Aaron's vision of what the Lab should be. He shared with me his vision:

> The vision for the Innovation lab is to be a rashomon, to rethink the business model of public radio. What is the next on-air fundraiser? It needs lots of at-bats, singles and doubles versus swinging for the fences… we want to know the problems we are trying to solve…. the station is a vortex, it's ready, shoot, aim and everyday, and it's hand to hand combat for revenue from donors and on-air messaging. With the Innovation Lab we want a digital native person to figure out, who is a digital consumer? If you don't have a car, you don't have a radio, so the whole concept of the radio changed, and will change even more with connected cars. The point of the Innovation Lab is not to solve the current problems, it is to look 2 years down the road.
>
> So, I see the Innovation Lab as doing a few things: looking at better ways to do our business and developing new business models. For example, maybe we're not in the content business anymore, maybe we get into the platforms business, maybe we invest in enterprises perhaps that might have an application in public radio, leveraging the knowledge and institutions in the city, including local universities and hacker communities. We want strategic and products and a set of test kitchens that could be us or could be stations who can beta test. We will partner with anyone! The Innovation Lab will try this, see where it goes, and fail fast. It is critical to find someone to work with makers and who can work with the executive and find funding.

The position took 6 months longer to post and fill than the station had promised in its grant application. Complicated licensee hiring requirements dragged out the process of posting and recruiting for the position. And once Aaron (in consultation with the "kitchen cabinet" of HBS advisors), had narrowed the pool to five final candidates, the General Manager had found it difficult to choose between them.

But at last, choose they did — Jessica West, a woman in her early forties with a background in digital media, advertising and marketing, began in early spring 2015. Jessica had run an internal innovation Lab before. This was a definite strength—she had experienced the politics

and pain of internal innovation units before and would no doubt be bringing those insights (and battle scars) to the station. She had also worked as a software developer, and knew the process of software development and the peculiarities of digital media products. But above all, as a marketer, she understood the importance of messaging, branding, and audience research. Her last major piece of marketing work had been to lead a cross-disciplinary team of designers, advertisers, and marketers through a multi-media, multi-platform national campaign. She knew how to test, develop, and market.

Yet crucially for her approach to innovation, and the trajectory of the Lab, her primary method was not scientific, but came from service design. Human-centered design (Brown 2008) is part of an emerging occupation of service designers which use practices of user research, visualizing, and prototyping to help organizations create new services (Fayard et al 2017, Kimbell 2011, Mager 2004). As Fayard et al. explain in their study of service designers' attempts to create an occupational mandate, while the practices of human-centered design draw from different disciplines, the ethos or values with which these designers take up their work — approach problems with a holistic approach, employing empathy for all stakeholders surrounding a problem, and engaging in co-creation — are what distinguish their occupation from management consultants on the one hand, and marketers on the other (Fayard et al 207). While Fayard et al. situate the rise of service designers as an occupation in the changing nature of white-collar work and increasing importance of the service economy, the occupation's focus on users and co-creation positions their set of practices and values as highly resonant with digital media. And indeed, service design is very similar to the set of digital product design practices in the popular Lean Startup method which characterizes much of the current entrepreneurial culture (Ries 2011, Blank 2013, Muller and Thoring 2012).

3. The $10M Idea

The issues of autonomy and problem definition surfaced even before Jessica set foot in the building. The senior managers themselves had trouble figuring out how they were supposed to relate to the Lab, and what problems the new Lab director was supposed to solve. Part of the reason for the confusion was that Michael as the General Manger, and Aaron, as the head of Digital, held different ideas about how the Lab was supposed to work and the proper scale of its ambition. But the confusion also stemmed from the variety of analogies the managers use to understand the challenges the station was facing.

These multiple and conflicting interpretations were on display in a meeting held just before Jessica's first day. Jessica's hiring and joining the station generated considerable excitement. I had been at the station for three months when, in mid-March 2015, Michael convened the business-side station managers in the station's small central conference room to discuss Jessica's hiring and what he hoped she would do. Jessica had not started yet, but the General Manager saw it as an opportunity to set expectations amongst his senior team members responsible for revenue for what she would be doing and how to work with her.

The conference room was dominated by a large rectangular table with a dozen chairs around it. There was barely room to walk around the edges, though sometimes random chairs from around the station would be pulled in at odd angles to accommodate late-comers and overflow. This was one of two usable conference spaces in the station that truly had some level of auditory privacy, beyond the executives' offices. The conference room was situated just off the station's lobby, and while it had no windows, it was paned with glass on one side—making it something of a rotating fishbowl of station business. While sometimes the blinds would be drawn for privacy, at other times they were open—or open enough—that a passerby could peak in and see which team or group had managed to commandeer a few precious minutes in the conference

room.

The afternoon that the General Manager Michael kicked off his first real introduction of the Lab to the station, all the revenue streams were collected in the conference room: Jonathan Simmons, the head of membership and one of his team members; the station business manager Thomas who ran the underwriting and national syndication teams and oversaw the membership team, and one of his salesmen; Donna, the head of development. Aaron, the head of digital, was co-hosting the meeting with the General Manager Michael and though the two did a reasonably good job of sharing air time at the beginning of the meeting, eventually Michael took over the conversation.

Although the management team had been kept abreast of the general developments of funding and standing up the Lab, none of them had really been briefed on who the director would be and how they would be expected to work with her. This meeting was Michael's—and Aaron's—opportunity to set the table for Jessica's arrival with the senior executives who she would be most likely to "disrupt."

Michael the General Manager, began by emphasizing the institutional pedigree of Jessica's background: she had been the leader of an internal innovation Lab, she had created a successful national advertising campaign, one of the first truly multi-platform campaigns. She was "a national star" in the marketing community. She had left her previous firm to start her own consulting firm and had done some environment campaigns.

Aaron picked up on the theme of her noncommercial heart, but shifted somewhat to what he was most interested in: her experience as a "maker":

> "She is advertising and marketing savvy, but has dedicated her work to nonprofit causes. So she takes a commercial approach to solving these kinds of problems. She is also a maker—she has done coding. And she has a strong network in the "maker" community. This is in addition to her agency experience—doing research and strategic rollout of creative. She came with great references—there are very few of her around."

With her bona fides established, Michael laid out that, despite the ambition, this would be a short-term initiative: "This will have an end-date, this is a journey. We want to come up with breakthroughs and then close doors." But at the same time, there wasn't enough funding for the Lab to build out a real team— for that he would be relying on Jessica and the development team to help raise more money for whatever Jessica thought it was necessary to do. Michael also emphasized how important it was that the Lab be separate from the station's activities. Whatever the HBS advisors had shared with Michael about how to set up a Christensen-type Lab, the importance of separation had seemed to make the most impact: "The Lab won't be here" he repeated.

Yet even with this relatively benign preamble, the ambiguities and contradictions in the Lab's mission, and the differences between Aaron's and Michael's visions began to seep through. For Michael his greatest fear was that the station would suffer the fate of the newspapers in missing the fundamental economic differences between print and digital (this is a bit of revisionist history, but in any case). This was a recurring theme in Michael's thinking about the Lab, and it spilled out again in his attempts to explain to his revenue leaders what, exactly, the problem was that the Lab was supposed to solve relative to what they were supposed to focus on:

"You guys are the best underwriters in the country. But we know that consumption patterns are changing— there's more digital consumption and that will change how we raise money. We can see from newspaper business, that even though they have enormous, robust digital consumer base in addition to their dwindling print consumers, the print consumer was 100 times more valuable than digital consumers. That was the calculation that the newspapers missed. They said, we don't care how they consume it, we will monetize it. but the context of competition makes a huge difference. If you are the only newspaper in town, you can charge high rates. Online, you have many more competitors and lowered rates. That was how newspapers miscalculated. For me, I am trying to understand, are we at a cliff like newspapers did and they had a crisis? Well, I'm not sure if this is a cliff or slow diminution. We could look and say, it's harder to get new members, it's hard to grow individual gifts, it gets harder and harder to manage major gifts.

But people think of us differently. We are in much better shape than newspapers in many ways, we have many strengths. But I want to have open conversation with how we interface with this Innovation Lab. You all will have to play some role, but there is a good reason we don't want this here. All of us here are worried about our goals and target for now. That is our obsession, and I don't want to be deflected from that. And because of that, none of us have the time to explore an unknown future, and come up with radical ideas outside the arena we are working in.

That is the idea of creating this lab, and having it outside the building, so it's not your concern."

There were two important distinctions lodged in Michael's thinking about the Lab which would come to have far-reaching consequences for its trajectory. The first was his emphasis that the Lab be autonomous, and separate from the day-to-day activities and culture of the station. The second was that Michael saw the troubles facing the station as analogous to the conditions which were decimating the newspaper industry. Yet his stance on the Lab's autonomy, and his definition of the station's problems, were in an uneasy relationship to the mission of public radio.

Indeed, the mortal fear of suffering the financial fate of newspapers, and the impetus this existential threat provided to take seriously cautionary tales of Christensen, did not quite provide all of the necessary ingredients for the Lab. Because while Michael hammered home to his executives the importance of separation and continuing to meet their targets and improve their work, he also understood that public radio was a sacred enterprise, and that Jessica would, at the beginning, understand almost none of it:

"On the other hand, she has to understand our current model if she wants to help us transition to a new one with radical new ideas we hadn't thought of. Some of it, like going to SXSW, is going to be a research project. Or a journalistic project—we want her to understand what is already out there. It is such a big wide world, and without understanding wider trends, we don't know what we should focus on. We all know we don't have the time and it's not our responsibility to figure this out. So, when you think about how you will be able to work with Jessica, we need to get her going on the right direction as she learns and works, but also expect that she keeps a distance far outside boundaries of our world."

Thomas, the station manager seemed to immediately grasp the practical contradictions this might create, and he pushed for clarity from Michael:

"So you are saying she is NOT going to make membership, underwriting, and donation "better" but create a parallel universe that isn't an improvement or enhancement on what we do today?"

This question posed an interesting dilemma: did Michael actually mean that Jessica was supposed to leave all elements of the current business model alone? Michael attempted to clarify:

"If she can come up with something radical, like harness a new technology in radical way, that would be on her plate. But the incremental growth and tweaking that will make you do a better job, that is not her job. So, what's the goal, if she comes up with a million-dollar idea? Like if she comes up with the next Auto Donation program, we will

happily say, let's do that, but go back and do something serious.

Because, you see, a million-dollar idea is not what we are looking for. But a 10-million-dollar idea? Yes! We have two big revenue streams—philanthropy and underwriting. Is there some other way of generating revenue that is big and transformative? Or is there something that is transformative that she can apply to the two big buckets we have? But that would have to be way outside of best practices—because you represent that. We generate more philanthropic dollars than any other station; and on underwriting too. So, we are setting the standards already. But as you said, Thomas, tweaking is not what we are looking for here."

It is difficult to overstate the scale of ambition here. The station was a roughly $30M operation. Figuring out how to bring in $10M in a way not tied to the core public radio revenue model (philanthropy and underwriting, which is essentially nonprofit advertising, with a smattering of events and syndication revenue), in a media business environment in which audience revenue and advertising are all anyone has been able to figure out in any medium for the history of media, would be a heavy enough mandate. But to do it in the course of a 2-year project with no money for staffing and an ambivalent relationship with the institution was an incredible request to make of anyone. Perhaps this is why Aaron, hot on the heels of Michael offered up to his colleagues his own (contradictory) take on what the Lab and Jessica would be up to:

"Just to throw out one thought we had, she is working on ideas using design thinking—design thinking is all about solving problems. So one thing to think about is, what are your large problems, what is the feedback you are getting, like "I wish I had this" or "there should be a this" or "wouldn't it be great if we had this" — if there are those themes coming up, like if someone solved this problem, we could spend 1/10 of the time doing what we do. Those are the questions she is probing for. The other thing is, we want to take this from the Lab to the System. So I think she will want to use WABC as a proving ground. We will have to be proving ground for her processes, so it's important to have an overall comfort level with her.

She is more likely to be seeking after you than vice versa. But if you say to her, like we need a way of syncing the membership database with Constant Contact—not so much that—but if someone could solve this I could swim laps at the pool all day. She is starting here next week — and we will get her set up with one on ones. Henry—have her answer phones, hang out at fundraisers. I am adding another tier in my office. So she will be present. Eventually we will be getting her into We Work Space or Work Bar which is where maker community work—people who aren't sipping the public media koolaid all day. We have never had anyone tapping the brainpower of city's tech network to solve our problems."

This was not particularly clarifying either. It was difficult to tell what exactly would be the middle ground between a $10M idea and a great time-saving device. And the irony was, as will become apparent later, syncing the membership database with the email marketing database

would have been transformative for the station's digital business — but that was explicitly off the table. So what exactly would Jessica have at her disposal, besides the city's great tech network, a WeWork space, and some time at the station?

Henry East, the head of membership, took the leap to express a mix of admiration and some anxiety about what this might mean for him: "I am ready to embrace it, this move seems essential. But it's daunting to think of where this connects to my business. And where does it connect to me versus corporate side? But from a big picture perspective, this is exciting."

Henry's worry and confusion made sense—a strong membership program is what set the station apart from its news competitors, and a huge component of what makes public radio a special institution. The trust and relationship a station has with its listeners is an asset that not many media organizations—let alone news organizations—have been able to build. And the volume of dollars that came from these members is the lifeblood of the public radio system. Though Michael was not particularly helpful in his response, Thomas, the station business manager—ever the public radio salesman—showed some understanding of Henry's anxiety.

Michael: This will take some time but shouldn't take a lot of time. We are rebuilding and reinventing the train as its going down the track. Someone has to run the train, and someone has to do reinvention. All of us are running the train, and we will have to work with her to reimagine it, and that is hard to do. The better you are at what you do, the harder it is to reimagine it. You know all these subtle things, you do them without thinking about it. You might never have dissected what you to do, in order to tell what makes up your success—some of that is still important, some may not be.

Thomas: But we leverage the passion our audience has for us, and that no one else does what we do. Companies, philanthropists, and members all love being part of it—that is a different way of being paid for what we do. And it sounds like her task is to figure out where that goes next. We don't have a lot of competitors because no one does exactly what we do — other people actually want to be on our island.

There were very different perspectives on the management about what constituted competition, and just how much competition they were dealing with. Aaron was perhaps the most connected to the nature of the digital competition. For him, looking out over the podcast landscape, it was this corner that could potentially pose a mortal threat:

Aaron: But what is on the horizon should scare you, if we make a great on demand experience, then no one is listening on the radio. Gimlet is creating distribution channels, Matt said, there will be a Gimlet distribution mechanism. This should scare the shit out of you what Jessica is doing, and what is coming down the pike as the new world. That is what gets our funder excited. We see the wall that is going to hit, and so we need help either pushing it away or making new tracks, no matter what we do, we will have to deal with it.

This was a common dynamic in management meetings when the discussion turned to innovation: different managers brought different reference points to the conversation which often embedded radically different ideas about the problems facing the station and what innovation was supposed to accomplish. Because of this, when there was a push for clarity or direction, the conversation would spiral around competing definitions of the problem rather than specific action steps. In this meeting, even though the managers were asking for clarity on the Lab's mandate, the idea of competition sparked another round of conversation on the right analogies to use to understand their situation. Michael turned to some of his favorite corporate analogies. He said:

"Let's look at two examples. Kodak, had 85% of market for photography, they invented digital technology. They had huge margins, are they willing to give them up for the new things? No. Now they are in bankruptcy. No yellow boxes anymore. If you read the business case on Kodak, you look at it and think, it was not savable. They have smart people, the technology, and there was nothing they could do. Maybe that's fatalist. Look at IBM, after years of having technologists come in to run them, Gerstner was a packaged goods guy, he never ran a computer company, never mind the largest one in the world. He looks at it and says, why are we still making electric typewriters—and he sells off typewriters and PC business, and he completely reinvents mainframe business—which is being attacked from underneath via collection of servers—he changes IBM from hardware to services company. We aren't about making the most powerful computers in the world, we will find solutions for you."

"They could have become DEC. Now they are one of the most successful companies in the world, still. As a service. He had a vision for an entirely different thing. Do you know what guts it would take to dismantle a business and then reassemble it? And he did it. He will go down as a hero of American business. So what will you learn from those cases? Kodak couldn't do it and IBM could? Or could Kodak have been saved if they gave up current margins and controls? And IBM, could they do that without Gerstner? They still control mainframe, but a tiny piece."

"Those two examples show you a willingness to look at the business with 180 degrees of difference—to imagine something different. Is that what we need to do? And even if we do see it, do we have capacity to do it collectively? I don't know, but this is one step in that direction. And I guess what I would say is, is there any part of what we do that we have to abandon in order to reinvent ourselves? Could be some of us, could not be. I've been having conversations with our board chair — as a person who doesn't understand our business, who doesn't understand the scale of our capital campaign, they say — you are doing well, so what is the problem? Why when you are booming, when you have grown 50% in 4 years, do you need to reinvent yourself? WHY he asked."

The search for the proper analogies for innovation was thus, in part, an attempt by the station managers to both diagnose the future and point the way to an explanation of the past. But this

desire for analogies—for a working definition of the situation—also highlighted some strange disconnects between innovation theory, corporate myth, and the station's actual financial situation: rather than falling off a cliff, the station had grown considerably in the last decade. So what was the problem the Lab was supposed to solve? Michael's difficulty getting his board to understand the trouble he believed the station was facing clearly weighed on him. And the MBA-case-fantasy of a heroic act of leadership and vision that would save the ship before it was too late seemed to soothe those fears somewhat, or at least offer some hope. He ended his rumination with a call to arms to his team:

"There is an irony of trying to do this when you are flourishing, that is the conundrum. Everyone would get it if we were struggling, in a weird way it's harder to do when you are doing it well. But I want you to keep doing it well. I am sure you will make a contribution to the success of the Lab. If you have problems or concerns, speak up and tell us what you think. I will count on you. We don't know what we are doing. We are groping in the dark. There is almost nothing you could say that would be "wrong" and maybe we won't know we have succeeded for a long time."

The issues of problem definition swirling around the senior managers—contributed to a feeling that they were "groping around in the dark," as Michael said. But those definitional problems were not limited to finding the proper analogies to explain success and potential failure. Without a good problem definition, it was also not clear to the senior managers what kinds of work the Lab was supposed to do save the station. In the absence of any clear direction from either Aaron or Michael— and in response to Michael's exhortation that "there are no bad ideas" — Henry and Thomas waded tentatively into the breach again with a trial balloon:

Henry: So one opportunity to raise money that I could think of, this might be a bad thought, but what other kinds of company relationships are possible in the universe of underwriting? We are different in that we don't have groups of companies that are oriented to working together on content. That is not fitted into our model now. We would have to search a bit to find good ones.

Thomas: Yes, Jessica mentioned that to me, that was her inclination in early conversations. She saw that we are so good at the content side, and companies are dying for that expertise, so how could we provide that service?

It was true—public radio and sponsored content were about as far apart culturally and

operationally as one could image. And yet, it was not without precedent in media organizations, even journalistically-led ones. The New York Times had launched T-Brand Studios to work with advertisers on its glossy magazine and other forms of sponsored content. And new media companies like BuzzFeed had attracted millions of dollars of venture capital on the premise that advertising could take many interesting blended forms on the internet. It would make sense that Jessica, with her background in advertising, would immediately grasp the large commercial possibilities available in a group of high-quality audio content producers. (This fact, too, was not being lost on a number of public radio veterans who were fleeing the system to start their own podcast companies at that very moment).

Yet the mission of the station, and its adherence to the kinds of journalistic values laid out in Chapter 2, also meant that, despite the shared sense of the problems, there were still bright lines that the Lab would be expected not to cross. Indeed, the idea of sponsored public radio content was decidedly NOT what Michael had in mind. He responded swiftly to Henry and Thomas's idea:

Michael: That is not interesting, that is a very bad idea. But that is perfectly understandable. Jessica is not a journalist, and she doesn't understand that line between editorial and business. So we will have to say to her, the premise of this thing is, we do not in any way want to undermine the value structure of this institution, and the process of finding a new business model is *not* about changing the fundamental product, based on fundamental principles of public radio and the values of journalism.

Having crossed the sacred line between business and editorial, Thomas backed off a little:

Thomas: Ok, okay. So maybe we help them with their corporate communication? I think she did not mean that we would collaborate with companies under our brand.

Michael: Well, ok, maybe there is an idea. We have to see what sticks, but that is a natural instinct for everyone outside of journalism—to harness that journalism in a way to gel with corporate messaging. Like with native advertising. But there are very hard lines that we aren't going to cross. She will figure that out quickly.

The irony of "no bad ideas" followed by an explosion of instinct to protect the boundaries of journalism shed some light on just how difficult being a "passionate alien" might be. Yet this irony passed unremarked, and so the meeting ended.

While there wasn't much clarity produced, there were certainly assumptions aired and conflicting messages laid on the table. As I followed Aaron back to his office, he and Henry grumbled to each other about what, exactly, the meeting had accomplished:

> Henry: What was the point of that meeting? It didn't seem like a great use of time.
> Aaron: Yes, but maybe from perspective of, those other guys hadn't heard this before, so now they have heard this from Michael.
> Henry: Sure, yeah, I guess that makes sense. This will be most painful from my perspective. Because it's not just about the business model, it's about the audience for that business model.
> Aaron: And if this gets sucked into a content business, it's dead. We don't need more content. It is the business model as it relates to how people give money to the station or other ways to make money.

These, in fact, were the much more pressing concerns that had gone mostly undiscussed in the meeting. Aaron and Henry were used to unproductive meetings, but the issues hadn't been worked through so much as lobbed around. The station's recurrent bias towards using any new resources to invest in more content was a real blind spot. Aaron experienced—and fought against—that force almost weekly in his quest to get more software developers on his team. To be worried that the Lab, too, would be sucked into the content game was entirely reasonable.

Henry was onto a different, and no less pressing, concern. The "audience for the business model" was the station's tens of thousands of members that he had so carefully and painstakingly cultivated over his fifteen years at the station. But his remarkable success at growing the station's membership program had also lodged Henry in a constant state of motion and stress. With each passing year, Michael and Thomas raised the stakes and expectations for Henry and his team to outperform the last year's membership successes, to find new ways of structuring pledge drives, to come up with new types of premiums that would lure members to keep up their support, to convert the station's one-time donors into recurring givers, and on and on. Much of the time I would run into Henry at the station, he would be in a hyper-caffeinated frenzy but also clearly exhausted, pulled taught by the successful machine he had created but also clearly on the edge of a breakdown. Jessica's arrival at the station, and her diffuse mandate to find new revenue

streams, would inevitably draw her closer to the station's membership. And it was not clear that Michael or anyone else had great advice to give about how that collision should be managed. And Jessica's first day would be the following week.

4. Filling in the Blanks

The definitional problems and questions about autonomy intensified as Jessica began her time at the station. Perhaps to signal her autonomy from the station, on her first day at the station, she did not attend the weekly strategy meeting. This was probably just as well, since by all accounts of those who attended (and my own experience), the meeting was often unproductive. It was nominally a forcing function for working through the station's ambitious five-year strategic plan (initiated three years earlier) to transform itself in a multi-platform organization. The graphic art that the station had commissioned as part of its brochure version of the strategic plan hung in poster form in the public function room of the station. A few extra poster prints, featuring the three strategic pillars of the strategic plan were shoved haphazardly, almost out of sight, between Aaron's desk and the wall, near the corner of his office where I usually wedged myself.

In addition to strategy art, there was a station mailing list dedicated to strategy issues, as well as a line item in the station's budget for related expenditures. But the weekly meeting was the core. In theory, the discipline of a weekly strategy meeting could have forced the senior managers out of their daily ruts and into a more thoughtful long-range planning conversation (recounting their daily ruts was, after all, the function of the equally-dreaded Thursday morning Senior Manager meeting). But instead, the meeting often devolved into a combination of report-out and jam session on loosely strategy-related topics. The Monday that Jessica began her Lab odyssey, as she was slogging her way through HR training, the managers shuffled as usual into

the central conference room.

My laptop had died, so rather than being able to capture all the details of the strategy conversation as I usually did, I took some clipped notes in my field notebook on the topics discussed: the good news that an organization occupying an adjacent office building had moved, opening up the potential for the station to take over the space and expand; progress on the station's plans to open an event space and what that space might look like; the pros and cons of open offices; the ideal location for studios versus the newsroom. Aaron attempted to duck out early so as to go fetch Jessica from the wilds of Abb HR.

Though there was no formal welcome for Jessica at the strategy meeting, I joined Thomas, Michael and Aaron in a welcome lunch for Jessica when the meeting ended, at the Mexican place down the street. Jessica acknowledged to the group that she would be bringing over some commercial practices into this world of noncommercial public radio. But at the same time, she said she understood how the relationship with the audience was so precious that she couldn't—and wouldn't—break it. This seemed to satisfy everyone.

We walked back to Aaron's office, and arrived to find Alex Abrams waiting for Aaron—who was late for their next meeting. Alex, the deputy head of digital, was recently back from maternity leave and was impatient and exasperated with all Aaron had let languish while she was away. Alex had the sharp mind, pragmatic bent, and cynical soul of the commercial media digital journalist she had once been. A generation younger than the boomer senior managers, she had survived the triple-whammy of a newspaper collapse, the housing crisis, and now maternity leave. And she was about as no-bullshit as anyone I have met. She had worked in digital at large television network and at a metro newspaper, and was part of a decade-long exodus of newspaper people into public radio. If anything got done in the digital world of the station, it was

partly due to Aaron's political cover but mostly due to Alex's ability to get shit done. This was not the first, or last time, Aaron was running late and Alex was sitting in his office waiting for him.

Aaron's office was a way-station, a haven, and a hideout for the digital natives at the station. For the first month of my fieldwork, I had taken up a daily perch in Aaron's small office. When Alex came back from maternity leave in February, it was often the two of us sitting side-by-side at the other end of Aaron's desk, our backs to the wall. Now, in late March, on Jessica's first day at the station, it became clear that we would have to pull in another chair — one that partially blocked the door, but at least granted some privacy. Jessica had been assigned a cube in the nether reaches of the development department at the other end of the station. Alex had a cube in the newsroom, just outside Aaron's office, but it was hardly conducive to the many hours she had to spend talking with Aaron, or on conference calls. It did, however, give her easy access to the station's digital news producers, whom she partly oversaw.

So after Jessica's first lunch, with the four of us in Aaron's office with the door closed, Jessica reflected on what was expected of her. She said she felt like her main task, at least at the outset, was to use her networks to expand the set of expertise available to the station, to "fill in the blanks" of the General Manager's more traditional network, and thereby bring a wider set of perspectives to the revenue problems facing public radio.

The idea of "filling in the blanks" was another uneasy fit with the autonomy Jessica was supposed to have. And it turned out that Alex had yet another definition of the problem to share with Jessica, this one from her own experience in newspapers, which suggested that her task would be bigger than "filling in the blanks."

"I have a different perspective," she shared. This was shaped by her experience working in

digital, in a newspaper industry that was “crushed.” “It’s de ja vu to hear all the same things over and over again,” she said, referring to how the station’s managers talked about digital innovation but struggled to integrate digital strategy. This was a big task, she said, and the revenue and audience threats were real.

Aaron looked appreciatively at Alex, “Alex keep us ahead of the curve,” he said. “She knows this place, but she sees the field as well.” Jessica talked briefly about the kind of team she wanted to build — a designer, a user experience person, a developer familiar with the Agile process, and a researcher.

And with that, Aaron took her out on a walking tour meet-and-greet of the station.

5. The Public Radio Core Values - Don't screw it up!

In her first week, Jessica was already navigating the push and pull of the station. Just how much was she supposed to learn about how things operated? The questions of operational autonomy—how close or far away to be from everyday station processes—were complicated by the fact that she knew almost nothing about public radio and its values, nor about the mission of the station. She was by turns encouraged to keep her distance, but also learn about some of the sacred principles of public radio and journalism.

This push and pull began in her first morning manager meeting. Thursday mornings at 9:30am, all the station managers filed into the central conference room for their weekly meeting. If the Monday strategy meeting aspired to be an out-of-time, reflective space on the strategic ambitions of the organization, by the time Thursday morning rolled around, the grind of duty called: there were weekly report-outs to be made, important updates on station business to be shared, and time for the station manager to pass around and perform a recitation of his 30-row,

seven-column revenue pacing report. Jessica was invited to the Thursday morning manager meeting that week. And when it was Aaron's turn to give his update, he introduced her again, sort of.

Aaron: This is a great week, Jessica has started. We have a redesign meeting on Friday, a high-level design review from Studio One. The velocity of that design will pick up, and they will be checking in more. The "present cast" podcast pages they built should be released in the next month. Michael and David saw it, Katie saw it, Paula will see it tomorrow. We are also interviewing for a managing editor job, and web editor job.

Jessica: It's been wonderful getting to meet the people behind the voices. (Paula—wait till you get to know them!) I am learning the basics, and over the next couple of weeks, I will make my way around, and get a better understanding of how news is made. I am also looking at other innovation centers around the area, then I will figure out how our lab gets set up.

Aaron: We are going to put a stand-up meeting schedule in place — Michael in on Mondays, meeting with Michael at 4pm.

Michael: We are glad you are here, you have challenging job ahead of you, but we feel like we have right person to lead this. We will all follow your growth with great interest. And you will be on your own to a large degree so you can think outside. You don't have to be up to your eyeballs in this like we are, you can be outside this.

David: So no pressure, just save public radio!

Aaron: It is so tempting to throw Jessica at things, but we want to keep her focused on what's coming rather than what we needed an hour ago.

This push away from the station was followed by another mix of push and pull — this time in some counsel from Aaron on the basics of public radio mission and values. Aaron returned from the Thursday morning manager meeting to his office for a check-in with Jessica on how her first few days were going. But he had some concerns to share too. He was worried about her getting too close to the station's daily grind.

Aaron: The thing I worry about is, the more you know about this place, the more you will be thinking like us. I am already swatting stuff down for you. I do so much protecting of my team, protecting them from WABC — there is a world of possibilities out there, and anything is possible. So I try to protect them, so they can work and experience that possibility. That is the advantage you have Jessica—your team is not weighed down by this organization. For example, take this desks problem that I am stuck with — our digital producer is at toy desk while the others are empty. She has not moved. We talk about parking and desks, and if you notice, I don't talk about much in a manager meeting—or people skip over me.

Yet she clearly did need to know more about the culture she was setting into, or stepping to the side of, in order to get started. Jessica's response was to probe more on what, exactly, she was supposed to learn from the station. "I'm interested," she said, "what do people look for when they choose a news story?"

Though Aaron was increasingly pulled into managing the digital product portfolio of the

station, he retained both his love for news work and partial oversight of the station's digital news teams. Jessica's question was an opening for him to reflect on the sometimes uneasy fit between traditional notions of journalism and the public radio version of it:

> Aaron: I can blink and see stories, I do have that gift. I don't have a wide band of competence for digital stuff, but I can help you with stories. BUT if I did word search on our site of "anniversary and WABC" — it would cover most of the original reportage on WABC. That what we do: polls and anniversaries — but those are not journalism. Like we are now working on a piece on the 100th anniversary of the Armenian genocide. We did a piece on the 40th anniversary of Vietnam. We did a piece on the 2-year anniversary of a this major city event. We do the 15th anniversary of blank. That is nice to have, but that is where we direct our special efforts. That is not storytelling, it's lazy, it's not creative, it's predictable. That told me something I don't know, I learned something I don't know, something I haven't heard before — that is what we should be doing.

It was true. The "news" coming out of the station's newsroom — and out of many local public radio newsrooms, to the extent they had a staff of journalists — was not exactly accountability journalism. The comfortable spot that public radio newsrooms could safely aspire to occupy beneath the umbrella of a strong metro newspapers was at best — in the words of a former NPR News Director — to be the "second newspaper" in a city. This wasn't far from what the WABC's news teams on both radio and digital were able to pull off. I sat in a number of morning digital news editorial meetings — with the two digital news producers and one digital report crammed into Aaron's office — in which he would ask, "what is on the city's mind today?" And the answer would often involve pulling up the local metro paper's home page, in addition to a rundown of what had been on station's local radio newscast.

So even if Aaron could see stories, there still wasn't much editorial capacity to go out and report them. The digital news team spent much of their time "webifying" the radio newsroom's stories, and their digital reporter was often tapped to do on-air stories which would just happen to have a web component. But the question of what constitutes a story was a good one for Jessica to puzzle, even though it raises the thorny possibility of getting tangled in content.

Yet the station's weak news capability wasn't because local news wasn't valuable to the

station, or that listeners didn't want it. There are deeply-ingrained cultural elements that underlie all public radio programming, news or otherwise, that influence what stations are capable of doing. And this was Aaron's second lesson for Jessica. He followed his takedown analysis of the station's local news capacity by explaining those elements:

Aaron: Have you heard of the Core Values? PRPD [the Public Radio Program Directors Association] created them. So there are certain ingredients that have to go into storytelling.

Jessica: Yes, right, I understand that is the mission of what we have to make.

Aaron: I could say, don't screw it up. But I would say, go as far as you can to scare the shit out of people but don't forget the values, or hone whatever product plan or future thing you are doing within those core values. The public radio core values will wear out your eyes. In 2003, when I got here, people were talking about Audience 88 as if it's holy, as if it happened yesterday. I was coming from a place being judged in 6 min increments, so had no idea what they were talking about.

Jessica: Yes, I get that legacy values thing. We did that with our national advertising campaign.

Aaron: Right. I think there are ways to get at it for you. You do need to know those kinds of things, but you may not get it from me. David Vance [the program director], is a keeper of that flame. Paula Bank, Jonathan Simmons or Jim Tanz [the news and program leads] may not get it. Karen [the executive producer of a national show] does.

The Core Values—and the landmark Audience88 study which helped pave the way—were the beating heart of the public radio institution, and so it was not surprising that this particular piece of culture should surface in her first week. Jessica seemed undaunted by the prospect of navigating cherished values inside a legacy institution. And she was experiencing the rush that all public radio fans—myself included—experience on meeting the faces of the voices behind the microphones. The personalities she was meeting and the values she was to incorporate would no doubt bring her very close to the heart of the institution. But would it also trap her in the operational complexity of the station? From the ridiculous circular conversations about parking and desk allocations to the sublime but never-ending slew of new program ideas, new initiatives, and exhortations for growth and expansion—there was a whole nexus of activities and meanings for her to both engage and avoid.

6. "Oh sh*t! I can't believe they did that!"

Part of the way that Jessica began to manage the problems of autonomy—both operational and cultural—was to focus directly on the senior managers and working to expand their existing assumptions about the audience and the mission of public radio. She also wanted to act quick.

Jessica was eager to get started doing something. As she began scouting space for the Lab and possible hires, she continued talking with her HBS advisors on what an early win might be. The HBS advisors encouraged her to think of the audience for the Lab as being outside the core listenership of the station — the non-listeners who didn't consider themselves public radio ilk, but who might share some of the same values. Who might these people be? What needs might they have that the station could fill on its way to re-creating a new business model?

Her idea was to set up a four day "blitz," hosted in partnership with an innovation consulting firm, that would bring together senior managers with non-listeners and new collaborators for an extended workshop on generating innovations. The animating idea, in bold type at the top of her proposal for the blitz, read, "What game-changing new businesses— inspired by listeners' unmet needs and built on WABC core strengths—might make the rest of public media say, "Oh sh*t! I can't believe they did that."?"

So a little less than three weeks after she began, she sat down in Aaron's office to go over what she wanted to pitch to Michael in advance of her weekly meeting with him. The proposal was expensive, and she would need to tap a significant portion of the funds available to the Lab. The presentation of the blitz idea to Michael would be an important moment for Jessica to figure out just how much autonomy she would have in Lab, and how well she might be able to thread the needle between getting to know the station and its public radio values and working on entirely new things.

Yet even in her preparations with Aaron, it became clear that there was some murkiness around role and responsibilities inside the station that would make autonomy difficult to enact. She had floated the idea of a blitz already to Brian Arthur, an advisor to the Lab, but he had asked her to make sure she coordinated with Thomas, the station manager.

This was confusing to Aaron. He had been advocating for his role to evolve into a positioned focused on digital revenue, a change which Michael had not agreed to, but as a result the digital revenue responsibilities were falling somewhere in between Aaron and Thomas. Aaron considered himself the de-facto point of contact between the Lab and the station, but Michael's inserting Thomas into Jessica's planning threw that into question. Jessica was also confused about why Michael wanted her to work with Thomas, and how she was supposed to include him. "Did Michael talk to you about your role and Thomas's?" Aaron asked. "Nope, it never came up" said Jessica.

7. The Segment and the Public

The problems of autonomy facing the Lab collided with the issues of problem definition as Jessica tried to get the Lab's first project off the ground. Negotiating operational autonomy while learning the public radio culture would have been difficult enough. But with so many theories circulating of how and why the station was in trouble, and how the Lab was supposed to save the station, it was perhaps inevitable that her first project idea would get stuck on definitional questions of who the Lab was supposed to serve and how it was supposed to go about serving them

The definitional problems turned around two very different understandings between Michael and Jessica of "the public." Jessica, bringing a human-centered design lens, and in line with

innovation theory, wanted to launch her work by focusing on the most promising segment of the station's audience, whatever that might turn out to be. But Michael almost immediately had trouble understanding how the language of an audience "segment" might square with the broad definition of "the public" that the station, as a public radio organization, was supposed to serve. This disconnect in understanding was on display as Jessica tried to pitch Michael on the "blitz, her idea for the Lab's first project.

Jessica and Aaron sat down on the couches in Michael's office to go over the blitz proposal, the challenge statements she had been working on, and what she wanted to accomplish. "The staff is anticipating Lab activity. I can feel it bubbling — people want to be involved," she began, "so if we do this blitz, it is important to get the challenges right. Maybe we could even start some of this with a half day with the senior managers." She started going through her draft list of challenge statements. The overall challenge was an encapsulation of what the station had said it wanted from the Lab—ideas for new business models:

> What is a business model that can sustain the business we are doing now? How might we generate new revenue by delivering content and value to new and non-listeners? How might WABC identify new opportunities to generate revenue while strengthening our connection to current and new listeners?

She paused. "The main question here is, what is the *segment* that the Lab should focus on serving? That is the crux of a lot of this."

But now it was Michael's turn to be genuinely confused. "What do you mean by segment?"

> Jessica tried to explain, "So is our target segment the current listeners of WABC? Is it the current segment of the city's radio listeners? What is the market that has the ability to generate revenue for us, but at the same time not have an audience so broad that we won't get a product that is useful, helpful, or inspiring. Who are we designing for and can we get to know that person going into the blitz, so we have that custom in mind. I know we have tens of thousands of members, but I wonder if we want to further focus within that membership. Or do we focus on another part of the market with higher revenue potential for activity in the Lab? I'm not sure."

Michael was still looking confused, so Jessica tried pulling on a classic public radio axiom to help him understand: We are assuming that listening and engagement increases the propensity to give—that is our underlying assumption. So we need to zero in on people and then craft the

challenge."

"You want to use people in the station for challenges?" asked Michael.

Aaron, sensing that the conversation was in danger of spiraling out of control, jumped in with a clarification of the puzzle Jessica was facing and a practical suggestion for moving ahead:

"We could use a strategy meeting to say, here is what Jessica is doing. Since I think it would be helpful for people to know the process, and helpful to tell people what a "challenge" means. Then we can spitball it and start teasing things out. But before we do that, it is helpful for us to talk about the challenge that we think is on the table. Like a new revenue model. It is possible that some of our revenue model might not exist in 6 years? The on air pledge drive for example. So what is the next revenue model to sustain what we do and allow us to grow? We have never talked about current users, new users, or users at all. What if we came up with skill sets at WABC and found ways to monetize them in different way? Like research into stories? We didn't want to limit this to the current broadcast/online schtick. We have talked about a food product! And maybe there are other things we have never imagined. So how do we not self-limit from the beginning? This is the time to not self-limit. So we need an understanding of the ingredients and how to not to limit ourselves."

The language of "users, "non-users," so familiar in the world of Silicon Valley media start-ups, was not in the vocabulary of the station. It was becoming clear to me that an analogy to "non-listeners" was not useful in bridging that gap. And though on the surface it was puzzling why, exactly, pulling in the station managers so soon was a good idea, it was also clear that in order to understand the station's current business and to get anything done, Jessica was going to have to reach across that chasm of understanding and drag at least a few of the senior managers with her.

But Aaron's invocation of blue-sky possibilities and not self-limiting triggered in Michael another moment to clarify the boundaries of what the Lab was supposed to do vis a vis the institution. He responded quickly,

"There are essential non-negotiable things about who we are. We aren't going to join to the waste management business for instance. And we know that."

Perhaps sensing a moment to share some deep thoughts on the identity of the station, Michael forged ahead on this line of thought:

"I have been writing a speech for this upcoming board retreat. As long as you are here, I am

going to share it. At least it will give you a sense of my overarching vision which is important for the board to get at this meeting. It has at least the essentials of what we are moving from and to. There is some strategy too, but the vision is broader, and infused with our value. So listens to this."

And with that, Michael stood up, fetched a piece of paper from the top of his desk, and began to deliver his board speech. It began with his own experience as a public radio listener, his "driveway moments" and the stories that had touched him, like the StoryCorps story he had recorded with his parents.

"This is the precious work of WABC. We are the storytellers, and we are also journalists. There are more intense challenges ahead of us, other journalists are losing their jobs, we need to transform ourselves into an institution that embraces digital disruption… My belief is that we cannot run scared from the advances of the digital age but instead, we must run toward them, faster, smarter and more open to change than we have ever been in our storied history. If WABC cannot navigate this journey of transformation, then surely public radio itself cannot thrive, cannot grow and cannot transform, because we are among its most important leaders and the mantle of leadership is upon us."

When he had finished, he turned to Jessica and asked, "do you sense a clear vision in that?" It was not clear whether the question was for her benefit or for his. Jessica took a deep breath and tried to connect Michael's sweeping sentiments on the mission and meaning of public radio to the direction she needed from him,

"That helps me to see that the challenge need to be very big, aspirational. But I still feel like we need to do the work of figuring out who we are designing for, then if we can meet that person or crowd-source them from people who work here to inform that challenge. It does help me to think about the height where the challenge needs to be. But we need some activity that helps us get to a slice of WABC listeners that we want to focus on first."

But this still did not clarify for Michael what it was Jessica was talking about:

"Why? why focus on that first? I don't understand the exercise of talking to one person. What is that relationship to that one person, because you experience things uniquely. But I think your question is, do we need a target in a marketing sense, and you are marketing person, so you are asking do we need a target subset? Or do we look at the collective enormous polyglot of people from different socioeconomic backgrounds and demographics, all of whom find something uniquely valuable enough to spend time with WABC. And we want to find a way to translate that relationship into financial relationship with us?"

This was one core piece of the disconnect between the audience-focused thinking that Jessica believed she had been hired to bring to innovation in the Lab, and the traditional mass-public

thinking not just of public radio but of journalism in general. Yet although the "collective, enormous, polyglot of people from different socioeconomic backgrounds and demographics" in an ideal world would be the "public" in "public radio" — decades of public radio research, including the station's own, showed that it was consistently white, educated, upper middle-class people who in fact found it valuable to spend time and dollars with their local public radio station. The thinking and data Jessica was asking for would have revealed that fact. And although Michael did not quite grasp the limits of his own assumptions about the "public" in public radio, he certainly sensed intuitively that there was a clash between a marketer's analysis of a target market and the "public" in the public radio mission.

Yet this disconnected, revealed in their exchange, went even deeper. A broadcaster's measure of the audience was sliced up into day parts, time spent listening, and demographics. Statistical reasoning ruled a broadcaster's world. A digital disruptor's measure of product innovation and market potential was built on a fine-grained ethnographic understandings of consumer's unmet needs, jobs-to-be-done, and users versus non-users. The principles of human-centered design and small "n" case studies ruled the innovator's world. There wasn't much overlap.

Jessica continued to wade bravely into the chasm, and tried to bring the discussion to a close before her allotted time ran out. She referenced the breaking news coverage the station had done earlier in the week and the power it had for the audience.

"How does coverage like that help people connect to their communities? How can the station facilitate those connections to community, family, and workplace? That is place of qualitative, insightful, small-scale research. I don't need wide swaths of people and statistics, but we can learn from the people who come in contact with our news, and we can learn by looking at extremes. There are people who might not be daily listeners, but they listen when breaking news happens and that changes their life. Understanding those types of people will help us inform the blitz and help us generate ideas that will serve community better, using technology and the engine of WABC."

With her defense of human-centered design on the table, she turned quickly to the question needed him to answer: "So thinking about it now, do you think it is useful to include other people

in the station to draft the challenge? Or do you think the challenge is something that the three of us and the innovation firm can come up with? When I have that, then I can come up with our next move."

And finally, she got enough of an answer to get started. Michael replied, "In general I think it's good to get investment on the part of other parts of the organization, so this doesn't feel to others like this is a small collective driving without impact from others. So, I think that is a good exercise to include the station. Whether what that produces is different than what we would come up with, I don't know."

"Great," replied Jessica, "I will work on getting that scheduled. We can do that in the strategy meeting."

8. What is the "wonder sauce"?

The definitional problems—of the segment versus the public—were just one way in which the mission of the station was influencing the launching of the Lab. The mission operated in another way, too, and one that both Jessica and Michael intuitively grasped though from different directions. Public radio's values, as articulated through the station's sound and programs, did inspire people to give their money and time to support the station. There was something special about the relationship between the audience and the public radio station that both Michael and Jessica wanted to take account of in the Lab's work. But the precise nature of that special, special relationship, where it came from and what it meant for innovation was very elusive.

We walked out of Michael's office and wound our way back to Aaron's. "That was a great meeting you called," Aaron quipped, half sarcastically, half empathetically. Ever the optimist, Jessica shot back, "I got what I needed. I will schedule call with the outside firm tomorrow. He

could have given me the speech to read after and asked what information I needed to move forward. But that's okay. He's not ready to digest the challenge statements yet. This will take a while to work through."

Jessica needed help with developing the challenge she was supposed to be solving. It wasn't just about the immediate problem of the blitz, but about the deeper existential problem about what she was supposed to be solving for and how. Aaron was irritated by Michael's speech and felt it was all talk and no action, but Jessica was angling at a different problem she saw in Michael's speech.

"But who's the *audience*? And how do we make their lives better? That is what is missing. What I might say back Davis to him is, how do we bottle what you felt like as a public radio listener? What is the *IT* there. Is that the business we are in? Of creating "it"? And if we come up with a product that reflects who we are, that gives you that David same feeling, are you OK with that? Is that what we sell? Is that our product?"

This conversation continued, as Jessica and Aaron grappled to articulate to each other just what Michael had missed about what they were trying to ask him. "What is the "wonder" sauce that we sell?" Aaron wondered. "Is that a potential guide to the product of our future?" Asked Jessica. And so the existential questions continued.

But she was still stuck on the question of what question, exactly, she should be solving for—and by extension, what kind of exercise she should engage the managers in.

"I've asked Michael a couple of times — what is the product and what is the value? When I asked him the last week, he said "the radio waves." I tried to push him — is it the makers and creators of programming? Or is the delivery system? He said "both." He can explain the efficiency of radio versus internet and the cost per delivery per person."

But, she said, according to Michael's logic, the internet users were where there was more money to be made — but he told her explicitly not to worry about those internet users. This was deeply confusing to her.

"That is why I keep digging into these questions. The station has tens of thousands of members who give less than $1500 a year. How do we dig into that group? Who of that group do we go after? Women who are 50-70 years old and have smart phones? How do they stay connected to one another and to their community and how can we serve that and create something that makes it easy to engage with each other and the city… and in a way that it

creates revenue for WABC. Insight around people are easier for me to facilitate the creative process, rather than high level chunks of data. I have a hard time creating from that."

Her ideal would be to generate those fine-grained listener profiles so that she could come up with some new ideas that might appeal to them and elicit more of their monetary support.

"We want to find the market that has the ability to find some money and is interested in us. So we will learn from an extreme user. Like I can imagine a 72 year old grandma who rides her bike and has iPhone, everyone knows her, she is champion of things that are interesting in the city, WABC is one. Finding examples like that will help us inform the brand and personality of what we create. And it can help us design a group generative exercise like a blitz. that will help us. Like, let's say you have a group ideate from the mother's day fund drive, twitter, and a bike. How do you combine those three things and come up with something that will generate revenue? I wouldn't be able to know what to write on those brainstorming cards unless I talk to that grandmother who told me about her life, and how the news is woven into what she does, and how she works, and what she eats. So I think part of this is that Michael has never experienced human centered design, he comes from different place. He is worried about operations, big data sets, so I think I need to recognize that, help explain that to him. Because I can tell from his speech, we aren't understanding what the other one understands."

That was an understatement. But, importantly, Jessica had the go-ahead from Michael to include the senior managers in some of the same types of thinking and brainstorming. Aaron was helping her to game out the politics of getting everyone in a room — and getting Michael out of the way. And Jessica was ready to make the leap into bringing the voices of listeners and the principles of human-centered design into the station.

9. of Tethers and Tethering

As the definitional problems continued to brew, Jessica began to tackle more directly the issue of autonomy. In her mind, operational autonomy meant using different tools and methods than the station, but it also meant serving a different segment. Yet to serve the mission of public radio, she also had to be connected to the station's values and audience in some way. What should be the nature of the "tether" between the Lab and the station? To figure out the precise nature of the Lab-station relationship, she and Aaron turned to their HBS "kitchen cabinet" for help.

Though it was diminutively named, the two most active members of the kitchen cabinet had the bona fides to bring some clarity to Jessica's task. Brian Arthur and Brendan Propp were both entrepreneurs who had agreed to advise the start-up of the Lab. The two of them knew more about digital innovation than everyone at the station combined. But whether they could help Jessica cut through the conceptual and operational morass she had waded into remained to be seen.

Two weeks later, I followed Aaron and Jessica across town to meet with the Innovation Lab advisors. Almost immediately, the limits of disruptive innovation theory threatened to close in. Jessica reported that Michael didn't seem to quite understand the value of seeking and talking to people in the station's audience who didn't look like his idea of a typical listener. Brian immediately chalked that up to the classic broadcast "everyone is our audience" mentality. "The 'we are here for everybody' notion comes from the fact that at one time you could reach everyone. In this era, that's not reasonable" he said.

That particular perspective, ingrained in Michael but also in the organization, was obviously going to prevent Jessica from making much progress on finding listeners for whom she could develop new products and test ideas on. She imagined that a workshop with an outside innovation firm would start to break through the managers' "everyone is our audience" instinct. But Brendan and Brian were skeptical. The risk was that such an intense (and high-priced) experience would just raise expectations among senior managers that something was going to change at the station and set them up for disappointment when it became clear that Jessica—and Michael—didn't have a clear plan for what to do after. And yet, they agreed that she did need have to have some link to the station managers, and that what they thought about what she was doing mattered to her success.

Brendan recognized the problem, and the reason why Jessica was so focused on engaging the station managers: “I think there is a participatory thing to do to help Innovation Lab be part of the station,” he said. “I think you don’t want this to be skunkworks, or a weird off-to-the-side thing with no connection back. You going off and nothing happening for eight months is also disastrous. But you have to think about what you will do after it to keep up the momentum.” But what was missing was that there was no real impetus—“no pain” in Michael’s phrasing—for adopting Jessica’s innovation or any other change.

The question of what would come after Jessica made her first big splash with the management team, and what her connection should be to the managers in general, made Aaron extremely wary. Even as Brian emphasized that the organization and Michael needed to “feel the pain” of change, and that Michael needed to stop doing some things in order to make room for innovation, Aaron was skeptical that would ever happen. Aaron knew better than anyone how Michael’s ambitions generated new initiatives on top of new initiatives, and that the senior managers were over-taxed as a result. Aaron asked Brian, with not a little exasperation:

> “Where anything is possible and leader is an omnivore, why does pain matter for change? The leader can just keep expanding. So it’s an interesting idea to offer that we are going to take stuff off the managers plate in order to work on innovation. But Brian because he thinks we’re at overcapacity already (because of the omnivore he is at the top), he also thinks that the people who are already doing the day-to-day can’t waver. I thought that was the whole point of skunkworks is they can go do that and then bring it inside.”

But giving the Lab more autonomy and separating Jessica’s efforts from the station brought them back to the original problem—she needed at least *some* of the managers to see what she wanted to do so that she could get a handle on which parts of the audience to work with—and work beyond—and what made the current business model work.

Brian seized the opportunity to offer a new conceptual framework for Jessica: Super-users, Casual Listeners, and Non-Consumers. The idea, he said, would be for Jessica to help the station move super-users (current listeners and donors) into a community. The station’s core task would

be to convert casual listeners to super-users through sustaining innovation. And the disruptive innovations that Jessica would help create would be to serve the non-consumers. This was all fine, but Aaron said that the station needed help on its core task as well, and if it didn't figure out some way of bringing its listeners closer to the station and closer to each other, that the whole model would collapse.

Jessica confessed that there was indeed a murky middle in the framework Brian had laid out, and that she was already getting pulled into brainstorming with some of the station managers for better ways to do their work. How was she supposed to respond? She offered a concrete example:

"This goes to show the reactive practices in the membership department. Henry [the head of membership] came and buzzed by my desk last week — he said I want to bother you, can you help me brainstorm some Mother's Day fundraising ideas?"

Aaron broke in sarcastically, "…and we've said, we don't want her in the building."
"And it's already happening!" Jessica exclaimed.

"Henry said to me, my intern has found twitter handles for people doing promotions, like teens in the city. What do I do with them? I said, I don't know, but Katie [another outside consultant] wrote a script yesterday for what data are being exchanged with WABC — she found twitter followers to WABC who have over 1K followers. She gets 400 names every half hour. Maybe work with the social media team here to reach out to those folks. I had other idea, like put flowers in men's locker rooms in exclusive clubs in the city. It's clear to me that Henry has no planning muscle being exercised right now. It's a hamster wheel in that department."

Aaron shook his head, "The interesting thing is that we are the best of breed — Henry is best in the country. We make more per listener than anyone else in the system."
Jessica went on, "He is so dialed in to having his database up on a screen telling on the air-announcers what to say in pledge drives— but his membership data is limited and he doesn't know what to do if it's not in that channel."

But this confession only got Brian riled up even further. "This is the race car," he said. "This is what happens with a high functioning team! Which is great until the pit stop team has to take over, and you are the pit stop team. Eventually, the wheels come off is the problem."

"They're already starting to come off," admitted Aaron.

"… And the reaction will be to GO FASTER, even though Henry is already going super-fast. So it sounds like we are getting to a moment of Management versus Leadership" Brian continued.

This was all fine, except Brian was not yet offering concrete help to Aaron and Jessica on figuring out what to do next. Aaron, ever the pragmatist, pushed Brian for more specifics:

"Right, exactly. So how do you have a vision-oriented Innovation Lab that is not addressing real management, leadership, change issues at the same time. The disruptive stuff is easy — think of new businesses, small bets, who wouldn't want to do that? [Our consultant] Katie always cracked up that in setting up this kind of Innovation Lab system, we were avoiding all the tough stuff. But is this the role that Jessica should be playing? As a super disruptor, management, leader — being the Moses that takes us out of the desert for four years?"

This is where the autonomy problems began to entangle in the definitional problems. The roles of the General Manager, the management team, and the Lab were difficult to specify without identifying what set of problems each was supposed to be solving. But without a shared understanding of the needs and differences between different parts of the audience, those problems were difficult to define. Brian offered one way out: to think of the Lab and the station as targeting different parts of the listener engagement journey.

"My argument is that those transitions between levels of listener engagement are Jessica's leadership moments, and then what follows are management and leaders' moments. Jessica's leadership is over on the disruptive side, but she can help people understand that link back to the casual user. She brings structure to the dark spots and guidance and can pop-in. Then it's up to Aaron and Michael and the program director. What the org does is focus on the middle of casual listeners and super users —But the way you tether is the transition from casual user to super users — that's where Jessica tethers."

So the idea, then, was that the Lab would 'tether' in the moments when a listener got closer to the station. Maintaining that relationship between the listener and the station would be up to the management team. This brought a little clarity to the problems the Lab would try to solve, at least conceptually. But it was dawning on everyone that this was a *different* innovation framework—and a different relationship between the Lab and the station—than the strictly

separate entity they had all envisioned at the outset. Aaron became increasingly worried about bringing along Michael to this new set-up. He intervened in Brian's stream of advice again:

"This is a great sermon for the converted. But the main stakeholder, now that Jessica and Innovation Lab are real, is Michael. We are kind of pivoting from our dream of what the Lab was supposed to be. As we go from thinking about easy, far-away, disruptive bets to getting the station to thinking divergently — that is where we have to bring in Michael. He is the only stakeholder who has to get a grip on it and make tough decisions. I can go out there killing babies, but that would not be a good idea. So what would be a good next step, is for you Brian, to talk with Michael."

Bringing in outsiders to convince Michael and his colleagues of a new idea was a classic Aaron triangulation strategy, one that he employed over and over again, for better and for worse. If there was some urgent message that he could not get Michael to understand, he would go out and find an ambassador to bring it to Michael. And the more powerful and connected the ambassador, the better. In that sense, Brian was not just an advisor to the Lab, he was also a secret weapon against Michael.

Yet if Brian registered any of this agenda, it was not obvious. Instead, he launched into a riff about Tony Shea and Netflix and an organizational transformation book he had recently read. After another few minutes of Aaron and Michael going back and forth on public media strategic plans, the failure of the station's strategic plan to be responsive to the challenges the station faced in podcasting, and a few more riffs on Brian's Super-User ideas, Aaron finally turned to Jessica:

"Does this help?" He asked.

Jessica had been sitting silently for a while as Aaron and Brian had been going tet-a-tet. She offered one last observation on what she needed to get started: better data on the existing audience.

"The puzzle I am feeling is that I didn't know how far the station is behind in understanding who gives them money. I would call up and donate and they wouldn't remember me, they don't know anything about me. Now that I'm on this side of the fence, I realize that you can't connect the data that Henry has about membership to the data that Donna has in development. It seems like starting with human-centered design around listener data and how the station uses it is a building block we need to have at the base of whatever we need to do. Without that I feel like I would be on the moon."

This particular insight of Jessica's—that the station's data was not what she needed to build and test new products effectively—would come to have far-reaching consequences for the trajectory of the Lab. But in this moment, although both Aaron and Brian seemed to grasp the importance of it, they both agreed that it was more Aaron's job than Jessica's to worry about such things.

The conversation drifted on for a while longer until finally, with a few minutes left, Michael announced that he didn't think it was a good time for the blitz that Jessica had been planning on. Instead, she should consider a couple of lower-cost, easy "field trip" experiences for the senior managers to start to get exposed to her way of thinking and building. Aaron used this as an opportunity to pitch Brian again to come to the station and talk with Michael:

> "I think it's time for you guys in front of Michael. It will keep him engaged. It will let him know you are still there. The last time Jessica and I talked to Brian it was about blitz, and we've come a long way in this conversation, so we need to bring him up to speed. He will have to understand part of why we are doing these things, and choices he needs to make. My thing to move forward from this meeting is the data issue, and that's another thing for Michael. The is like a burning issue NOW."

They decided the visit from Brian and Brendan could be an opportunity for Jessica to showcase the outsiders she could bring into the station. They could have Brian give a talk to the station, with a Q&A with Jessica later, and then they could all meet with Michael afterwards. As for the blitz, Jessica decided to put it on hold. But she thoughts she could convince her local contacts at IDEO were ready to do a short design sprint, and they all agreed that might be a good idea.

10. The Launch Pad and the View from the Top of the Radio Tower

The disconnects in understanding around the Lab—between the segment and the public, between finding a replacement business models and launching experiments, between separating from the station and targeting it for transformation—shaped Jessica's thinking and strategizing as

the weeks rolled on. The kitchen cabinet's idea of "tethering" the Lab to the station, and targeting levels of listener engagement, was compelling to her. But to really ensure there was a fertile landing place for the Lab's projects in the station, she felt the whole management team needed a fundamental shift in perspective on the audience they were serving.

A week after the kitchen cabinet meeting, Jessica and I met in the front lobby of the station and walked around the corner to grab sandwiches at Panera and check in on her first few weeks. Neither of us felt like being in the station, so we wandered across campus and found a bench to sit on. As we downed our sandwiches, I perched my notebook on my lap and asked her how things were going. From what I could see, she was making progress in understanding the station and Brian if not exactly getting clarity on the most effective way forward.

Jessica was excited but also realistic, particularly about Michael. "I noticed," she said dryly, "that there is a gap between Michael's speeches and his daily routines." But, seasoned by her many years in a legacy company, she wasn't letting that frustrate her. She was hopeful that Brian and Brendan could have a transformative conversation with Michael about the audience.

"The current audience research that the station has is like looking down on the audience from the top of a radio tower. We all need to be down where the audience is sitting!" The more she time she spent learning about those "magic moments" of public radio—the ones that got listeners to open up their wallets—the more she realized that the conversions weren't always about news and conversation — there was something else that moved listeners to contribute, and she was convinced human-centered design research—going and sitting next to those listeners—could tap that magic. But she realized that for Michael that was a completely foreign perspective. "The station is designing for broadcast, and instead they need to design for the needs of people. That is reflective of the organizational change that has to happen" she said.

This gap that she was picking up between the view from the radio tower and the perspectives of listeners was shifting her thinking on what the Lab should work on first. Originally, she thought that the first best bet was to expose the senior team to design thinking. But, she said, she now realized they first needed to learn about their audience, how those listeners curate the station into their lives and why, and then use that in design thinking. “Otherwise they will build on what they know. We have to build that launch pad first.” And the launch pad was a solid understanding of why and how the station was important to people.

But it was also clear to her that building the launch pad was easier said than done. She was discovering, to her dismay, that she would have to wade through layers of licensee bureaucracy to get anything done. She wanted to hire a user experience designer, but the station’s financial manager had told her there was no comparable licensee role category, so it was going to take at least a month to convince HR to create the role and categorize it, before posting the job description (for a specified period of time), and then going through the byzantine licensee hiring process. Jessica lamented that it had taken her a month and a half just to get a licensee-approved laptop out of the IT department. She wanted to find some way to speed up the layers of approval and red tape so she could actually build the Lab. “So how do I build the Lab in a way that makes people in operations not see me as a threat? Aaron wants to shelter me from all of this, but how much of that is possible? Where are the funds to make decisions quickly? It will be interesting to see how far outside the licensee we can build this.”

11. “Operators are Standing By"

The tether that ended up being most useful to Jessica in the early weeks and months of the Lab was Aaron. He acted as the human translator between what she wanted to accomplish and the politics of the station, particularly when it came to Michael. Before Jessica would ask

Michael for anything in the early going, Aaron would help her craft her language and her pitch to increase the chances she would get what she needed.

In the end, the project Jessica chose to begin with would introduce the station managers both to their listeners and to the principles of human-centered design. She pulled on her network, and pulled a few favors, to get a discounted rate on short audience research project with IDEO. The only problem was… getting Michael to say yes.

A few days after our lunch, Jessica had her weekly check in with Aaron. She was ready to go with IDEO but she needed to make the pitch to Michael and she needed to put together a panel of listeners to work on the project with them. Given that her friends had a very small window of availability—they had until the end of the month for the project—and that at the last meeting Jessica had needed a decision from Brian he read a board speech, she needed Aaron's expertise as a Michael Whisperer. He tried to reassure her that, if nothing else, he was in her corner:

"Hey, you were hired to have a gut and to know what you're doing, and this smells great to you - so why not invest in the person we hired to do this! That's where I would be on it." So, that was the good part. But he was honest about where Michael's head might be:

> "So on your meeting with Michael at 2:30 — he is coming from a dead stop — he doesn't know human-centered design, but he knows how to spell IDEO. And you are looking to spend 20K. Knowing Brian he needs to understand it before he can do it. So the blocker is… how do you help him understand why you are going to spend what little capital you have internally plus these dollars to make it worth it? Not only that, but you don't have a lot of time. I hate to use the "operators are standing by" tactic, but I've done it with him before. It depends on how he's in the mood to manage today… he could say, "I'm not going to let $20K stop us!" or he will say, "I need more time on this, how about next week?" But you need an answer before next week. So when is the last moment you can let IDEO know we are a go?"

Jessica replied that even though Monday was the date they would need to start the engagement, they wouldn't actually need listeners until Wednesday, so there was a little room to pull it all together. They could start with the managers on Monday. Aaron thought this gave her an opening:

> "So I would say to Brian I am going to put together a listener panel this week. If he can't make up his mind, tell

him you're going to start working on it. Brian and Brendan are coming Friday. You can talk to the internal stakeholders in the mean time… and maybe by then I will have heard from Brian and Brendan on their thoughts about this, and we can jump on a quick call. And worst comes to worse we talk with them on Friday when they're at the station."

But beyond the precise negotiating strategy to use with Brian there was the potentially bigger issue of whether he would understand the value of the IDEO project. Aaron tried to channel Michael's perspective:

"What Michael doesn't understand is the "magic moments" of users becoming super users. He understands the outliers and the shiny objects — but doesn't understand the middle part of listener conversion."

"What about if I say, "casual listeners that convert to members"? Jessica offered.

"He will understand that, but it has to be in his words. Although the risk you run is also that he is going to say — 'I thought you are going to come up with the business models to save public radio?! why are you talking about the users?!"

Jessica assured him she had already laid the groundwork for this conversation in talking to Michael the previous week about "users," "super users," and "magic moments." But Aaron was still worried:

"But did he hear you? I think you should say, there is a lot of rich material here in the user/super user middle and those ideas will feed the other business models. I am thinking, if you can get him to not read you a speech in this meeting and give you enough time to explain what you are talking about, you might have a shot!"

12. Come to Jesus

Even with the idea of a tether in place, the issues of autonomy and competing definitions of the problem and the audience continued to swirl. Another piece of the disconnect came into sharper focus as Aaron and Jessica called on Brian and Brendan to help them talk with Michael about the Lab's direction. Michael's strong bias towards seeing the Lab's mission as solving a public radio business model crisis, and his analogizing to the newspaper industry, required the

Lab to make some very large bets with some very large innovation pay-offs. Jessica's audience-first, needs-focused approach relied on using segmentation data, audience research, and lightweight experimentation that would be much smaller in scale. It was not clear where the overlap would be between the two visions.

Aaron and Jessica had sensed this collision was coming in their kitchen cabinet meeting. They needed Michael to understand how the Lab's tether would work, the data the Lab needed to segment the audience and prepare for more audience research, and the importance of prioritizing the station manager's work. Their solution was to bring in Brian and Brendan to talk with Michael directly.

Bringing in outsiders was one of Aaron's tactics for getting what his team needed. But he would also set up "come to Jesus" moments with Michael. Sometimes Aaron would have to engineer this himself—he would have to frame an issue or a request with just enough pressure and timeliness to get Michael to say yes to something or to see some critical decision was on the horizon. But if Aaron could wave his magic wand, the ideal "come to Jesus" would always involve a trusted outsider. With the IDEO project about to be launched, getting clarity on the direction of the Lab brought together outsiders and a "Come to Jesus" moment.

Two months into Jessica's tenure, the "come to Jesus" moment came when she and Aaron successfully lobbied for Brian to come give a talk on innovation at the station. It was also Jessica's debut to the station staff, a chance for her to show the kinds of new thinking she could bring in as well as explain her human-centered design approach. After their all-station event was over, Aaron and Jessica and Alex Abrams corralled Brian and Brendan into Michael's office. Their fervent hope was that Brian inspired by Michael's innovation smorgasbord, and ready to lead his station victorious through the digital disruption, would be open to hearing from the

kitchen cabinet.

Jessica, Alex Abrams, Aaron, Brian, Brendan and I arrayed ourselves around the table. Michael began by repeating what he had said to me a few minutes earlier, "I really want to get you in front of the board, Brian. It's a struggle. They see that we are doing so well, and they say what's wrong??" He tried to tempt Brendan into a conversation about system politics (a perennial favorite for scratching the gossip itch), but Aaron broke in:

"Jessica, how do you want to use the time?" She said she wanted to talk about what they had discussed with the Innovation Lab kitchen cabinet the previous week. So Aaron dove in:

"When we conceived of the Innovation Lab in general, we talked about it being outside — a resource so the station, tethered. Now that we are into reality — we are trying to figure out, what does that tether mean? And is it around our core product? Jessica had a conversation with one of our board members. He talked about the "magic moments" with our users that should inform us now, not just the million-dollar shiny object that is supposed to save us from falling off the earth. So we are starting with IDEO next week. I want to bring you up to speed, Brian on what we've been talking about. I think having you comfortable with us innovating on the core versus working on the future."

So there were two issues on the table: the nature of the Lab's tether to the station, and the mix of core innovations versus future bets that the Lab would make. But for Brian who remained worried about the whole public radio business model falling apart, the question was what should come first:

"For me, part of what I'm thinking about is — how much is this a zero-sum game of investing in radical ideation in stuff that is far afield from our core revenue streams versus how much of this is about what we do now. I'm not sure we should completely step away from what we do now, which could be transformed, but might still be some mix of philanthropy, underwriting, or any other collection of our current revenue streams. There is like $3M of our revenue right now that is just a collection of small things. So where do we go first? Where do we put our first bets? What will we learn from IDEO and HCD?"

For Brian, this was a cue to go back to his "And not Or" message again: the station should be doing human-centered design AND scenario planning for its current audience, and then letting the good ideas that the Lab would stir up impact the core operations of the station. "But you have to understand the buckets of audience you are working with," he tried to explain.

Brian grabbed a marker and went up to the white board. He drew the same map of the

audience that he had drawn in the conference room at HBS: the casual audience, the super-users, the community that could be built of super-users, and the non-consumers. And he ran through with Michael the same advice he had given Jessica: that the Lab could use human-centered design to figure out ways to move the audience through increasing levels of engagement with the station and with each other. "With human centered design," he said, "you can start to uncover what happens in those moments when people come closer to the station. And you can also build super-user community at the far end of engagement, and you can build communities of non-users — that could be with a new brand you launch, for instance."

Brian and Jessica were both continually hitting home this idea of understanding the audience and their needs as a precondition of innovation. But for Brian the trigger word of "new brand" brought him back to Michael's story in his talk about Fuji Film and how its diversification strategy had saved it from extinction. It had clearly left an impression on him. Michael broke in:

"Fuji film was so surprising. That they transformed themselves so dramatically using the capabilities they had."

This was Brian's chance to put the Fuji story in context, and he did it by talking about the station's considerable capabilities and assets relative to other media organizations:

"So the editorial assets you have are stronger than they've ever been. You have a brand that is authentic and that moves away from the noise, and that can be used for building community. But right now, it's all in service of the usual way of doing things. So what can you do to make room for something new? Innovation is really subtractive, it's not additive. Bandwidth is an issue for everyone, and have you HAVE TO reduce what you are doing, unless you want to add like 18 more Jessica's. These moments of transition in the audience between levels of engagement move money. Every time you move the audience in a new way, you have the opportunity to get cash in a different way."

This was the strongest case Brian had made yet for how to think about building a new business model — but it didn't start with *types of revenue*, it started with *engaging audience needs*. Unfortunately, this distinction was lost on Michael. What he heard in Brian's advice, and saw in Brians's map—was something very different: the transitions between different types of station/audience relationships were associated, in his mind, with different revenue types:

"So on the philanthropy side, that is our expertise—moving super users to community. The underwriting is based on moving people to become listeners."

Michael's interpretation of Brian's audience map was understandable—when people who loved the station decided to donate money, it did signal that they wanted to be coming a part of the station's "community" (however thinly defined that was). And underwriting, sold on the number of listeners and time spent listening, did depend on how many people the station could get to tune in.

But this mapping of the problem defined the existential challenges facing the station as an *economic problem* of how to get more dollars. What Brian and Jessica were offering was a different mapping of the problem—and a different definition of the existential threat. In their estimation, in order to survive, the station needed to understand who was listening, who wasn't listening, what they needed, and why they needed it, as a precondition for thinking about survival economics. It was an audience-first, rather than organizational survival-first, reading of the innovation challenge.

These were two very different understandings. Brian as if to drive home his point about the scale of the economic challenge facing the station, turned once again to the newspaper example:

"Everyone here is thinking about the newspaper business. I remember an NPR executive saying to me, there were only so many parallels to newspapers in public radio. Some are good parallels and some don't apply, but we can't figure out which is which, he said. The fundamental thing *I* think about with newspapers is that they were such early adopters of the internet, and I remember talking with the Globe about this at the time — their argument was, we don't care *where* the eyeballs come from, we will put ads next to it. But no one anticipated that that those ads would be pennies on the print dollar. So what do we learn from that when we look at it from where we are. We are undisrupted, but we see it nipping at our heels, with podcast exploding, and radio in the car going away — how can we use what newspapers learned to inform and maximize our way of making decisions?"

Brian, having spent most of his career in newspapers, had done plenty of thinking himself about why and how the industry had collapsed. This was an irresistible topic for him. He had a different reading than Michael—it was that newspapers had become such valuable assets that a few big owners had made the decision to consolidate, and to lobby for rules that would allow

them to create monopolies. The monopolistic impulse running amok in the newspaper business meant that, eventually, the whole thing would collapse—especially as Facebook was building its own digital monopoly. This was, obviously, not a strategy open to the station: "You won't win that game," Brian counseled. "But the thing is, that you can work on being lots of different things to lots of different people and use your powers of consolidation and what you already have to explore. It's about being a distributed versus destination brand."

This was an admirable bridge to try to build between organization economics-first and audience-first strategies, but Michael could not seem to cross over it. All he could see and worry about was the dismal state of digital advertising rates, which he attributed as the cause of newspapers collapsing, and what that might foretell of the future of his own underwriting revenue. So he pushed back,

"But newspaper advertising — like our underwriting — was their primary revenue stream. And the relationship between advertising and media or journalism is now totally kaput. There are far better ways for advertisers to reach audiences. But underwriting is like half of our revenue. So how do we think about that?"

Brian was not catching on to the widening chasm between his thinking and Michael's. It was hard to argue with the fact that digital advertising was a terrible source of revenue, but perhaps because this was a fact, Brian continued on with his advice for how to change the station's culture.

"You need to build a culture that allows you to do those innovation things, and that has a soft place for the Lab's innovations to land. The continuous churn in the most important thing. You have to be thinking about what you can do to make space for this. We estimated at my last company that we needed 42 new projects a year, and that we should expect a 75% fail rate. So then you have like 10 projects surviving, and one or two of those will be revolutionary ideas."

Michael seemed somewhat taken aback by that number, "that is an important number! What's the scale of ideas, though, and how much can we juggle at the same time?"

"You have to create a space in the organization for when you discover something that moves the audience." Brian went on to explain, again, the nature of the tether that the Lab could have to

the station. Innovation Lab would be best working with non-consumers, since she was far outside the usual assumptions and operating procedures of the station. The station could and should keep working on better ways to engage and convert its core audience.

But there could be a relationship between the two: "The idea behind Innovation Lab," Brian reminded Michael, "is that she can churn up new stuff. But you don't want to Xerox Park it. If you are doing good work over here in your station community, she can help guide the research related to that, but she should not execute that, she should let others execute. That is a hard blend to achieve. Netflix does it, but very few companies do it."

The reference to Xerox Park was an interesting one, and hinted at a further nuance on innovation that was elusive, but vitally important. The idea of industrial Research and Development Lab — with thousands of scientists engaged in primary research to create the scientific breakthroughs necessary to then develop new industrial products—was an incredibly poor fit for the media context in general, and public radio context in particular.

The first problem was that no one at the station had a good handle how, exactly, to define "the product" it produced. The second problem was that a Xerox Park approach to product innovation, is what had gotten so many big companies in trouble to begin with. Rather than worrying about what people wanted, the innovators worried about how the product (or production) could be improved. Yet it was becoming increasingly clear that what Michael expected the Lab to be was something like a Xerox Park.

Michael was struggling most with Brian's advice to think of the innovation projects as lightweight, fast experiments. So even though the number of projects Brian threw out was 75, he emphasized that these should be, "very targeted, focused and BETA." If ideas weren't working, they should be shed quickly to make room for new experiments. This was even further cognitive

reach for Michael. His association to 'beta' was to events strategies such as those the *Texas Tribune* had successfully launched:

"So when you are thinking about beta, and in your experience — in the gestalt of it — it feels to me that in most of the experimentation around media, that one of the few things that has worked is like *The Texas Tribune* events. Are there other there scalable breakthrough ideas? Or are we looking at a landscape with nothing else?"

Jessica hadn't spoken for a while, and she must have sensed that the conversation was going off track, because she took the opportunity to get her other important issues on the table—the dismal state of the station's data:

"So if events are a bright spot then ask *why*? Because they knew people would be excited about it, knew where it was, and how to get there, and knew about it. This week I was looking for emails and information from station folks for our IDEO interviews — and the data is all over the place. There is no one repository of how to find in one place — like who bought our Mother's Day flowers, or tickets to the Moth, who tweeted back to Alex Abrams's team on FB. There are disparate chunks of audience information all over the org. So no matter the sprout on the landscape, like events, we need a better picture of who to curate that sprout to. This is a flag I am raising for Innovation Lab, as we prototype, we *need* to reach people and prototype and test. My fear is that the agility and pace we need to move is not something the station is ready for — and I'm worried that in trying to find that information around our customs there will be disconnect with what the station has."

At last the data issue was on the table. Brendan jumped in to try to help direct Michael towards solving the data problem. He pointed out that for the tethering they were discussing to work, the data would provide the vital link. Brian tried to be helpful, too, pointing out that data was an operational question, and that it was also a moment for moving beyond management to leadership: "You have to ask your team, Michael where are we on data? Who as data for me?"

But "operational" questions were not Michael's main concern. He waved the discussion away:

"Ok, I get it, we need to do some serious thinking about that. But I'm still up at a high level trying to think about why so little has emerged on the media landscape. It's not like smart people haven't been thinking about this. There is so much insight about what went wrong, how the landscape is changing. But if the lab is to serve all of public radio and not just WABC with some actionable insights — then part of me keeps thinking, I need to get my arms around why this is so hard."

So far neither the tether, nor the need to do fewer things, nor the data issue had gotten any traction at all in the meeting. They seemed to bare register as a blip on Michael's radar. And now he had pulled Brian, once again, into a media landscape discussion. Michael was single-minded

in his focus of extracting from Brian what the answer should be that would save the station. So even as Brian riffed on the digital media companies (now going defunct as of this writing) that were doing interesting things, Michael was still looking for *the answer*:

Michael: Those are digital natives, they are unencumbered by legacy problems. So when we get down to it, are we going to think about creating something that is like Upworthy? That doesn't go against our values, but is disconnected from the station and public radio as we know it?

Brian: Yes, but it's not *A* thing, it's several things. And yes, one of the things should be that. But if you come up with this stuff, and you try to adopt it, and the culture doesn't accept it, then none of this matters. This culture has to be the one where it lands softly. It's the existing landing the new."

Michael went back to talking about local newspapers and their business model problems. Brian and Brendan tried once again to wrest him from analogizing, and encouraged him to think about how he could serve his local audience and the importance of changing the culture. Finally, almost an hour into the meeting, there was a tiny glimmer of hope. Michael said,

"So tethering is interesting. That is a different additional concept to the Lab. So when we talk about Innovation Lab being tethered, how does that affect our ability to address the culture issues in this building?" Yes!" Michael encouraged him, "Jessica should be on the strategy but not the execution." Michael finally seemed to be understanding what Michael and Jessica had been hoping he would:

"Ok, so this is important for how we will work together. So you, Jessica, will do imagination, idea development, prototyping, light, nimble, quick, stuff around ideas. But we will have to have capacity to run with those things, and experiment with them in a way that ties your leadership to our ability to meet this, test, experiment, and embrace that within an existing operation."

This was the opening Brian needed to make his most important point — about the need for Michael to decide *what to stop doing and to switch his attention to*:

"This is about deputizing people on your team to operational what Jessica finds. And then that brings up the question of what to take OFF their plates… You have to switch doing the details of what you know how to do. You have to say, this is what I have paid attention to, and now I am going to pay attention to this. That is so hard. And you won't know the new things. You have to be able to say when you don't know something—tell me what you need. And you may have a dip in your revenue performance. You have to be treated to say that we will screw it up a bit. You need to plan for that."

Now the conversation seemed to actually be going somewhere. Michael and Brendan kept pushing forward on what elements Michael would have to change — budget prioritization, time

prioritization, coming up with a new language and way of talking. Michael finally asked, "what goals should we be setting around time and urgency?"

"Just start!" Exclaimed Brendan.

But Jessica had a very specific request: she needed a user experience designer on her team, urgently:

"We need someone who has design experience. one person who has experience and is OK to do work session with WABC and do street interviews. I have something written for that person too. Think that is first role. Another role would be someone who has similar skills to an IDEO design researcher. Each time we go through that prototyping cycle, we need people to go through user stories, synthesize the insights. That's another role important. And a Scrum master. Someone who can plan timeline, schedules, vendor management. I'm thinking those are first three roles."

This was Michael's moment to try out a new behavior. Brian had just counseled him that there would be times he wouldn't understand what the Lab would need, and he would have to ask for help. Michael responded,

"I agree with you on that. But I want to push back on one element. This reminded me of an old line that if you have a hammer, the world looks like nail. And here we are in digital age, and I don't want to make assumption that we will code or webify or mobile-ify our way to a solution here. It's possible that what we need is something more prosaic and un-digital, like the event world — which needs digital solutions like data, etc. —But if you bring in someone as your partner who is essentially digital, and who sees the world through that lens, the we need to make sure we have people who can look outside that too."

Jessica clarified "By user experience I mean, not someone who has her head in a phone, but someone who thinks about, what happens when I go from a train to a station event with my phone, how do I use my phone in that? Not user experience as being all about a machine, but someone who thinks about what happens as you move through the world."

Brian tried to help: "it's an *experience* architect. So yes, this could be for the event offline."

Brendan tried to help too, "You are a whole building of great thoughtful people here. But you don't have that skill right now. And some of the core events that you do, an experience architect could help co-develop. It's about thinking about what stimulates new capacity in the station."

Aaron, perhaps sensing that this was not yet making sense to Brian tried another tack: "I see

what you mean by worrying about a digital bias Brian but this user experience person — this is someone who can help us as we are bringing in audiences, these people are your listeners and potential listeners. That UEx person has a trained ear for where potential audiences are — and can translate that into products that delight and engage. I don't think of them as coder."

Unfortunately, at this point Brian got back on his message about the fact that the station shouldn't try to win on tech. But he managed to land it with a helpful example of what his client station in another state had been trying:

"So getting an experience architect in here would be huge. The IDEO interview process will be huge. Jessica, anyone who comes to you with an idea in the station, you should say "have you talked to the audience about this? who have you talked to outside the station about this?" We started doing this to do this at CT station. We made a bike community in a high-end neighborhood of people who want bike path built. And we can fundraise against that, and it all started with a FB community."

But this did not close the deal with Michael for a user experience designer. He was interested in learning more about what Brian was learning at the CT station. Brian said he would happily share when they had some actionable knowledge, but his main takeaway was that Michael's station should start thinking about building communities in social media. He had seen that the CT station was building theirs into something big.

The talk of the Lab hiring an experience architect, like the talk about data, and the tether, and taking things off managers' plates, had died. There had been no discernible Come to Jesus, and the meeting was at its close.

As Michael closed the meeting, he reminded the group:

"That's great that the CT station is doing well. Kodak's best year was 2000."

13. The Black Hole and the MAW

Though this chapter has focused so far mostly on the disconnects in understanding between

the station's General Manager and the Lab's Director, as well as the issues of autonomy and problems of definition that their differences created, it is important to contextualize their conflicts in the wider station management group. The translation of commercial innovation ideas into public radio proved to be a struggle for the managers in general. They were all trying to figure out how the station's mission, and the mission of public radio, was supposed to intersect with their innovation journey out of existential crisis. This was particularly apparent in the strategy meeting after Brian's innovation talk at the station. This meeting laid bare all of the areas of confusion and groping around about what, exactly, innovation was supposed to mean in public radio.

The strategic developments outside the station only added to the managers' existential questions in the meeting. That month, May 2015, was a momentous one in public radio and podcasting. The public radio podcast network Radiotopia had expanded, Erik Nuzum had made the leap from NPR to Audible, Ira Glass had told an AdAge reporter at the first public radio podcast up-fronts that public radio was ready for capitalism, and Brian had visited the station to cut the ribbon on Innovation Lab. The yearly station fundraiser was also that week, and Ira Glass was coming as the special guest.

At the weekly strategy meeting, just two days after Brian's visit to the station, the station was still abuzz with what Michael had said, and that evening's fundraiser. Michael was ready to take his managers excitement about Brian and about the fundraiser and turn it into an important existential conversation. He kicked off the meeting by setting the topic for that hour's discussion:

"So one of the things I've been thinking about since Brian's talk was the case of Kodak versus Fuji. One went bankrupt, the other reinvented itself from its talent and ended in a very different place from photography. When I read the HBS case on Kodak, I came away feeling like there was nothing that could have saved it. But, I honestly thought differently after hearing Brian talk. So tonight, in advance of our annual fundraiser, I want to ask you: what does it mean to reinvent yourself? Are we Kodak? Or Fuji? Or neither? One of the most celebrated cases of transformation is IBM. When Gersner came in from the outside, he was from packaged good, not from computers. So he saw a different future for IBM. Without what he did, chances are it would have been a much small company than today. He transformed it from a mainframe company to a services company. We are also facing reinvention

challenges. And there are some parallels to newspapers. It's not perfect, but there are some."

That got the discussion rolling. Paula Bank, Michael's close confidant and head of special projects, expressed surprise at the Fuji case: "I was surprised that they had diversified into things off their core business. Is the implication that we should be getting into areas that are far off from our core? That feels kind of daunting."

But for Brian the Fuji lesson wasn't so much how far Fuji had travelled, but what had been lost along the way. And what might be lost along the way if the station, as a public radio institution, also traveled that far.

"So the question is, if your industry is going to die, does it matter if *you* die? What have you accomplished if you have diversified so far outside your core? Like if we became a bicycle maker and didn't solve the problems around journalism and mission that are central to what we do, then what would we have accomplished?"

The community engagement director chimed in: "Or what if we made journalism games? Would that be fulfilling?

Michael liked this example: "Or what if we made just games? Or if we diversify into publishing — like the Washington Post which is partly protected because of Kaplan's profitability — what do we think of that?"

The problem how much diversification was too much in a mission-heavy field like public radio had been in the back of Michael's mind ever since Jessica started. The mission of public radio was central to the station. Michael had to protect it, alongside the journalistic values that he held dear. Fuji was a tantalizing—but also problematic—object lesson. But the Fuji example was not one that Jessica was interested in talking about, nor the lesson she had drawn from Brian's talk. She tried to remind the group of what Brian had done with CT public radio:

"Brian has been working with CT public radio. And they just finished a long IDEO project which was a strategic examination of CT public radio as an entity. They used human-centered design in the field to learn from the audience and to give them inspiration. Their mission was redesigned, and it's now on their site, and everything they do will now be built off that platform. That might be a clue to study in public radio. A large entity goes out on the ground and started to learn from people on the ground and then that started to change the entity — that was Brian's point."

Michael agreed that CT public radio was getting serious about reinventing themselves. But David Vance, who had missed Brian's talk, was curious — was there anything that Brian said, "you have to do this?"

There was plenty that Brian had said the station had to do in the second half of his talk. The audience research and design practices, the spirit of experimentation and learning, and creating a culture with the time and space to reflect were all ideas for what the station *had to do*, aimed directly at the station managers. Had the managers understood it?

It seemed to be a mixed bag as to what the managers had taken away for what they were supposed to do next:

Paula [programming]: He brought in lots of new terms, new language which I appreciated. It was like "disruption prevention." But he not giving us the HOW so much, I actually wanted to know more about how to do it.
Aaron: I will get the talk up on the strategy blog.
Henry [head of membership]: What is interesting to me is what he said about taking down silos.
Paula: It was also interesting to hear him talk about why change is so hard, and the brain science behind it.

David Vance, the long-time director of programming, was still confused about Brian's core innovation message, and especially what they were supposed to take away from the Fuji case. David was the closest figure the station had to a keeper of the sacred public radio flame. And he expressed some worry about what a Fuji strategy might mean for the station: "But with Fuji as the example, they got out of film business. But we have a *public service*, we're not talking about getting out of that, right? So that change has to incorporate our public service."

Michael was also worried about preserving the values of public radio, but to him the issue of making money could possibly be separated. There was actually precedent for a lucrative side-business in public radio: Minnesota Public Radio's massive success in building and then selling a publishing business. Michael responded to David:

Michael: To be clear, Fuji still makes film, they are still in the imaging business — but a lot of what they diversified into is not that. They applied the IP and knowledge that sustained the business into radically different areas. That for me prompts a question. The Minnesota Public Radio endowment is so big because it was in

publishing business. They were providing that service to others, then sold it to Target. That gave them a huge chunk of money.

Thomas [Station Manager]: The interest they make off of that endowment is huge.

Michael: The interesting thing is that was non-core business, it was a printing business. So how far afield should you wander to save your core service? No one in newspapers has yet figured out how to stem the decline of print advertising or to build the growth of digital to a level where it can make up for the losses of print. So you wonder whether the only solution is something totally disconnected, that doesn't sustain you currently. Or find your billionaire.

This didn't quite answer David's concern about how a reinvention could be lucrative *and* preserve the values of public radio. But, perhaps sensing the challenge of doing both, Michael took the opportunity to pose the question to his team of just how well they were doing compared to what the strategic plan had set out for them:

"So looking at our strategic plan, and the ways we are trying to reinvent ourselves, what is your take on that? Did you listen to Michael and say, 'we are doing that?' Or 'we're not changing fast enough?' This can't just be my concern, has to be yours too."

Jessica tried again to bring more of what Brian had said about *how* they should be innovating back into the conversation. She also, for the first time, began to tell her new colleagues about what she had done to encourage innovation at Arnold.

"You don't need a lab to do innovation. You have to figure out in your day, what can you carve out, given your challenges. Like, pick people to do a small scrum, and get messy about the challenge you are facing, and use the new room you've created — with stickies and sharpies and get ideas of new ways to solve problems and create. Do something you haven't done before. Like even gathering in a broadcast meeting setting — is there another way to do that? Where everyone is giving solutions, in the smallest amount of time possible? Running those meetings is a skill, but we can train people to do it!

I did this at my old firm, with the legacy and digital practices growing up inside. People who are familiar with prototyping and scrum taught people who are on the TV teams how to think this way. But it takes practice. It takes feeling comfortable with being messy, and not having things come up right all the time. It's a cultural shift, and the only way to do it is to carve out time in your day to experiment."

The issue of having time to experiment was one of the most important themes Aaron took away from Brian's talk. And it dovetailed with his own feelings—and those of other managers—that Michael was pushing the station to do too much. Aaron wanted to bring some of that into the conversation too, so he added:

"I think there are other ways of carving out time. We are all doing a lot. What Brian was saying to us is, you can't do *more* without doing *less* of something else. There is calculated amount of productivity that we all have.

There needs to be oxygen in the room to be able to think original thoughts, and not just go down the list and do what's on there. We do a lot of that — we are well subscribed on the to-do lists. But there is less time for moments of clarity, discovery, and thinking that good ideas just come out of. There is less time for that. Did others hear that?"

This was a risk for Aaron to take in the group — to ask his colleagues for confirmation of a very important message that they all knew Michael needed to hear. But Michael didn't give anyone else the chance to respond. Instead, he immediately turned the question back on Aaron:

Michael: Ok, Aaron, I'm not sure where I stand on that, but if you look at your days, are there things we should stop doing to make room for other things?
Aaron: I haven't given it that much thought, honestly.
Michael: Ok, so think about it!

This was enough to shut Aaron down for a while. But Alex Abrams picked up the flag where Aaron had been forced to drop it and tried another angle at the same problem. The station had no real way of assessing what was working or not. She chimed in:

Alex: Well, one time to think about that is when we are starting new projects. I got an email over the weekend from someone at another station, asking for KPI for projects and the station and I had to say, we don't have any. We can say we want more listening and more traffic, but each green-lit project should have like 5 goals — journalism, traffic, membership — and then we should see if we meet them. We don't do this with discipline or regularity. We do it sometimes, but it's not ingrained into our culture. Something like that would help us with deciding what to stop — we would be able to say, this is a great success because of this this, or this is not a success and we can let it fade out."
Teresa [head of events]: I agree with that. I have been doing that in community engagement — and other stations have been doing that too. I have been sending out surveys after events to ask how it went, what could be better. We start things with great enthusiasm, but we don't know what happens after. If we did have KPI's, that would be great."

Alex was right — there was starting to be a push within the public radio system for stations to think about "KPI's" — Key Performance Indicators. Talk of KPI's was beginning to infiltrate the public radio marketing conferences and the discussions in the large station group. There was enough data available to stations that identifying KPI's was not impossible. Between broadcast radio ratings, financial information, member data, email data, and Google Analytics, it was possible to construct indicators for all kinds of station activities. Defining "key," and defining "performance," was different question.

Brian however, and pushed back on Alex Abrams, implicating that the problem of measuring

success might be unique to her digital team.

Michael: I want to push back though. We do need more performance metrics, and Aaron and I have talked about how do we measure digital success. But to push back, is success *generally* hard to recognize?
Alex: Yes.

Thomas, the station manager, broke in with his own answer: "In a for-profit, *No*. in a nonprofit, *Yes*."

So now Michael had his station manager and his deputy head of digital telling him that success is hard to measure. This was not his own view. He responded to his team:

"Well my answer is, no, success is not hard to spot. You need performance metrics mostly to measure incremental growth. But if we create a new podcast and it bursts onto the scene, goes viral, and does 3M downloads a month, won't have too much trouble recognizing we have a hit on our hands. We can see it anecdotally. A great blog post which has 250 comments, shares — we can recognize that is out of the mainstream conversation. I throw this out to say that actual success, like even without terribly granular financial understanding, I can say our show is a success. We can also see failures. We are in the business of communicating to the public, and we have crude ways of measuring it, but we can measure it. It's this living dead in the middle — where we want something to succeed, but it isn't working, but it could it turn into a financial game changer, that we don't know about. Do we say that is a success or not? That is the middle ground we get lost in."

Did a large audience always mean success? And did a middling audience mean failure? These were the kinds of existential questions that had plagued public radio from its beginning, and which I laid out in the previous chapter. It was true that success, for the majority of "mainstream" public radio stations, had come to mean large broadcast audiences. It was hard to argue a station was providing a public service if no one was listening to what the station put on the air. But Alex's point was a deeper one—there were actually *many* ways of measuring success, especially now that there were so many different products and so many different audiences beyond the radio. She bravely tried to push Michael's thinking a little further:

"I think you're right, but most of those are *audience* metrics. Like take oue big podcast — that podcast is a success, it has more than 1M downloads. But what is our revenue success for that? Do we know if it is successful as a product for a different audience than the radio audience? Who is listening to it? Are people even listening? Does the podcast's downloads even measure that? I would want to say, against *this* benchmark, is it doing well from an audience perspective? Or if it does not have huge downloads, is it an audience we want to reach? Or is it a journalistic success? Or is it a product success? We don't identify those indicators when we set out on a project, so as time goes by, the discussion is never 'are we going to shut it down,' but 'how will we refocus?'

This was a crucial distinction and diagnosis that Alex was offering, and one that had the power to

explain much of the operational overwhelm that Michael had helped to bring about on his senior team. Expansion and growth—of audience and revenue—had been Michael's primary concerns. And through the strategic plan, he had gotten both out of his team by layering new ambition on new ambition. But beyond being able to see that the audience and revenue were growing, there were rarely other explicit dimensions of success—not to mention metrics—that he applied to projects. The result was more, more, more — but also a whole swath of so-so programs and initiatives, often neglected when Michael identified the next new thing to chase, that had no kill switch.

Yet locating the kill switch in public radio was not straightforward either, as Michael knew well. Public radio and public service was not all a game of audience and revenue, and it had never been. As the leader of an institution with journalistic and well as public service goals, Michael knew his ultimate aims were not always so easily measurable. It was the middle ground that made him uneasy, and was the most confusing to navigate. He responded to Alex:

> "We have to find a system to measure the things we want to walk away from, I agree with that, so we can take those resources to other things. But the connections between the size of audience, the revenue and business model connection to it, and our mission are all pretty well aligned. Not perfectly. There are some things we do that have nothing to do with money or audience, but are about our mission and values to cover the world — that is always part of journalism mission. But for the most part we try to align those with reaching a large audience and generating revenue. For big successes, all those things line up. For big failures, things that have no money and no audience — those are clear. But there are things in the middle where some of our values and our goals diverge. That's harder. Some of those we will do because it reaches a sizable portion of audience, or it has other, intangible, hard to define benefits and that is where it gets messy and hard to define. And perhaps Brian was saying to us, we can't afford those."

That wasn't exactly what Brian was saying, but the distinction was easy to miss. Brian had said to stop doing things to make room for innovation, and the middling programs were a ripe place to look. But the pursuit of values and the pursuit of goals always had to be and always would have to be carefully titrated in public radio. What Brian might have said were he in the room, is that the distinction between management and leadership exists in that titration. Balancing values against goals was not a task that a KPI sheet could solve for… though having

different metrics at your disposal, and being explicit about values and goals would certainly help.

Michael's team was getting worked up around this question. Clearly the topic meant a lot to them. David, the head of programming, chimed in:

"I think this is important not just for new projects, but for thinking also about the legacy things we've done for a long time. Most of those programs have some loyal audience, but how much of that is important enough to keep it going for that reason. What is it growth potential for our programs, and should we keep doing it just because we always have? Those decisions are things we have to put into this new paradigm of thinking as well."

But Paula jumped in to empathize with Michael—these were complicated questions, and standards could only take you so far. She gave the example of an old program that the station had cut, too much drama.

Paula: The showt had brand and loyalty — and people who loved the host. But what was the audience? Was the show important for branding? And we also did it for competitive reasons. So when you put all those pieces in the mix — it get complicated. We need the standards, I hear you, but not always."

Teresa: We can be explicit about that though — we can say what the *reasons* are for keeping something around — like we do events for different reasons — money, prestige, content. Those are reasonable reasons, but what are the goals overall? Grow our money? Reach our audience? Win awards? Beat the competition? Reach younger listeners? We could lay out all of those things and create a matrix to say where those projects fall. And then we could do it consciously rather than unconsciously.

Thomas: Shows like the we have had, those audiences at off times have done well. And our podcast downloads are more successful than anything else we have, but no where near others in the industry. Both of these projects have proof points of success, but do we say those are indicators that they could be big deals? But what do we do with that?

Teresa: Well, we could ask, then why did it succeed? And how can we replicate that?

The station business manager—and Michael at the helm—could be explicit about their decisions and be more curious about what had driven their success. Teresa had put her finger on the heart of the issue. The station had many goals, and many values. But was it able to articulate them clearly? This was a moment for Michael to exercise leadership and management. But his mind seemed to have drifted again to the appropriate analogies.

"From a business model perspective, if I look at the power of a different business model to drive competition in the arenas we work in — like a Netflix, which has no advertising. They don't ever tell you how big their audience is — they refuse to tell you. But they don' have to share. They are not slaves to the size of their audience. They are slaves to how much of a buzz is it to say that the only way you get to see House of Cards is to pay for Netflix. If subscribers continue to grow, that single metric, then they are in business. And they have a connection between revenue and membership. That is a radically different model than the rest of the cable industry which is dependent on ads and subscription fees. That allows Netflix to take a different approach to quality and gestation period. But both are in the same business. So here we are about to face Nuzum going to Audible. He never has to worry about podcast up-fronts or ads or underwriting — he just has to get subscriptions to Prime. And they have enormous pool

of money to invest. That is the power of radically different business model.

You could argue that our membership program is the same thing that newspapers are discovering — ads are not where money is, but subscriptions will drive future of journalism. Even when we are faced with the daunting task of getting people to pay for something we give away for free. That's why I think the Innovation Lab is so essential.

At end of the day, it's not values that drive business models, but business models that allow values to be exposed in different ways. Our business model now may not be sustainable in the future, it may not be the way we need to serve our values in the future. So we may need to rethink the relationship between the content we create and the business model that sustains it. What that needs to be in the future will define the future for the next group of people who lead this table."

This was a convoluted, if enlightening, train of thinking. Michael seemed to be saying that, compared to his competition, he had to deal with a much more complicated set of goals and values. And despite the somewhat mangled logic, he raised a vitally important question: do values drive business models? Or the other way around? There did not seem to be an easy answer.

Henry, the head of membership, had stayed mostly quiet in the meeting. But he, too, had a lot to say about how the station could transform itself, and especially its relationship to its members. He took Michael's charge to rethink the content and business model as a chance to advocate for including the members, too.

Henry: The other thing Michael talked about was the importance of creating community and events, and strengthening the bonds with existing listeners and constituents. We have to figure that out. It's not just about people feeling engaged, but also figuring out how to put our arms around them. That feels incremental but also feels enormous. We have to figure out how to maximize that.

Michael: When I came here, I asked, "what does it mean to be a member?" What is the difference between being a member and being a donor?

Henry: For some listeners, membership is a barrier, it can feel like there are more obligations of being a member versus contributor. We've changed terms from *member* to *contributor*— and that is important to think about. Getting the kind of membership benefits we have historically offered might not be meaningful anymore. It could be more about engagement and community and a sense of connection to the station.

This was another, vital, existential conversation for the managers to have. It was also another topic that I heard talked about behind closed doors, with Aaron and David and Henry and Alex and all the other managers. They knew they had to have this conversation about what membership meant. It was a pillar of the public radio institution, but each of them had the

nagging feeling that it wasn't so meaningful anymore, at least in its current tote-bag-for-pledge-dollars form. If membership wasn't meaningful, that put the station at serious risk. But though they each talked about it separately, I had never heard a management conversation about it until this very moment. Michael agreed that this was a core concern.

Michael: I think if we could answer the question of what are the benefits of membership, tied to data mining and understanding our listeners better, and tied to the whole philanthropic range of giving — it could redefine our relationship with our members.

Donna [head of major giving]: We want them to be owners, not members.

Aaron: We want them to be stakeholders.

Henry: Yes, that is more fulfilling than being member.

Paula: People call us and say, I PAY for this, and I hate this piece you aired, etc. So lots of them feel ownership. It's good but sometimes problematic.

Michael: Membership is mushy and ill-defined. And I don't think we can afford to have the ill-defined nature of that relationship to our audience going forward.

This was an understatement. There were already early warning signs that organizations like the *Texas Tribune* were aping the public radio business model of membership, underwriting, and philanthropy; but the *Tribune* was putting their audience first and making that experience meaningful, and it was working. And though Michael feared the dollars that *This American Life* had been able to raise directly from its audience, the issue wasn't so much the digital direct line that TAL could create with its members, but that it used that line to ask its passionate fans for support. Without the passion and fandom, the direct line was meaningless. That was the existential threat facing the station. And it was why a discussion about the meaning of membership, and how to redefine it and make it real and compelling and responsive to different audiences, was so important.

Perhaps because this was such a core question, Michael searched again for the appropriate analogy to guide him in his quest for an answer.

"But coming back to Amazon, and the data mining they do and what they know about their customs. They have a single value proposition — of $99 a year — what do you get for it? An incredible amount. First it was free shipping, now it's watching things on Prime and streaming products, soon it will be audio products, discounts. And it's all in one tent. So in talking about redefining ourselves, if you can come up with one inextricably valuable proposition, you can put other things in that tent. What that proposition is for us, I'm not sure."

Cutting through the analogy, the question of the value proposition the station was offering was actually a productive way to frame the question of membership. A commercial value proposition might not be quite the right template, but membership did come down to a value question. Unfortunately, Michael did not give that conversation any more air. He wanted to end with a grand sweep of why this moment was so hard and how important it was to stay focused.

Michael: But going back to what Brian said, to me, the message that I took away from his speech — was the one slide where he talked about — how he was trying to argue that nothing had changed over a long time — that we are basically hunter-gatherers — and now there is this information explosion. If you believe that, then you are convinced that we are both fortunate and unfortunate to be living at a time of incredible change that is not like the invention of the car, or telephone, or whatever. This is something profoundly different. This is like the invention of fire itself — that is the closest thing in human history to what we are experiencing now. If you believe that, then all of us sitting here have to accept the fact that small change, incremental change to the existing model is not going to do it. It's just not going to do it. Then you go back to Change is Hard — we are hard wired to hate change, you need to build structures in an organization to reward change, to advance change, to be willing to change and admit failure. I came away from that — I have heard everything he has said before, but putting it all together, I sense urgency like nothing I have experienced. and yet, here we are worried about our April ratings like crazy.

David: That is a legacy worry! [laughing]

Michael: So this comes down to a core thing — How do we keep our eye on that ball? On the thing that sustains us today, while we embrace this radical change?

Alex and Teresa, who had both worked in collapsing newspapers, were only too familiar with the difficulties of facing radical change in legacy organizations. So it was important that they each jumped in to share their experiences of how hard it was to do what Michael was asking, and the space and freedom that was required to step outside the pull of the everyday.

Alex: I have worked on the digital side of legacy organization for a long time, and what I've learned is *don't underestimate the pull of the operations*. It is like a black hole. Everything is dragged along inside unless people are empowered and freed up to do something different. You have to free people up to get out of the space, even physically. It is the little interruptions in the everyday work that add up to a week or a month of time, and those things slow down innovation a lot over time.

Teresa—At my newspaper, we called it the MAW.

Aaron had his own thoughts to share about how to stay focused on change, with a very practical suggestion for making use of the large number of job openings the station currently had.

Aaron: We were talking about underwriting positions that are open, and that we need people because underwriting revenue is down. But if we want better business an leverage, do we say rather than invest in radio sales people, do we look for monetizing our podcasting, or making our popular blog bigger? Those are the conversations that are helpful.

Jessica - Yes, I was talking to Aaron and Dawna about fact that we have 18 job openings, and asking what are we doing about those open position to think about how to take the station forward. With those jobs, you aren't

having to cut people, because those are people who don't exist yet, people who could take us forward. So are we looking at them to say how are we doing something different with them?

Thomas: And we have diamonds in the rough and need to figure out what to do with them.

These were both very good ideas for how to start changing the organization immediately—focusing on letting some things go to free up time and space. And using open position to hire for the future, rather than the current (or past) needs. But this was, apparently, not the conversation Michael had in mind. He gently chided his team for not engaging with him on the existential conversations.

"It's interesting that when we are engaged in this conversation like this, it's hard to stay at the level of a real existential conversation. We get dragged down into the actual details of the day-to-day operation. One of the exercises worth going through is looking across our entire org and seeing whether or not there are things we can eliminate, or focus more in each department and across the organization. That is an exercise I will ask us to engage in shorty. But to finish up with Brian, he's been thinking about this and doing this a long time and hasn't been able find answers to the big existential question.

So it does show what an incredibly difficult moment this is. I believe around this building we have people and resources to come up with breakthrough, to think about things differently, to approach things in a new way. I am sure there is a way out there to look at the challenges we face. I don't think we've begun to surface that because our challenges are so big — but we have to make the environment to make that happen. Innovation Lab is part of it, but there are other parts too. I need all of you to do this with me. I'm not smart enough to do it myself."

Everyone looked a little downcast. They had started to have some really important conversations. But it was only a start. David jumped in with another suggestion:

David: Is it worthwhile to have a retreat with this group to talk about existential change?

Michael: Yes, I think something like that would be good. Maybe it is a scrum, a retreat, or something else? Maybe it's something that Jessica does when she has a team helps us? I think it will be helpful as we build out the Lab that it will be a different kind of driver for innovation and thinking than we are used to.

This had been what Jessica was planning to do with the IDEO sprint, and it was a nice set up for her. Michael had some final thoughts for the group on the Innovation Lab.

"We don't want Innovation Lab to be in this building, and get sucked into the Black Hole, as Alex said. We do need to have this driving force to pull us forward We are looking for BIG ideas — not many small ideas. But in many ways we only need one!"

And with that, the meeting disbanded.

14. The IDEO Sprint

The Lab employed two strategies in its first research project to address the definitional problems it faced. First, it focused on discovering and articulating a different understanding of listeners than the station was accustomed to. Second, the Lab targeted the hearts and minds of the station leadership. I describe each of these strategies in more detail below.

Without a deeper understanding amongst her peers about the kinds of projects she was launching, who she would be building for, and how her work could help the station, the Lab director worries there would not be much of a landing pad for what she wanted to build and launch. The bundle of questions, confusions, and misunderstandings on the management team about the relationship between mission and innovation also made it clear to Jessica that their perspective would have to change. She wanted the station managers, most of all, to share a perspective on the needs of their audience. Working with Aaron, Jessica developed a plan to contract with an external design consultancy for a 2-week, participatory listener research project.

Kicking Off

The station managers' ideas about the audience reflected what they understood from broadcast metrics and existing market research in public radio. In order to uncover the unmet needs that the Lab could begin to design products for, Jessica needed a better understanding of the habits, routines, and preferences of listeners. The stated goals of the research "sprint" were to answer the questions:

How might we better engage with station listeners and the larger community of potential listeners?

How might we uncover opportunities for new revenue streams and offerings?

The 2-week listener research project began with a kick-off meeting at the station with the

design consultants, Jessica, Aaron, Alex, David, Thomas, and Michael. After the consultants shared a few case studies of their work, the discussion turned to what they hoped to learn. Jessica presented the categories of listeners she wanted to learn more about: super users, casual listeners, and non-consumers. She described what she wanted out of the project: "we're curious about the "magic moments" that convert casual listeners to super-users" she said. David responded by telling her what he knew about these listeners:

David: The super users might tune in for 5 times a day, 12 hours a week. A casual listener might tune in twice a day. We know the super user is spending 2 hours a day with us.

Consultant: Is that linked to a donation pattern?

David: Time spent listening is a huge thing for us in radio. If people are tuning in 5 times a day, 12 min per occasion on average, that tends to predict donation. NPR did a study that the average listener using 6 different media devices between 6am and 6pm.

Thomas: 4.5 hours a week is the average time spent listening with some more and some less. It takes three years of listening before you become a donor.

This conversation illustrates how even as the Lab was beginning to introduce a new way of thinking about listeners to the station management, the station managers still mostly relied on broadcast metrics for what they knew about the audience. At first, David and Thomas connected to the idea of "users" through the broadcast measurement of listening—the number of times a listener tunes in per day, and the total time spent listening. They also shared the conventional wisdom in public radio — that time spent listening predicts giving.

Yet as the discussion progressed, the managers became more and more complex in their thinking about what a "user" might be and what different types of user behavior might mean. Building on Jessica's suggestion of exploring why people might not listen, David observed: "What is happening with the changing media habits of all of us as our choices are changing—like maybe people are listening to podcasts all afternoon." This prompted Alex to ask:

Alex: Are we only focused on listening or the other ways that people interact with us?

Jessica: we're not just focusing on radio, but on any way that people interact with us. We have a few young people [targeted for interviews] who just listen on one device.

Michael—what about reading on our website?

Aaron: So we're focusing on the user in a broader sense. We have users on the web site, and we have listeners on-air or on-site or on our podcast — and what we don't know is the overlap between those — are those readers

converting to listeners? Do listeners read our stuff? You can go to our yearly fundraising event, and probably half of those donors have probably never been to our web site. At the same time, our website growth has been steep — and we just don't know why. When you are doing your conversations, that would be interesting to us.

Yet even as the station managers enumerated all the different ways in which listeners interacted with the station, their touchstones remained what they could understand from the metrics of broadcast: growth and declines in volume of listening, listening in age groups, and listening in day parts. The meeting ended with a discussion of the hopes and fears for the project. The station managers hoped that the findings would point the way to new revenue streams and new journalistic breakthroughs, that it would create a strong foundation of understanding about listeners, and that it would inspire change agents within the organization. The fears were the limited time, keeping up momentum after the project and finding resources to take the results forward, and that, "a bias for rigor will get in the way of intuition."

Brainstorming about Responding to Listener Needs

The project continued with three short data gathering exercises. First, the consultants and the Jessica interviewed members of the senior management team about what they thought about listeners and what they would like to learn. The team set up two "lemonade stands" around the city and gave out questionnaires about public radio listening habits to people on the street. Finally, the team identified 17 listeners of different ages and demographics to interview in-depth about their experiences of the station. The team went out to the listeners' homes and workplaces to conduct the interviews. The questions began broadly ("Tell us a little about your daily life. Are you on a routine? What's the best part of your routine?"), then narrowed to how listeners got their news, information and entertainment and by which technologies, and then about their relationship to public radio and station.

The team synthesized the needs they had heard from the listener interviews and brought a

selection of them to a group brainstorming meeting. The meeting was held at the design consultancy's offices, with Aaron and Alex, David (the Head of Programming), Catherine (the Head of Marketing), Thomas (the Station Manager), Katie, Jessica, and the four design consultants. They all gathered around a big table, sticky notes at the ready, for lightening rounds of brainstorming on the following areas.

Table 2: Listener Needs from the Lab's Audience Research Project

Listener Need	Listener Behaviors	How Might We
"I like to be in control of what news I read and listen to."	"I curate my own media landscape [on Twitter, Facebook, my NPR News queue]."	Add one more listening occasion to our audience's normal daily routine?
"I'm looking for smart use of the pockets of time I have throughout the day."	"I started my public radio consumption with a single podcast, and have stuck to on-demand listening."	Feature our great storytelling to ride the wave of new podcast listeners?
"Decompression time from my busy day, the headline bombardment on the news, and all the noise made by louder news outlets."	"I turn away from 'news' toward something more relaxing or uplifting." and have stuck to on-demand listening.	Enable listeners to decompress or unplug with us?
"A relationship with [the station] that grows over time."	"I'm used to listening out of habit, the same way I have for years, and it's been a while since I tried something new."	Surprise our long-time fans with an invitation to get to know the station better?

Engaging Listeners with Prototypes

At the end of the meeting, Jessica and the design team used the ideas to create four "prototype" products that they would test that evening with some of the listeners they had interviewed. Those prototype were: a station production "outpost" that could rove around the community; a "pop-up radio" installation that would stream the broadcast into city bus shelters; a

"smart suitcase" product that would offer location-based stories produced by the station and integrated into a popular travel app; a "family membership" package that included children's workshops, tickets to events, exclusive content for kids, and other benefits for families; a school quiz package that included stories of interest to kids and classroom pedagogical material; unscripted behind-the-scenes videos of the station; a "dip jar" a physical payment kiosk that the station could place at shops around the city for listeners to donate for special rewards; and the creation of a "neighborhood news beat" that would offer hyper-local stories to communities around the city.

Jessica and the design consultants presented the ideas to the gathered listeners while the station managers observed the conversation and took notes. The next day, the station managers used a Google doc that Jessica sent them to record their most surprising insights and direct quotes from listeners. One theme was the nature of sharing and relationships amongst listeners. Alex noted:

> Listeners discussed a lot of 'dark social' sharing - that is, taking links from one place or another and gchatting them or emailing them to different sub groups of parents or individuals who might appreciate them, rather than the big blast on Facebook or Twitter. How can we capture this behavior (would come into Google Analytics as direct traffic, presumably).

David picked up on a similar theme:

> How can we facilitate social bonds between listeners -- whose connectivity is a love and affinity for the station? There must be many ways we can help be a bonding agent -- a facilitator. Help a listener put out a weekly play list of great stories or shows they heard that week that they send to members of their tribe. Maybe we create a competition between tribes. Again, this helps social engagement and bonding. And as Judy [a listener] said -- you would check out the playlist because it would come from members of a tribe you trust!

The nature of the competition for people's media attention was noted by Donna:

> While this is a small microcosm, amazed to hear how much podcast consumption is happening…
>
> The connected car is already here: Every person in the group -- male and female, ages 33 to 63 -- knew how to stream content from their phone in the car. They all used their phone for listening at some point during their day, even as they also listened via iPad, old-school radio, car radio, etc. Note: We need to be a seamless, across-devices experience for them!
>
> Many talked about getting their "news" on digital channels (referenced NYT, [regional newspaper],

> [commercial station], Reddit, Twitter) and talked about station "stories" and "programs"…. Is the word "news" too fraught with meaning today? News = a commodity.

The managers all noted how irritated listeners were with the process for donation:

> How can we make it easier -- even painless to give us Money -- our fuel?
> They want to give us money, but we must the transaction easy -- and less onerous over the air.
> "Pledge drive huge turn off" WE know this, but good to hear.

sWhat seemed to impress the managers the most, however, was the discussion with the listeners about whether the station should provide exclusive content to members. The listeners had strongly pushed back against the idea of "walled content." Alex put it this way:

> ** Most important - discussion on the 'fine line' between having locked and unlocked content. No one felt ok about walling off stuff, limiting it from others. People felt strongly about the station as a public good. Can't lose sight of the people who can't afford to donate as we look for new revenue models. People understood the need to move from the pledge drive, but didn't want to do it at someone's expense.

Aaron commented after the event that when Jessica had asked the station managers if the people before them were who they had thought of as "the audience," that most of them had said no—the audience tends to be older. "Because they [the listeners] were mostly younger, not commuters, no cars," he explained. But in his mind, this was good enough for the exercise. "They were huge young super users! And they saw themselves as brand protectors, even more than us!"

Assessing the Station

In the final step of the project, the consulting team met with station leaders to assess the assets and capabilities of the station in relationship to the ideas the station leaders and the Lab had generated. The station leaders identified the storytelling and sound-crafting abilities of their producers, journalists and editors; the station's audio production equipment as well as their digital content expertise as assets. The mission of the station and its brand, as well as the trust of

its audience, were also listed as assets. “Audio craftsmanship” and digital” were both listed as skills. In the category of relationships, the station leaders identified its members, donors, local city partners and public radio partners all as assets. The “Gaps” list, on the other hand, were mostly digital and organization focused. The three major areas the station leaders complained about were: social media management, data management and data visualization; no one in charge of the member experience; the lack of clear decision-making protocols, siloed nature of the organization, and overextended staff. The group observed that organizationally and culturally, the main focus of the station remained broadcast.

Creating Listener Types and Opportunity Areas

Jessica, with the design consultants, put together all that they had heard from listeners and station managers into a final report that identified 5 listener types and seven opportunity areas for the Lab to begin its experiments. The five listener types outlined the different forms of attachment that listeners had to the station: “public radio is like oxygen,” “loyal, loud, and proud,” “hunt and peck,” “program loyal” and “long-term relationship.” These types correlated with specific listener needs, listed below.

Table 3: Listener Types from the Lab’s Audience Research Project

Listener Type	**Need**
“Public Radio is Like Oxygen”	Help me… Become a Better Citizen of My City; Find What Matters Most in the Daily Headline Bombardment; Share This Cultural Experience with Like-Minded People
“Loyal, Proud, and Loud”	Help me… Create Content Alongside the Station; Share This Experience with Like-Minded People, Become a Better Citizen of my City

Table 3 (continued): Table 3: Listener Types from the Lab's Audience Research Project

Listener Type	**Need**
"Hunt and Peck"	Help me… Feel in Control of the Content I Consume, Use My Pockets of Free Time Throughout the Day Intelligently; Find What Matters Most in the Daily Headline Bombardment
"Program Loyal"	Help me… Find New Stories That Will Inspire Me; Become a Better Citizen of my City; Share this Cultural Experience with Like-Minded People
"Long-Term Relationship"	Help me… Rekindle the Flame in our Relationship; Find New Stories that will Inspire Me, Share This Cultural Experience with Like-Minded People

The report contained 7 opportunity areas, each with a few ideas for new revenue-generating products.

Reactions of the General Manager

When the 2-week sprint had ended, Jessica went over the findings of the report with Michael and Aaron. She described the most powerful impact of the report on Michael was that, "he could see that a 71-year-old can have the same behaviors as a 24-yr-old… and then he went and told the board chair about human-centered design!" As they went over the ideas, she reported, "he did a lot of no's at the beginning, then it went better as the meeting went on. He was eventually saying, this is an exercise for us." He also asked about what the station should be doing as opposed to what the Lab should be doing.

But when she went over some of the "revolutionary" ideas, she reported, "there was a little mental explosion. Those were more difficult for him to wrap his mind around. Like the good housekeeping seal of approval on houseplants. But it did start his thinking about could we do that. It wasn't a heavy lift, but good to flex those investigating muscles."

Reactions of the Kitchen Cabinet

As Jessica went over the findings of the report with the kitchen cabinet advisors, they encouraged her to think about what the Lab should be doing versus what the station should be doing. Brian pointed out the brand implications of what the Lab should do versus the organization: "the issue on this is around brand — if you do interesting stuff, what brand do you use? as you start pushing out new things — like Birch Box for membership [an idea from the report] — the development people could make hack-y looking crap. What's the t-shirt you want people to wear? What is the brand that you want to push?"

But the deeper question, the group realized, was about the values attached to brand:

Aaron: There is a line between journalism and what we're comfortable with, and what we're not comfortable with — these might be great ideas, but what do we do with our brand is another question — We got some man speak from the GM on that. He just needed to say it.

Jessica: Yes, we need to define the sandbox that we need to play in — so that is ok, he needs to say that.

Brian: It might take a while to get there. It might be different in 6 months in versus a year. Since those will be firm boundaries between what the Lab does and what the station does, you don't want to set them too narrow. There is a difference between values versus structure — being clear about what those values are —it's important for Michael to trot them out — he needs to say it, and know you heard it — and then there needs to be a way to move on from it. But you should not have bright lines for the four corners of your sandbox yet. But you can imagine if you mapped all the ideas — then you can see which are definitely outside the station, and then you can draw the box naturally from how they clump.

Aaron: I think that is exactly what she did in the meeting — was to say, thank you Michael we did these to experiment — but overly defining them is dangerous, because he will say "we said we would not do this" — so value and then test the water.

The advisors also counseled Jessica to focus the next stage of her research on non-listeners. Brian warned her, "this research shifts your thinking into the existing products and how you relate to those—and you hit the third rails in dealing with the existing product."

But Jessica was clear that she saw her mission as serving *both* existing listeners non-listeners: "our goal is deeply engaged, interactive community — and there are two ways of creating that — maximizing people who are already listening, and building a new community from scratch from people who aren't listening."

The source of confusion surrounding the Lab continued to be whether to let the listener type determine whether the Lab or station should innovate, or whether the capability should determine whether the Lab or station should innovate. One option that Brian put forth was "Jessica uncovers and shepherds those new ideas for existing listeners—but doesn't do the work—but then there are landmine's there because you are touching people's livelihood."

But from her goal of generating revenue, Jessica replied, "I want to maximize the 86% of people who listen but don't give."

Then she gives another example of where the Lab's mandate was still unclear:

Jessica: The other area is podcasting—how is the station going to start this business? That is what we need to ask. Not starting with, is this a good story? So [Station host's] podcast—do we start at the beginning and say, who is the market? What are the stories? How are we measuring impact? How do we productize it? Is that something the Lab should be getting involved with? Or the station?

Brian: Are those new listeners or existing listeners? That is one way to think about it.

Aaron: So then we're coming back to, what's the neighborhood that the Lab director is spending time in is where the org isn't — like looking for next cohort of audience, coverage, product — and let the core business do their job.

Brian: But that is what the org is supposed to be doing.

Aaron: Right, elevating their game.

Michael: Maybe you offer some consulting o them. but you can't say, here's a new thing, without saying, stopping this. depending on what you build for data — you can offer [host wanting to do podcast] resources — you can offer valuable resources like listener types to station — but they need to do most of that work. otherwise you are optimizing around an audience and problem that is not yours.

But, the advisors counseled, whatever she did, Jessica would face some risk. As Brendan put it, "if you are creating insights that don't pass back to the mothership, you can raise people's anxiety. But if you pursue these current opportunity areas [which overlap with the station], the anxiety goes up around "we're journalists" and "why are you doing this?"….

To which Jessica responded, "My question is, will it be harder for me to get Michael to feel comfortable with me doing work with listeners or non-listeners?" Brendan replied, "So the problem you gave is that with non-listeners, you are not on the core problem. But if you are on the core problem, you will freak him out."

The meeting ended without a clear resolution to the question of whether the Lab should focus

on listeners or non-listeners.

Presenting to the Station

A month and a half after the research was finished, Jessica and one of the design consultants convened another all-station "Lunch and Learn" to present the results. About 100 people gathered in the event room to each lunch and hear her speak.

After a brief introduction of the Lab and her approach, she introduced the project. She explained, "we wanted to do some research that is different from what the station and other places use" and she used the metaphor of jumping off the top of the radio tower to get down to where the listeners are to understand their habits.

The biggest surprise to the consultants, she said, was "the passion of the listenership — people were begging to participate, asking if they could stay on a shortlist for future help." Jessica walked through the design of the study, the methods, and showed some photographs of the activity. She talked about the listener types and the opportunity areas.

There was not very much time for questions at the end. Someone asked about whether they had looked at how to reach new audiences or listeners (no). Another question was about how the research connected to other thinking in public media about non-financial forms of membership. The answer the consultant gave was that she, too, observed the incredible passion of listeners to engage with the station, and that the Lab would be exploring the conversion funnel of listenership.

Then Michael took the stage and said, "this is such a great start for the Lab to begin to learn more about our listeners as a foundation for figuring out our business model for the future. Now I wanted to share some all-station updates. These are in no particular order."

And he went on to talk about a new gift for the station to build a public event space,

managers moving offices, a re-organization in programming, some changes in the on-air schedule and programming, the broadcast rating dip in April, the selection of a new ad agency, the negotiation of a contract with a big publisher for a new podcast, and the surplus at the end of the fiscal year.

"It's been a great year for us" he said, "and we continue to be moving in the right path. Needless to say, we have tremendous challenges ahead, locally dealing with competition and nationally growing our audience, dealing with digital disruption that is changing how everyone is consuming content. That's why this Lab work is so critical to our future."

He ended with a brief update on the website and app redesign.

Taking the Next Step

After the presentation to the station, Aaron congratulated Jessica on her work:

> "I do think you have changed the conversation [at the station] — you have to learn it before you can do it. And the conversation has changed. I wouldn't say this outside the building, and we are obviously at the very beginning of this process — but I would say that actually. And I believe that this should be added to a list of outcomes that The Lab can have on the station itself. And we will know that this outcome has been realized when you change the weekly strategy meetings. Then there will be CONCRETE proof!"

The kitchen cabinet met with Michael Jessica, Aaron, and Thomas after project was over to check in on the next six months of the Lab's work. Drawing out a 2x2 of new and existing listeners vs. New and existing revenue streams, he pointed to the "existing revenue, existing listeners" quadrant and said,

> "The station needs keep innovating on that — with flower campaigns, car donations, deals, incremental changes. But that is not necessarily the work of the Lab. This is where stopping stuff you're doing is important— impossible for this all to be additive. It's not money or organization size, but bandwidth is always a problem because existing legacy work feels comfortable, certain, all consuming. Breaking out of that is hard. Sustaining innovation is iterating on those things you already do — like a bigger sponsorship. or charging people for events."

Yet Michael had a slightly different understanding of the problem. Drawing from his analogy of

the decline in newspapers—"they had a massive audience of existing readers and they couldn't develop new revenue streams around those existing readers, but if they had, they could have survived"—he drew the conclusion that what the Lab needed to focus on was generating ideas for new revenue streams from existing online and radio audiences, and not focus on "how to develop new listeners." He went on:

"Our real challenge is how to develop new revenue streams with existing listeners as they change their patterns of consumption — on mobile, streaming. if we don't pick up one new listener, we still could be fine if we get new ideas for our existing audience. If you spend too much time on new listeners, then that is about how to grow your audience rather than monetize. this is not about growing audience, this is about new revenue streams. The lab is about business modeling and monetization of audience in different and new ways."

Aaron offered a slightly different diagnosis:

"I worry about listeners becoming non-listeners. In the on-demand world, and with the clouding of what is and is not public media, the increased competition is significant. NPR data show that listening to live radio is going down. And commercial radio listening is dropping faster. so the interesting thing is — new audiences are great, and good to go after them, but current concern is changing behaviors of existing audience that will no longer be our audience. that is a real sign of disruption — your market that you thought you had is diminishing.

Then Michael asked a key question: "so back to newspapers, if newspaper is basically reading in print form, and the newspaper reader decides they like the digital form, which has the same content, and some new features, has that reader been lost?"

And yet, Michael pointed out, he thought they were both wrong in how they were diagnosing the problem:

"The danger in the way that you are thinking about this is that the problem of newspapers was a platform shift. This is not platform shift, its a shift in the way people consume information…. People are asking "how am i reflected in the content?" "how do I be part of the brand?" "How can i be part of my community in new ways?" That is a conversation that people are asking for."

The analogy to newspapers did not clear up the confusion. Thomas remarked:

"How many different things are we doing in the Lab? are we creating new audience? enter new businesses entirely? create new businesses with existing technology? are we finding new ways to monetize existing audience to sustain us in this transformative time? So far i don't think we've answered the question completely as to what is the business of the Lab?"

They all agreed that the Lab should not worry about improving the existing revenue streams

from existing listeners.

Michael lamented: “It is so hard to envision these changes. change happens slowly until it happens fast. Change is incremental and then suddenly it accelerates at a pace you can’t believe. And then he offered another question about the lab: “How much of the work of the lab is connecting with and finding interesting ideas and outside groups, interesting technology and exploring what the relationship is that we should have to those versus coming up with ideas ourselves.”

But, at the same time, he also repeated the original vision for the Lab:

> “Part of my concerns, one of my fundamental reasons for creating the lab is the people in this building are working full time to produce programs, sell them, monetize them, run a business. transformation, wildly creative thinking is almost impossible in that context. which is why i envisioned a group of people who learn and understand our business as well as we do but don’t have to focus on any of that, and can absolutely embrace radical thinking. and take the time to connect with the outside world. our heads are in the sand all the time — there is an incredible rich landscape out there, and we don’t have the time to find it or literally find the time to talk with them about it.”

Jessica offered that within existing work streams she could provide consultation to the workshop:

> Jessica: what the lab can do with existing work stream is take a tiny slice of time and run problem solving workshops with cross disciplinary teams, to help people work in a collarbone and transparent way - -that is what the internet does and what we have to do.
> Michael—I would love to do that, and would love for the lab to be helpful as we try to innovate right now. i worry about any focus in that direction with our existing organization, which is why we said you will not exist in this building because it is going to create some level of drag against this requirement that the lab thinks in much more profound ways outside of the model we are operating on.

Yet on the other hand, he didn’t want it too far either:

> Michael: We have always talked about tethering, but also about the lab being outside. we recognized from beginning that you have a gravitational pull to the existing organization. we don’t want to have the spaceship flying around in synchronous orbit, but we don’t want it to fly so fast that it flies out to Pluto and it takes 8 hours to communicate with it either. there is something in between that. there is no there, there is no perfect answer to it. some combo of being connected to it so you understand it, and you tap into and influence the existing resources that are here. then you have to get far enough away to think radically.

Next Steps

After the meeting, Jessica followed up with her next steps:

> It’s time for the Lab to clear space for projects. In the first wave we will focus on:
> - 1 from existing listener research report
> - 1 focused on new/non listeners

- 1 light lift reflective of the Lab's mission/strategy/personality
- Our advisors can stand in as our proxy for inspiration visits to other innovation centers, we need to be focusing our resources on experimentation and learning from non-listeners.
- The next wave of research will be HCD focused on new/non listeners. One of our advisors offered to consult with us on how to best accomplish this.
- The Lab should create a hard time budget for the tether, approximately 10% of time to start. Decide how to spend it. Look at what is most productive. Then revisit and reflect, ask is it too high or too low?

How would Jessica spend her time next?

Chapter Conclusion

The chapter has explored the question of how the pursuit of a public service mission might affect the use of semi-autonomous innovation structures. I have explained how the station's Innovation Lab, which was set up as a semi-autonomous structure, encountered two entwined types of problems as it got off ground: problems of negotiating its autonomy vis a vis the station, and problems of defining what exactly it was supposed to be solving for, and for whom.

The problems of autonomy related to how close or far away to the Lab should be from the daily operations of the station. This was on the one hand a problem of how much time Jessica, an outsider to public media, should hang around and get to know the station people, how things worked, and the structure and culture of public media. It was vital for Jessica to do this because, as Michael and Aaron made clear, even though the Lab was to help find a new business model for the station (that could be shared with public media more broadly), there were certain parts of the station's mission and journalistic identity that station did not want to give up. And Jessica would have a hard time knowing or understanding how to navigate those elements without being able to learn about them from the station.

The autonomy problems shaded into problems of definition. What was the problem the Lab was supposed to solve and who was the target audience for the Lab relative to the station? The

kitchen cabinet had offered a template of Super-users, Casual listeners, and Non-listeners. But the language of "users" was not one the station was accustomed to. So, although the kitchen cabinet helped by conceptualizing the Lab's work as moving listeners from one level of engagement to the next, the question of where the Lab's work would end and the station's work would begin remained murky. Would the Lab build products for non-consumers exclusively and leave it to the station to figure out new revenue opportunities with casual users and super users? Even before building new products, if the Lab wanted to make anything of value to whatever type of existing listener, it had to first know something about those listeners. But the station owned that data and, Jessica hoped, some insight. She couldn't be so far away from the station that she didn't have access to station data on listeners.

Exacerbating the definitional problems the Lab faced was the type and organization of data that the station kept on listeners and listening behavior. The broadcast metrics which tracked listening data were divided by day part and reported the aggregate volume of listening according to basic demographic variables. This data was kept mostly by the underwriting team for selling on-air spots. The membership department operated on its own database that logged information related to donations to the station under $1500. The development department had their own system for receiving and tracking major donors. The marketing department had its own set of market research reports and email newsletters. The digital team tracked analytics from the website and the mobile app. And each of the on-air programs maintained their own email lists and social media following. The data were so distributed and fragmented that it wasn't possible for the Lab's director to get a clear picture of the kinds of ways that listeners interacted with the station so she could spot trends and revenue opportunities. But she also wanted this data so she could test the viability of the Lab's new products.

The related definitional problem the Lab faced was how to help station leadership shift from thinking about the audience as an undifferentiated public to thinking about the audience as listeners with different needs, behaviors, and orientations to the station. This was the design thinking ethos that Jessica brought to her work and it was very foreign to the station. Both the journalistic mission at the station and the public broadcasting identity created an orientation to the audience in which the station's editorial leadership relied on their instinct about the city and the broadcast metrics to decide what types of shows should go on the air, and what types of stories should get covered. In the broadcast logic, the station existed to serve "the public" and the public was, as Michael said, "the collective enormous polyglot of people from different socioeconomic backgrounds, demographics, all of whom find something uniquely valuable enough to spend time with the station."

Yet in order to find and test new revenue models, Jessica felt she needed to discover the unmet needs of listeners and figure out ways that the station could eventually (and profitably) serve those needs. And, in her thinking, the experts on listener's unmet needs wasn't the station managers but the listeners themselves. This required a radical change in station thinking that she needed to help create in order for the products she built to have a long-term chance of succeeding at the station as a replacement for the on-air revenue streams.

The final definitional problem involved finding the right set of analogies for thinking about innovation in a public service context. The General Manager returned over and over again to the fate of the newspaper industry and the myths of corporate survival and defeat to inform what he thought the Lab should focus on. But the application of those analogies to innovation in the public radio context produced strange and confusing results. For one, the scale of the problems and solutions were mismatched: if the public radio field, and the station with it, was truly about

to fail, then the Lab needed to produce a $10M revenue idea to save it. But focusing on revenue was different from focusing on audience needs. Audience needs would likely be particularistic and small-scale, at least in a human-centered design frame. Those needs might lead, over time, to new revenue ideas. But they might not. The revenue wins would likely be small scale, and result in more donors rather than a total new business model. The cornerstone of public radio, after all, was public service—free and open to all. Layering on a market logic, particularly one that required generating millions of dollars, was an odd fit. And Michael and his management team knew this too— every time the innovation ideas became too commercial, they balked.

Thus, the Lab found itself at the crossroads of much confusion. In its first few months, The Lab's director tackled those problems by trying to influence the hearts and minds of station leaders by bringing in external speakers and experts. She also tried to introduce new ways of thinking about the audience using completely different methods than the station had used before. Both of these methods were somewhat successful—the insights the senior managers gleaned from the listener research project clearly challenges some of their assumptions about who was listening and why.

But the deeper tensions persisted. The public service mission of the station, fulfilled within the constraints of a broadcast radio medium, created very particular ideas about the audience and their needs which were very hard to dislodge. In fact, the kind of particularistic approach that the Lab embodied crashed again and again against the station's ingrained ideas about a broadcast "public." And at the same time, the corporate and newspaper analogies, while they were useful for drumming up support for the *idea* of an innovation Lab, provided very little guidance for sorting through the puzzle of how to innovate on the public radio mission in a noncommercial context, beyond the broadcast radio medium.

These were tensions that would surface again in the station's other innovation efforts.

Chapter 7: Product

Introduction

In the previous chapter, I examined the launching of the Lab and how the station managers thought about setting up innovation structures in line with their public service mission and in response to the existential threats they perceived on the digital media landscape. I showed how a strict application of a semi-autonomous structure was, under conditions of a public service mission, very difficult to achieve. Both the station and the Lab ultimately had to work together and negotiate the autonomy problems facing the Lab so they could pursue a common mission and set of values. The biggest barrier to innovation in the semi-autonomous unit, however, was that the Lab and the station held fundamentally different understandings of the audience to be served and the problem to be solved. How to serve the audience first—rather than put organizational revenue and survival first—became a stumbling block for advancing the Lab's work.

Innovation labs and other semi-autonomous structures aren't the only way to navigate existential threat from digital change. A differentiated portfolio of products can also meet the shifting demands of stakeholders, address the developing technological context, and capitalize on changing consumer behavior. Media organizations are increasingly creating a portfolio of product innovations that can serve different audiences. This is especially true as consumer behavior has migrated from desktop web to mobile, and as digital technology platforms have launched different media products.

But the focus on products and product development is a new innovation skill for many legacy

media organizations. Human-centered design is one approach to product development, but Agile and Lean Start-Up, among other methods, have gained popularity among media organizations seeking to create and manage portfolios of digital products. A common innovation challenge that legacy media organizations face is in developing audience-first thinking, as the Lab chapter helped illustrate. But adopting the rhythms of product design and software development can also be difficult. Product development is thus an interesting site for examining how the pursuit of public service mission influences the process of innovation in public service media organizations like the station. How does the pursuit of a public service mission make product development processes more or less difficult?

To answer this question, this chapter shifts away from the Lab and takes a closer look inside the station. During my fieldwork, the main focus of the digital team was using the methods of product development to redesign the station's website. Understanding how and why the digital team struggled to redesign the site—and what the team ultimately was and was not able to accomplish—will help shed light on my core question of how the pursuit of a public service mission influences the process of innovation.

1. Product Innovation

For context, the station had been at the vanguard of public radio station in its first website redesign ten years prior, when it had launched an ambitious digital news site that existed alongside its broadcast news operation. But the site was increasingly unsustainable, unwieldy, and was not mobile-optimized. As the station's digital audience was migrating quickly to mobile platforms, the station leadership realized it was time to rethink and rebuild the entire site. The station pledged a significant sum of money to the redesign from its strategy fund.

The station did not have all of the software development or design resources to undertake such an ambitious project (an important point I will explore later), so it hired a web design firm to act as a partner. The design firm would help the station build the strategy, wireframes, and design, and would assist the station's two developers in implementing the new site. The digital team retained a close advisor to the station to help oversee the redesign.

Principles and strategies guiding the redesign

The point of the redesign was to bring all of the station's disconnected sites under one single system. The original site was actually a series of sites, built up over time, many with their own back-end systems. This was a problem for the station's digital producers who had to navigate several different interfaces in order to post content to the site. It was also a problem for the digital team which had to maintain a multitude of sub-systems and had to create new pages and new sites every time the station added a new digital content initiative.

The result was the front end of the site—the content layer—looked fragmented. The station brand was splintered across these multiple daughter sites with a multitude of sub-brands and competing themes. The site also emphasized text rather than audio (which was the station's core media product) making it look like, in the words of their site consultant Katie, "a bad newspaper website." The site was also not mobile-optimized, so when users navigated to the site from a mobile phone (which, station data showed, was increasingly what users were doing), they would have to pinch and expand to navigate around the page. Finally, the donation flow on the site (when a user wanted to give the station money) was clunky and not user-friendly — the digital team calculated that there the abandon rate was 50% on the donation page.

Through a series of early conversations with its external advisors and potential vendors about

what they would want in a new site, the digital team had slowly developed a set of four innovation parameters for the new website. The first goal was to build "durable systems, not one-off sites" that would allow the station's digital producers to "quickly create new digital worlds with a common set of guidelines" that would "unify the station brand and strengthen design." Michael himself set another strategic theme for the redesign—"awesome audio"—meaning the new site should put the station's audio content front and center. Michael's message to the team was clear: "when a user arrives at our site, they should know that we are a radio station—that we are all about audio." The site should also be mobile-first, to reflect the changing nature of digital consumption. Finally, a third goal of the site was to "create and capitalize on business opportunities" including underwriting, campaigns, more opportunities for donation, and clarifying the role of digital membership.

These four parameters (1) systems not sites, (2) audio-first, (3) mobile-first, and (4) enable new forms of monetization were all in service of the larger strategic goal for the station of growing the online listening audience (as opposed to the online reading audience) because online listening is where the station management believed the best revenue growth opportunities would be. The strategy, in the words of an early redesign planning document plan, recognized that, "online listening is growing, more people are accessing spoken word audio via their phones and the web, and there is an opportunity for the station in this environment to reach those people and expand the audience" by emphasizing the core strength of the station. The new site was supposed to build around the strong content sub-brands in the stations (the shows and content verticals), use stories to showcase audio and build new brands, and allow the station to experiment with new online revenue sources. The redesign was supposed to help the station gather new listening audiences but also encourage existing listeners to visit the site and listen longer to more audio.

The site was also supposed to build a bigger national audience (as opposed to the metro audience) by showcasing better the content of the station's nationally syndicated programs.

The site's development unfolded in four phases. The first was a research requirements phase in which the station's web design consultants interviewed each major content producer in the station—the people and groups feeding content onto the site on a regular basis—about the challenges of digital production within the current system and what kinds of functionalities they would like to see in the new site. In a second ideation phase, the digital team convened a series of brainstorms with stakeholders around the station on three major issues: the audio experience, online fundraising, and underwriting. The point was to surface innovative ideas that could be incorporated into the site's core functionality. In parallel to these workshops, the digital team worked with the web design consultants on a set of "present cast" projects—immediate digital product upgrades that the station's developers did not have the capacity to do. Also in parallel, the design consultants worked on a re-branding project to create an integrated set of visual design assets and guidelines for the station. Finally—and also in parallel—the digital team and the web design team worked on integrating the site's redesign with a complete re-building of the station's native mobile app. As these parallel design projects were moving ahead, the web team moved into the prototyping and wire framing phase, translating the requirements and ideas into prototypes for the site. Finally, with a decent set of plans, the team transitioned into a development phase in which the station's two software developers spent a significant amount of their time offsite, at the web design agency's headquarters, rebuilding the site. As these many projects unfolded over the course of a year, the public beta launch date was pushed back, ultimately launching a year later than planned.

2. Contextualizing Media Product Innovation

Innovation can be a tricky concept to operationalize — defining what is innovative in any particular context requires answering the question — innovative in relation to what? To understand the challenges as well as triumphs the station's digital team encountered in the process of redesigning the site, and how the mission of the station influenced their work, it helps to lay out the competitive context for digital news and digital audio products, both of which were addressed in previous chapters.

Innovation in Digital Spoken Word Platforms and Revenue Strategies

The redesign of the station's site took place amidst the public radio renaissance of late 2014. The first design interviews that the team's web designers conducted at the station to take stock of the requirements for the new site took place in January of 2015, four months into the podcasting wave that was hitting public radio and the wider media world. On the one hand, podcasting as a digital product innovation played to public radio's strengths in creating high-quality, spoken word audio. As described in Chapter 3, the evolution of a complementary set of media consumption behaviors—particularly on-demand and mobile media consumption—provided a ripe context for podcasting to take hold as a media habit.

The digital platforms for spoken word audio, however, were all in various stages of under-development. The release of a native podcasting app in iOS 10 meant that iTunes was the main portal for new podcast listeners. But iTunes as a product was built with music design concepts at its heart—forcing podcasters, for example, to organize shows much like albums with tracks locked in a particular order. Spotify as a listening platform was similarly built for music, and

though it would eventually experiment with podcasts, in early 2015 it was on the sidelines of podcasting.

The core mobile user interactions, though, on iOS, Spotify, and also Stitcher, formed the standard for industry innovation in what a mobile audio experience should look like: where the play button should be located, how playlists were formed, and how to look for new content. These were the content-layer innovation standards that the station's digital team and its designers had to think about in relation to the new audio-forward, mobile-first station site they wanted to build.

3. Primed for Innovation

Compared to the standards of innovation in digital news and podcasting products (and supporting revenue and engagement strategies), the WABC site was lagging behind. In light of the innovation happening amongst its competitors and comparable news organizations, the four goals of the redesign were meant to bring the station in line with these practices.

On the face of it, the station was well-positioned to innovate along all of the dimensions above. It had built a considerable podcasting audience for its nationally-broadcast radio shows long before the podcast boom of late 2014. Its digital properties were relatively well-trafficked, and its on-air audience had been steadily growing. Organizationally, it had a membership department that was one of the most innovative in the public radio system, which was constantly experimenting with shortening pledge drives, creating new formats and inducements for giving. The newsroom of the station was similarly strong both on the radio and online, with two dozen radio reporters, three digital reporters, 2 multi-media producers, a social media producer, 2 full-time digital producers and a bevy of freelance digital reporters. The underwriting team was the

most productive in the public radio system, and was able to continually meet aggressive growth targets by selling on-air underwriting spots at rates far above what their commercial broadcast competitors could get. At the time of data collection, the station was expanding its live events strategy and actively pursuing the construction of an event space in the city.

All of these capabilities gave the station a considerable leg up in terms of resources and expertise than many of the small, digital news start-ups that were its competition.

4. Awesome Audio

Very early on in my fieldwork, the digital team began working with their design firm, Studio One, on the redesign. In late January, as part of the research phase of the redesign, Studio One gathered the digital team, Katie, and the podcast producers together for an "audio experience idea-a-thon" at their offices.

The purpose of the meeting was to identify problems around the existing audio experience on the site and the spoken word listening experience on the web overall, and to explore solutions to those problems. The basic problems were easy to identify: the live stream existed on desktop and mobile. The mobile listening link landed on a dark screen, and the desktop served up a video pre-roll. The embedded players on the site were not mobile responsive. And the app was okay when it worked but in general was getting less stable over time.

But as Aaron introduced the goals of the project, his emphasis shifted to the strategic opportunities he saw in the redesign:

> "We knew this was beyond a web redesign project as we were talking it over. It felt like what would distinguish the project was that nobody has figured out audio in a responsive world. How to share audio, how to make audio viral—no one has figured it out. There are so many challenges to this technology that goes back to the radio… But we know that the real money is on-demand in app world. We wanted to take advantage of growth in responsive design. And we challenged the people we talked to push our imagination in audio."

But it was more than just the strategic opportunity to innovate in web-based audio that was

exciting for Aaron. He also saw that the station was uniquely positioned as a powerhouse producer in public radio to compete on a larger stage:

> "Why? This is our market differentiator. This is where we are stronger in terms of content than others particularly on national programs. We know that audio is incredibly resilient—there when you want it, where you want it. But the other side is that it's incredibly opaque. You can't see audio, and this screen is a visual medium."

But there was also money in audio. This was a public radio truism, but it was backed up by the audience research I discussed in Chapter 5:

> Dollars wise, we know that people who listen, give more than people who read an article. If they can listen more than once, they will give more and we have research to back that up.

Importantly, however, the redesign was also an opportunity for the digital team to increase its status in the station. As I described above, the team had evolved a wide-ranging, but somewhat misunderstood mandate. Because the content the team produced (digital news) was seen as "less than" the radio material, the team was constantly fighting an inferiority complex. Aaron understood that if they could execute the redesign well, it would reflect well on the team too:

> "There is also internal currency for us to embrace our legacy at the station. We can only get so far as written, textual, original content provider. For us to move forward, we have to take the station along with us."

Michael had helped Aaron to set his sights higher for the redesign. Michael had issued a quixotic but inspiring charge to the team: design for "awesome audio:" Aaron explained:

> "We know there's an opportunity there, but not sure what that is. For today, we want to focus on why we're here in the first place…Michael coined the term "awesome audio" and none of us knew what he was talking about, still not sure yet, but maybe we'll make progress today."

This was the first of a series of brainstorming session in the redesign, and Studio One had a specific method it used to help its clients craft their vision for the product: discuss the innovation in some dimension of the product currently, including time for reflection on people's own experiences as users. Then the group would move onto a "how might we" exercise, inspired by the innovations they had discussed, to generate ideas for the kinds of user problems they might want to solve or experiences they might want to create. And then finally, the group moved into a

series of rapid prototyping exercises to help flesh out some concrete designs.

And so, the assembled team discussed their own current set of media audio consumption habits and preferences as a way of beginning to brainstorm the problems and potential design solutions in the digital audio space. Though it is easy to imagine people who work in "legacy" institutions (especially something as old school as radio) might have media habits that don't extend beyond tuning the radio dial in their cars, this was decidedly not the case with the station team gathered at Studio One's chic downtown offices.

They discussed YouTube, listening to podcasts, Twitch, bookmarking and timeshifting the live broadcast audio stream, making audio accessible through text. They discussed SoundCloud playback, BandCamp modular playlists, the NPROne recommendation algorithm and listening experience, the WNYC Discover App and its commute time feature, their hatred of the Apple podcast app, other podcast apps like Acast, Castro, and Overcast, and Spotify.

But legacy does exert its own centripetal force. In the "how might we" section of the brainstorming meeting, interestingly, the station people mostly focused on organizational challenges while the designers focused on audio design problems.

Alex: how do we better get people to spend their time on things we want them to spend their time on? People internally. How to better direct internal resources? Can we look at where priorities are?

Bobby: how we get the audio from the broadcast show when it ends at noon up to the website within minutes? Yesterday it took 2 hours. The issue is that the audio engineer will record, they have to dump onto DC and then rip it out. Hand off to NPR, and then hand off to iTunes. There is no mystery, we know what's wrong. How do we get the right workflow from radio to web audio? How can we get the radio station to care about the digital audio experience?

The team moved on to talking about the top issues they wanted the redesign to address. The agreement was that the main goal was to get people to listen more on the site. "If only 10% of the people coming to our site are listening, how can we get them to listen?" said Aaron. But Alex added, "what audience are we not serving now? It's also about getting other people who might like us to know us."

Ultimately the group came up with four goals: 1) get more people to listen. 2) make audio more visible (easy to find and shareable), 3) monetize audio content, and 4) create a digital audio experience. These goals were noteworthy because they were, ultimately, deeply entwined with the mission of the institution of public radio: to entice a wide range of people to listen to high-quality audio storytelling… and to ask for their monetary support.

The meeting ended with rapid-fire prototype ideas. The team came up with an amazing number of ideas, many of which would go on to be built by others in the coming years, including podcast playlists and sharing audio snippets.

In addition to figuring out awesome audio, Studio One had also to begun to help Alex and Aaron tackle the much more prosaic problems of how different teams were using the site currently, and what kinds of functionality would make their lives easier. In parallel to the expansive brainstorming on "awesome audio," the lead Studio One designer interviewed producers from across the station.

Text versus Audio

As winter wore on, and as Jessica approached her first day at the station's new The Innovation Lab, the digital team tacked back and forth between their usual mix of digital news and product duties and the work of shepherding the redesign. The designers completed their interviews at the station and started working in earnest on developing designs from the range of "awesome audio" ideas that the team had generated. Yet from the beginning of these design check-in's, the tensions between the different goals driving the redesign started breaking through.

A design check-in between Studio One, Aaron, and Alex in early March illustrates this well.

The topic of the check-in was to look at what Studio One was developing and talk about what an "immersive listening experience" on the desktop versus phone might look like through the design of the persistent audio player. They talked about whether they might expect listeners to be reading as well as listening. The design team presented the idea of a playlist interface on the website that would allow users to add segments of audio to a list. They were also playing with ideas of having the audio take over the full screen. Aaron talked about how this experience might relate to the experience of listening to the radio: "The default radio experience is letting it wash over you. Users are not used to driving the audio." This suggested some need for presenting related links in default form or in a curated list for shows.

As they looked at article tease views, the discussion tuned to how could they let audio lead while also connecting to written content. One of the developers pointed out that they had decided to cue readers to listen or to read, but not both. They discussed how much information should be in the tease—to show by-lines? Or a date stamp?

This conversation was typical of a tension that the digital team as well as Studio One had to navigate in redesigning the site. While an "awesome audio" strategy should cue listening behavior on the site, the reality was that on the desktop and mobile web, most of the content people were looking for was text-based. And the digital team itself was responsible for a range of text-based news and information content on the station's current site. How to give each their due was not an easy thing to figure out.

And then there was the third goal of "monetizing audio content." One important way to do this would be to design the site to encourage listeners to donate. At this meeting, the team did discuss how to integrate the "donate" and "share" buttons. Aaron was aware that this was a key part of the product — he observed, "our market differentiator is that we are driven by public

support. Is that a value-added message?" But Alex responded that that was more about messaging than about action, and that they would have to rethink underwriting *and* messages about donating on the page. This seemed to be too big of a topic for the group to handle, so the monetization conversation ended there.

The discussion ended with one of Aaron's favorite topics — how to make audio more accessible by turning it into text, and how to differentiate transcripts from feature writing. They discussed what the role of editorial judgement might be in featuring text versus audio, and how to visually cue audio "so we look like a radio station."

5. Integrating Branding

As I described earlier in the chapter, the work of the digital team regularly touched all different parts of the station. The redesign heightened some of those intersections, particularly with the marketing department. Catherine, the head of marketing, was working on a visual refresh of the external brand identity of the station. Aaron and Alex realized early on that it would do no good to have her work happening in parallel to the major visual reset they were set to give the station's website through the redesign project.

So in mid-March, Aaron called a meeting of Studio One and Catherine to discuss the parallel visual design work happening between the redesign and the marketing department. He wanted Catherine's cooperation and support before he presented this approach to Michael.

He began the meeting by framing the design work happening at the station: "we have all the external digital channels that we push branding through like NPR, iTunes, podcasts, and the website. But we also have internal assets we need to share. The point of this meeting is to talk about how we can funnel all the design efforts together." He made the pitch to Catherine that the

redesign team could collaborate with her contract designer, so that her work would be in sync with the visual refresh of station assets. Catherine agreed: “I am happy for you to be in the lead of this—our website is the most public facing part of us visually.”

And with that assent, Studio One dove into a presentation of the “best practices of audio branding.” Because the site was meant to be responsive, they wanted to make things that would look good at “big and small scales.” The design team was working on both interim branding for the mobile app launch and branding for the public beta launch in mid-summer (more on the mobile app in the next section). Much of the meeting was spent reviewing some of Studio One’s choices for good and bad models of digital branding, including *New York Magazine*, *Vice News*, *Medium*, and *FiveThirtyEight*.

But these were strictly textual, digital news brands. The bigger question for the station, given the raging popularity of podcasting, was what it would mean to visually innovate in audio branding. Studio One understood that podcast branding was different beast than digital news branding.

They likened podcast branding to album art that would be persistent across channels and evergreen. The best podcast branding, they said, combined album art with word marks that could be recombined in different ways. They showed some sample ideas for podcast branding for the station’s existing shows. The idea, they said, would be to have branding for shows, podcasts or other verticals that would mesh well with the overall identity of the station on the site.

“We are trying to create systems so that we know how to treat stuff along the way, and we are not creating something new each time” said the lead designer. Aaron took this as an opportunity to repeat the mantra: “we are building systems, not sites… so producers can make things on the fly and they don’t need a designer to create something new each time.”

This was becoming a thorny issue at the station. As Michael's ambitions for more and bigger content grew, the process for launching a brand became more important but also more ad hoc. Every time a new podcast, or a new content vertical, or any new semi-autonomous content *thing* was created, the producers tagged to the project would have to hack together a brand, mini website, and distribution strategy from scratch. Oftentimes it was the digital team's developers who were pulled in at the last minute to help smooth out the edges. This was not sustainable.

"Crazy Talk"

Catherine liked what Studio One was showing as examples of podcast branding. From her design work with a few of the station's broadcast show hosts, she believed they would like it too. However, she did foresee some trouble. For the newest podcast that the station had launched, Catherine had run into some trouble with the station's programming staff in coming up with a brand. "My designer did a cool graphic for our new podcast, and internally people couldn't get behind the idea of album art. I worry that culturally it will be hard to get people to move in this direction." Aaron acknowledged that this was a problem, but he said he believed the sheer cost of the redesign project would convince people otherwise. This was a large-scale, serious investment in systems and process. Catherine tried to be helpful:

"I think this will help to present it as a system. So that you avoid going individually to programs and then the head of programming says, "this just doesn't feel like the warmth of the show!" So we don't get into that."

Aaron agreed and assured her that he had a plan for pushing through the politics, beginning with an important check-in with Michael the next day.

"So tomorrow is about showing Michael the underlying systems. We are going to say, this is not about a shade of color, but it does make clear SYSTEMS versus SITES, and how this problem is coming up into everything we do. So we need to show this presentation Michael now, and this will bring him up to our thinking as of about a week ago. I know he is getting concerned that we are picking colors and logos. "

This was a phrase that Aaron and some other senior managers liked to use for irrational

behavior at the station: crazy talk. And to resist creating a repeatable design process in favor of making continual one-off, in-the-weeds, editorial decisions was, indeed crazy talk. So Catherine responded:

Catherine: It's crazy talk.
Aaron: That is why we are doing a show and tell meeting with Michael tomorrow without color, or branding.
Catherine: And I think presenting your strategy as creating sub brands across properties will be a lot more successful than going by individual assets.
Aaron: Right. This is systems not sites we're building, and we are telling him that we're taking you under the hood. We will deal with the specific logo objections later. But by the time we get to it, I hope it will make those issues feel smaller than larger. That is my dream.
Catherine: All our show hosts' goal is readability. And scalability of branding.
Alex—Good, then they might be the most open to this approach.

"The Next Big Hill"

The next day, Studio One came back to the station and gathered with the digital team to present the design so far to Michael and David.

Aaron was worried about keeping Michael's head out of the details and up at the level of the strategy, so he asked Studio One to give an update on their work by spending some time on the high-level principles.

So, Theo, the lead designer, began with going over the basics: the fact that the current site was unsustainable, that the overall goal was to build "systems not sites" and to provide an "awesome audio" experience. The goal was also to "capitalize on new business opportunities." The strategy was to emphasize audio and to build around the station's best audio brands to do that. "We want to aggressively grow the online listening audio," Theo reminded them, in the midst of a moment when "more people are accessing spoken word audio via phones and web, there is an opportunity in this moment for the station to get those people and expand the audience." The principles were to make it easy to push play and for the audio to be persistent. Theo also briefly reviewed the competition: iTunes, Spotify, Stitcher—all the ways that people get spoken word audio. But, he explained:

"These things are not built for spoken word audio, and they are not built for your audience. They are built for listening to music. Finding spoken word audio is an afterthought, and there is no platform that is best for promoting networks of great content, and helping people find new things. We think the new station site can be that."

This gloss on the strategy—that the site's audio discovery and listening design should be stacked up against Spotify, iTunes, and Stitcher—was laudable. As new podcast listeners were flooding into the space, there really was no single, user-friendly digital listening platforms. Yet it was certainly not what the station's site was currently, nor what its listeners expected of it. To truly pull it off would require a fundamental reorientation of the entire station.

Perhaps this is why Theo hinted a small footnote that some organizational change would have to happen for a web-based audio platform to be possible. This was especially true in the workflow for how audio currently made its way from broadcast to the web.

"You have to be able to publish audio straight to the site. We learned that that is not happening now — from the station's tease, to the producer, there are several steps for audio to get onto site. And audio doesn't live as a standalone entity currently, it is always accompanied by text. It's rare to get in a place on your site now surround by play buttons. What it feels like as a user on your site now is that I'm supposed to be reading, and then listening is secondary. So we have to figure out how to support that audio getting faster to the site, and not accompanied by like a producer who has to make text to go with it."

On the text side, Theo said, their goal was to use stories to sell audio and to create new brands. Theo gave the example of the station's popular health blog, which had taken many years to develop its own online audio product.

"We need to make it easier for you to experiment. We know how much it takes to launch a new show — even a podcast. With the web, you can start with a smaller idea, work faster and leaner, and it will feel less daunting to build an audio product… users need to be able to find the audio content you are producing so that when they are done reading a story, they can subscribe to a playlist — something smaller than a show — but that helps to push audio."

The designers also discussed how the new site was being designed to push recirculation of both text content and audio content through the design of a persistent audio player. "This means audio and visual are working together towards discovery… your brands and your audio should be inextricably linked." Theo presented this as part of a "new paradigm" where "audio and text are married, not separate circles, but parts of the same thing." This paradigm would also provide

the station with a platform for building new sites and new brands via the creation of a set of visual standards and templates.

The meeting was nearing the end, but everyone was sitting and listening intently. Theo moved on to show some prototype pages that displayed different versions of how text and audio could be presented together on the site. He was particularly concerned with the mobile view and mobile user interactions since increasing traffic was coming to the site from mobile. He presented different treatments for different kinds of stories — audio only, audio and text, text only. He also presented how they were playing with the audio player conventions from Spotify and iTunes to incorporate into the design of the persistent player on the site and the option for a playlist queue. The goal was for the mobile site to look like an app — to be a "web-app hybrid."

Finally, at the end of the presentation, Theo flashed on the screen a mock-up of what Aaron was really excited about: transcribed audio as a part of the persistent player. This provoked conversation over whether such a thing was technically or organizationally possible. Aaron advocated passionately that it was increasingly possible and that the team would try to incorporate it.

Then it was time for Michael's reactions. He loved the presentation of the strategy and the prototypes.

> "I love this presentation, I think this is interesting and powerful stuff, and it seems like everything we've been talking about is in here — sending the message that we are an audio-based organization but we also do a lot of text. You are doing great work... The great things is, it feels like you are thinking about it from the user side, and thinking about it in new creative ways that feels like fresh experience."

But Michael had two concerns that he wanted the team to take seriously. From a user perspective, he wanted to make sure that people knew where to turn off the audio in the persistent player. He was also concerned that the teams had not thought about where underwriting would fit and how much they would rely on banner ads versus audio monetization.

Aaron and Theo both side-stepped these concerns. Theo said: “it’s both” and that the “first round business opportunity is to leverage the unique on-air underwriting voice” through a visual asset that was something like native content. And yet, Aaron finally confessed, monetization was really “two phases down… this is just table setting for the next big hill.” Michael and David left the meeting agreeing that the design was very exciting in the way it integrated audio and text and made the site “audio first.”

Michael’s excitement was a win for the digital team, for Studio One, and for the redesign project. They had managed to stick to high-level principles, while also making the case for an integrated design system, and making progress towards Michael’s dream of “awesome audio.” The design was ambitious and responsive to the best of what was currently out there in audio apps. The “next big hill” of monetization could wait.

6. No Designers in the House

The rest of the month was spent refining the design concepts. The design team was working quickly, and came back later in the week for another check-in on the wireframes and features they were developing.

Studio One presented ideas for the infinite scroll of stories, for a mechanism to manage playback on the persistent player (either defaulting to the live stream or a related story or to a playlist). Both the infinite scroll and an “off” button for the playlist were things Michael had said they should work on. They demo’d how a “now playing screen” could take over the page much like Spotify. They were experimenting with where to the put the donate button. They also showed the mobile wireframes and how the player might work on mobile. Theo also discussed how they were thinking about managing layout for normal news days versus breaking news day.

But as the design ideas started piling up, Alex and Aaron had a nagging worry that the station might not have the in-house capacity to keep pace with the ambition of the designs. Theo tried to address their fears. He explained that this was "the beginning of a conversation about what you can support editorially… no matter what happens in content, there is a tightrope between delivering news/information and audio, and giving cues that you are in a choice-driven environment like Netflix or Amazon." The group discussed again the role of photos on the site and using photos as prominent posts. Alex observed, "people also have to write headlines that go with these photos—that could cause production stress—like keeping to a character limit, or making sure the photo isn't too busy."

The design team presented a "placeholder" for membership login and suggested that the station could ask users to log in with Facebook or Twitter to track their browsing behavior across mobile and desktop. The issue of log-in was an important one, but hadn't gotten much thought. But as the discussion moved on to typefaces and the color palette for the site and the potential for illustrations of the hosts and editorial illustrations, Aaron zeroed in once again on the lack of design expertise at the station:

Aaron: What I worry about, is which designer do I assign to this? We have no designers in house. So you have to think about these design things, when and how and why to use them, and how to exert their effectiveness in this world. We have been hammering Michael on a need for a designer going forward, and telling him you can't run if you can't crawl.

Alex: We are hiring a designer in membership, but we want someone who can look at the whole site and move things forward.

Theo: Like, someone who can provide art direction?

Aaron: The question is if, when, and how we become first public radio with an art designer. We are struggling with legacy/text tension for now.

Theo: I get it, you are not a TV studio, but this would be another step from radio to media.

Bobby: Yeah, all we would have to do is present one mockup with an artist-designer banner and one with a bad reporter photo — show those two mockups and ask which one do you prefer.

Alex: There is almost no one on the editorial side who has been hired for visual experience. I am probably the only person who has experience doing anything close. It's a real a vacuum of experience we have.

The conversation then circled to how they could push the envelope on the visual quality of the site without further overwhelming the digital staff. Aaron was particularly concerned about

the capacity of his team:

"So I like the quality visuals because it relates to our question of how do you know you are on a public radio site? That is what we have talked about. When you come to our site, how do you know, this is a station you wouldn't mind staying and listening… and this is not your mother's station. But what I am thinking about here is, I don't want to take this message back like this station lacks vision or capacity, or say we shot it down, but let's help them figure out how to get to that out. I think we can lay it out and make the case for it. But in the same way we just have these two developer guys on our team, and soon hopefully we will have three, and we are planning for four…. Similarly we only have 2 digital producers, Matthew and Kateri who are so overwhelmed right now. This is a conversation not a limitation… But they are so overwhelmed, the grain of content like the one that got dropped on them yesterday, that could break their backs. So as we add that aesthetic feel to the new site, we have to be mindful of also taking away stuff. I know you are looking at our workflow, but we can't just add people, we have to add efficiencies too. Audio/automagic pushing audio to the site, that might take some small layer, but we need to look at taking stuff off their plate, we can't keep adding."

Theo reassured him that the curation tools and the news updating features he was designing should take some work off of the digital producers' plates, so they didn't have to keep creating "build-outs" for each new newsroom project. But Alex pointed out that, "there will also be political work to sustain this, like with the newsroom, and training for the digital folks too." The designers agreed and said they had set aside the final three months of the project for staff training, and they could also help the digital team pressure the Michael to hire a designer to help maintain the site.

Katie had not said anything for a while. But she broke into the conversation to take it in a different direction. Katie's role as an outside consultant to the redesign was to advocate for conversion and revenue. She was ready to take aim at the discussion so far.

She said while she loved the design because it "passes the bad newspaper website test," she said the real question from her conversations about site strategy with Michael was: "what could people give money for that they don't today?" The answer to that question, she believed, was community:

"Community is the only big play left for the station. The one thing about this design, it's very app like, so it's a private experience. This is not a public experience. If I'm at the station's front page, there are 6K people with me, but I feel like I'm alone. Some sites do this to drive social traffic. Like Gizmodo. But there is no social on this place—not like clutter, but like a sense of community. This is a news station, it's a PUBLIC station, should this feel less like private, more like a public space? Should it feel less like they know us than they know each other? If they come to talk to each other, that is more important than if they come to talk to us."

It was an interesting intervention. The designs—tuned to the private spaces of mobile apps—did not give a sense of the public, or of the public support needed to sustain the station. Katie's thoughts sent the group in the direction of talking about ways to make the site more social, more Twitch-like, and how to convert people from "drive-bys" to "P1" listeners. The group discussed the possibility of putting social metrics on the site, but Katie encouraged them to think more deeply:

"What I'm talking about is drawing lines between public and private space — Like think about what I have in common with guy at bus stop, we have the same news environment — like same president, Congress, etc. I love how this looks like iTunes but News isn't a consumer product, it's a citizenship product. And the homepage is such a red herring. In google world, everything is a front page, that is why we started with the article pages on this redesign. So my question is, how do you get this not just on front page but every page. And how do we find that line between a cornucopia of stuff — like the old article page obscured how much content there was — and this, which is opposite. The question is line between this as a consumer choice and the public space, where you are with other people, and the reason you as a user are interested in a public space is because you live in a world with other people."

They discussed various ways to do this, including showing the number of people on the page at a time, or asking users to login with a social account so you can see who else shared the article in your network. But this led to a conversation about whether members would want to identify themselves on the site, and once again the "roadmap to conversion." User tracking, user log-ins, and conversion were inextricably linked. But also looking like a non-starter.

Alex got frustrated with the whole conversation:

Alex: We have to think about tactics and order of operation at some point when we pick a direction. This is aspirational, but we will need a moment to figure out what resources at the station we have to get going. Right now, no one manages our newsletters or checks that data, and there are so many micro steps to get there. I need your help, Theo, to look at this project and figure out what resources we have to get serious about and when. For me, visual illustrations are way down the road, but Twitter login has to come earlier.

Theo: So there is also a piece of work for us to do in defining a job description, including visual art direction and editing that could go with other forms of promotion for the site.

Alex: My question is about how to get from now to making this happen.

Aaron: Just let us live the fantasy for a minute!

The group decided that the community elements and the conversion elements of the site should all be tackled later. Bobby, the digital team's senior developer, summed up:

"We need a good-looking online experience first, that is the first goal. After the beta, then we can talk about

what our other goals are — page views, then maybe community stuff; conversion might be something else. This is the platform for everything else. Then we can ask whether we want 10K new members, or Facebook friends, or increasing online listenership concurrent visitors during the day, whatever."

The community discussion ended at that point, with praise for the design and the direction of the project. Bobby commented:

"This looks beautiful, and the changes are new. As long as I've been at the station, we have struggled with its dissociative identity, doing so many things. We are a station, and the homepage of the station reflects the local politics. And as we developers do our job, we see the mass of other content that lives on other parts of the site, and we realize we need a home for this that is flexible, that needs to be different. This is pretty darn good for that."

The last item on the agenda was a thorny one: syncing up the rebranding with both the mobile design project underway and the marketing departments design efforts with various podcasts so that they could get a common set of visual identities across program properties. They agreed that Studio One would convene another tactical conversation about rebranding and make some suggestions. The rebranding was going to be a political process, and the group was trying to figure out how to manage it, especially since the station lacked a well-elaborated brand book and a growing podcast presence.

Aaron: We are doing some iconography work right now for new podcasts, but do we change that to match what is coming? We have to think about how political that will be. Like do we standardize the podcast from the national sports show? Or the national talk show? That show is the product people are most vested in.

Alex: I have to have a conversation with our podcast producer on the phone. I think there is chance we can change, and then if we get pushback we can reconsider. But I don't want the project held up because no one can agree if it's the show hosts' call. Let's get 80% of the way there.

Bobby: The vacuum of visual branding is coming to a head in the next few months. Either it will be a bad direction of photos of faces and public radio badness, or turn we can help turn it around.

7. Integrating the App

In the early part of the chapter, I described the wide mandate of the digital team. In the previous sections, I've detailed how some of those intersections were coming to impact the redesign effort. But innovating on the station's core web product was not the only major product development effort the team was overseeing during my time in the field. The year began with a 12-week engagement with a separate mobile app development firm that the station had hired to

redesign its listening app.

Thus another huge focus for the digital team became to align the efforts of the redesign firm and the mobile app development firm. The station's mobile listening app had become more and more unstable and the station had hired an app development shop to build a new one from scratch. The timeline for the app was supposed to be much shorter than for the redesign. While the redesign was supposed to take about a year, the app was supposed to happen in 12 weeks.

It is worth touching on the trajectory of the mobile app project, and how the mobile app development and the redesign effort began to collide with—and impact—each other. The interconnected design decisions, and the interconnected development efforts, illustrate just how complicated the innovation work of the digital team became over time, and how their aspirations had to constantly be titrated against reality.

At first, Aaron and Alex brought Studio One, the web design firm, and the Mobile App Firm, the mobile development firm, together in late February as an information sharing exercise. They wanted the teams to discuss aligning their development efforts. But as each team shared their respective product aspirations, it became clear that the two product roadmaps had more overlaps than either had anticipated.

Studio One shared that they understood the app development team would only be focusing on making a stable listening experience. The mobile team replied that yes, the goal was a stable listening experience, and that while the core of usage of the app currently was the live stream, they also wanted to drive people to consume more on-demand audio. That goal, the the Mobile App Firm team lead said, "has to do with a richer listening history — whether a log or a recall function" so that people can see what they have listened to and then share it.

The teams agreed that the most important integration was of the "look and feel" — which

meant aligning typography, spacing, and the visual aspects of the two designs. And, vitally, they agreed they needed to align the visual identities of the audio sub-brands in the station. But it emerged that there were actually a number of threads to integrate on the look and feel front.

First, as I described earlier in the chapter, the station's marketing department had its own print designer on contract who was working on branding for station marketing. His work would have to line up with app and the new site. Second, the redesign team was already thinking about audio branding for the station's new podcast pages, which would have to port over to the mobile app somehow. Third, the redesign team was thinking about how to rebrand all of the digital identities of the sub-brands of the station for the bigger program. And finally, the mobile app team was thinking about how to represent the visual identities of the on-demand audio brands that would be available inside the app. To make matters more complicated, some of those brands were not owned by the station but by NPR and other content syndicators across the country. Alex, taking this all in, hinted at what a difficult process this would turn out to be:

"It took a year and a half for the new station logo to be designed. So I am not sure in the app development timeline that we can rebrand all the shows. What I would say is I can take it back to Aaron and Catherine We probably need some parameters for Catherine's contract designer. Like you need all of these to fit x y dimensions, or whatever you want to happen. To do it faster, at the level of the show itself, the uber brand might be in the same family as online, but one logo to rule them all will take a LONG TIME per show. That would be long for all the shows."

Pledges, Donations, Membership

At the end of the meeting, the teams compared notes on what they might be able to do with a donation function.

App Designers: There are challenges with app store files—for pledging—but we have some ideas around micro pledging. Micro donation are small amounts, and then pledging would be bigger amounts that we can follow up on. We can also give feedback on analytics, when donation behavior happens. I don't know how much of the donation work you have started with the station. I've talked to their developers about how to do it from nuts and bolts—and I know it is a third-party service that collects money. How do you work with donations?

Web Designers: We have a priority of text and audio content, and integrating advertising into those—the membership and donation pages are further down the line. And we've talked about micro donations on the article pages too. So we are eager to hear what you are working on. If you solve it, might be a way to integrate the web and app experience.

App Designers: From our perspective, when we are planning how to integrate, we will go with

existing technology rather than wait for the design.

Alex: Pledges are complicated and a big deal, that won't be something that is solved in the next little while.

Web Designers—what is the timeframe for NPR digital work on donations? They will get to something before we would.

Alex: They will, I have no update, but I will check back in. That went into the wilderness for a while. So, yes, there are internal and external considerations.

This first meeting between the teams ended with the teams agreeing to meet periodically.

Aaron and Alex were very clear that they wanted Studio One to drive the design priorities for the digital products. Though the mobile app team had pitched building a variety of features besides making the live stream stable, Alex knew that most of those extras would take much more work and much more organizational coordination than the team was ready to handle.

Both Aaron and Michael had consistently emphasized that the mobile app team was only to focus on the stability of the stream. Alex told Studio One that, particularly on the issue of pledge, the app designers would not be doing much, and that because of the organizational complications of making any progress on pledge forms, the redesign should continue to focus on the design of content.

Alex's hope was that the NPR donation form would be released in the next few months and that would help solve the digital pledge form problem. And she was wary of the app design firm too:

"We have a history of getting bamboozled by tech companies without having the right people in the room… The redesign team cares about news, and cares about us as an organization. The app team might, but that is not demonstrated. They come at us with bells and whistles but don't make the connection to our work, and then you end up spending money without something to show for it. No one is able to pledge through an app in the whole system! So is that what they are proposing to take on?"

She explained that micro-pledges, one of the app teams' proposals, would cost more in processing fees, and that gathering contact information through pledging was not possible. "50% is doable, and 50% is roadblock."

Apps: More Crazy Talk

But the relationship with the mobile app firm proved problematic from the beginning. Part of the problem was that their designers didn't quite understand the idiosyncrasies of either public radio or the station itself. This was apparent early on.

At one of the first app wireframe meetings, Aaron and Alex, Catherine, the marketing director, and her contract designer reacted to the firm's wireframe design with a few pieces of feedback.

First, Aaron pointed out that another station had just released an app that had the ability to scrub back to the top of the show in the live stream. Aaron said that the app had come out a week ago, and he had told the other station he was excited to steal their homework, as well as their on-boarding flow. This seemed to take the app team by surprise.

They had suggested creating an "hours listened" and "dollars pledged" tracking history in the app. But Alex cautioned against using the "pledges" work: "In the public radio world, "'pledges'" means you are giving money" and it wasn't clear they could do that with the app yet. But on the other hand, the mobile app lead pushed back, they couldn't call it "donations" either since at least in iOS, donations are not allowed under Apple's App Store policies.

The app team had also introduced a lightweight notion of "profiles" into the app functionality. But once again, one of the digital team's developers pointed out, "for now, we don't have a CRM with publicly exposable methods" so real identity management that linked to the station's core operations would not be possible.

This prompted yet another discussion about how they might be able to connect identities from mobile to the web to the CRM the membership database. But Alex had heard this particular rabbit-hole conversation before, and tried to cut it off:

> Alex: I just want to flag that we are now miles ahead of membership and the membership database.
> Catherine: And event ticketing too.
> Aaron: But we are one demo away from the donation page with NPR.

Alex: That still doesn't solve the membership connection problem.

Catherine: There is the same problem with event tickets. We might sell someone an event ticket, but we don't have their member number.

Alex: Right, so as a project — I mean, this is beautiful, but what about the engineering? We need users to be able to fill out a good form, I agree. But that is way more accessible than connecting membership.

Bobby: And matching data will be nearly impossible.

Aaron, ever the optimist, did not want to kill the fantasy of connecting membership data in the app just yet. So, as much for his team as for the mobile app firm, he tried a different way of framing it: "the user data we would collect from the app will be helpful so we know when people listen. The donations will be a "bonus for shopping" — so we'll learn about user behavior and get data for programming questions. That would be great."

The mobile developer pointed out that they could still generate member segmentation data without having to match to a CRM.

But Alex was skeptical about whether this was a good use of time, "I'm worried that we won't have time to go back and do that, even if we do solve the live stream and pledge issues. Those are two functions that our users expect."

They discussed instead putting a "donate" button on the app that would link out to a mobile donation form that would be pre-filled with the "pledge" amount.

But Aaron pushed them to think bigger: "are you sure we can't save credit card info in the app?" But this time it was one of his own developers who responded: "Not in the app — there are many layers of complication with the station, security ratings, cashiers invoice — it's not all technical."

Aaron persisted: "so let's have that conversation. We're not there yet."

The mobile team went on to present another prototype of the app interface. They discussed the height of the play button relative to Spotify's play button. They also discussed the choice of not having text news in the app ("Michael didn't want either a 'hamburger' menu or reading in

the app" said the mobile developer).

Aaron, apparently envious of the new KPCC app, reported that it throws the user out to the mobile web to read the news. The group took up the question of why the app should be just about listening if the most popular action on the site was reading news.

The mobile developer made the pitch for a listening-only app: "audio content is what you are known for. Listening makes this optimized for commuters. But you make it worse for people who just want to listen if you add news."

Aaron agreed: "we are a radio station. There are other places for reading the news. So we want this to be a portal for all things ears."

The group debated for a while about the value of integrating headlines or other news snippets into the app, and how to alert listeners that there was also text news to be consumed. They also discussed the folly of making "one app to rule them all," especially when listening was supposed to be the priority.

One option, the mobile designer suggested, would be to incorporate push notifications of the breaking news. But Alex, again tiring of all the fantasy features talk, warned against the "dangers of ideating… push notifications would require a cast of thousands!"

Finally, Aaron agreed: "we don't have the infrastructure to do that now."

Before the meeting broke up, Aaron and Alex recited again that Michael wanted the core functionality of the app to be a stable live stream. He didn't want to find a funder or sponsor for the app, and there wasn't to be any mobile underwriting, only membership and donation, and pre-rolls for audio. The messaging for campaigns would already be in the live stream.

Aaron and the mobile lead played with the idea of using push notification for membership. "It could be so good to integrate membership!" said Aaron, dreaming aloud.

“That’s crazy talk,” Alex snapped.

And it was back to reality. Aaron helped the mobile team think about preparing for their next meeting with Michael: “we usually have GM meetings where he makes decisions, and that is when there are points of no return, when we can’t unring a bell.”

8. On Demand On-Demand

As February and March rolled into April, keeping the app and redesign work moving ahead while including Michael in major decisions, was becoming increasingly difficult. I arrived at the station one day in mid-April and listened as Aaron recounted, dejectedly, how he was about to have a difficult conversation with the Mobile App Firm.

The the Mobile App Firm design lead had met with Michael the week before for a check-in, and Michael had surprised the team by demanding to know where the “on-demand listening experience” was in the app.

This was an understandable request from a GM whose station was increasingly wading into the podcasting business, where on-demand audio was the core experience.

But building such an “on-demand listening experience” was not what Aaron had contracted with the Mobile App Firm to design or build. The message over and over again, from both Michael and Aaron, had been to focus on the stability of the live stream in the app. Aaron already had to navigate a political difficulty with the Mobile App Firm in setting expectations that Studio One would be leading the re-branding and identity aligning efforts. So Aaron was in a tough spot, and the the Mobile App Firm project lead was understandably upset.

But the issue had come to a head because Aaron had gotten an email from the Mobile App Firm over the weekend saying that they were putting app development on hold until their

contract with the station was renegotiated. He had thought the project (though it had originally gotten tangled in the licensee's purchasing process) was moving ahead. Now it was stuck.

In a touchy phone call from his office, with me sitting across the desk, Aaron reminded the the Mobile App Firm project lead that they needed to maintain their relationship with Michael:

"Michael is a major stakeholder. If he is feeling left out or has a bump in the road with your project lead, and I'm not faulting anyone, but the best way to address it is to get you guys together."

The mobile app lead said they were worried now that the redesign team was also involved, that the station had introduced another stakeholder into the mix which would slow down coordination and development. That, combined with Michael's surprise request for on-demand functionality, made the head of the team stop the development on the project so they could renegotiate. The digital director replied nervously,

"I want to keep this process moving forward, in a smooth way. But just to be clear, we've had no discussion of not signing the contract, or not paying for the work that has been done. We went in with a strong commitment to this product, and my commitment has not wavered. I think it might be helpful for the process to get everyone together. I didn't know operators were standing by on the contract issue."

But the mobile lead assured him, "none of my excitement has waned, we can find time to get to Michael next week, get a handshake redone, and we can get to a dev start date again." Aaron agreed that sounded great, and that he didn't want to alarm anyone or delay the contract until the mobile team could get aligned with the redesign team.

When they hung up, Aaron shared how frustrated he was that the mobile team hadn't been communicating changes to their development schedule or their concerns about the project until that moment, and that none of them had been able to get in sync with Michael.

*"Be careful of not scaring the sh*t out of him"*

But Aaron had bigger issues on his hands than a pissed-off mobile development firm and a

stalled contract. The Studio One design work had been continuing, but it had been a few weeks since they had presented anything to Michael, and there were some major issues on the table.

In their briefly weekly check in later that afternoon, Aaron, Alex, and Theo discussed what they wanted to present to Michael about their progress.

Aaron expressed his usual worry: “I don’t want to get further ahead of him than we are right now. So I want to get him up to speed.”

The navigation bar redesign was the next big design decision, but there were so many feelings around the station tied up in the navigation bar that they agreed to discuss it but have placeholder content for the rest of the page. Theo agreed: “we want to be careful of “scaring the shit out of him.”’

Aaron also wanted to make sure they had a message for how the work was being integrated with the mobile design team. “I know it’s on his mind and he might lead with that.” He also worried that the whole team get aligned on the specs and timeline for the public beta “so we aren’t over promising and under delivering. I heard some caution flags on Friday in my personal check-in with Michael. I want to be on message with what’s going on with building stuff.” The designers agreed, and said they were trying to more closely integrate their development and design efforts so they were on track for the summer public beta too.

“Things are hurling forward”

A few days later, the Studio One team came to the station, and gathered in Aaron’s office, to prepare for their next design presentation to Michael. They had done some thinking about what to show in the meeting, and had decided they wanted to present home page prototypes, mobile views, get feedback on the navigation bar, and show some sample branding. They wanted to end

by talking about what this would mean for station resourcing decisions given what Michael wanted the site to be.

The team really wanted the mid-week check-in with Michael to go smoothly, and not have him get stuck on the design decisions. But the real goal was to get his sign off to hire an in-house designer.

Aaron gave Theo a bit of advice on framing: “use the words “awesome audio” and say that awesome audio doesn’t include stick figures and free photos.” They agreed that no one wanted to promise specifics on the summer beta release. But the lack of specific also made Theo nervous, “do you think he will bring concerns like, “when do I get this?” or “what will I see?” Aaron assured him that he had a plan for dealing with that possibility:

> “I want to tell him we are getting into higher velocity and we can’t wait for him to catch up. I want to create urgency like things are moving quick, and we can’t dilly dally. In that context, I don’t think he will feel impatient at all. I think I am creating sense that things are hurtling forward and he can’t keep up.”

They also needed to tell Michael that they were 6% over budget, and that the next big move was the transition of the bulk of the work from Studio One’s design team to their development team which would shift the project into technical production. It would also involve the two station developers moving over to the Studio One’s offices to build the site. They also realized they needed to address the integration with the Mobile App Firm and the options for moving ahead with them given the increased cost of coordination.

But the bigger worry that Aaron and Alex had was that the redesign team would present designs to Michael which they had not had time to review. There was a push and pull between the digital team and the redesign team in how much progress to show Michael and how much to control what he saw versus vet it all before the meeting.

> Theo: I want to send you the presentation at the end of the day today.
> Alex: That’s not enough time!
> Theo: But I want to make sure we are reflecting where we are now are not where we were, and stuff that we have moved past. I think you won’t see surprises, I think you will see refinement.

Aaron: I believe nothing here will shock me.

Theo: We are open to feedback too. But you haven't expressed strong opinions on aesthetics. It would be great to see his feedback in the next iteration and this way we can try to control that a bit.

Alex: If we don't get a presentation until EOD, that it not much time for our feedback. I can't work on it tonight. That's my only concern. I have to go to offsite in Winchester, so Aaron do you have time? Or maybe you don't care and we just come in and see what happens.

Aaron: I am a terrible person to be judging these things. I count on Alex's eye, judgment, sensibilities, I'm not as good as she is. I want to be in passenger rather than driver seat. I'm also not worried that you will drive off the road. If this is managed well, I'm not worried. I think you know what you are dealing with here. I think overall we are really supportive of your directions, style, approach.

Alex: Ok, but the conversation could take a turn, if Michael turns to us and says what do you think? If you are ok with that kind of mess, then I can be too.

Alex had to be in marketing agency selection meetings with the marketing department so she was not available to review the deck beforehand. Aaron also worried about managing the time in the meeting: "I want to make sure we can get things done in this meeting… I'm worried that show and tell could take the whole time." They pondered whether an open-ended discussion with Michael might actually be good for this moment in the project and how they might tweak the agenda:

Alex: Is your full agenda too much for this convo? I agree, I trust you that there is nothing in there we won't be comfortable with, but how do we want to move Michael along is the question. Is this a good time for a free-flowing conversation with Michael? It might be good.

Aaron: Yeah, might be good. As we move into the technical phase there might not be a chance to do this design check in again before it gets locked in.

Aaron tried to think aloud about what Michael should weigh in on, and what might be too complicated. He needed Michael to understand that, in preparing for the public beta, they wouldn't have a strong sense of timing until the developers started their work at Studio One. Theo was wondering what else they should drop from the agenda.

Theo: Anything that is custom branding maybe drop?

Aaron: This is how I would keep time with him — if you have 45 min of material it will take 90 m to go through.

Theo: Ok, let me propose a new agenda then.

Aaron: We have to talk about resourcing with the Mobile App Firm, why it's important, what it contributes on budget line — I think that is a 10 min conversation. And that is the segue into the Mobile App Firm world of beyond SOW stuff that has gotten us into the 6% over world. The technical update is 10 min, and then the budget will quickly be whipping boy for the Mobile App Firm. That is where Theo you can play an eminence gris role.

They discussed the most recent flap with the mobile app team contract and the best way to

propose to Michael that the station pay for an alignment between the projects on the branding and how much it would cost: “we want to tell Michael, you are spending $1.1M, and for a rounding error you can get it stitched together to look like a custom suite of digital products. And this is serendipitous timing actually for doing this all at once.”

Then they switch rooms to review the navigation mock up that they would be presenting to Michael the next day.

As we were walking over to the conference room, Alex explained the difficulty of managing a redesign of the navigation bar: “the proposed nav is not totally thought through, but nav is always political and crazy. I’m hoping because it’s more app-like than our current site, that it’s less of a real estate question. That is why our nav is so nonsensical today, it’s all politics and it makes no sense. It’s not about the user.”

The redesign team then walked through their proposed navigation. It was a much “flatter” app-like navigation then the current site, and it contained some high-level choices and then featured tiles of the most prominent programs. This was a major change. The sub-groups at the station had been fighting for “real estate” on the current homepage for a long time, and this would be a fundamental re-ordering.

Katie once again played the role of integrating conversion strategies into the site. She suggested moving the player up to the top “so it shows we are a radio station” and being able to add “calls to action” in the side bar as well. “If we want to populate a card with a call to action, how do we do it?”

Alex: Bobby has built us modules instead of stories that are like “don’t miss” — in this version, it would have to be built in wordpress. It could be done, maybe using DFP?

Katie: Right, but we would need some way to audit it. Thomas said we had to give $20,000 back to an underwriter because we had inventory we couldn’t run. DFP is not perfect either.

Aaron: That was a year ago. And it was a f-up on their part. At some point we will need an auditable trail of how inventory gets displayed. We can’t do that through wordpress, even though wordpress manages that.

Theo: Right, those cards have to be flexible html because this site is responsive. For ad placement, this is more a subtle underwriting statement. But the next iteration is that the show listing has been removed. And we are playing

around with player having the show icon, name, and live link. I think we will have to balance what we are showing for ad content with what we are displaying for audio. We are going to keep iterating.

That ended the conversation about calls to action and ad placements and the review of the navigation. They briefly discussed the fact that NPR.org was also going through a redesign and there was a possibility to share some of what they were learning.

Your long-term survival is about conversion!

After the call, Katie, Aaron and Alex continued talking about the navigation. Katie pushed them again to think about conversion, but the conversation didn't get very far:

Katie: Your long-term survival is about conversion, not ad placement. even if we moved Thomas's team to sell more digital ads, that still not a game changer. So I think you need to look at this [design] and say, what are you asking your visitor to do beside consume? What other actions can they take?

Alex: Yes, I agree, and the support page is smaller than it was before.

Katie: Getting involved with the station could mean events. Sometimes your talk shows ask questions prior to show, so we could build that in. And getting involved and donating and coming to event are also getting involved. If you got more involvement in editorial, that is a good thing. In the long term, we have to find meaningful way for consumers to get engaged with you. Newsrooms grudgingly have comments, its play pen and then mud pit. I am still a fan of comments, but it's low-level involvement.

Alex: I think out of these nav conversations, we are getting closer to that. We have to have conversation about site that is not about news content.

Aaron: Oh we are nowhere near that, not even in that world.

Alex: Teresa emailed me about where is events in the app. Do we have calendaring in the app? What is the commitment of this organization to events?

Aaron: Honestly, it's minimal with her in front of it.

Katie announced that she had heard from developers that they would be using wordpress for the new site. Katie briefly discussed with them the possibility of using wordpress premium for the site, which would, she claimed, allow some passive user data to be collected in the absence of being able to decide on and build a user login feature. "The big problem is that we want to create a conversion business but we don't have any logins." She suggested beta testing wordpress premium on behalf of NPR affiliates and getting NPR Digital Services to pay for it would help solve that problem. This landed as one more item on an already long and complicated digital team to-do list.

9. Begging for a Designer

The pressure was mounting on Aaron and Alex to both deliver a design for the new site that would meet Michael's "awesome audio" standard and not over-promise on a product that would overwhelm their team's capacity to maintain it over time. This tension produced a puzzle when it came to managing Michael: how far should Aaron and Alex lean into encouraging an innovative design versus spend their political capital trying to convince Michael to pledge more design and development resources to the team? Aaron thought he could see a path to managing Michael where they could do both. But it was a narrow one.

What is nestled in his brain

The morning of the mid-April design presentation to Michael, Studio One's designers gathered with the digital team to review the story they wanted to tell and the presentation. Aaron, in his usual way, gave some coaching to Theo on how to present the material to Michael, and particularly how to make the pitch for more resources for the digital team.

He began by telling Theo to review the "systems not sites" and "content channels" principles. Theo said he would review the programming page first — the "hairy arm" — and would hedge by saying "we have to think more about how day to day content works."

This was an important hedge, because in truth the team had not yet thought much about how daily local news content would get integrated into the awesome audio and content channel strategies. And though the national shows brought the station much acclaim, it was the local newsroom that was near and dear to Michael's heart. So figuring out local news was going to be an important task. Aaron shared his experience with how Michael might react:

"In terms of anticipating his questions, if what you're presenting is not fully formed, then the less said about it

the better. Sometimes he will have strong opinions formed on things from not much data. So just say, "we are still trying to figure out daily news, this is a placeholder as we work things out."

Theo and Zach, the two Studio One designers, marveled at Aaron's ability to channel Michael:

Tito: "it's good and scary that you know what is nestled in Michael's brain."

Theo said the programming pages part of the presentation would segue into his argument for art direction and thinking about high-end editorial. "It's a way to present visually without photos" Aaron reminded him.

Theo said they would present inspiration from existing podcast visuals — Theory of Everything, The Allusionist, Fugitive Waves. Then, Theo said, he would build from the idea of art direction to ask a provocative question, "who in-house makes visual choices? Some of these investments are evergreen and worth making."

They discussed how they could also frame the request for a design hire by referencing the switch to technical work on the redesign that would slated for May 1st. Aaron wanted to continually emphasize that part of building "systems not sites" was to have design resources that could get the most out of the redesign work that had been done.

At the end of the meeting, Theo asked if they should bring up the collaboration with the Mobile App Firm. Aaron said forcefully:

"Yes! I will set the table for this meeting. I am going to say, "we want to get you plugged in, get you into the design, and the relationship with the Mobile App Firm is part of that. But I want to reserve it because we don't want to get off track. So he knows what's coming."

With the Michael strategy laid out, the team headed to the conference room for the big presentation.

No one manipulates me better than you!

The meeting began with Aaron announcing, "Things are moving and we don't want to leave

you behind, Michael." To which Michael chuckled: "Thank you for that! No one manipulates me better than you, Aaron."

"There is a mutual admiration society on that point" replied Aaron. He went onto say that the point of the meeting was to give an update on design, the budget, and then talk very quickly at the end about the integration with the Mobile App Firm and the options for budgeting it. He framed the strategy again:

> "We are building an experience that is "awesome audio," audio first, app-like (more than website-like), responsive (including ads — ambitious), building system not a site (not a series of sites, it's an ecosystem where content can live and grow), built around content channels, so every property is a channel in a different scale on this system."

The redesign lead then took the stage to show what they had done. Theo explained how they had gone from wireframes with "any content can live anywhere" principles to designing the sidebar navigation and playback functions. "The idea is that channels have their own branding and assets—like podcasts can be a channel—and that there is a way for top-shelf content to live permanently on the homepage." A key part of the strategy, he explained, was to use "marquee visuals" to give a cover-art-like feel to the homage. He slipped in the idea of using illustrations for some of the visuals.

Theo then explained their work on the navigation bar and how the navigation bar would be alongside the content, which would have both text and audio visual cues. The nav bar would feature the best of the station's content:

> "That brings the best of the station's shows and channels forward, associating it with your brand right away."

He emphasized the visual nature of their choices. "We are asking, 'what does premium audio look like?' and that has to align with the best experiences out there, like book covers or albums on Spotify."

The designers said they had taken most of their inspiration for the design from audio apps,

since that is the primary method by which people consume digital audio.

"When we asked "what does the best experience for discovering audio feel like?" it feels like an app, not like a website. That is why a web-app feel is what we are going for."

Theo then explained in detail more of the interaction choices around playing audio on the site. They also presented the idea of having a playlist function on the site. At this point Michael, who had been listening intently, asked how they were planning to accomplish this.

Michael: When you say "playlist" how is it generated?
Theo: We have some thoughts, people could curate their own playlists in WABC.org. Or anytime you press play, we are taking about entering a river of audio — just as if you turn the radio on. So if you play Here and Now, you would jump into mid roll audio ad and then the next segment would play. We want people to manage it when they need to, but bring pre-selected and pre-curated items to them without them trying.

The redesign team moved on to the pitch for illustrations.

"In terms of inspiration, we are trying to associate to the best art direction for small editorial out there—places like Bloomberg, Wired, The Economist. It's more cost effective to do illustrations than photoshoots. It might marry well with the needs you have without a huge art department. What does luxury, premium, awesome audio look ilke? And how do we sustain that?"

They presented a range of podcast and media brands they liked and then a host of illustration samples. "How could we apply this to 'enterprise audio' — and use it strategically as evergreen pieces of visual for shows?" The designers made a strong argument for how this would position the station alongside other strong media brands.

Michael reacted somewhat tepidly, wondering about the branding, not for the content, but for the station on the homepage:

Michael: This is beautiful. But when you say branding is a next step… I get idea of using visuals, illustrations, all of that. But if you go back to home page iterations. When you talk about brand, where are you thinking of that on homepage? As far as branding, our brand is small from what I can see, are you thinking about adding more?
Theo: Our approach we are about to start on would leave room for the station to be master brand that lives everywhere on the site, and on small screens. In some places, like in channels, it has to share space with sub brands. So the channel branding will be high effort for shows that warrant it, mid-level effort for the middle ones, and then we will have generic templates for other branding. For example, for your big national talk show — their logo will serve as masthead on their channel, their artwork will be specific, and the combo of those elements will follow the show to different devices. It's like creating a native app. We want to make every program different but feel like part of the family. So your WABC logo sits next to the show logo in every context. But that exact relationship we have to explore in the channel sprint next week.

That explanation seemed to satisfy Michael, and it was something of a golden mean. Though

it made sense that a General Manager would care about preserving and communicating the station's identity online, as Alex had pointed out previously, it was not clear that digital listeners would care much about the station's brand. Call letters were essentially meaningless to a generation raised with radio as one media of many.

Stocks & Weather

Gazing again at the homepage mock-up, Michael's next concern was that some elements on the current homepage weren't reflected on the mockup: weather, stocks, places for messaging and highlighting top things.

The station's current site indeed had all of those features, a holdover from its early days when the most applicable reference points were web portals like AOL. But should AOL be the reference point now? Theo tried to massage this concern: they hadn't thought about those elements yet because they were focusing on audio first.

But Alex, who read the station's web metrics and knew about traffic patterns in the industry, reminded all of them that focusing on the homepage rather than the article page, was not a good use of time. If Michael wanted those elements, then they probably belonged on article pages since those get more traffic relative to the homepage.

But Michael wasn't buying it: "I understand the homepage is a limited entry point, but if it's a better experience maybe, it might become a more appealing entry point." This was not exactly how digital traffic worked, since most visitors to the station's site (like most websites), hit an article page and then bounced away, never to return. But, untroubled, Michael walked up to the screen in the front of the room with the homepage mockup still in place and started gesturing toward it. "What is below this main article? This is where my linear mind gets confused, and I'm

not typical of a user, I understand. But there is nothing here that says audio."

That started a discussion on the placement of the persistent player. Theo pulled up the Spotify web app to help Michael see where they were getting their inspiration. But Michael still wanted to see a bottom control rather than a lower left control. They also discussed the thickness of the player on mobile and the difficulty some of them had with controlling the Spotify player on mobile because of its size. The designers agreed there were real pros and cons to be weighed.

But Michael's bigger concern with the design was that it still didn't emphasize audio enough on the desktop view. This prompted a short exchange between Aaron and Michael:

Aaron: What's interesting, if you go back to where we started, this is what we have talked about in terms of balancing of the reading and audio experience. We have so much from our digital verticals — like right now we have really good Artery and Learning Lab pieces, but neither of those are audio pieces. Those verticals do represent a good portion of our digital traffic and digital output. So how do you create a balance as you are producing the homepage between those two? One of the goals has been audio up front, but I think you are right.

Michael: There is a lot of text on this thing. But we also have a lot of audio, we have A LOT of audio. But I'm not sure I would look at this homepage mockup and say there is a lot of audio here.

The conversation continued as to whether there should be a prominent "listen live" link in the navigation. Michael pushed for it:

""Listen live" is a big deal. And "support us" is a big deal. So having ways to deliver that fundraising messaging is important. It's worth your thinking about that."

Then he switched gears to talking about how much he loved the new *LA Times* redesign and its infinite scroll. They debated the pros and cons of infinite scroll for the homepage.

Michael asked an interesting question: "what is our version of audio browse?" The design team noted this as something they would think about more, along with making the listen live button more prominent and the audio play buttons more prominent. The conversation drifted back the purpose of the navigation bar being a utility and also a collection of links to the best content. They all agreed this idea for navigation was much better than the current version of the site which was cluttered with too many things, many of which were defunct.

Cleaning out the technical closet

Aaron then steered the conversation to the transition to the technical work and what the station developers would be working on for the next few months. While the design team would keep iterating on the design, the technical work would begin. The Studio One tech lead described the process:

Zach: On the design stuff, we are on boarding Bobby and Forest. That is important because of budget, this keeps costs lower and is a long term benefit to you guys, so it's not like we are making this new site in a black box. This way, Bobby and Forest understand the construction of the site from the core. So when they want to add something, they can do it. It adds to health of it. So it's not like in 2020 you are hiring Studio One to do it again.

Aaron—This is the systems versus sites thing. This is why we want them under the hood.

They explained to Michael that the station's developers would be working on cleaning up the station's audio processing systems and building a new station audio API that would feed the site and the app.

Zach: For the first few months, the work will be exceptionally boring. On design side, we can start to iterate and come up with different tweaks because we know that core works. But we need to get the tech core to work first, so we are not like having to retrace our steps. We have to first work on normalizing data through API. After that, we won't have to drill down quite as far, and we have nice developer-style interface to work with.

The developer made sure to manage Michael's expectations on what this would mean:

"So when we have first tech demo, it will be like, we took that closet and organized it. That won't be visualizable because the pieces won't be there, but they are the necessary steps to build the whole site right and strong, and to strengthen their abilities in the org to build off of it. So that you guys can adopt after we leave, and get the most out of the tech team."

Aaron also rushed in to explain that the station developers were learning Agile development processes as part of this work, and had already started incorporating those practices into their daily work, which was helping the team become more efficient and clear up some big projects before heading off the work with vendor.

Websites versus mobile apps

The last part of the meeting was consumed with a complicated conversation about budget and how to collaborate with the Mobile App Firm. Michael was ambivalent about just how closely

the two teams should work together, and whether Studio One should own the re-branding as Aaron was suggesting. Studio One made the pitch that they could lead it and play nice with the Mobile App Firm, and that a seamless look and feel between the app and the web would be a good thing.

Michael was not convinced:

"I am not 100% clear that the visual look and cues need to be the same. I could conjure up an argument for why having them look different is preferential so there is distinction between the two products and it's not confusing. Is having them the same absolutely a preferential option?"

This was also an opportunity for Michael to discuss again his displeasure with the app development firm.

Michael: my last meeting with them wasn't a great meeting. [Aaron: it sucked] I asked a fairly obvious question about functionality and what they told me was, "that wasn't part of scope of work" — those conversations are always bad. We're not the experts, I'm not the expert. But when I ask for something universally available and they said no… That was distressing. Part of me thinks this whole thing of creating a website that is fully responsive, with a strong audio experience— and this whole separate app experience, that some years from now we will look back and say this was weird and stupid to create two parallel experiences with one more of a listening experience, one more hybrid. I think there is lots of overlap between two. I feel like no one knows the benefits of apps, and the conversation for years has been swinging back and forth from native apps to responsive site and back again.

Michael wanted the app to be about listening, and he also didn't want one agency to have to babysit another. But Studio One made the pitch for the importance of visual collaboration, and for more conversations on how the properties should interact. Michael said he would consider the request for an expanded scope of work to include design oversight and let them know in a week.

10. Quibbling

The next week, the mobile app project went into meltdown again, and it gave the opening for Aaron to get what he wanted: Studio One overseeing the branding work for all of the station's products.

Before Alex and Aaron called Studio One to review what had happened, I checked in with

Alex. There had been a meeting with the Mobile App Firm the day before, and it was tough. The design lead had told Michael he needed to be a better client, and they were not prepared to brainstorm while they were supposed to be building. But at the same time, Michael was trying to reset the relationship. It was a crazy meeting, she sighed.

"The problem with these projects is that it's not like buying a painting! You need to maintain the product, update it, keep it alive. "I'm not sure they get that around here. What are the developer resources we have to do that? I feel like I am just bouncing from meeting to meeting, trying to get stuff done. And now Michael is pushing back on illustrations for the podcast pages. It's like $1500. This is so frustrating because if it continues, it might not even matter that we have redesigned podcast pages because the beta site will launch. That's my same frustration with the Mobile App Firm. When this finally launches, there will be something else we have to deal with."

Hills to Die On and Pictures on a Page

Aaron came back from his previous meeting, and Alex and I sat across the desk from his as usual, as he called Studio One. Aaron reported to Theo that the meeting between the Mobile App Firm and Michael had gone badly. But the upshot was that Aaron was confident Michael would grant Studio One more money to create a new brand book that would align all the branding at the station. The old one, Alex reminded them, was attached "to a seven year old wireframe that Aaron pulls out from under his desk."

Theo said that, "in the interest of not stepping on Andrew's toes" they would focus on the next iteration of design work for the site, including the channels. Theo said they would create a set of colors people would be asked to used consistently, and templates and guidelines for building out new brands. Theo explained, "the colors will be expressed on the channel pages. But the brand book is supposed to be agnostic to the medium—so Catherine could use it for print too." Anna said the brand book would contain an overview of the brand narrative, some rules around system architecture and how channels work, album art, and print channels. Then they would dive into the visual identities of the brands.

Aaron pointed out that they had not, in fact, brought up the idea of hiring a visual designer to

Michael in the previous week's meeting, and that had come back to haunt him as they were getting close to launching new podcast pages. He explained what happened:

"One more thing, we edited out the needs for a designer and someone responsible for overall web properties in what we showed Michael. But it came up when we were showing Michael $2K for podcast illustrations before Bobby and Forrest go to Studio One. His reaction wasn't about the money, but it was "I saw this beautiful stuff you presented last week, but who implements it? And who manages it? We can't have a site that relies on us buying illustrations to keep it going! We never got to that in our meeting last week. I told him those were interesting questions. I said, I can't answer in a way that's clear enough to go through it all right now. But we have plenty of themes and channels in the new site that can't be served by just an AP photo. We will need to come up with a different visual style approach to this. And this is what Studio One is recommending now. He said, "I don't want to buy luscious graphics for our new podcast but not be able sustain it going forward." I said I would flag it, and talk to Theo."

Alex just held her head and sighed, but Aaron continued.

"I am not concerned, and we had the same question when we saw it. That is a job to be done before we get further. But, Michael put the breaks on the illustrations on Friday until we figure this out. Our podcast producer offered to run interference on that, I think she will succeed. But that is a gap we need to fill that will require a house call."

In Theo's opinion, it was best to wait until they were further along in building the brand book to have the conversation about hiring a designer:

"I think it's better to leave that conversation open while we work through design. I think we will be using a range of digital assets and we want to come out of gate aiming as high as we can visually. But I realize we are dealing with practical limitations. We are having conversations about aspirations, and then at some point we have to start talking about resources. The relaunch of the podcast pages isn't what I would have used as a first tool to have that conversation, but I'm happy to follow up for next item."

But this was not good enough for Alex, who was getting frustrated with the team's inability to ship anything and the risk this put the very short-term podcast pages project of getting hung up before the developers had to leave for Studio One. This was time for the opposite of "crazy talk" (and Alex's specialty): "real talk."

Alex: Let's do real talk here though, if we don't get the illustrations this week, then it can't launch before Bobby leaves, then all that podcast pages work goes down the drain. I am not OK with that!

Aaron: I want to see where it goes. If the podcast producer has talked to him already then maybe it's okay.

Alex: That's a 50/50 chance.

Aaron: Then we can do some real talk with Michael too, that we are going to ship and go forward. These podcast pages aren't the end all be all. This is part of the design. Michael will reluctantly say yes, as long as we promise going forward to talk with Theo. I give myself 80% chance of success with that strategy. But here is the question: do we work around the block now? Or would you prefer to move forward since the podcast producer is on board with the artwork? Theo, would you be available by phone at 3:30p? To hash this out. Let's get this resolved today with the right people in the room.

But Alex was still frustrated:

"I don't want to rush it if Michael needs to be brought along. But I think it's bananas that we would not launch this podcast page for $2,000 when Jesse just got a new camera for less than that like last week! If it's such little money then it doesn't matter, and we can have a bigger conversation. It costs more to have Studio One build this for us and then we don't launch it! We spend this on new photos or Panera in a week! I don't want to rush it and get a flat no. *But I can't even wrap my mind around* the idea that we wouldn't launch because of this."

Theo agreed with Alex, and Aaron suggested that Theo could use that reasoning with Michael too: "you can say that too, that this is low risk short money, and then we have had a more detailed conversation. But we want to ship so let's ship. And his questions are fair."

Theo recognized the larger implications of the question as well, but they each had a different sense of how to handle this battle with Michael:

Theo: These conversations lead to a bigger conversation about the future of the station. But because this is a short-term project, this is short money that gets us halfway to what we want to talk about as an aspirational goal.
Aaron: Ok, then I think we use it as a teachable moment and move forward. I am optimistic. I may call a chit in with him too and say I said you were ready to go along with this before. This is not a hill to die on, but I think we will be ok.
Alex: I will be willing to die on it.
Aaron: Michael will change his mind, just trust him.

Alex left the meeting expressing her frustration again about how few products they were able to finish off, as the work kept piling up:

"I've had no title change that's been promised since January, and we get *nothing* done. My whole life is meetings and we do *nothing*."

11. Art Direction

Michael did give approval for the podcast art, but the pain of the process highlighted just how tricky the process of rebranding was actually going to be. The gaps between the station's aspirations, the design of the new site, what could actually be politically negotiated, and what could be built, not to mention maintained over time, was becoming increasingly difficult to manage. As the spring wore on, Aaron and Alex focused on making sure they were more disciplined about what they were presenting to Michael. The clock was ticking, too. They had wanted to launch a summer public beta. But between coordinating the efforts of the mobile app

firm and the redesign firm, making sure that Studio One was working with Catherine's marketing designer on station-wide branding, and now with the The Innovation Lab launching, it was not at all clear that a summer public beta would be possible.

In late May, I sat in Aaron's office and listened in again as he and Alex and Katie called Studio One to discuss the next design review with Michael.

The Studio One team was planning to show Michael some browser mock-ups including creating playlists for programs, the play-button features, and the show branding work they had done. "We have Andrew's support with this direction, which we will emphasize." Alex said she liked the addition of the "Explore Audio" feature and the audio view. They talked again about the size and placement of the player and how to showcase it to Michael, who had been worried about those things.

Are we asking people to do other things?

Then Katie asked her usual question: "I am running my "ask people what else to do" test on this site—and it's donate or donate your car. Are we asking people to do other things?" Katie had asked this at the last redesign check-in. But her concerns were going nowhere.

By way of an answer, Theo said that "we haven't done the underwriting workshop yet, but there is a placeholder for underwriting. The car donation could be there, or the underwriting could change depending on the season."

But this is not quite what Katie had in mind: "that's great, but do we have a place for more community asks? Like 'talk to us' or newsletters? I love this design, it kills the wire copy problem you have on the current site. But I'm just being asked to be a consumer of stuff. Is that the direction we want to go as a station?" Theo said again that they hadn't tackled underwriting

yet, and that the open spots for ad placement could say "join us at an event."

But Katie would not give up: "Should those community asks be integrated into the content itself? Like should there be a bar between content and interaction? I'm talking about interactions besides giving us money and clicking on an ad. Like comment."

One Studio One designer offered that she thought this should be happening deeper on the site and closer to the content instead of on the homepage. Katie agreed that the homepage was mostly moot from a traffic point of view "but we are a community organization and our mobile and story pages should reflect that — that we want to talk with you."

Theo tried to take up the charge by responding that he agreed and that they had spaces carved out for that kind of content to be added. "But what are those specific tasks?" he asked. Would it be commenting? There could variation in how the station asked people to engage. Would it be attending an event? "I am also thinking about events," he said, "which is where I know the station wants to grow, and thinking about how to incorporate that into the browsing experience." Katie tried to make her pitch once again, referring to comments:

> "WABC is at a scale where they could have a lively, effective, engaged community. Which is harder when you are bigger. So I don't want to miss the opportunity to do that… I agree that comments are failing on the current site, but I want to make sure we look at it. There are things that we could do. And other tools are becoming available."

Katie was offering an entirely different conversation than the one Studio One, Michael, and even the digital team, were having about the current site. The idea of creating a community and engaging with that community through calls for participation was the best practice for reader-supported digital media organizations across the country, many of which Katie had consulted to. In fact, the only viable way that the station could hope to create digital revenue was to get its users to engage and then support the station. Engagement and community were revenue strategies. This was, oddly, both deeply taken for granted in public radio but also very hard for radio executives to see and execute in the digital world.

Katie's ideas about community and engagement were also very much in line with what Jessica—who had just held the IDEO workshop with the station managers the week before—was trying to do in The Innovation Lab. Aaron was in all of those conversations, and so was Alex. But that thinking, as important and existential as it was to the station's future, was a difficult fit with the time, resource, and political pressures the redesign project was facing.

Thus, even though Theo—as a designer of big media websites—was not quite understanding what Katie was saying, it was really Aaron's political calculus that cut short the digital engagement conversation again.

He gave the most straightforward reason for not tackling Katie's concerns: it related to things they had decided to put off until later, and opening that black box risked getting Michael off track:

> Aaron: Katie, it's a good conversation for us to have. In the same way we are teeing up stuff on membership and underwriting, we need to carve out, to put that into a whole other focus, the headline being engagement. Engagement with the station is a throughline experience to membership and conversion. But for the purposes of this one meeting, we aren't fully baked on membership, conversion, or underwriting. And I don't want to take us off the road to discuss including commenting functions because we aren't there yet and haven't thought about the right tools or how to it support. We are already struggling with commenting on the site and how to monitor and engage it. We can definitely do some brainstorming around that, and look at the best practices of where it is and where it's going. I agree this is an opportunity to restart thinking and engagement over all.
>
> Katie: I am happy to put it off for our meeting with Michael tomorrow.
>
> Aaron: The purpose is just to cut down on distractibility, and off-ramps that can find their way into meetings with the General Manager. If we create those off-ramps, we never come back from them. We want to be focused, get answers to some things we're looking at, and then make the mess outside his view.

Alex, too, agreed that since they were aiming for a platform they could build on over time, that they should focus on the problems at hand.

Channels and Programs

The conversation then turned to what to call the various "channels" that Studio One was proposing as a core part of the information architecture of the site, and the worry that Michael and other station stakeholders would be confused by the terminology. This was especially a problem for special programs that programming people might want to promote. Alex explained,

"it's not a podcast and it's not a program, but it's an occasional series of segmented audio… so how do we promote it?" Theo explained how this would be handled in the taxonomy of the site:

Theo: That would be under Programs, not as a featured link, but as a Tier 2 program.
Alex: So in this new world, "Programs" are things that are ongoing?
Theo: Programs are Channels — I think we should just call everything a channel, but in the machine it's going to be another form of channel. That is promoted through a channel or a card.
Alex: Ok, my only flag is that "program" means something specific in this building. We can play with the wording, but I want to flag it as a confusion. If "programs" are more than "programs" —
Aaron: I agree we need some wordsmithing on the nav like "news" and 'blogs." I'm not sure if that is where we want to land, it might conflate the two way things we are talking about doing with our new vertical on education. I'm not sure how we are going to wordsmith that.
Alex: Yes, we can just say that's on the table.

The conversation then turned to how much the station-focused branding should be highlighted on the site—Michael's concern from their last design review—and how much the NPR connection should be highlighted. Alex commented,

"I know someone will say this, nothing on here says "Our City" or "NPR" and I wonder, do we care? I'm a big advocate that call letters are meaningless to your average person. I don't know if that helps or hurts to have them here. WABC is who we are, I get that, but people don't know what it is."

Theo said he had thought about that, and would be fine with having it on the desktop site but it would probably get dropped on mobile. This disintegrated into a funny exchange about whether the call letters were even necessary:

Alex: Sure, I'm sensitive that we could be confused both with TV and with anything else. People can't tell the difference between us and other stations.
Aaron: I almost just want "This city's NPR station" Rather than WABC.
Alex: When people are looking for us, no one can remember the call letters. It's not how user minds work, and they are from dead technology.
Aaron: That technology is my family for 40 years.
Alex: That is like from 19th century technology. Do you know anyone's phone number anymore?
Aaron: Next you will say we don't need phone numbers!
Alex: All I am saying is, we need more sign posts I think.
Theo: I don't think that should be focus of tomorrow, so I will leave it as it is for tomorrow.

They talked a bit more about where to place the Listen Live button versus the Explore audio button in order to emphasize the audio forward strategy, another concern of Michael's from the last meeting. And whether and how to bring up that all of this might be subject to user testing—

which they agreed would be a good way to cut through disagreement.

They talked briefly about presenting a blog feature but Theo said he wanted to leave it off for the big meeting. They also discussed what would make sense to tackle next: the news content, underwriting, donation, membership, the homepage, the shows. Theo suggested tackling the channels next and their constituent article formats.

Alex reminded everyone that regardless they would need a roadmap of what was on the horizon: “the instant we roll out this beta, there will be a chorus of, “but where is my stuff” — I want to make sure we have a semblance of where we are going with various stakeholders.”

12. Presenting to the Senior Managers

The next day’s meeting with Michael went fine. He was still excited about the direction of the awesome audio strategy. But on the branding and level of visual design and channel questions, he want the other senior managers—particularly those who dealt with programming—to weigh in on the direction the site was taking before the design work went much further.

Aaron was okay to go along with this. He had gotten Michael to sign off on expanding Studio One’s design mandate to oversee a refresh of so many of the station’s visual assets that it was worth a formal check-in with the other station stakeholders. In the two weeks between the last presentation to Michael and the senior manager presentation, I had gone to California to make a site visit to four other stations and attend a podcasting conference. When I got back to the station in mid-June, I arrived just in time for the big event.

Illustrations

In the central conference room, Aaron and Alex had assembled Michael, David, Paula and Catherine. Andrew, Catherine’s contract designer, was also in the room; Aaron was surprised to

see him there. Theo and his two associate designers had come from Studio One. And Theo and his team were very excited to present their biggest and best idea yet—commissioning a set of high-concept illustrations from well-known visual artists and graphic designers for the station to feature its marquee content. If the station couldn't hire a fleet of in-house designers or an art director, they could at least get halfway there.

Theo started off by making the pitch that the station should develop branding for the content channels on the new site that "make sure it looks as good the station sounds" — which meant the production of high-quality visuals fit for the digital medium. He laid out a couple of principles:

- take visual cues from familiar listening experience — such as album art and audio apps
- expresses the personality and unique attributes of each channel
- branding is compelling enough to stand on its won but also unified with the WABC brand
- extends and evolves the existing WABC visual brand system
- works beautifully in any context, at variety of sizes and contexts (like NPR, iTunes)

The first proposal was that all of the new logos be diamond shaped, to differentiate them from the round play buttons and horizontal images on the site and on the app. "This is the like the WABC album art" that could live on multiple platforms, including third parties like iTunes, explained Theo.

This in itself would have been an innovation. A handful of the station's most prominent shows included photos of the hosts in their branding, and a photo of the host would not fit in tiny diamond on iTunes. But to move away from any use of photos would be counter-cultural. The photos stood in for the personalities of the show hosts. And in public radio, the on-air personalities could make or break a show. Michael had given this feedback to Aaron and Theo already, and they knew it would be on David and Paula' minds.

Thus, almost as quickly as Theo had proposed the diamonds, Aaron jumped in to address the concern about art and branding that included images of the hosts: "This doesn't meant that the

host's personality will disappear in the branding, though." Theo tried to back up Aaron, only somewhat successfully:

"The focus of the branding is in part aimed at subjects rather than hosts. We will handle hosts in different ways across the site — so as a user you will get to see them and meet them. But when Michael asked us, should the hosts be in the art? KPCC has hosts as the art, but in most cases listeners don't have an association with the humans behind the microphone. We want to make it more balanced. For your national talk show, we are talking about making it topical, compelling, intelligent, lively, conversational — and we will ask the artists to do sample illustrations for that. Like maybe they could make a Mr. Microphone — talking about having an icon for an icon — since the host's voice is as a moderator for the show. But we would want to leave room for artists to interpret that so we aren't limiting creativity from beginning. That's why we need feedback from you all."

Catherine jumped in, in support of this idea:

Catherine: For the current audience of these shows, they get to know the host personality, but for prospective audience on iTunes, having that entry point not being about the person, and finding that balance is interesting.

Theo: Today, the only real branding that has a person in it is your talk show. But we also want to think about all the shows in a row and how they fit together. That imbalance would be obvious to people. We want a system that equally represents things.

Aaron: Ok, so I just wanted to get that out there.

Theo: Yes, that is a big elephant question.

Aaron: Yes, we, want to talk about the elephant.

Theo had selected an illustrator that he wanted to approach for creating art specifically for the national talk show—a man who had done art for the NYT and USA Today. Theo said excitedly, "his work is magical, he is one of the most famous illustrators — and we went high end because it's your most popular show. He has no preconceived notions…Michael, we would want you to weigh in at sketch phase, and show you some ideas early on for the direction for the show."

Theo went on to suggest particular illustrators and why they might be good for particular shows. He told the group that they hadn't consulted the show owners yet but were planning to "get people's thoughts in the early stage before commission and include them in the artwork process." For some of the smaller brands Theo was suggesting that the in-house designers at Studio One could produce illustrations for. He then went over the commission process:

Commission Process — get in touch with illustrators and send them an assignment brief;

illustrator sends us a few sketches (3) — imagine we would get important stakeholder input, Michael included, and get tweaks within budget. Then we build it into the site, and make sure the artwork meets the requirements of the NPR stakeholders of the world. For the requirements of NPR co-branding, we're pretty sure diamonds will fit with that. It will come down to asking right person for the right sort of work and everyone getting behind it.

When Theo asked the group what they thought, Michael asked about the program pages and how the logos would fit onto them. Theo said they were still working through iterations of those pages but mostly they wanted feedback on the artwork since the overall page was a "placeholder." The group seemed a little lost for how to respond. Then Michael expressed his confusion with how to respond and whether this approach was effective, and the meeting took a sharp turn.

> "I lack imagination for design. Like if I look at an empty room, I can't imagine it with furniture in it, so same with this. It's hard for me to know how this art will be used, and how it will work effectively or not based on my lack of imagination. So the fact that I look at a piece of art is still hard for me. I understand that part of distinctiveness is that this is an approach that others haven't used, and will allow our station to pop in a way, and have the signature iconography throughout. I applaud that creative thinking.
>
> But, if it's distinctive but not effective in the context of the site, then the fact that it's distinctive isn't valuable. So I'm not sure how much I can react until I see it in all the other places and uses. I understand the appeal of album art because this content will go to iTunes and to our mobile app and so much of our traffic is in mobile. So I see that this album art is an effective way of branding for that. But, for instance, it appears that we are eliminating any logos."

It was slowly becoming clear that the high-art strategy was not flying with the managers, nor with Michael. And that, besides the issue of host personalities and photos, there was a related problem of word marks for the shows which Theo had not addressed. Nothing in the illustrations he had put up on the page had a connection to fonts or word marks, and this was also a problem for the General Manager. Michael pushed back:

> "We are into art, and simple words that define the program. But is that a good decision? Replacing logos? When we do all the things we do with programs, like when we have a public event, will this album art work for that? And we're built around personalities. I haven't seen anything that says where does a picture or drawing of the personalities that people respond to on our air and the audio centric nature of this design of this site, where does that fit? Unless I see it, I can't tell you what I think about it."

Now that Michael was on a roll with his feedback, there wasn't much room for others to jump in. And he had more to say.

"My reaction to the artwork which is beautiful is that some of it feels, like beautiful illustrations in magazines and newspapers, but some of these things feel like they are beautifully designed but intricate. And it feels like we need something that will pop when it's small. With some of these things that are very intricate, they don't stand out as an identifier of a program. I hope we understand this is stuff that has to survive across years, hundred of topics, essays, whatever. Those are my reactions. This is a bold idea, I'm not sure we have even discussed how much this art is going to cost."

He agreed that cost notwithstanding, this was a creative idea. But, he said, his reaction was "a little concerned about whether this will work or not" to step away from logos. He turned to Andrew for his opinion:

"I love the idea of great art peppered throughout this website. Andrew, talk to me, I have respect for you, you have done work around logos and treatment and branding. The idea of stepping away from any logos, distinctive logos, does concern me a bit. We have to have a place in this for our personalities, our people. We are nothing more than the people who get in front of a mic and open their mouths. To sublimate them completely to the art, no matter how brilliant the artist is, worries me."

Andrew said he liked the art and supported the idea of a branding system but was also skeptical of setting aside logos. That would put a lot of pressure on the diamonds to carry the master brand across different channels. Theo responded by saying that he wasn't proposing ditching logos, but that the "album art" for each program would act as the logo. Theo explained:

"There is practical reason why that works in digital contexts. For example, there is not an effective collection of podcasts or audio branding that feels like more than audio soup. The word mark we are worried about is WABC. To have other word mark for other properties distracts and takes away from the main word mark which is WABC. So we are trying to take the WABC word mark and complement it in ways that do heavy lifting in many context. In terms of printed banners, we need to talk about that."

Catherine agreed that as long as the typography and color pallets were set, that would be okay. She recognized the shift from being audio brands to visual brands was mostly happening in digital and mobile, so "we need to solve for the most frequent experiences for when people encounter our brand and our product, and then make sure we have the system."

Theo agreed with her and reiterated the problem they were trying to solve was both a lack of visual expertise and a fracturing of sub-brands:

"We are trying to solve for an organization that doesn't have the capacity to choose the great visuals. You have AP photos, news photos, stock photos. So if we invest in property specific artwork that does light up the page, then

that can be ambient across the experience of navigation on mobile, web, iTunes. If we don't align that, and do great word marks, it will feel like competing brands, you won't see that as WABC. Like On Point — or Radiolab, I don't even know where that comes from. I wouldn't be able to tell that family of content. So we are asking this artwork to do a whole heck of a lot."

Though it was hard for the senior managers to talk about, Theo was touching on a core identity problem of the station. His proposal had—inadvertently—reached into the schizophrenic core of what the station did in the world. On the one hand, WABC was a local station with a large and supportive broadcast audience and popular local content. But on the other hand, it was a national producer with radio shows that it distributed across the country. And to add to the identity complications, the popularity of its national shows made was making the station into a national podcast producer as well, operating in a digital audio world that operated by different rules than radio. The discussion about illustrations, and branding systems, and word marks and how to unify them was not just a design question. It was an existential question for the station about how it wanted to express the different parts of itself to different audiences. And the redesign was becoming ground zero for figuring that out.

In response to Theo's desire to unify all the shows under a single brand identity, Michael pointed out that that might not be the approach to take in a distributed content world, and especially not for a station with a collection of sub-brands.

"To play devils' advocate on that, we are living at a time when content is distributed, and our content is becoming increasingly unbundled. So while we are creating a bundle for it live in here on this site, this content has to live on its own too. Many times people will come in from the side, from iTunes, search, and into those brands. And the fact that they are part of larger bundle called "WABC" will be immaterial to a lot of people.

Lots of people who listen to On Point don't care about WABC. They love the program, and it comes into their local station, and its more associate with their local station than with WABC, and that is the way it should be. In some ways I would argue the opposite of what you are arguing, Theo, that some of these things need to be able to live independently on their own as well as part of the bundle of WABC.

When you are a national producer as we are, and increasingly not just with public radio programs but podcasts, no one really cares that our advice podcast comes from WABC, it's NPR Digital Services. And the same will be said for other podcasts we are working on now. So the idea of this uber brand as the one that we do need to have a mark for, but that these others don't need this mark, I am not sure that's right in the world we're living in. We have to build the site with the understanding that there are different brands and products, and many of them live unto themselves as their own thing."

In all, Michael felt that branding shows in this way was "confusing" — not identifying or

branding. “So I want to embrace this idea, I don’t think we have to make a decision right this second, but I would ask you to go back and think about this and see where this can lead us. One question I would have is whether or not we could think about — this might be terrible idea so don’t freak out — but incorporating the name into the art.”

Theo insisted that they were “asking you to imagine rather than seeing what this actually is” but that didn’t seem to help his case much. The managers were very focused on the fact that the word marks were not prominently displayed for either the station or the shows in what Theo was presenting. On the one hand, the uncomfortableness they agreed was a sign that it could be a good idea. On the other hand, most of the managers agreed there was a “practical concern” about having word marks. Alex tried to clarify what was on the table:

“What we are talking about, the name of the shows won't be gone, but we won’t be able to control these on the internet, so we need to have flexibility with how the name fits and where. When the name is embedded in the logo, which I am neutral on, not all names are same length, not all one word, it will complicate things on Twitter for example. I would be curious how Monocle [an example they had discussed] shows up on their Twitter page. I won’t get into how I feel about it. I think this is truly original, would be an opportunity to do something truly creative without a lot of risk.”

Aaron framed the disagreement as turning on whether the sub-brands of the station should be under a common theme or be able to stand separately. And again, although it was nominally a discussion about logos, the disagreement between Aaron and Michael was really pointing to an unresolved strategic question of how and whether the digital distribution strategy of the station should be different from its broadcast distribution strategy.

Aaron: I’m not sure Michael if I agree with you on separating shows from WABC, and these things needing to float on their own. In some ways, like with sharing on the internet, as our business becomes more diffuse, I want to makes sure that WABC is a fighting brand. I want people to know that WABC is a brand. That is how we will make our dough, especially as we become more dispersed. The other thing about this system is that it is scalable.

Catherine: Yes, and as we add new podcasts, this creates a system so that we don’t have to go through and reinvent the system again.

Michael: Nothing that I have said though suggests that we don’t have some sort of consistent, visual look. I have no argument about a diamond in a square background with a color or whatever. People could look at it and see where it comes from and what it’s associated with. That’s fine. I think that it’s not more or less scalable to go find an artist to create a piece of art for that. But is that more or less scalable than having to come up with a new logo? No, that is about the same, and that’s fine. I like the edgy nature of it, and I appreciate your excitement Alex about this. I don’t want to undermine that effort. But I want to make sure, as Paula said, that we are practical about how this will live in the real world. Lots of this will live on its own in the world, not just part of WABC, though WABC will be

important.

Aaron: We want that credit by association though.

Michael: We don't get that credit in a big way either now or in the future. And there won't be WABC credit in that art here. Maybe we will have it on our site, but in mobile, there will be less space for that, and times when these things will sit on their own, dominating the user experience. So I think we have to have — we have to find a happy medium between saying, these things don't need a brand unto themselves, which is what you said Theo, because they have identifiers and the real brand is WABC. I am saying, they do need a brand.

Theo: I am not disagreeing with you, but, I am more concerned about the relationship between all the brands. We are branding the properties, but what we are saying is that we are sensitive to the dissonance between them, and their need to stand alone. So there is a two fold need, and tension between the two approaches.

Michael: And right now we have hodgepodge of brands, and bringing some consistency of approach, with gifted artists who can create something great is appealing, but I do think you can go too far and it becomes perhaps confusing. You can go to the edge and it can be… I don't want us to fall in love with an artistic expression at the expense of reaching people where they are and what they are getting from us. So if we can find a medium without losing that edge, that is better.

In the end, Michael ask them to go back and think more about the group's concerns. "We'll find the right balance here, I love it, but I think we're going to find a good way to balance these things. I don't want to get down the road and have people freak out. Don't be discouraged by this conversation."

The Good Ship Lollipop

After the meeting, back in Aaron's office, I asked him how he thought it went. He took a deep breath.

"I knew it was going to be bad. I was thinking when I woke up this morning, we have not done enough preparation for this. I had a bad feeling coming in. I knew things were going too smoothly, and that we aren't on the Good Ship Lollypop. It's so frustrating."

13. Sprinting

Ultimately, Michael decided against commissioning enterprise art as a branding strategy. But the branding work continued, with Theo going back to the drawing board on how to incorporate word marks and icons, and thread the needle between distinctiveness and unity.

Yet the complications were growing as the mobile app development dragged into the summer. The redesign had to somehow get out of the branding and design discussions and finally move onto other elements of the product strategy.

But in the meantime, the tech team had been very busy working with Studio One's developers on remaking the back-end of the site. They had migrated the whole mess of the current site to a single instance of Wordpress, and had been building the structure for the front-end design in REACT.

When Aaron and Alex checked in with the tech team in mid-June, they were impressed with the progress. And most importantly, the development team had been learning real software development practices. Their exchange on Agile processes was revealing for how the developers and Aaron were learning to measure progress differently.

Zach: These guys are doing great. We haven't had a full sprint yet, between vacations, etc. Our sprints have only been 8 days. But these guys have been making tremendous progress.

Bobby: Using Agile is great way to show Michael how when he comes in and asks for things, it can nosedive our productivity. [looking at the charting for actual effort, available backlog, accepted backlog, burn up, and ideal velocity.] What this does is, it comes from engineering, and at the end of 2 weeks, it can show you what you have done.

Aaron: When at the end of two weeks for me, I am always like, what have I accomplished? If a 10 for me is getting Michael to understand something, and by the end of the week I have gotten him to understand it, that would be an interesting way to think about how I have accomplished something. This is fantastic. I can't thank you guys enough!

But the project was almost six months in, and no one had yet thought much about designing for a new membership or underwriting strategy, two of the redesign's major goals. Katie had tried and failed at multiple junctures to get those goals into the conversation, but to no avail.

At the same time, though, Aaron and Alex had made considerable progress on some difficult political work. The new navigation bar, the channel structure, the play button, the new article pages that combined audio and text, the Explore Audio tab — all of these were serious innovations on the existing product, and it had taken a lot of careful thought and maneuvering to bring Michael and the other managers along.

But what would the revenue phase bring? The issue of revenue was, as Michael would say, the existential question.

Chapter Conclusion

Media organizations are increasingly reliant on a portfolio of digital products that can serve different audiences. But the focus on product innovation and product development is a new skill for legacy media organizations. Understanding how and why the digital team struggled to redesign the site—and what the team ultimately was and was not able to accomplish—helps shed light on my core question of how the pursuit of mission affects the process of innovation in public service organizations.

The site was meant to be a new platform for the station's digital ambitions: the goal was to build a system, rather than a set of sites, that would be mobile-first, audio-forward, and lay the groundwork for better digital monetization. But the work that was actually accomplished in the first half of the project was far less than anyone had planned for. A couple of insights emerge from this case about the challenges of managing product development in public mission-driven media contexts.

Mismatch of ambition and resources

This first insight is that the overall success of the station created too much ambition for the scale of its development capacity. The station was considered very successful in public radio. So it made sense that their ambitions were high. And indeed, they produced many terrific ideas about the audio experience, and other aspects of the site, that matched the quality they aspired to. Yet almost from the beginning, the ambition became crippling given the actual capacity the digital team had to implement. And capacity was never a check on ambition, even as the process spiraled out of control.

But in an interesting way, the brainstorming let off some of the pressure created in always

having to titrate ambition against reality. Alex and Aaron split that role—with Aaron being willing to spin off into fantasy, and Alex always having to bring it back to reality.

Difficulties managing interdependencies of multiple products

This chapter has also illuminated the challenges of managing multiple products inside a legacy media organization. Managing multiple products made everything doubly difficult because of unforeseen design and infrastructure interdependencies.

The mobile app project suffered from the same dynamic of ambition continually crashing on the shoals of resources and capabilities. Yet add the app to the team's work for the year also made everything worse because the app spiraled downward in sync with its technical and visual interdependencies with redesign project. There was way more to the execution than anyone expected. But the process of turning up roadblocks didn't kill the project, it just expanded it.

This chapter also shows the sheer amount of coordination the digital team had to do between vendors — to make up for their own lack of capability. And when it came to monetization (explore more in the next chapter), this was a double bind. Aaron and Alex would have to coordinate external teams who were trying to solve problems that their own internal efforts at station coordination couldn't solve.

Politics and identity created drag

Politics and unresolved identity issues created a huge source of drag on the product design process. The redesign team struggled with mix of text versus audio on the site because the first generation of public radio sites had been brochure sites, and the last wave of innovation had been in digital news. The investment in digital news was significant and had become a core part of the

station's public service mission and identity. The site design features associated with that public service digital news mission were hard to give that up, but also hard to fit in the new audio-first regime.

This made getting to a single visual system was very difficult political work. Aligning the branding alone was a huge effort that in itself took up the majority of the year. And branding landed on an identity fault line for the station with its dual role as a local and national producer. The split mission between national and local was itself enough to slow the whole process down. The failed illustrations strategy resulted from a this combination of over-ambition, not enough socialization of the idea on the management team, and identity issues that the station had not been able to work out.

The political and managerial drag meant that as the redesign process got rolling, the team needed to pick its battles — and getting the visual and audio system working were the first ones. The rest had to be put off.

Organizational weaknesses amplified over time

As the redesign process rolled on, organizational weaknesses and biases got amplified in the clash between ambition, politics, and capacity. The station also had so little design expertise, that everyone felt they should be able to weigh in. But it also put the digital team in a bind of having to weigh their ambitions (and the designer's vision) against their organization's capabilities, or having to rally for additional organizational resources in addition to the site. The lack of technical expertise at the station—or technical expertise in the wrong places—also meant that there were no real accountability checks anywhere, except when deadlines were missed.

Lack of senior technical expertise and poor delegation

Managing a product roadmap for an ultimate decision-maker with no technical expertise and trouble delegating authority created a cat-and-mouse game of hiding and revealing information that itself was a drag on the product development process. Michael wanted to be the final decision-maker on all of the major re-design decisions. He also had the least digital product development experience of anyone. So even as he was making critical decisions, he also had very little understanding of the downstream consequences. The digital team never figured out a way to manage his expectations or get the kind of authorization they needed from him, other than obsessively managing what he saw and didn't see.

But the manipulate-leadership strategy also had its limits—protecting a non-technical leader from important and potentially confusing product decisions meant that there were times when the strategy could spectacularly backfire. That is what happened with the art and branding meeting—when the digital team was sent back to the drawing board on huge and important part of the product roadmap because they hadn't done the work to bring the General Manager and the senior management team along.

To make matters worse, when the General Manager decided the product needed something, his ambition created serious dependencies in the project that he couldn't see, and which the team would often not bump into until later in the development process. This aggravated the lock-in on the product roadmap. Because they wanted to keep moving forward, and because they didn't have the authority to make their own final decisions, the digital team felt like they couldn't "unring the bell" when the General Manager decided on something.

If the leader making final product decisions doesn't understand the scope and complexity of features relative to the time and resources required to execute them, the product roadmap is

doomed. In a traditional editorial setting, an editor can give editorial guidance to a reporter and have a pretty good understanding of what the work required is to get there. But editorial guidance and product decision-making are two radically different skill sets and domains of expertise. And in having one ultimate decision-maker (who gave product guidance much like editorial guidance) and not enough product expertise even in the digital team to manage his expectations—it is not surprising that the redesign started to spin out of control.

The lack of technical leadership combined with poor delegation and authorization could also lead to strange bottlenecks where, as in the case of pictures for podcast pages, an entire piece of work could be scrapped because it stalled on a seemingly insignificant decision. And yet, because everything was connected to everything else in the site and in the team's workflow — and because in the case of podcasting, it was an existential moment — small tasks could look like big tasks. But the reverse was also true—big tasks, like being able to publish audio directly to the site, could also look like small tasks. Thus product planning could get out of sync with the actual time required to do the work.

Crowding out radical product strategies

The problems of compounding lock-in created by the collision between increasing ambition, political and managerial drag, and limited organizational capacity, eventually crowded out more radical product strategies. Furthermore, this process was geometric. Small stumbles and snags in the process, accumulating over time, compounded to produce medium stumbles compounded to produce large stumbles. The gaps between the station's aspirations, the need to design the new site, what could actually be politically negotiated, and what could be built (not to mention maintained over time) became increasingly difficult to manage as the redesign unfolded.

And in that context of compounding stumbles and path-dependent lock-in, any product vision that was radically outside the frame of what could be extracted politically, and executed feasibly, was drowned out. Katie, the external advisor to the redesign, tried and failed over and over again to advocate for a larger vision of community, engagement and conversion to be integrated into the product design. And each time, her ideas were—quite reasonably and rationally—pushed aside in the interest of getting *something* done.

These are the over-time challenges of managing software product development inside legacy media organizations.

Chapter 8: Revenue

Introduction

As I described in the previous chapter, one of the most important goals of the redesigned site was to create new opportunities for digital revenue. This chapter continues the redesign story, but shifts focus to the problems of creating products that serve robust digital revenue strategies.

As public service organizations adapt to a new technical context, one important challenge is to figure out how, if at all, to change their resource strategies. Organizational theories of resource dependence Pfeffer and Slancik 1979) and structural contingency Thompson 1967) highlight how changing contexts can shift the balance of power, resources flows, and ultimately the architecture of organizations. Public service organizations, among the slowest-moving of organizational types, may not have as much flexibility to adapt their resources flows as more purely market-driven organizations. On the other hand, public service organizations often have a wealth of symbolic resources and interested stakeholders at their disposal that could conceivably be reconfigured to attract new resources in a changing technical context. This chapter builds on the findings of the previous chapter on product innovation to ask the larger question, how does a public service mission influence the creation of digital revenue innovations that can help public services organizations adapt to a changing technical context?

I begin this chapter with some brief context on digital revenue in the field of journalism and in public radio at the time of data collection. Robust digital revenue strategies in publishing have become increasingly elusive as the internet has centralized. Digital advertising economics have tended to favor large, centralized platforms like Google and Facebook over news publishers.

These platforms have been able to aggregate both huge audiences and fine-grained behavioral information that can be used by marketers in ad customization and targeting. Yet at the time of data collection, many commercial news publishers were still chasing advertising dollars as a cornerstone of their digital revenue strategy. Many noncommercial publishers, public radio stations included, were beginning to think about how to attract and convert their digital audiences into paying supporters.

Digital revenue in podcasting at the time of data collection was in its infancy. *Serial* had launched with a sponsor. This was an old advertising format in media, attached to an even older one: the host of *Serial* (and the host of *Start-up*) read their own ads. This was a no-no in public radio, which had to conform to strict FCC standards on the kinds of commercial speech that could be broadcast on noncommercial airwaves. So in terms of innovation reference points for monetization in spoken word audio, the fall of 2014 showed that host-read sponsorship ads—pre-roll, mid-roll, and post-roll—were the new standard.

Digital revenue in digital *news* products, however, was at a different point. While most of the commercial digital news world was still chasing traffic for ads (see Chapter 4), in the non-profit digital news world, a much different set of innovative practices was taking hold. Early in 2016, I conducted 8 interviews with the leading nonprofit digital news publishers about the state of innovation in reader-supported digital news revenue. The results of those interviews (published in 2018 by the Tow Center for Digital Journalism as *A Guide to Audience Revenue and Engagement* with additional data from the Membership Puzzle Project at NYU, and co-authored by Emily Goligoski), suggested a new set of digital practices, technologies, and ethos sustaining digital-only news operations. I will briefly recapitulate those findings here (lightly edited from the published report), as they form the reference point for digital innovation in news products

similar to the station's redesign.

Our first finding was that, much like public radio stations, successful digital news operations were rarely 100 percent funded by direct audience revenue alone. Digitally native publications were relying on a mix of revenue approaches---including advertising, corporate underwriting, foundation funding, article syndication, events, affiliate programs, merchandise, and book sales---in addition to direct revenue from audiences to support their journalism.

Many of these outlets were imitating public radio's "membership" strategy and asking their readers to become members by financially supporting their work. Yet news membership at successful digital news outlets wasn't about premiums, tote bags, mugs, or local business discounts—some of the stereotypical rewards of public radio membership. Rather, these digital news publishers operating on the assumption that readers became members or donors when they wanted to be part of the larger cause that the news organization represented or when they thought the newsroom represented something unique in the world.

Part of crafting successful membership strategies for outlets like the *Voice of San Diego*, involved articulating a coherent mission and set of values for the publication. The story of the publication's mission and its values were then translated visually and conceptually into the components of their digital products. So for example, the *Voice of San Diego*'s website featured its mission and its identity as a publicly-supported news operation in visually prominent places on its homepage and all of its article pages. It offered a range of newsletter products targeted to different audience needs and interests (the outcome of extensive audience research), and those products also emphasized the mission and values of the outlet.

These news outlets' membership strategies constitute an integrated set of editorial, audience development, and revenue practices that brought the ideas, experience, and input of readers into

the newsroom and into the news products. These values and practices made the idea of membership feel meaningful. We found that email newsletters were one of the best digital ways to build a loyal and engaged audience that these outlets turned to for support.

In terms of data and technology, the successful digital news outlets we studied had integrated Customer Relationship Management (CRM) software with their Content Management Software (CMS), which were additionally wired into event ticketing platforms, email marketing platforms, and (in a few cases), commenting software. These integrated applications allowed the publishing teams to track the flow of readers through their content, assess their level of loyalty and engagement, and issue targeted fundraising appeals, as well as get a better understanding of what types of content were doing well with their readers. Drawing from commercial digital marketing concepts, these news outlets crafted revenue strategies around the idea of a "customer funnel" that, at the wide end, would attract a broad swath of readers and through various engagement strategies, convert those readers into financial supporters. The components of their digital sites were built to reflect this customer funnel, and to optimize the conversion of readers in loyal supporters.

1. The Bolt-on Revenue Strategy

In theory, there were a number of ways to go about integrating a similarly robust digital revenue strategy into the station's new website. Having a better live stream on the site would mean that the station could sell pre-roll audio advertising against it. The station's podcasts could have their own in-audio podcast advertising. And Studio One could build custom ad units that might be more valuable to underwriters than traditional display space. But the biggest revenue opportunity to be created with the new site was in digital membership. As Katie had been trying to explain to Michael and Aaron, the whole site could be re-tooled to serve the purpose of

converting digital users into paying digital members.

Creating a conversion-focused site was appealing to Aaron and Michael. It was so appealing, in fact, that they hired an outside consultant Katie to work with the digital team on how to "bolt-on" conversation optimization tools to the existing site, even while the it was being redesigned. In the first month of my fieldwork at the station, I sat in on a few meetings between Katie, Aaron, and the membership team, discussing their options for increasing membership conversions on the site.

These discussions are important to revisit at this point in the redesign story, because they help reveal how and why the digital team addressed revenue questions as they did in the second half of the redesign project.

So let's go back to January 2015, a week into my time at the station, just as the Studio One designers were starting their user interviews at the station, and a few weeks before the audio experience idea-a-thon.

The widget-producing factory

I followed Aaron, Henry (the head of membership), Isabell (a membership staffer), and Greg and Bobby (the digital team's developers) over to a co-working space in the city where Katie was spending her days. She had sent over a couple of conversion strategies options for the group to consider, ranging from easy to implement to quite difficult.

Katie began by observing that the existing site had very few calls to action — that it was not actually about conversion. "And the data about existing members that you have is in your membership database — so we have data about the end of the funnel but not the top and who could be members." So the core question she posed was: "how do we find and store data about

people who are not yet members?" At the very least, she counseled, they could start with gathering email addresses.

She went through three options for developing the "membership" layer of the site - the first was to build a ground-up conversion site that supports the conversion of visitors to members and donors. That option, she pointed out, was really expensive and requires a large, full-time development team. The second option was "bolt-on conversion" which ties an existing CMS or a CRM system and funnels registration into a system that holds user data. Then the CRM contains a workflow to figure out who are members versus potential members. The pros were that it has better reporting and lifecycle management of members. The cons are were it's expensive and no one likes it, and there are no tailored solutions. But it is good for understanding which users converted and why. But then again, as she pointed out, "you don't have data on who aren't members yet."

Henry responded with his assessment of what the problems were with this bolt-on option:

Henry: We have a member database and an email marketing provider, and that is about it. We don't really have a CRM system. Our relationship with our member database provider has evolved, and the question is can they help us to get to what we want. Michael is pushing for new CRM, but the existing systems out there are complicated and expensive. Should we push back on Michael? They were exploring a big software program in the past—and it was too expensive, it was like an elephant gun, too much.

Katie: And it could be gone tomorrow.

Aaron: Ok, but Henry, what's the hesitation? Resources? Are you stretched thin?

Henry: We are in a factory producing widgets, so to bring in new system is daunting, but more widely, I want to understand, what is the benefit for us? Why are we doing this? what do we want? Does our existing member database provider have what it takes to give us what we need?

Katie: And is it worth it to risk $1M on something that might not work or might not be what you need in 5 years?

The final option was to try a conversion rate optimization tool which would allow the management of pop-ups on the site with calls to action. It could ask people to donate or submit an email or subscribe to a podcast. It wouldn't solve the data problem but it would be an interim step to figuring out what kinds of messages and placements make it likely that people will give. The messages could be tailored based on IP address or other placements. Henry said they had

explored something similar with their database vendor but it hadn't gone anywhere and they want to make a more tailored ask. The conversation drifted towards the topic of how to segment the audience. Echoing what would also emerge in the Innovation Lab project a few months later, Aaron replied:

> "People always ask, "who is the audience?" And most of us at the station would say, everyone! But we might need more data sophisticated on—continuous listeners, radio-only listeners, first time users of the site. We are incredibly good at preaching to the converted. You won't get much better conversion rate of the choir. But what I worry about is what is outer limit of what we can squeeze out of existing affiliates. Right now we are preaching to the choir masters—the Sustainers who give us money every month. And we are still hitting them with on air fundraisers. We are treating those folks on the air the same way as everyone else."

The conversation circled around to what they might be able to test, but at some point Henry asked, "what is the output for this meeting?" They decided that they had no decisions for Michael to make just yet, but that they would have to figure out how to bring Studio One into the process. Bobby pointed out that, "cleaning membership data from the database takes a lot of time." To which Henry replied, "And carving out time is so tough. We do a campaign, dust ourselves off, and then keep going."

The problem of switching software systems like the membership database was made worse by how many new people the station had taken on. Aaron observed, "having 27 new employees in last 3 years, has spread out the organization so much—people are now doing 27 new things rather than working on core things."

Though they agreed the next step was to put some options in front of Michael, Henry pointed out that the goal of the project was still missing: "we need to decide what our primary objective is once we do this CRO. How might these tools help us?"

The group also wondered what they would actually *do* with the digital user data once they had it. The suggestion was to just pile it up and then let Henry decide what to do with it. They also discussed the problem of development and data resources, and the possibility of hiring

someone who could work on membership and revenue data.

Aaron pointed out that he had an open hire he could use and that they could pitch the Michael on using it for supporting this kind of data project. “Michael does bring a bias to content. You can see it in the hires. So we have to map out this kind of an ask, and tell a content story to him. We have made progress in that over time. But I think have an opportunity here, a window, to do something.”

They ended the meeting by agreeing to try to get a baseline of their existing digital audience data. Aaron summed it up, “We want to understand how our digital audience and membership audience intersect and use that data to form a baseline that we can work from.”

Whose job is it to worry about the users?

The group met again a few weeks later (without the head of membership) to talk about next steps. Katie had identified a handful of CRO vendors who could provide the tools to target messaging via pop-ups and then analyze conversion on the site to email subscription, event ticket purchasing, and donations.

But the more Katie pressed the team on what actions to take next, the more tangled things got. The first problem was that the team didn’t have a baseline conversion metric to compare against. So Katie asked a basic organizational question: who do users belong to before they become members? The answer was, in the absence of a digital marketing person, they belonged to both membership and marketing. Karen, the membership representative in the room, pointed out that there was a list of emails related to the membership newsletter but that, “we don’t touch them other than to add members.”

So Katie asked again, “if we are putting messages in front of users and trying to get them to

do something, whose job is that to worry about them?" Aaron said the best answer was Catherine, head of marketing for the station, in the absence of a digital marketing person.

A further complication was that during on-air pledge drives, all of the available digital marketing spaces on the site were devoted to the pledge drive. So it was hard to separate out the independent effect of particular tactics of digital marketing from the overall effect of on-air calls to action. And, Alex pointed out, the digital team was often told to try so many things that it was hard to hold onto anything long enough to test it: "We don't want to tamp down experimentation, but it can feel not productive because it feels like we don't have goals to judge against and then discard or build on. We're just always adding things."

Though the group came up with some good ideas for how to use the digital channel to increase the effectiveness of the on-air pledge drive, the persistent problem was their inability to identify users on the site.

Katie said, "There is a basic decision here of whether you are going to try to build a site that tracks who are members and who are not." But even setting aside that problem, the group hit upon another issue, which was that the donation page was terrible. Why try to make better calls to action or collect email addresses when the drop off rate on the donation page was 50%? Alex was getting frustrated again with the tail-chasing:

> "But how can we make this decision without moving forward on a timeline for new donation page? Or without having someone spend 6 months with our email addresses to see what we can do? I think trying anything new that points people to the current donation page is not a good idea—if its your first entrée to the digital side and we have a 50% drop off rate…. there has to be true commitment by the organization that one of these things get done."

And then, finally, the conversation got back to resources. Alex was getting practical again, "We can solve all the problems in this room, but if we don't have a team to deploy this, it won't happen. I'm not talking about a whole team, but refocusing on what people are doing. Just to get

practical here."

So the team was back to discussing how to get the General Manager to hire more people and to refocus existing resources. Alex observed again, "I think we know what we need to do but we don't do this because we can't turn the wheel and actually tell a person what to do."

Email hoarders

The conversation continued on how to convince Michael to put some more resources against conversion. Aaron tried out one possible argument to Michael, that in order to be a conversion site they would need to be a "lean, mean email machine":

> "No one starts a funnel of engagement without a sense of who all those people are—it's impossible. It all comes down to that. We don't know who is a user at all, we don't know who is a user of those who give to us now, or of those who listen to the radio and use our website. We don't know shit. That is why email is the starting point."

The group agreed that a good starting point would be actually getting the email addresses already in the station in order. Alex said dryly, "we have emails in drawers, desks, it's everywhere. We are email hoarders!" Aaron suggested anointing an email czar for six months to clean things up.

"But that is a forever job" Alex pointed out, "it's part of a digital outreach strategy of which email is one tool. And we are six months from the starting line."

And so, like they would come experience a million times over in the coming months of the redesign, the team was stuck between what would come first, chicken or egg, and how to convince Michael to hire someone new to make it happen.

And Bobby, taking a step back, pointed out something very interesting about the mixed messages that the digital team was running under:

> "Michael did say, we are a radio station. And our digital team's mission has been to support that online, but also be additive to it. The sites we are talking about for CRO are digital-only properties—I am hesitant to take digital only strategies and make it into a centerpiece for us when we still have radio at the center. We need a strategy that

serves radio first and foremost and taps into radio as converting people from radio to non-radio. Michael keeps saying that we have to support hiring for radio, but we also need to support digital because that's our purpose. We have to go in that direction!"

Aaron agreed: "so here is our digital strategy around the elephant—and the elephant in the room is radio."

They talked more about possible conversion targets and possible Michael influence strategies, but couldn't make much progress beyond the realization that the ownership of email lists, newsletter administration, and email tagging would have to be fundamentally cleaned up before they could do much conversion optimization on the site. And the membership staff person said all her department really cared about in the end was dollars, not email.

Bobby closed with the final thought: "Step one would be getting the station's email marketing service integrated with the membership database. Ultimately we have to rethink email overall before we can collect addresses — we have to clean it up, organize it, and do foundational stuff."

Needless to say, it did not make any sense to move forward with a digital conversion strategy with the email situation in such a disorganized state. But the short engagement with Katie made obvious some of the hurdles that Studio One and the digital team were going to have to tackle in order to get the new site to actually generate the digital revenue that the station needed to survive its existential threat.

Another hill to die on

Yet what was standing in the way of digital revenue was actually more complicated than an outdated membership database and lack of a coordinated email strategy. One afternoon later in February, after the particularly painful Studio One and Mobile App Design firm discussion on how to integrate "pledges" into the new digital products, Alex explained to me the bigger picture

of why digital revenue was so hard.

"At the station, IT is in charge of donation flow—the back end and credit card processing—through a third party vendor. Processing money, taxes—it takes a full time team to sort that out. That had been the first thing Studio One wanted to tackle—just redesigning those donation and payment pages with a new skin and shorter steps to make it a better user experience would help us. All they were talking about was putting on new skin on it.

But Aaron decided against it because we didn't want the redesign to die on its first project. Even to get that skin redesign through it would have to go through IT, membership… it would be an internal and external nightmare. NPR is building a responsive pledge donation form—we could use that and it would be functional before Studio One got to it.

Our membership database is ok, but it's not cutting edge. The underwriting team can't even give us five minutes to coordinate. Getting digital members should be the only thing we are doing—what is more important than making sure people can easily give us money on our site? It's totally crazy. So this donation flow touches every piece of the station—if the redesign was supposed to start with the pledge page it would have taken forever. But this issue will keep coming up. Maybe we should have died on that hill rather than wait to do it later."

But, do it later they did. Or, tried to. And that brings us forward in time again to the summer — after the terrible senior management branding discussion, after the technical team had been working for a while on rebuilding the audio API. To the time when Aaron and Theo decided it was finally time to tackle revenue.

And like the strategy for figuring out "awesome audio," it began with a brainstorming session.

2. One Step Up from Back of the Envelope

In late June, the digital team met with Studio One to discuss the design of the upcoming workshop on online fundraising. They discussed who would be there and who from the station to invite. Aaron said he had invited someone from NPR to be there, as would Jessica who had just started at the Lab and was getting to know "our business." Jessica had completed her two weeks of IDEO research and was ready to help apply it around the station.

Catherine and Rachael would also be coming. Rachael was the new hire in membership and though she wouldn't start for another month, Aaron wanted her to be there: "She was innovation

explorer on licensee donation. She worked on various donation platforms, she is herself a graphic artist. She is more open and has seen and thought a lot about this space. She is really interesting."

Aaron had intentionally left some of the other senior managers off the list for keeping numbers down and for making sure people with innovative ideas got air time. Alex cautioned, though, about leaving out some of the senior program staff and the GM and how it might make their lives harder down the line:

> "We don't want to be too big, but if someone is not there from programming, this is just another thing that we can present to them for them to feel bad about. Do we see this as an initial engagement? Or this is our one shot to do this? Because if they are not integrated, then we present it to them, they can pick it apart or not have buy in. And if they don't buy in, they won't support it and we can't get it done. This topic is core to the station — you could make argument that this is the most important function we will do. I know we don't need the GM there, that's not practical. But if you think membership can represent that realm, then that is fine."

The Studio One designer, Tommy, made the argument that this was really about brainstorming and coming up with ideas to pursue further. He thought they could afford to leave out major decision makers at this point if that was necessary. But Alex was worried after what had happened in the branding presentation to the senior managers: "I would like to think that figuring out donation is an ongoing thing, but thinking about what happened on Friday, I don't want other managers to feel like we have hit upon something and they haven't been part of the process."

Aaron said he understood her concern but, "I don't think there is going to be an ah-ha moment where we get to something and then we present it and they say that is the stupidest things I've heard… this is one step up from the back of the envelope. And I don't think all of them need to see us in the messy phase of it."

We get sick of things before the public does

The day of the brainstorming, we headed down to Studio One's temporary offices in a

WeWork. The conference room was hip, but crowded. Surrounded by glass on all sides, and looking out at the chic kitchen with its draft beer on tap, the setting felt appropriate to brainstorming about the future of public radio revenue models. Aaron and Alex had gathered the redesign team with three people from the membership department, the NPR guest, the two station developers, two junior people from the major giving, the external consultant, and the head of the Lab.

Tommy from Studio One kicked it off: "The purpose of this workshop was to think about how can you encourage people to give online." The workshop was broken out into three pieces. In the first part people presented inspirations for good online donor experiences. In the second part they brainstormed "how might we" and in the final part they were supposed to create prototypes.

The brainstorm raised many interesting questions and possibilities — many more than would ever be possible to tackle in the space of the redesign. Though the point was to talk about online fundraising and not on air fundraising, inevitably part of the conversation was given over to talking about how to make the on-air radio experience better.

Near the beginning of the session, the NPR person shared a very surprising experiment he had heard about at a recent public radio conference which illustrated some of the low-hanging fruit on digital revenue for the station:

> "In any given market, only 10% of people who visit a site come back in the whole next month. There are so many people that are fly by visitors who will never give. They are in and then out. So this experiment was about, how do you lower the barrier so you get those first time donors? The station's experiment was this — they made a pop-up that asked for an email, and then they linked to a form in an email — not a full donation form — just a name, email, and intended pledge amount. If you hit submit, it would generate another email. They had 60% conversation on the form, 57% gave, 100% were new donors!"

From that rather prosaic but also profound example, others shared their inspirations from a much wider lens: Patreon, Kickstarter, Indie Gogo, GoFundMe, ATT TextToPay, Amazon

Prime, Square. They discussed exposing the social metrics of giving. Katie returned to her common theme: “right now we don’t know what inspires people to give, especially online — we don’t know what page they were on before they gave. we could know, but we don’t track that.” Which could be solved, Jessica said, by sign on from Twitter or Facebook showing who recently gave. Rachael pointed out this can be creepy, even though most institutions have the data. She gave the example of Humble Bumble and Evertrue which is a donor recruitment tool. She also shared her thoughts on crowdfunding, and on experiments they had run in her previous development department on small direct-donation campaigns which they found did not cannibalize their existing donor base and in fact was more about reducing the speed and friction of giving.

Isabell shared about Charity Water’s mobile giving form which was easy and simple. Tommy asked if there was an ability to do mobile giving at the station already. Henry said, “the biggest barrier is our existing database—the we would have to get the vendor on board with that — conceptually answer is yes, technically how we would do it is the question.” This shaded into a conversation about payment and payment methods which Aaron said he didn’t want to have. But they talked about how some forms of payment, like PayPal would reduce the friction and make it easier to give. They talked a bit about what being a “sustainer” means versus being a “member” in relation to Charity Water.

Catherine, the head of marketing, offered the idea of contextual giving, and calls to action related to news topics or coverage. Henry said he had thought about that too, and about how to do without being exploitative. “That feels like an opportunity we aren’t taking advantage of.” Catherine also shared about the Red Campaign — simple branding and they capture your email and then funnel you along to become a donor. This prompted her to ask,

Catherine: what is our content strategy for email? And the editorial piece of what we do that’s not fundraising.

I'm thinking about email content that is not just in the fundraising model.

Henry: when you go to WABC.org, there should be a prominent ask for support. But I'm not sure our page embodies that necessarily. I'm not sure it is as prominent or integrated as it needs to be.

Then it was Aaron's turn. He reminded everyone that the purpose of the discussion was to think about the ongoing challenges to conversion and making the site into a conversion-driven product rather than an underwriting-driven one. His example was Beacon, the crowdfunding journalism site. They talked briefly about whether people would get tired of crowdfunding. Aaron responded,

"It's a great question. We haven't really played in that pool. To quote Michael, "we get sick of things before the public does" — I think we need to make sure that we aren't producing stuff for ourselves, what i call "news for the newsroom." There is nothing wrong with our gut, but we should check and test."

Katie said her inspiration was how to make mobile donation easier to happen without hands and working with the pause button. "We want to respond to behavior that is already happening on WABC."

A storm of brainstorming

The next section of the workshop focused on "How Might We" Statements. These also generated a lot of good ideas. How might we be mobile first through our donation system? How might we bring in transparency where the money is going? How might we thank our donors? How might we give users more control over their data and the giving process? How might give people personal access? How might we personalize the giving experience? How do we put the donor first?

Katie's example of how might we connected the act of what the user is doing "listening" to "donation" — how might we connect the act of catching them in the moment and making it easy to convert them? How might we turn donors into recruiters? How might we create gifting? (like it's my kid's bat mitzvah…) How might we get the drive-by user to introduce themselves? Some

people want transactional appeal and some people want the heart appeal, how do we have free speech, democracy — the mission based feel. *How might we create the feeling of community on the site? How might we make one-touch giving? What's an appropriate level of annoyance? How do we create a sense of urgency or immediacy? how might we enable individuals to pressure corporations to give? How might we invite our community to hack this process? Why not bring the user right into this process? How do we encourage other kinds of loyalty?*

Henry, the head of membership, began slipping into problem solving mode, and expressed some impatience at the process. "What are we trying to accomplish with this?" he asked. And later, amidst all of the "how might we's" he commented, "is there a category of low hanging fruit? I am already totally overwhelmed by this. Is there low hanging fruit stuff that we aren't engaged in?"

But the group just kept going. *How might we make more contextual asks within stories?*

Henry was clearly breaking down a little.

Henry: We have a big march campaign coming up, and we're looking at whether we can reduce it even further. We are trying to look at data more carefully, we know how many people are lapsed donors, etc. and engage them in a more ongoing basis. My mandate is to reduce the on air fundraising — if there is that objective, then how do we integrate this stuff to that end? How might we integrate these asks/appeals to achieve that objective. Is that too narrow?

Aaron: So how might we connect the outcome of online giving to a positive for on-air listening? How might we connect the two experiences? As opposed to make them separate and distinct? When do they become complimentary?

Henry: Right, so the idea of creating ambassadors for the station — asking people to give now, and eliminate the campaign in March, how would we do that?

Jessica: Henry stands at computer in control room, hits refresh, talks to engineers and then the control room. He is hitting refresh but he has no visibility into anyone's data. There is no thanking whomever listener for her donation. There is none of that connection and personalities — showing love to the people who donated.

Tommy: Right, so the question is how might we incorporate recognizing donors?

Henry: We have capacity to do that, and we know there are things that will spike performance — like sweepstakes — depends on what we want to focus on in a pitch break.

This was a side-diversion into new tactics for on-air fundraising. But the group kept going. They talked a little bit more about on air fundraising and then Jessica threw in: "how might we lean into being the underdog?" Rachael: "how might we educate donors?" This led to a short

back and forth about the idea of creating "public radio CSA shares."

Aaron tried to steer the discussion back towards Henry's concern of "low hanging fruit" and the group came up with some more ideas: *How might we create a frictionless environment to run small experiments? How might we make products that are mobile and on demand?*

It was all fairly overwhelming. After lunch, Tommy said the team would take back the ideas and use them "to see the work we are going to do." Then they voted on the top ideas:

Topics chosen: largest: "*how might we remove barriers to giving, and make it easy*" "*how might be personalize donation experience*" "*how might we make it seamless mobile firs*t" "*how might we spin up fast micro donations*" ….. "*how might we help the donor give when they want and where they want, and meet them where they are*."

In the midst of the conversation, Aaron pointed out:

> "I worry about dilution of focus, and are we doing too much… we built a Swiss army knife app before, and it diluted what people wanted to do which is to listen. If it meets the user needs, great. and test and see is a good idea. But I want to stay focused on that kind of thing. I don't want to be idea killer though."

They discussed how to make the site look like it was funded by the public and how to integrate that messaging into the site whether by pop-ups or social statistics. Then they circled back, yet again, to the question of how they might marry membership data ("could we say you are a donor if you have ever given?" asked Tommy) with a login feature on the site that would allow people to sign in and see their giving history and would allow for personalization. Isabell and Henry talked about the difficulties of managing the membership database and how most of the matching would have to be manual.

The ideas kept coming.

Leaving the Porche in the driveway

As the brainstorming dragged on, Aaron asked Alex what she thought. Alex had been quiet

for a while and was looking a little checked out. She replied thoughtfully,

"Honestly, it's hard for me to step back because I keep thinking about the big challenges and hurdles ahead. Like this organization has not be able to touch the donation page" (this prompted some defensive comments so she backtracked a little) "okay, not that we haven't been able to touch it, but we haven't been able as an organization to make it better so that people don't drop off… so it's hard for me to imagine testing these small things when as an organization we haven't been able to do some basic things. How do we help the organization so that we can do these things? The things I worry about are practical around removing barriers to giving. It shouldn't be so hard to give."

Aaron reflected this back to her: "so you're saying we have to walk before we run?"

Alex followed up: "I just worry about, it gets so bad, if we can't get these more basic things done."

Theo said he agreed that the donation form has to be a first order of business.

"That has been prioritized. But then I hear you saying there are all these other ideas about how to start adding things on. My next priority would be donation messaging, and then be able to change the messaging across the site and tag them with analytics. Those two things in tandem will open the door to a number of other things. They aren't unreasonable to include. But there are also huge questions about log in."

This prompted a discussion about what, exactly, would be purpose and incentive to log in, especially since users usually know they are being tracked. The conversation kept going around and around.

At the end of the meeting, Tommy tried to wrap up the last part of the conversation by saying, "What are the things we have to do to make a platform that enables all of this? The donation form, membership log-in options. These are things we have to do in order to do the things we are talking about. "

Aaron echoed this: "We are building a toolbox of things that will allow us to do these other things… we don't have that capacity, so we are building that."

But Alex pushed again on the organizational issues:

"The question for us as an organization is who is using those tools and managing them? Those people don't just appear just because we build something. A lot of times people say we don't have that tool so we can't do it and then the conversation dies. If we build it, we take away that barrier, but then who is going to use it?"

Aaron agreed, "We don't want to leave a Porche sitting in the driveway. We have to take it out and drive it, and there will be levels of capacity. We can't think that just because we build it,

it will work and we will have capacity, it will take all of us to get it done."

3. Selling Radio Dollars, Making Digital Pennies

The membership brainstorm had raised many more possibilities than could be tackled. But it was also only half of the puzzle of digital revenue. The other half was the problem of underwriting revenue on the site. How would the redesign make room for new advertising space? This would come down to how the station's business manager, Thomas, who oversaw the underwriting team, and Aaron could work together.

There was often a mutual misunderstanding between the two of them. This was partly a function of the classic editorial-versus-business divide that characterizes all newsrooms. While Aaron was responsible for building and maintaining the station's digital editorial products, it was Thomas's underwriting team that ended up making most major of the decisions about how to monetize that digital content. The pre-roll technology that served ads into the live stream, the podcast advertising (or lack thereof) that got sold, the banner displays on the site, the rotation of digital house ads—all of those had ended up attached to Thomas and his team. But the radio business was so large, complicated, and lucrative that digital ad revenue was less of a priority in the scale of the underwriting business, and existed mostly as a bonus to on-air underwriters who wanted the flexibility of digital ad space. And there really was no one fully responsible for the integration of digital product and digital revenue strategies at the station. I heard Aaron argued to Michael almost every month that I was at the station, that Michael should appoint a digital revenue czar and that that person should be Aaron. But that had never happened.

And so it was when Studio One, on July 1st, convened a brainstorming session on underwriting, that Aaron called Thomas, one of the underwriting salespeople, Michael, Alex,

Bobby, and Theo into the event space in the station for a discussion on how they were going to incorporate advertising into the new site. Aaron began by setting expectations for the meeting:

"I want to set expectations for this meeting. Yesterday we had a meeting of between 12 and 15 people at Studio One — it was a brainstorming session on re-imagining membership. We were throwing ideas on the wall. I want to familiarize you and plug you into the next phase of designing for underwriting. Thomas, we need to figure out what your team's needs are, where the industry is, etc. The other thing is that you are selling 6 mo - 1 yr from now — and we need to be mindful that there is open communication between us about how Studio One wanted to get all those things we sell — banners, ad platforms, etc. integrated into the design. We wanted to get those as a starting point, so we can figure out: how do we know if we are making things better or worse? What are our goals and expectations? Just like our air where we want to make money (I'm going to use for profit terms here) — we want to make money on our site! That is where things are going."

This was a good start, but it was a little jarring to hear that the sales team was selling a year out, into underwriting space that might not exist. But Aaron soldiered on:

"We are a legacy business, but we are already seeing that live listening is going flat or down, and on-demand is going up, and territorial radio is going down. We are setting a new standard in audio with this redesign, everything we are doing with the site is on the cutting edge. Even NPR is coming to us now asking how we're doing. We know membership will be on the ball no with the new site — because it's about conversion from digital listener to digital consumer to digital member."

This was also a classic Aaron persuasion strategy—remind everyone of the existential threat to the radio business, but frame their efforts going right at the problem. Now he just had to make the right pitch for where underwriting would fit:

"I think underwriting is the most challenges because you have most competition — from digital programmatic buying, and banner ads — you can't make a lot of dough off of it. We think there is more dough for you around digital audio and on-demand audio and live audio. So as we are building this new site, we want to make you guys be industry leaders and have folks take notice. You were the first to do video pre-rolls on the site, and people took notice and are following that. But there is a challenge for us in mobile — we will be 50%+ traffic to our mobile products this year. The redesign is being built responsively so we can capture that traffic. But all of those things make your business harder though. So today we want to talk about how do we make your business less threatening, create more opportunity, and create an awesome experience which is goal of the website period."

This was first-rate Aaron table-setting, with just the right balance of digital fear and inspiration. The digital advertising landscape, particularly on mobile, was abysmal. But Aaron had somehow made it seem surmountable.

Theo followed up with where they were on the product:

"To give you a sense of where we are. Right now we have good idea of how content is going to be published and pushed across the site. We have placeholders spots for membership conversion messages and underwriting, but we don't know what the content or products look like for those. So we have left that flexible for the revenues that come through the digital experiences. There are a number of balances to hit — making it a cool place to go while

generating revenue from these sources — and then making sure there are room for house ads for like events, ads for sponsored content such as straight underwriting, and then conversion messaging.

We don't want competition between those pieces, we want to balance those for balanced revenue. We want to know how many ads we should be designing for, how many ads in audio stream, in article pages itself, and what are the opportunities? Are there opportunities for page takeovers? we didn't want to do any of that without this conversation with you about what's on the site today."

What Theo was saying politely, was that they didn't want the site to be cluttered with bad ad experiences. This was, unfortunately, the standard on the web, especially amongst digital news publishers. "House ads"—which referred to space on the site for promoting the station's own content, or membership campaigns, or events—were useful to the user and the station. But too much straight-up advertising could be annoying to users. This was particularly a problem on the station's homepage (and other publisher homepages), where a savvy user could read the politics of the publisher into the layout of ad space. Yet, as Aaron pointed out, homepage real estate was not a useful game to play:

Aaron: Most of our traffic doesn't come from our home page, it comes through the side door, and to our listening stream. There's only about 30% of our traffic that goes to our homepage, but it is really important because it's our welcome mat.
Theo: And the home page defines your brand, its a collection of who you are.
Aaron: So what are you thinking about? What are the trends or pressures you are feeling?

This was a generous way to start the conversation. And Thomas, who was one of the most professional and fluent station business managers in the system, was ready to talk about the business.

"I can tell you about where the digital money is today. It's different and counterintuitive than in the commercial digital space. We start with 10sec, on-air, FCC compliant spots— that is our baseline product that we offer clients — so our opportunities in digital are huge. Last year we had strong digital ad revenue. We are a radio station so we don't have pictures. Display space on the site gives us an opportunity to sell clients a visual and use language that we can't do on our air. If an advertiser says to us, I don't do radio or I don't want to abide by FCC underwriting rules — then we can say, well how about this—we can give you space on our site to say whatever you want. And then we will get a ten-fold CPM compared to programmatic digital rates. And that is because people love our audience and they can do what they want in front of it. And we don't geo target."

The station business manager described how they had sold out their digital advertising space as part of selling radio underwriting, and this enabled them to get much better rates than straight programmatic advertising. This was a pretty good display advertising strategy. But Michael was

not impressed. The total volume of digital ad sales on the site was a very tiny fraction of the station's top revenue line.

A number of different numbers

But what this peek under the hood of the digital revenue line was also doing was churning up some serious confusion about how traffic was being measured. The next few minutes were consumed with comical who's-on-first banter between Bobby, Thomas, Michael, Aaron and Alex on how much traffic the station actually did have. It started with Bobby asking Thomas for more precise numbers:

Bobby: Are you counting page views as impressions?
Thomas: When our ads manager does our inventory projection, we come up with 3M impressions on the site for ads viewed.
Bobby: That seems low.
Michael: what have we been averaging in unique visitors?
Alex: 2.5M.
Bobby: In early part of year, politics and elections, that can boost it.
Michael: so we have 2-2.5M unique visitors, and what has that generated in page views?
Aaron: 4-5M in page views
Michael: Ok, so now we have a number of different numbers going around.
Alex: I am looking up on Google Analytics, and I see 6.3M page views for May. And our pages per session is up — 2.1.

The conversation sprawled into a giant, tangled mess with people talking over each other, logging into different sites and throwing around different numbers. Michael raised his voice and tried to cut through the chaos:

"Ok, let's face it. If our potential revenue across *all our traffic across all our digital sites*, is a small fraction of our revenue, and that digital ad revenue is even less than the year before — which is puzzling but could be because of a change in display ad business — and you are getting 10x what typically people get, then we need to think about is there a business here at all? And if there *isn't* one, maybe we should not be spending time and effort in filling our website with display ads that are a rounding off figure in terms of our revenue. If we really look at this and say there is no business here…Now, I'm concerned that we have wildly different and divergent understandings of what we have to sell and what our traffic is, which is problematic. But if we are going backward in sales, and even if we went forward, there isn't serious money, then you wonder, what are we doing? Is there any business here at all of any significant value? The numbers you are talking about are a rounding off error of revenue for our business!"

But Thomas was not done. He launched into the traffic and revenue numbers for advertising on the mobile app, which were just as conflicting with Aaron's estimates as the site traffic, but

even more dismal in terms of revenue. Thomas reported that advertising on the app was bringing in a fraction of what the site was bringing in. He reported he had a lead on a mobile advertising service that could install a voice-enabled ad unit as a pre-roll (a fact that had not thus far been introduced into all the discussions about revenue that Aaron was having with the Mobile App Design firm). But even that didn't generate much excitement, only the same questions about whether this was a business they wanted to be in at all.

The revenue potential of podcasting

Then they came to the topic of podcasts. This was a special irritation for Aaron and Alex, who were seeing the station's podcast portfolio beginning to grow without, it seemed, any real revenue strategy. Thomas confirmed their fears—there was not yet a coherent revenue strategy yet in place and his teams had struggled to sell into the podcasts.

The topic of podcast sponsorship was a huge discussion in public radio circles that summer, and would dominate some of the podcasting sessions I would attend the following week at the Public Media Marketing and Development Conference. The question was how far public radio stations should go in the kinds of sponsorship language and endorsements they would accept for their sponsorship spots on (increasingly popular) podcasts. On the air, public radio stations were tightly regulated in their commercial language by the FCC. On podcasts, it was a question of where the system wanted to set the norms. Thomas was trying to thread that needle. But there was an additional problem he had to navigate—the scale of the station's podcasts and their mix of local and national audience was too complicated for the nascent stage and sophistication of podcasting marketers.

This would explain some of the difficulty in finding a sponsor for their big podcasts. But

there were also many possible sales opportunities, and many marketing and distribution agencies springing up, ready to snap up and help monetize valuable podcast properties. Aaron and Thomas discovered they had been having parallel conversations with different agencies.

This conversation was revealing a somewhat embarrassing truth: the station had serious podcasting content ambitions, but no one yet seemed to know much about the business of podcasting. Thomas was an excellent radio salesman, and had used in background in commercial radio to make the station a lot of money. But the station was being outmatched in podcasting revenue by other large stations, one of which had announced that it was going all-in on podcasting earlier in the year, and seemed to have the combination of digital business acuity and content savvy to pull it off.

This lack of sophistication on podcasting sales was exacerbated by the fact that the people in the station who were in some of the best positions to know about the business of podcasting—Alex and Aaron—actually had no revenue responsibilities. This was obvious when Alex offered, almost as an aside, that she was part of new cross-system workgroup on podcasting metrics.

"I don't know if this is related, but there is a working group from across NPR and local stations that are getting together to start putting parameters around what they sell and what they call things. A lot of it is trying to figure out, is a stream more valuable than a download? I am on that committee, it includes other big stations."

House money to gamble

But Thomas had some more bad news to share about digital advertising. Although the video pre-rolls on the homepage had sold out for the next year, because traffic was shifting to mobile, the total revenue was still fractional compared to the overall station revenue. Thomas was loathe to give up the space, though, since so many underwriters loved the product.

Thomas: We have turned advertisers away!

Aaron: Ok, ok, I understand. But for that kind of urgency, I just want to make sure that is it proportionate to the money we are getting in. Because we want to make sure that, as an *experience* —what we are hoping to do with this new site is that we find better ways to make money than a few thousand dollars. So just, wrap your mind around

this, and I will try to be gentle BUT…

I would suggest, put that pot of money aside, that is house money I will gamble that on a new product that Studio One builds into our new site that could fail and doesn't make the same. So let's say, in the worst case scenario, you don't get that back. It could NO make more than a few thousand dollars. BUT, it could make more, and that could be a positive. That is an example of what I want to talk about. I don't want to disappoint any of your clients, that's important, but at the same time, I don't want to go a WHOLE YEAR in handcuffs for very small dollars in video pre-rolls, if we can experiment with products that could make more money.

Michael shared that with the big podcast they were about to launch, they needed to make to make a certain amount of money. So they were going to have to get serious about podcast revenue very quickly. Thomas assured him that since the show had a compelling theme, it should be an easier sell.

"Ok, sure, I get it. So we are betting on the future of podcasting, and we are investing a lot in podcasting and thinking of that as a new platform. It probably has, in long run, the greatest capacity to raise significant revenue. If you have a big show, then you can build on them marketing platforms to establish their other smaller podcasts. So we are going to continue to build on this, and we NEED to have a sophisticated and state of the art capacity to sell it."

Thomas began making a complicated pitch for why they should use their own platform to traffic all their own advertising into their podcasts, and what the advantages would be over working with an agency. But Michael was still troubled by the overall question of what their digital revenue strategy should be on the site, given the digital revenue was "a rounding off figure" in terms of the stations other revenue lines. He asked an important question, "So the question is… how much impact do we want to have on the look, feel and experience of our new website for what is potentially a very modest amount of money?"

Thomas pushed back that the issue wasn't so much the *size* of the digital ad revenue, but the importance of the client relationships. Some of the client marketers really appreciated the digital space, and used it as part of their overall marketing mix strategies. Taking away those products would potentially risk the relationships. They debated the merits of using the new app as a platform for advertising, though Aaron was opposed to treating app users (generally publishers' most valuable readers/listeners) to more advertising. Aaron tried to pose the strategic questions

again.

Aaron: This comes down to what Michael was saying, do we want to gamble what's on the digital advertising line now for the opportunity to create new platforms, new messaging, new products that people will want to buy. We want to solve problems, and it looks like one of the problems is that we don't make the money we need to as we move onward into a digital business. The spectrum of opportunity is vast. The more we give to freedom and exploration on how we can make dough, the better off we will be, and we don't have a lot of money to lose.

Alex: Right, so the question is, what do we absolutely need to carry over, and what is our appetite for targeted experimentation?

Michael delivered the freedom Aaron was looking for: "My appetite is pretty large for that and there is very little to lose."

The King Solomon problem

This prompted another digression on different types of ad formats that NPR and other publishers were using, and how the new site might be able to implement some of them. But in the process of this side track, Theo inadvertently tripped another flash point at the station: how space on the home was being divided up between membership, underwriting, and programming. Thomas strongly preferred his current method of dividing space equally.

"It is tough to share inventory across departments, because they each have their own priorities, and I support each of their efforts, and saying one department priority is more important than another is really difficult. So that is why its nice for each to have their own space."

This was another recurring irritation of the digital team. They often couldn't run tests on the site or try new engagement strategies because the house ads real estate was strictly divided up among other departments and accounted for. The redesign was an opportunity to rethink engagement and calls to action on the site as a whole. The station developer Bobby had some thoughts on this.

"Bringing together what Theo and you guys are saying, we have a limited inventory on the site and we have lots of smart people thinking about what we can do. So these are all *conversion behaviors* that we're talking about — underwriter ad clicks and views, becoming a member, viewing more content, listening to a podcast, listening to live stream — those are the high level things we want people to do on our site. And if you add a call to action from the site to that, that restricts that ad inventory even more. And each will eat into each other or, hopefully, amplify each

other. With too much underwriting, and you will have less people visiting site, and fewer people listening or downloading a podcast. So this push and pull between membership and underwriting, especially when entangled in fundraising — on air it's very cut on dry, but on the web it's all mixed together. So if we're robbing Peter to pay Paul on the site, then that's bad, because that is where we're at now. On the design side with the new site, we can move that slider any way we want — all the way to underwriting or membership. But the purpose of this meeting and what we want to figure out is where that slider should sit — to guide Theo and Anna with where does the ad sit."

"We have no strategy"

This is what the designers wanted to be talking about all along. The goal should have been to identify the behaviors on the site that mattered most to the mission and financial health of the station, and then design for those. The high-level goals for the redesign pointed in that direction, but this was where the rubber met the road. What Theo and Studio One were missing was a digital strategy. Theo tried to explain this to the group.

Theo: Right, we need a *strategy* that encompasses all of those things. Which we don't have today. I hear that there are competing internal needs, but that means *we have no strategy*. We want to prioritize what brings in the most revenue for you guys, and we don't understand that right now. What are the things that bring in most revenue? Because without that, we can't decide how can we make those things visible through what people encounter on the site through browsing behaviors.

Alex: Like we could decide that during fundraising, there is no underwriting on the home page, and we just do all fundraising messages.

Theo: The site is total dynamic, we can change it in the blink of an eye. So there is massive new opportunity with the tech, and this platform is ready to the be source of innovation in revenue not just for the station but for everyone — *but we need to know what your goals are*, and we need everyone to understand what the measurements are.

Instead of this leading to a conversation on strategic goals, Thomas defended his handling of digital revenue real estate on the site.

Thomas: But today the departments don't compete because we have like a light box for membership — and we don't do that for underwriting — right now they don't compete. They each have their own assets that they know and manage.

But what was left out of Thomas's rubric was the digital team had no space for a strategy of their own—and there was no space for an integrated digital strategy. Alex tried to explain this:

Alex: but it corrals them into tiny boxes. And it doesn't allow us to do anything. There are times when we have messaging for special projects or newsletter, and we would like to use the site let users know about that. But where do we do that? It would be great to take one of those boxes and make our own newsletter ad, but we can't because everything is in its own little assigned box.

Theo: they compete for attention more than they compete internally for space.

Bobby tried to explain an additional subtlety: the digital business that the station was trying to run wasn't strictly like a traditional digital advertising business. There was more that the station needed to get its users to do than click on an ad.

"In the dot com world, you sell what inventory you can sell, then when you have extra inventory you can use it for house ads — but in our world, when we're in a pledge drive and the fundraising messages need to be displayed, we don't have the luxury to say, let's wait for open inventory. That message just needs to get out. So having space for the call to action thing is important."

Thomas was still not quite understanding how his current way of managing inventory on the site was not adequate for the kind of digital strategy the station needed. He pushed back, "But right now though we have light box and leader board."

Aaron was getting frustrated.

Aaron: But… there is ONE WABC, and I think what you are saying Theo is that we can be dynamic and serve the station as a whole, so to think of these spots as fitting into three buckets doesn't work for the web and it doesn't work for us to optimize the digital revenue opportunity.

Alex-it's starving everyone. None of them are getting their full meal.

Thomas: so you are saying you want the departments compete?

Alex: it's not a competition! It's providing different opportunities at different times. It's about becoming more sophisticated. So like when we are in fundraising mode, that needs be dramatically represented on the site. So from a user perspective, a user needs to be able to come to website and see clearly where to donate!

An integrated digital strategy, much less an integrated digital and radio strategy, was looking slightly out of reach. And that is when Theo chimed in to add yet another missing measure of an integrated strategy:

Theo: and we need to be able to *measure* these things as one set of performance measures. Right now, I don't know, and I don't think the station knows, what is working and what is not working more than something else.

Aaron: we don't even know our ad inventory.

Bobby: and to borrow scrum term, inspect and adapt! As far as the underwriting leader board versus fundraising box, we haven't tested whether the leader board could be a little smaller — would that raise the same amount of money as the big box ad during fundraising? A few years ago we tested that, but that is no longer accurate. There are opportunities to say, we think it needs to be x or y big and test it. All of these will push and pull on each other. But for Theo to move forward, we need to say, there are 6 things we want people to do on the site, let's assign a percentage to each, and then design for that.

Theo: and shift over time according to performance.

Michael: And the ability to shift will be easier on this new site than before.

Theo: yes, you could shift in the middle of the day because one thing is underperforming.

Time for a committee

The new site, as the team was discussing it, was in other words had the potential to be a total paradigm shift for how the station managed digital revenue. But there were a number of misunderstandings and misaligned pieces would have to be sorted out. Michael called for a revenue committee.

"So we have been bouncing around, and the chaotic conversation today reflects the chaotic nature of how we are managing the monetization of our digital assets. I think we need a small committee of designated people who will work together, make some decisions around priorities, at least to start with. You need to work with someone who can help around layout, and what this will look like on the site. You probably need someone from underwriting, membership, and marketing to spend a significant chunk of time making an initial set of decisions around what we need, and how that is going to look to start out with, and what potential opportunity there are in the design to do new things. Then you can start to make design decisions, and we can also recognize that this is just day one for what can be a dynamic experience."

Theo said they needed a "day one strategy" for how all the spaces on the old and new site would line up, and a roadmap to get there. Michael agreed that this committee could help do that. Aaron must have realized that the Thomas's salesperson, Erik, was looking lost and overwhelmed.

Aaron: I think we are now talking Greek for Erik. We are talking about the rollout of the site and timeline.
Erik: OK, I have an RFP going out for 2016 for digital. So if I am not going to have my usual ad units in three months, six months, a year, I need to know that very soon!
Alex: that is what we are going to figure out in this committee.
Erik: OK, but sales people need to know what they have to sell and when it's available. Whatever ad stuff you come up with, you probably know the most dynamic and recent stuff. Sales would want the newest tech, most in demand, high value stuff, I don't care what that is or where it is on the site, as long as — the above the fold thing — I have the same view ability and our underwriters are going to monitor and cookie it. I would look to you guys to say, this is most up to date status of what advertisers want. Give it to us and we will rip it up.

Erik had made it perfectly clear that the transition had the chance of being rocky. So Aaron tried to be very specific about the timeline and what, exactly, would be available on the site for Erik and his sales team to work with, although he confessed he did not yet know what ad space the team would have to work with, or when the new site would be live.

Michael was thirty minutes late for his next meeting, so at this point he broke in to congratulate everyone on their good work, and remind them of the committee.

"I have to go. Aaron you and Thomas work together on this committee to work with Studio One on making these initial decisions based on strategic priorities. I think this convo has been healthy in ways that go outside website in terms of general direction of digital monetization. We have a lot of work to do. The good thing is that

there is not much at risk. Bad thing is that there is a lot of basic block and tackling we need to do —but we can do that around the cutting edge of display compared to what it was when we designed the original site. So there are great opportunity, but i do think we need to empower people make some decisions, and at some point we will have to make some calls for where this will start."

There is ONE WABC

After Michael left, Aaron turned back to the group and suggested that in addition to a committee, they try another brainstorm like the ones they had on audio and membership, only this time for underwriting. Thomas seemed mildly interested, but wanted to revisit again his discomfort with an integrated revenue strategy on the site.

Thomas: I do worry about the shared model. We had a shared model prior to having one where there are wholly owned spaces on the site. It's hard to say whose priorities is more important. It's my job, since I'm over all of revenue, but it's no fun playing Solomon, and devaluing someone's priority over someone else's, even if I am empowered to make that decision.

Aaron: You know what, *we have to get out of that game*. There is ONE WABC, and it's hard enough when we are competing against rest of universe online. We can't think like that. We *have to* take a wholistic approach to digital revenue. If it's leadership, we need from Michael. It HAS TO be a wholistic approach to how to monetize digital, it can't just be about how do I monetize membership, how do I monetize underwriting, how do I monetize events. We have to get past the buckets.

As the conversation spiraled, the different points of view became more and more apparent. Thomas and his team, and Aaron and his team, had fundamentally different understandings of what a digital revenue strategy should look like on the new site. Thomas attempted to close it all on a good note.

Thomas: I am excited about this — the bigger we are, the easier it is to take advantage of. At our current size, some of the really cool things are hard for anyone to do.

Alex: So let's build something flexible and see what we can take a break on, so we can get there.

Theo: The goal is to have this site earn more money, just to be clear.

Erik: The bottom line is that we need more people coming and staying. Then the money will come.

Alex: Definitely. That just might not happen on the first day of the new site!!

The first time…

Everyone walked out of the meeting a little shaken up. A lot had been put on the table about what was really happening inside the tiny digital revenue line, and there were some serious disconnects to work across.

Back in his office, Aaron turned to me and said,

"Elizabeth, you have been here for six months. That is the first time that digital dollars were discussed in an open way between the head of the digital and the head of sales! And the confusion over traffic numbers! At least our broadcast audience numbers get sent to everyone."

Alex said she could do a better job of sending out the traffic numbers to the whole station. There was clearly a lot of work to do.

4. Missing Some Steps

We gathered in Aaron's office to debrief what had happened on the revenue front in the previous two days. Henry, the head of membership, was supposed to join us momentarily to debrief. Before he came, Aaron said he was a little worried. It was a lot for Henry to take in.

Aaron: think we might have rocked his world a little much yesterday.

Theo: He looked a little crumpled by the end.

Bobby: It might have felt critical of what he does. often the conversation can come back to the database and what they do in membership.

Alex: Yes, for sure. It can feel like critique.

Theo: And then he has to imagine all the work he needs to do.

Alex: Yeah, I get it. If you are in the mode of working so hard day to day, and then you brainstorm like that — and no one exists to do any of this! It's exactly the same thing with underwriting. You need to have someone on your team who is thinking about this. It can't just be like, hey guys, let's brainstorm and then do something new.

This was definitely a risk in all the brainstorming the senior managers had been doing, Jessica's IDEO sprint included. Of all the departments, though, Henry was under the most pressure and in almost constant fundraising mode. The conversation turned to the meeting with Thomas and Michael just before. Bobby was pensive about the changes they had discussed, and the possibilities for a new regime of how to use space on the site.

Bobby: If we want to talk about a loss leader, we have this empty space on the new site, do we want to promote content? Or a new podcast? Or ask people to become a member? Or…do we want to show an underwriting message for rugs? Three of those have enormous potential to have money down stream, and the other one will get you like 4 cents!

Alex: But that is the advantage of parallel sites — they can keep selling ad spots as they are and there can be a transition.

Theo: Or we build horizontal breaks in the new site that expire in 6 months.

Alex: That is why this is a really good thing to have the conversation now. The transition is going to be hard.

Bobby: And Michael is on our side!

Theo: And like what Bobby said, if we just made donation on the site easy, that might offset this entire

conversation about underwriting!

It made little site to continue to have underwriting, especially given the very small volume of dollars the whole thing actually generated. Thomas was a salesman through and through—so it was hard to fault him for doing what he was good at. And high rates on digital ad space was an amazing accomplishment. It was just a questionable overall digital revenue strategy, when there were other ways to get users engaged and giving on the site. The station had a membership machine already in operation and ready to be applied to the digital world. Every newspaper in the country would have killed for such a legacy business to back it up.

At that point, Henry walked in, and Bobby joked:

Bobby: Hey, we decided to get rid of underwriting on the new site and give it to you!
Henry: Well it pays to have friends in the building!

Aaron was very excited to share with Henry that Michael had given the go-ahead to experiment with other forms of revenue generation on site besides advertising. Aaron was also elated that he had hammered home the "one WABC" message as an argument against continuing to divide up real estate among departments on the site. Bobby explained the origins of this:

"You know, that was my rule that I came up with a long time ago in an early version of the site — because of so many people coming to me all the time and saying they want all this stuff — and it stuck and became institutionalized."

It was a fascinating aside that Bobby threw in—that he had been the one (as the original site master) who had made the rule about everyone getting their own buckets. Apparently, Thomas had forgotten that origin story. But it made sense. Nearly everyone at the station knew that there were processes and decisions which would get locked in by someone having done something ONCE, and then it would be impossible to change. But this was truly an aside, since Aaron was more excited than I had seen him in a while that an integrated digital revenue strategy was in sight. But the real topic of the check-in was supposed to be Henry's experience at the

brainstorming workshop.

Aaron: So what were your thoughts on yesterday?

Henry: We covered a lot of ground, my head was like *phew*. The positive thing was that what was on the white board at the end of discussion were things that should be there from my perspective. I think those are aligned with our objectives in fundraising. I spoke with the head of development—we had this discussion around concepts and revenue — there are real clear objectives from fundraising, but I'm not sure we tackled those — like do we need more engagement, better acquisition, what are five key objectives from fundraising perspective? It seems like we were talking more broadly yesterday. But are there things that we want baked into the experience. Were we supposed to do that?

This explained some of Henry's looking totally overwhelmed at various points in the brainstorm. But it also spoke to the risk of brainstorming in a vacuum—without having done the work of figuring out what the current needs of each of the revenue departments was supposed to be. Theo had spent hours and hours interviewing digital producers and digital editors around the station in January about how they used the site currently. But the baseline read of the revenue departments' needs had been done as part of the early pre-planning for the redesign project, and had not been revisited. The meeting with Thomas that morning had gotten close to a baseline set of requirements, but even still there was more work to be done to understand what, exactly, the underwriters would need on "day 1" of the new site.

Theo tried to answer Henry's concerns:

Theo: We were not supposed to do that, but that would be a helpful follow up. Or if you have a draft of your objectives to share, that would be good too.

Aaron: We won't debate what you guys think you should be doing. We think you should be doing what you are doing - but our thing is, how can we help that.

Henry: It would be helpful to bring together people – other membership people, the head of development and someone from her team and go through the 5-7 things that are on our objectives list. We can prep for that too, to say what we think are essential. But we also talked about community — do we have community portal in the new site?

Aaron: We have a huge gap on community.

Henry: We do, so when we left yesterday, I think people moved towards conceptually what we need to do, but might there might be specifics we should put on the table where you say yes or no.

Theo: Or we say, that won't work for beta, but would love to hear what those things are. From our point of view, I am vacation today to next week, any time after that what we are working toward is a proposed strategy for balancing these goals, then a day 1 strategy that can evolve into something bigger.

But this was more confusing for Henry on what the process was actually supposed to be. What was the cross-walk between the brainstorming and their current needs? He tried to get more information:

Henry: So if we weren't having an add-on conversation, what would next step have been? Proposals?

Aaron: What there will be, and still will be — that meeting was to get smart people in the room and throw ideas out there. But nothing will happen without Michael on board, and a broader station consensus. And we can't just say Michael, we are going to do this because we got 20 people in the room. So we need to follow up with you and your team and this group to get to it.

Aaron had to walk a fine line here. He did need consensus, and he needed to persuade Michael. But those were two different processes. And consensus was not necessarily easily won from all corners. He tried to explain to Henry how and why he was limiting participation.

Aaron: We thought about having IT and programming in the room too. But it would have been too overwhelming and we didn't want to risk resistance in the brainstorming.

Henry: I know I have some resistance, and I know that was in some of my feedback yesterday. And when we think about the periphery stuff, I want to bring it back to the center and keep it focused. So your point about keeping it focused was important.

Aaron: Yep, change is hard!

Henry was probably the most receptive to the death-by-ideas experience that Aaron had put him through the day before. But it was still hard. Theo tried to make it clear what would happen next.

Theo: So Anna will be working on diagraming out the places we could put messaging on the new site. That will help you envision it. But we also imagine we will start taking ideas and saying here is a draft of how that might look, and we want to hear the wish list and tenants of membership.

Henry: Sure we can put those on paper.

Theo: Great, we can do 60-90 min of that.

Alex: Make sure you have a meeting with Mary to pre-meeting her.

When Henry, left Theo reflected on how they could have managed the brainstorming process differently.

"The underwriting folks were discombobulated in that meeting. And it seems like Henry was feeling like there was a step missed between brainstorming and understanding member's goals. I think we need a membership and development goals and strategies meeting. And then a "digital revenue goals and strategy" meeting right after that."

Aaron agreed this was a good idea. There had been some missed steps on the development of the revenue strategy. But the problem, which would soon become clear to all of them, is that it was early July. And a public beta was promised for August. How in the world was that going to be possible?

4. A Hot Mess

Two weeks later, in mid July, the storm was beginning to hit. I had gone to PMDMC, and come back to the station to check in with Aaron and Alex on how the redesign was going. I sat in on their morning check-in.

Bobby and Greg continued to spend most of their time at Studio One working on the back-end, but there were warning signs that all was not well. Aaron said he had gotten an email from Studio One that they couldn't tell where they were on design or development, and the Mobile App Design firm was hung up waiting on Bobby and Greg to rebuild the audio API. "It's a hot mess" Aaron admitted to Alex. "If we have no progress on either the Mobile App Design firm or Studio One, then we have to decide what to do first. And the Mobile App Design firm might need an API that we can't build." And they didn't have another developer to throw at the bottleneck.

Alex was also worried that while the developers were at Studio One, they were making huge decisions without adequate input. Alex tried to convey the consequences of this to Aaron.

Alex: When Greg is asking me to make an enormous decision on workflow in slack, that is a huge problem. He says there needs to be meta data attached to audio in order for all these features (like playlists) to work — but that was the whole problem that we had before in word press with posts — and we were trying to get away from that. We need a commitment from the org that people are willing to change their workflow and input that data and decide who will do that because we are baking in lots of decisions and throwing aside that other stuff.

Aaron: there is supposed to be three months of training, if we wanted to revert to what we were doing before we would have just done what we were doing and put a new veneer. but now, with training, we will have to train the producers to do that work.

Alex: Does the org support us in that?

Aaron: I will say yes, the org does. emphatically supportive of that. That is not an issue.

Alex: ok, because people's job are going to change!

Aaron: that is a non-issue, I would say emphatically yes.

They decided they had to tell Studio One that the development and design were going to need to sync up and move faster so they could hit their beta deadline. And they could put the mobile development on a two week pause so they could sort out the competing priorities and interlocked requirements.

Gaming it out

When Alex left, I asked Aaron for a bigger update. The range of what he was managing was vast, and it struck me that day just how complicated it was all looking. He still was hoping the private beta would be August 1st. And he had been doing some private strategizing about how to handle the roadblock with the app.

Aaron: The existing app seems to be fine. If we didn't go back the the Mobile App Design firm app for 3-4 months, we still wouldn't have an app, but we would be further along on the site — and that is what matters, it's the bones of what we are doing. Putting that project on hold would enable us to take Greg off to build an API.

If we don't do that, I have serious doubts that Greg can build in a month what the PMP has been unable to do with the NPR API over two years. What the Mobile App Design firm needs is an API to feed the app and to provide a clean data in/out for on-demand stuff— so it can put straws in NPR Shows, APM shows, podcasts, our shows, and pull them into the app in a unified way and spit them out in a unified way. Right now we can only suck in WABC shows, and we can maybe suck in NPR ME and ATC.

So right now we could pull into the app those 5 things — 4 hrs of ME, 2 hrs of one show, 2 hrs of another show, an hour of a third show — 11.5 hours we could suck into that straw for on-demand today. We wouldn't be able to pull in all the NPR programs — so that would be the problem. But even as I'm stating it, I'm wondering why couldn't we put those other shows. If the NPR API doesn't work well, and that is feeding the PMP API, then how great can that be. So the idea would be to build our own. This is what I have to find out in the next 2 weeks — and this all came up on Monday. The message from the Mobile App Design firm was that we're stuck until we can get this API thing worked out.

So the app project was spiraling from a 12-week project that started in January into an all-summer train wreck. Michael's request that the app have an "on-demand" experience, though he had claimed this should have been easy, was actually much more difficult than anyone anticipated. Contractually, it was hard to pull in NPR shows on-demand. The Public Media Platform project—which Aaron had dismissed—was a cross-system initiative to build a single API for all of public radio's content. This project was dragging on and on. And there was a more immediate question of why the station would build an on-demand app when NPROne was supposed to fill some of those requirements already. But the app project was rolling forward, one way or another. And rather than place the blame on Michael for unrealistic expectations, Aaron was more upset that the Mobile App Design firm had not done their due diligence on just what would be required to meet Michael's demands.

Aaron: My question to the Mobile App Design firm is that you did due diligence, we were under impression you didn't need our developers and now you do. They said now we think we do because the data isn't clean and we can't just pull it in. I know we said that to them. the Mobile App Design firm fucked up in scoping the job. Or they overpromised/under delivered, blah blah.

So now Aaron and Alex were in the position of either holding up a major phase of the redesign or putting the app on hold so that the redesign could move forward. Aaron, Alex, and the station developers had different feelings on the right way to go.

Aaron: This is the house of cards that we live in, which is that Studio One needs Bobby and Greg to be going great guns to hit their deadlines. My feeling is that from this high up, I would just pause on the Mobile App Design firm and the app. They fucked up in scoping the job, but that's ok, let's take that money and just go at Studio One. But Alex and Greg feel like, at least the app is a finite job, so let's put a month in and then finish the job. But if we're not progressing either on the redesign or the app, then that's trouble.

At the same time, though, Bobby and Greg were climbing up the learning curve on figuring out how to rebuild the back end of the site, and they would incur major switching costs to lose focus on it. And Aaron was upset that Studio One did not seem to have its act together.

Aaron: The redesign is at a technical block, because Bobby and Greg are just learning how to do this. But the impression I had before now is that we're moving along nicely, and I was told to my face that design and technical are caught up, we can start moving forward.

Then there was the issue of Michael, and his reluctance to make decisions about what should go into the public beta, paired with his control of the process. Aaron was still recovering from the terrible illustration meeting in late May, which he felt had set back the whole project back because it got Michael out of the momentum of saying yes to the new design. But at the same time, he understood that it had been a risk for Michael to OK a major design direction without seeing the whole site.

Aaron: The holdup could be Michael, but in fairness to him, Studio One haven't been showing us design stuff — it's mostly technical stuff and audio. That illustration disaster was really only the second time of him looking at design stuff. I said to Michael this week, I don't blame you for feeling like you have enough data to say yes yet to what should go in the beta — and say yes to album art concept — and the question about joining logos and words and marks into one thing. I understand you want to see the whole system first.

Aaron was trying to keep a positive attitude, but at the same time I was surprised to learn that Catherine, Andrew, Theo, and Anna were still meeting about aligning marketing and branding.

And Michael was about to go on summer vacation.

Aaron: So i took an attitude of, "can't we just keep moving forward? it's a beta, let's figure out as we go, and get something up." I should have a better sense by end of today and end of tomorrow when Catherine and Andrew meet with Theo and Anna. If the Wednesday presentation to Michael goes well, then I could see Studio One continue to progress. But then Michael goes away for 2 weeks. That is another reason I'm ok with pausing the Mobile App Design firm for two weeks and then deciding what to do. If Michael says on Wednesday, this design doesn't work for me, go back to the drawing board on the site — then we are blocked because he will wait to make a decision. But I bet nothing will happen on Wednesday — I bet he will say "I want to see a choice of x, x, z."

I had said to you that we were too comfortable going into that illustration meeting, it was all going too well. There is nothing we could do though. So my gut is to see what happens on Wednesday — I am waiting for that to figure out, maybe we pause the redesign for a month. That's what Alex would recommend, that is what Michael might want — I threw that at him at my one-on-one last week. He is thinking he might want to do the app first. The idea would be unblock the Mobile App Design firm, build the API they need, and then get them on their way. Rather than having them locked in this tangle.

So the most likely decision from Michael was no decision, which is why the app and the redesign had been held up to begin with. The combination of too many stakeholders (all the station managers) and only one final decision maker (Michael) was producing a lot of gridlock. And that wasn't the only problem. In was mid-July, and already Aaron could sense the end of the summer coming.

Aaron: But here is what will hit soon, and I can smell it — we are going to get this new developer in. It will be 2 months realistically when he will start here. Then we're out of summer, and this newsroom will pick up. Thankfully, I have that in good shape, I added another freelance weekend producer which no one really knows about. But there is what needs to be done, and then there is what else will happen here in the next two months.

What needs to be done and what else will happen were always and forever at odds in the life of the digital team. Aaron went on to explain the other things on his plate:

Aaron: Then there is WABC Innovation Lab. Then there is stuff around the redesign around data, revenue, membership, development and underwriting. And that is where I need to insert myself into that world more seriously. And I need to have Michael's go ahead on that. I did not talk to Michael about revenue in my weekly meeting. I was going through personnel, then the ball of mess in the Mobile App Design firm and Studio One, so I just said, we need another meeting on revenue.

So the actually workflow of the redesign was now only a small slice of what Aaron was managing. There was the Innovation Lab, and there was all of the revenue strategy work that Michael had asked Aaron to pull together a few weeks before. I was supposed to attend that meeting the day before, but it had been cancelled. Aaron knew that wrangling a revenue strategy into the redesign was going to take a lot of work.

Aaron: But for the next phase of where I need to go with this redesign, I have to harness what will be going on in membership, in development, what data we can get our hands on from every other source and start talking about some sort of digital revenue marketing strategy which WABC does not have at all. We lost money on digital last year, we will lose money as "R&D", but we lost revenue from the year before with new products to sell and more traffic than the year before. So that is also part of where I'm going.

But this was going to be an uphill battle. Michael understood part of the story of digital revenue. He now knew from the meeting with Thomas in early July, just how little money the site made on advertising. But he and Aaron had different ideas about how to fix it. Aaron was also worried about finding the Innovation Lab more funding, and about the lack of a podcasting business model, as the station rolled headlong into a major podcasting production push.

Aaron: Then another part of what i'm working on is raising money for the Innovation Lab because the station doesn't want to put more money into it. Podcasting has been the only focus since Jan 1 of this year and that still has no business model. So I am also working on fundraising because Jessica and that whole thing is a big deal for me. I asked a podcasting person to come and meet with some of the senior managers to talk about what she knows on the podcasting business front. I hope that will help.

He stopped, and took a breath.

Aaron: So if I'm looking down the road, that is what I'm thinking… Oh yeah, and don't forget about the election cycle starting, and major stories coming up.

There is so much talk about innovation! But I still come to work every day…I can look at wins, like Rachael, who Henry just hired, and Alex, I just got her the recognition she needed [with a promotion and title change]. I got an extra digital producer. We are building the best audio site, despite all this…. Michael would look at it as he is doing a great job, because we are doing all these things — and he, to his credit, he is the GM of this place, and we are doing a lot! He thinks he has enabled me to do the best work of my career, and I am! But he doesn't really know what it *could* be.

That was the one moment I heard Aaron congratulate himself, and even then, it was a bit back-handed. But this was how Aaron was able to "blast granite" as he would say, and actually push for digital change in a station that was very good at *seeming* to change while actually staying the same.

Aaron gamed out a little more what he would have to do to get the revenue sides of the station to come together. There were so many departments touching parts of digital revenue, and getting them all to pull in the same direction was, he felt, his next challenge.

Aaron: That is hard to do — I have to find some leverage and move that crane. I have to find a way to work with some of the other managers if I want to tackle underwriting and membership data. I am not involved in any of that at all right now — but that will layer that on top of everything else I'm doing.

There was much, much more work to be done. But in the meantime, there was a beta site to launch.

6. "If we can't get to beta, nothing matters!"

A month later, in mid-August, I checked in with Alex to see how things were going. The private beta was now supposed to be released after Labor Day, and the public beta was slated for October 2nd.

But Alex was frustrated with Aaron. He was spending his time on board stuff and the Innovation Lab, and so many ideas! "He is so far out there," she moaned. "And it's frustrating because we need to focus on the immediate stuff."

I asked her how the revenue brainstorming meetings were going. She said she had to call Studio One back from the brainstorming meetings, and take them to task for not actually building the site. She had also had to separate the branding work with Catherine and Andrew from the beta. "It literally took the GM 18 months to decide on the new logo. I did not want to get that tangled up with the beta release."

Had there been any progress on revenue? I asked her. "There is no need for sprints on payments because if we can't get to the beta, nothing matters. The tech will have expired by the time we're ready to deal with payment stuff" she replied.

Studio One's contract was supposed to expire at the end of the year. She was preparing herself to take over the product roadmap after December 15th, but she was feeling like there was no one to talk to about it. She was also worried again about developer resources. She knew that Bobby and Greg should be at Studio One until the end of the year to really get the new site ready to go. "If they are at the station, they will get pulled into all kinds of random stuff—like fixing

forms. They are so much more productive there than they are here," she said.

The mobile app development had not moved forward. She and Aaron had to set another date to meet with them and figure out exactly what they needed. She thought their best bet was to make the changes that the Mobile App Design firm thought would be the easiest to make and then keep going.

The Spotify view of the station

Three days later, I went with Alex to Studio One to check out the progress on curation tools and features for the private beta. She had successfully shifting their attention from design to execution. The biggest hurdle was how to get the enormous amount of content that had been on the old site ported over into the new CMS, but the team was also making good progress on building curation tools to help the station's digital producers—who would be using the site the most—feature content.

We sat down in a large conference room in Studio One's offices, and they began to walk us through the bones of a functioning new website.

Theo began by showing them the new articles pages, and talking about how the old content would be imported into the new format. Alex brought up her usual concern, which she had tried to raise in several previous meetings, about the "static pages" that belonged to the different station departments and were used for different purposes besides posting news and audio.

Alex: I just want to make sure there are pathways to deal with pent up demand from other pieces of org that haven't had attention. Like marketing department needs a blog. Membership likes to build static pages of specific campaigns. Bobby would have to build that out — so they can track stuff on unique URLs. could be donate your car, etc. they want to do donor stories and board of director stories — like big profiles that could be an article-like template. not like dynamic-chronological, but it needs to look like rest of the site and can't be so walled off like before — which it was because no one knew anything about digital and will wanted to manage it— but now there are digital people in the departments and they want to do this on their own and we have trained them. so they need more dynamic pages.

This pent-up demand would land right on her head when the new site launched. Theo said

this would be easily possible in the publishing back end of the new system, but that their first priority was just getting all the existing content over.

They reviewed a cool new blog style—what had been an ongoing headache for digital producers with the current site. Alex agreed that would solve some workflow problems.

There wasn't a fully functional comments section yet, as Katie had been advocating for, but Alex was fine with that too. They reviewed the recirculation strategy and how it would be managed from the back-end. Theo explained how they had tried to build in the public radio "serendipity" into the recirculation tools.

They talked a bit about the challenges of going for algorithmic versus editorial curation given there were so many production silos at the station, and how to deal with the strange behaviors on the "most popular" list. The main problem was that there could be multiple shows in the station producing stories on the same topic, so "related stories" could get long and boring, fast.

Alex: There interesting implication for us which is that let's say WABC newsroom, and some of the shows do the same story. So we have like three different stories floating around together. If we had one tag page for some of our popular topics, it would be like a thousand stories long. The organization is really siloed, but the site is going to be one thing. I think it could help to have a tag for related stories, but I think it will be really messy to start. It's worth talking to producers about use cases. I think producers feel like their whole body of work should be up there, but I'm not sure how effective that is.

In general, though, Alex was impressed. "I like that this site is so friendly! It's like — hey I am going to suggest something for you!"

They continued to review the other major content choices. The problem with generating related digital news stories was repeated in the Explore Audio tab. Some of the station's broadcast shows produced multiple, short segments that were fine but didn't warrant highlighting on the site. Anna and Theo were trying to figure out how to ease the burden on the station's digital producers so that they could flag a good piece of audio as worth highlighting on the site,

without having to do too much extra work.

They talked about how the curation tools should treat segmented audio versus bigger, more important productions like new podcasts. Theo offered that they could build a "promote" function so that certain audio segments got more weight than others. But overall, the grid view that Theo showed of all the most recently published audio got Alex pretty excited. There had never been a way to visualize the station's audio production like this. They talked about making a search function for that tab, and how feasible it would be to do before the private beta.

At the end of the meeting, Alex was visibly excited. The site, after so many months, was actually coming alive. And it was new and different in many good ways. Looking one last time at the Explore Audio page, Alex exclaimed,

Alex: This is great! It is insane to me that there hasn't been a page like this on WABC before.
Theo: I know, like all your audio in one place? And it was Michael's idea!
Alex: I know, his idea was like "shouldn't we have a page for our audio?"
Anna: This is really cool, and different from what is out there.
Alex: And we could put campaigns around it! It will be interesting to get other people ideas on how to use this. This might be an area to feature things, or make them sticky, or launch a new podcast. This is like the Spotify view of the site.

Despite the fact that the app was a mess, the redesign had slowed to a crawl, and there was no revenue strategy to be found anywhere, the new site itself was shaping up to have some very cool content features. That, at the very least, was something Alex and Aaron could be proud of.

5. Prioritizing

Three weeks later, it was early September and there was still no beta. The digital team had also lost one of its two developers, who left for another publisher. It was a major setback for all of the projects. But they were getting closer. Studio One came to the station and met with Michael to present the beta version of the site, now beginning to be up and running. Their hope had been that Michael would give the green light on the beta. But instead, he had given them a

lot of feedback. So there was much to discuss.

Theo kicked off by asking, “How rough around the edges should the site be for these internal audiences? We need to decide that so we can plan it in.” Aaron piled on, “We also need to cover branding, this thing is running around naked right now.”

Theo replied, “Andrew the outside designer is here today. The two giant things we need to figure out are branding and how to dial that up, and making the Explore Audio page make more sense be a more central part of the site. Those are big tasks.”

Aaron tried to take a few things off the table, “The two things we aren’t talking about now are the underwriting level of public beta, and what to do about the local news pages.” Alex reminded them that they also needed to leave the meeting with a list of features for the public beta.

No good payment options

But the next item to discuss on the list was “payments.” The team had decided that the best they could for the membership portion of the beta site—despite all their summer brainstorming—was try to figure out a better payment system so that 50% users didn’t keep dropping off the donation page. The lead Studio One engineer Todd explained,

“After our conversations in late July, we decided that to break off an entire engagement of how the membership database talks to the site or API was beyond our scope. So we decided to surface some options that we could talk about in a separate SOW.”

Todd walked through the options.

Option 1: A New Start — an option for combining a new payment system and its data back into the membership database. Additional sign off required from other parties.

Option 2 :Extend current payment options — try to integrate a digital vendor which as a transaction processor for the membership database.

The first problem on Aaron’s mind was compliance with the licensee’s policies for handling sensitive data. Any chance in the payment infrastructure would have to be in airtight compliance.

Aaron probed about this.

Aaron: Does that take “offshore" our concerns about PCI compliance?
Bobby: Technically, but our IT head wants to go above and beyond the default PCI requirements. He wants something that sleeps through the night.
Todd: Since the WABC servers would not be storing or processing the credit card data, the licensee should be OK with it.
Aaron: We have to dance with who we brung here, so we can’t dial down the PCI compliance level we’ve got currently — which has taken so much mindshare already. It was literally months and months of dealing with the licensee to get to what we have. To change that would take lots of work from Michael, which I think is not possible. So current level of compliance has to be a baseline.

But the problem was actually more complicated than simply compliance. There were multiple compliance workflows for the different types of donations that the station could take, and any new system would have to ensure that none of them were destabilized. And not only would the licensee have to say yes, but Michael, Henry and Robert would have to say yes. The Studio One team and the digital team chewed over their options. Even if they could change the payment processor, there was still the problem of integrating it with the membership database. That would require even more internal and external politicking to complete. Aaron thought there was an outside chance of getting this done.

“We are our membership vendor’s biggest client, and so they might be willing to work with us. And the head of IT is not a problem really. Henry holds our membership strategy, and he makes business the decisions. IT will implement. Henry and Michael need to be in the room and say yes, and all else comes from that.”

Nevertheless, option 1 *and* option 2 were seeming very far away. This was, at heart, the hill on which Katie’s conversion project nine months previously had died, the hill on which the mobile app donation strategy had died, the hill on which the redesign had almost died (had Alex and Aaron not decided to start with audio), and was now the hill on which the digital membership strategy was about to die. The best they could do was put a better set of colors on the existing donation page. Todd explained:

“That leaves us with the last option 3 which is Improved Payment Workflow — but is really just a re-skinning of the current donation form fields and a new style sheet. It won’t feel like other parts of the site in terms of zippiness and no load time, but it will at least look alike.”

But the question of when this was even possible to do was, in the last analysis, a hard question to answer. Because they were heading into high season for the membership team.

Aaron: is this post engagement stuff?
Zach: This would come at least late in engagement, like December. We would not want to hold off a public release for this.
Aaron: Would it be ready for the winter fundraiser? Or let's say ready for the spring fundraiser?
Bobby: It could also be a summer job.
Aaron: Knowing Henry's world, his head is locked in until spring fundraiser.
Bobby: It feels like a summer thing to me—this will overwhelm him.
Aaron: Yes but Rachael is a new factor.
Alex: It could be Rachael's project.
Aaron: It's September and Henry can't have conversations about anything from NOW until the end of the last spring fundraiser. If we can tell him that she can do it, I think he would be ok.
Bobby: The design elements, the support pages, the non-CRM aspect will be difficult enough to do between fundraisers — if we're swapping out payment processors, I fear it will die on the table because of timing during fundraisers.

The pre-product backlog

Discussing the details of how they would actually make the simplest of all changes to the digital membership workflow was enough to table the discussion. The item was placed in what would become a parking lot for many of the lofty strategic goals of the site: the pre-product backlog. Todd explained how to use it:

Todd: So now that the baby is born and we are figuring out how to raise it, and figuring out how do the things we want fit together, things like a new donation page or being able to embed our audio player across sites. These are not crazy technical questions, but features we want to consider. So where do we slot things raised by stakeholders The product backlog.
Aaron: I know of it but I don't look at it.

This was a vitally important moment in the trajectory of the redesign and could explain a lot about why the beta had been taking so long to launch and why the "hot mess" of competing development efforts between the app and the redesign had not been sorted out yet. Aaron, Alex, Bobby and Greg, for all their digital savvy, were not set up to be a product team. There were product teams all over the world at that very moment doing exactly what the station's digital team was trying to do: build a digital product to a set of specification, get it out the door, test it,

and iterate it. But there were commonly accepted practices and timelines for managing software development work. And the station had not set up its digital team that way—at least not yet. And their work was suffering because of it.

So the moment when Henry and Theo pulled up their Trello boards for the redesign and had a deep discussion with Aaron and Alex was a very important moment that marked the beginning of what would be a shift for the team and a shift for the station. Michael often struggle to make timely decisions and didn't completely understand digital revenue; and the other station senior managers didn't really understand their audience or having time for digital strategy… but one of the most important roadblocks to digital transformation at the station was the lack of a true product mindset inside the digital team itself. Studio One was doing its best to help them grow it.

Todd: So right now we have the product backlog in different Trello boards—but we are transitioning all of them into one. It will take us a while to transition them. But when you talk about a high-level roadmap, you also want to talk about a product backlog.

Theo: You will get stuff coming at you from people who are in the beta. The thought was that we would have a pre-backlog before we add them to the product. So you can decide which features to archive and which ones to do—and then as they come in, you can prioritize and categorize them in Trello. We want one place for all your stuff and then stuff for sprint planning.

Alex: what is the process for deciding what is in or out of product backlog?

Todd: You are product owners, so its your backlog, you can add things and prioritize at any time. At the Sprint planning session we will set the tasks, then those are locked for 2 weeks.

Alex: But think we want to do that collaboratively. so we could decide dynamic playlists are important — like Aaron yesterday said. and then Michael will weigh in. I want a place to float them where you can say, yes, or this is crazy.

Aaron: And we don't know the depth or time of how long something takes. So we know what we're getting into.

Alex: Maybe we could have a sprint pre-planning. That's a need I have — to say this is what I need. I get this piece of it, but I have to retro it back to the people are asking me for features.

What Aaron and Alex were beginning to catch a glimpse of is the way in which this way of thinking and working could structure all of their work at the station. But it was still a little confusing about how to implement it.

It was essential that Aaron and Alex understand how to work the product backlog, and how to manage their developers using Trello, once Studio One's work ended in December. Todd had been acting as the station's default CTO, managing the developers and helping them make the

technical decisions necessary to respond to the unceasing stream of features requests coming out of the redesign process. When that work ended, it would be up to Aaron and Alex to keep it going. For Aaron, the idea of product backlog was revealing.

Aaron: So I have seen how you have a workflow process through Agile to get this done, and we have seen firsthand the impact it can have. For our developers, it has really helped. But it has not been fully implanted in my brain. I never understood what "product backlog" meant until today. Guys, this is really evolving how we do business and that could be a positive outgrowth of this project!

Theo: Aaron, you do this on the whiteboard in your office which always overflows. The tooling here forces prioritization and workflow.

This was absolutely true, and I had never recognized it until the moment Theo said it. I had spent nine months in Aaron's office, wondering at the white board which never seemed to get any cleaner, only more messy and colorful with lists of random words like "API" and "Quantcast" and an occasional arrow or two. You could sometimes see where a list had been poorly erased, its pieces reconstituted elsewhere on the board. A Trello board, if Aaron could manage it, would be a major improvement. Theo explained, "So this green Trello board is yours now and after the handoff at launch. This will have stuff we won't get to, and then it will be yours!"

There were many, many items in that green pre-product backlog card. I was beginning to see why Studio One might have gotten confused over the summer about where they were in the design and development process.

But this was another moment of truth. Here on the green Trello card was the list of the features flagged for the public beta release, and the time was now to make some hard choices about what was in and what was out. Some of them had been added from yesterday's feedback session with Michael (not all of them terribly well specified). The group started marching through the very long list.

"Explore Audio
"*Audio Analytics*"
"*A/B Testing Platform*"

"*Meeting with All Stakeholders*"

The mere mention of having to meet with all the show producers spirals into a conversation about how to deal with the podcasts coming online in the following months.

"*Show Branding*"
"*Revenue Meeting*"

The next two items in the pre-product backlog list were "show branding" (a continuing pain) and "revenue meeting." Aaron explained what 'Revenue meeting" meant:

Aaron: I need part of your brain Theo, on revenue meeting. Give me what you need and I will lead internal conversations with the committee, and I will set us up to deliver a new strategy. We need to be very transparent about when does Thomas stop pretending he has a business, and stop selling stuff that is keeping us from being innovative or future forward. And how WABC transitions that business. We have stayed away from you on that, but I will be dealing with that up close and personal on that this month.
Theo: Is that all revenue? So like underwriting and membership?
Aaron: Mostly underwriting.

Let's just pause here and remind ourselves that this is September, and the underwriting Thomas take-down meeting was July 1, with another cancelled meeting in late July. Since then there had been no progress on an underwriting transition, and in truth there would not be any more progress for a long time. And there were still major outstanding items on the list.

"*A Home For Local News of Some Kind*"

The next was, "A home for local news of some kind." Apparently, Michael had thought that this newsroom was not well featured enough in the current design. Alex was worried about how to handle this.

"*The Developers—where they live? Full time at Studio One? Through the end of year?*"
"*Migration list — Needs to be redeveloped*"

This item went without comment but would actually be the bottleneck that the team was about to run right into.

"*User Authentication*"

If Aaron had his own personal Trello board from my first day in the field, one of the oldest

cards in there would be for user login. I had heard this issue come up so many different times, in so many different contexts. And it never went anywhere. But now at least it had its own Trello card in the pre-product backlog.

The next item on the list was another oldie and goodie.

"*Build your own playlist*."

This had its own interdependencies with other immoveable objects.

Bobby: Membership is required before we do that.
Aaron: Is that a benefit of being a member?
Alex: Sure but is that doable in the next 3 months?
Zach: Let's put it in there, it's doable in the next three months — but the next step is for you to go back to the station and have a prioritization discussion. things like A/B testing may or may not be as important now as in July.

"*Embeddable Audio*"
"*National Shows*"
"*How to get show producers curating the new site for public beta?*"

This led to a discussion about the need to make a card for "separate meeting about shows." Alex shared more of her political concerns about not meeting some of the show's expectations for a new site.

"*Michael wants bigger logos for shows*"
"*Michael wants infinity scroll*"
"*Everything must be bigger!!*"
"*Dry-Runs for Testing Tools*"
"*Pages for Membership/Underwriting/Marketing up by Jan 1*"

Then it was time for Alex's topic: the static pages for the other departments. This was another moment for her to advocate for a part of the site that, it seemed, she was the only who care about, and bore the brunt of.

Alex: The pages for membership/underwriting/marketing — they need to be up by January 1. Those guys are eager but down on the list. There are lots of details in those buckets which are not what we have today — there are new needs.
Zach: That will be a task on you to define those and create the check boxes for us.
Theo: We can create cards for that. But we should look at the analytics and see the relative importance of these to the public/traffic. Besides internal clamoring of marketing.
Alex: Ok, but there is new investment of personnel there, and we have said no to them. So if it's not done by Jan 1, we need to have a plan. Not that they need custom, awesome design. But, for example, we have a new major

donor development person… They have enormous pent up demand, they talk to me at least once a week.
Zach: we can say, it will never be worse that this.

"Play Button"

They discussed the play button and continuous river of persistent audio and how that should be in the public beta.

"Newsletters"

Ah, newsletters. Newsletters had come up continually earlier in the year when the team was working with Katie on a revenue strategy. The existing site had some rudimentary tools for producing newsletters, but managing the contacts—as I described above—was a true organizational headache.

"User Testing"

The next item on the list was user testing. This was supposed to be an entire part of the engagement with Studio One in and of itself. But it looked like this, too, would not be possible any time soon. The core infrastructure had to be built first.

"Most Popular List"

And finally, they were back to Aaron's favorite topic: the most popular articles list.

A product for revenue…?

So, at the end of the summer, there were a number of vitally important revenue-related features that had gotten shelved in the pre-product backlog list: a payment system that could be integrated with the CRM, user authentication, newsletters, and A/B testing were all months away, at the very least. There had been no series of revenue strategy meetings as Michael had asked for. The core infrastructure of the site was still being built, and the branding and design work were still stuck in the land of station politics. At this point the team was still optimistic they

would have a public beta by the end of the fall.

But things were not going to go as planned.

The irony is that, just a few days before, NPR had come out with research on web use and donor behavior. Much of what had fallen off the beta version of site—the core infrastructure work to get users to convert to members — was directly related to digital conversion. And to the only viable, long-term digital revenue strategy the station could hope to pursue.

6. Planning for Roll-Out

In mid-September, Alex met with Katie at WeWork to make a rollout plan for the public beta. The site was in "internal preview," with Aaron and Alex showing it around to a few station managers and producers. Alex explained,

> "Right now we are in "internal preview" — we are only showing the site to people in the building associated with us… unless you are Aaron and you show people who have a computer near. Like, Aaron was showing the digital head at NPR, just to take a little air out of the balloon, letting off pressure. There are still things we need to build, and we have to get agreement on requirements for the public beta."

The slightly wider friends and Family beta was supposed to run from October 15th to November 15th, and then open up to the wider public on November 15th. The November and December public beta was when the team would start to do real A/B testing by directing 25% of the station's incoming traffic to the new site.

Alex and Aaron felt like this was the moment to tell a bigger story about what they were trying to accomplish with the site, and the many innovations they were designing into it. As Katie and Alex talked, though, Alex was forced to think through strategic aspects of the rollout that she had not yet considered.

Katie's first question was — is this a broad or focused beta? What do we want to get out of it? Alex's impulse was to get information about the intensity of interest. Who cares the most

about this and what do they care about? They had been in the design process for so long, that it was possible, she said, that they were totally wrong about what people were interested in and why.

Katie, who had recently been hired to lead engagement for the Innovation Lab, was at first excited about the possibilities of the Innovation Lab to help Alex get a launch sponsor for the new site. This was an obvious and interesting business opportunity — and was much like what big, new podcasts were beginning to take advantage of. Katie reflected,

"If we found the right underwriter to be the launch sponsor, that could be $250K! That is more than what the whole site generated last year. We could get Jessica to do sales calls—she is comfortable with that. Underwriting should be doing that, but you have a one time chance for this to be new — why not have something special with membership? Or with content?"

Internal stakeholders

But Alex was more worried about managing the internal stakeholders and their inevitable feelings about what was in the beta and not when it was launched.

Alex: I think there are like ten things I need to do for the redesign launch. First on my list is who should I meet with and when and how? I was thinking I should write like a launch explanation email — when do I need to do that and when? And then when should I do stakeholder meetings? I need to meet with the shows again. The managers. Original plan was that the shows were going to be launch partners.

Katie: There is a certain form of productive frustration - maybe they should feel like they are being left behind. You could send out a sign-up tool, make them find their way to you. And if they don't, they don't.

Alex: I think that is dangerous… Aaron would not agree with that. I don't think this org is ready to do that.

Katie: Ok, I have respect for his political wisdom.

This was typical of the internal focus of the team—where it had been for nearly the whole redesign process—but Katie wanted to encourage Alex to think more widely about who else to include as the audience.

Katie: I also want to focus on people outside the building.

Alex: That seems manageable, the others internally we will have to do when we do their content. Like podcast folks, but they are post public beta. So yeah, let's talk about the public communication. There is friends and family — do I need to look beyond that? Should I plan a series of public blog posts? [Katie: yes] and what should they cover?

They talked about a range of different topics that blog posts could cover. Katie wanted Alex

to emphasize that, “this should not just be about a new site, but that we have a new organization as part of it. We need to interact with members and underwriters in a new way, and our content needs to be served up in a different way.”

Alex was both intrigued and wary: “That is great, but my only worry is that this has be approved by Michael. I want to do a couple that he won’t notice or care about.” And she was already working with some of the senior managers on possible posts, including Catherine in marketing. Katie helped Alex continue to brainstorm about local ONA presentations, ONA presentations, a blog post about vetting tech vendors, how they made choices, and how to be a good client. In that exchange, Alex revealed what she has really cared about in the site design — the infrastructure.

“Studio One took us on because they said we wanted to do the redesign differently, and that for us it was not just about pages but a whole new infrastructure. I said from the very beginning, even if we only do the infrastructure we will have succeeded, even if no one else knew.”

This was a significant statement, and perhaps the most telling of where Alex would judge the redesign when it was all over. Katie wanted Alex to write about this if it was important to her. But what was important to her might not be important to Michael.

Katie: Ok, so let’s write blog posts about things that have been important to us! And we should write an open letter to station leadership. This is for you if your station is launching a new site — here is what you can do to show leadership, make it a success.
Alex: I worry about vetting them through Michael though.
Katie: I can write them then, you can blame me! If they go in the drawer its ok.

Alex let out a huge sigh about how difficult it was to plan for everyone’s internal reaction, even at this final stage.

“Finally, we have done all this work, really it’s been 2 years of work, and this is our one shot to communicate what we did. And I just do not believe that the work will speak for itself.”

Friends and family

They brainstormed some press to talk with: Nieman, The Pub, Current, Poynter. There was a

slight problem that public media tends to be marginalized in the mainstream journalism conversations. But Alex was committed to getting the word out beyond the usual public media suspects. She was also, however, a little nervous about showing a beta site to respected people in the field, and about handling the feedback.

Katie: Just put a big banner on the top that says things may break while you are using it, this work in progress, we are sharing w you as an elite audience.

Alex: We will have to get careful about our groups — like friends and family set, then AB users. I want feedback from like 30 people. It has to rollout in stages. Studio One, I love them, but as Theo has talked about this, I cannot see how you can mange feedback like this. And I think this will fall on me, they can't seem to do with the design work.

Katie: I think most people will look and then talk about it. Most people won't give feedback i bet. There will be like 2 or 3 obsessives who will write a lot and one might be useful. Of the feedback you get, I bet most of it you will throw it out.

Alex: But the people who signed up to help us LOVE us. The excitement and interest from the IDEO sprint… it was amazing.

But they were back again to trying to understand what kind of feedback would be useful. Since there weren't clear goals for the site, that was a difficult question to answer. Eventually, as Alex thought through the options and what they had said they wanted to test, she decided the biggest goal: "We want directional feedback on whether the new design prompts people to listen more."

But it was actually more than that, and Katie pushed her to think about specific use cases.

Alex: I want either some confirmation or some reality checks that what we are doing is doing what we think we are doing with the site. Like, do we see an increase in donations, in consumption, increase our audience. It sounds gross to say this out loud, of course we want to be industry leaders — Aaron did a huge thing 6 years ago when he launched the current site, and it was ahead of everyone in the industry. That gave him 4 years of juice to do whatever he wanted. So there is portion of that ambition in there too. But 95% of what we want to do is grow our audience, increase listening.

Katie: So let's ask people specific things. Like have a few asks, we would love it if a few of you would volunteer to do this specific test. Give them a use case. Like, get this on your mobile phone and listen to us in your car and tell us what it's like. Another one might be, get the site on your phone, get to whatever audio you want, and then go for a run. Does it stop playing? Tell us if it works in your actual real life circumstances. tell us how this works in your real life.

This idea was exciting to Alex, and she started to roll with it.

Alex: That is the ideal, and as part of our public service mission, wouldn't it be great if we had an SDK for launching —and we could say, like we want to do this out in the open, out in public — like ask, then test, and then change and publish the results.

But even this good thinking was cut short by Alex's other impulse: to manage the senior managers. She continued:

Alex: Michael will have an appetite for good press. I think it's on mission to be out in the open on this as much as we can, but does he need to be brought along with that? Do you think that will that go against the message he wants?

Katie: Do you *want* to bring it to him? You don't have to bring everything to him. He doesn't have to approve every blog post!

Alex: I know, but I worry about that, I have published things before on the site about the redesign. The way Michael flags things is another of the GM's says to Michael — hey what is this about. And then he comes and asks about it.

Katie: You could tell him, we are interviewing with such and such this week. We put out a blog post, we know you're busy, but at least you're in the know. No one like to feel clueless about their own org. But telling him that it has happened is one thing. His decision-making capacity is very constrained, he has a long list of things that people are bringing to them.

Alex was finding this planning process with Katie, small as it was, to be productive: "This is insanely helpful, Katie. When I can't even make a list, that is when I need to talk it out."

That afternoon, I went with Alex and the digital producers over to Studio One to go through the new workflows and introduce them to the major components that they would be working with on the site.

7. Running out the Clock, and the Clock Running Out

In the first week of November, I had lunch with Aaron and Alex and I asked for a redesign update. They were missing their public beta deadline (which was the day before) for a number of reasons.

First, the developers had decided that they wanted to do migration of all the old content before the release of beta. That apparently had taken four weeks — 2 weeks longer than they thought. It also meant they didn't build any of the article publishing tools for the producers — so the back-end interface was basically unusable. And, after months and months, they still hadn't nailed the homepage design because of a bottleneck getting decisions in front of Michael and hold-ups with the station-wide branding effort. The homepage had become a point of contention.

Alex was arguing with Aaron: if we make the redesign contingent on the homepage, it is going to sink the whole redesign, and the site will never be released. The whole point, she said, was to release the beta version, get feedback and iterate. She was angry and worried that at this point that they have left no running room to December 18, which is when the contract with Studio One was supposed to end.

And the whole concept of the contract with Studio One — which was to release and then iterate alongside them was also going to go up in smoke when the time ran out on the contract. This was especially now that they were down a developer, because Greg had left in October. A new developer had started, but that meant that rather than having boosted their capacity to three developers, the team was stuck at two.

Alex argued forcefully to Aaron that the biggest problem was that they had no guiding plan, no priorities for what was most important to accomplish before the friends and family release - and so they were just responding in an ad hoc way to whatever was coming at them. “That, for sure, is going to run out the clock!” She exclaimed.

Aaron was much more sanguine about the whole thing, which made Alex even angrier. He kept saying to her, “Maybe we need a meeting then!”

“Then what was our last Friday meeting with Studio One about?” asked Alex angrily. The explicit agenda of that Friday meeting had been about what needed to be on the priority list and built out. But the meeting had started late, they had ordered lunch, and they hadn’t gotten very far in the agenda.

Alex was also angry that Studio One was meeting yet again with Andrew and Catherine that day and the design and marketing was still not done and still not aligned. And they hadn’t managed to stem the flow of feedback from Michael yet either. He had been giving nearly

constant feedback, but they had no process to incorporate it.

"And all he sees is the front end, which the designers haven't touched while they work on branding, while the tech folks have been working on migration, so it looks like nothing has happened!" she said. Alex, who had been continuing to consult with Katie, said Katie was pushing her: "whose responsibility is this? who is in charge of this redesign?" But no one had a good answer for that.

"Aaron," she said forcefully, "*This* is all we should be doing — we should be eating and sleeping this redesign and not responding to the bazzilion other stuff that comes their way and is all of a sudden a priority."

She also said she had an email from a Nieman Lab person in her inbox waiting to respond wanting to know what she was going to write about the redesign. She warned Aaron, "These kinds of delays are a real danger zone because the tech changes so fast that if we sit on this too long — and Theo agrees too — the technology will change and it will be out of date and have to be changed again! So we have a small window to get it out there and make a splash!"

Aaron, again, was unconcerned. He thought Alex had been talking to the media too much about the redesign, and giving interviews, and that was why she was feeling some pressure to get it out the door on time. Alex said she didn't care about the media so much, she was trying to exert some pressure on him to help move things along faster and feel accountable to a wider community.

And it was six weeks until Studio One would vanish.

10. The Michael Card

A few days later, it was all hands on deck with Studio One. They had gotten more feedback

from Michael on the beta and they had to figure out how to handle it.

At 3pm in the afternoon, I sat in Aaron's office as he and Alex called the project lead at Studio One, Zach, to check in before the sprint review. Aaron was struggling with Michael's most recent request to the digital team:

"Michael ran into someone in New York, and she convinced him to looking at integrating another tool, this one for user authentication. I had a conversation with Michael yesterday about resources and I tried to encourage him to focus on the redesign." Alex was more focused on the very real need for the station to build their own capacity. The station developer Bobby was going nuts cleaning out the backlog of station development work that had piled up in his absence (while he was working with Studio One) and everything felt, again, like it was at a standstill.

The new developer, Josh, along with Bobby, Alex, Aaron, me, Zach, Todd and Theo decamped to the conference room with a screen share of the Trello boards for the redesign. We called Theo on the phone and began the sprint design review.

I hadn't seen the progress on the site in a while, and was eager to see how much they had managed to get done since September. They started clearing out some small things that Bobby had been working on and identifying items for the next spring. The branding work was still not done, and Theo suggested removing icons from the side bars of the site so they weren't a distraction. "AMEN" exclaimed Aaron. They needed to fix some line spacing issues in the article pages, make some changes to the API, and do some work to define the audio analytics they wanted to track.

Then Zach suggested they take a step back and look at the product backlog board over all. They started with the first, rather lengthy card in the stack. The card read,

"MICHAEL CARD"

Zach asked Alex, “What’s the genesis of this?”

This was a Trello card just for capturing Michael’s feedback. Alex had been populating it, along with a separate spreadsheet, from the hours she was spending with Michael as he was giving her feedback on the beta. She looked pained as she explained what she had been dealing with to Zach:

Alex: The stuff on this Trello card is now also in my spreadsheet, which much longer than this, and it’s Michael’s feedback and thoughts. It’s redundant with the spreadsheet.
Zach: Ok, let’s bring them all back into Trello and rather than have a Michael card, let’s have a Michael tag for each.
Alex: There is internal feedback on the spreadsheet — some UX stuff, some features, some bugs, some stuff is stuff he doesn’t like. I’m not sure when it will be an appropriate time to address them. There are several that he has brought up over and over again — he keeps sitting with me and saying the same things over and over.

Zach tried to coach Alex on how to handle her biggest stakeholder, but Aaron broke in with more exasperation.

Zach: one thing that might be helpful….
Aaron: Michael doesn’t want this to go out in beta until it works perfectly in Internet Explorer! Like he is *that* not helpful at this point. Alex and I should sit down and look at them and prioritize them and figure out what he really wants.

Bobby was also tired of Michael’s incessant intervening into the redesign process, and wanted his colleagues to just take his feedback, and extract the bugs, and leave the rest. But Alex, as the only person standing between Michael and the development team, was having a hard time understanding what was what in Michael’s feedback.

Bobby: Can you leave his feedback as that, and then feed bugs into the bug card too?
Alex: Ok, but some behavior I’m not sure is a bug or not.

But Zach, as the acting CTO, knew what a bottleneck the station’s developers were becoming and wanted to protect their time. He reminded Bobby:

Zach: You and Josh are limited resources to get stuff done. I can talk to Alex and triage the Michael stuff and get them to a good place.
Alex: One example that he talks about ten times — he scrolls down, presses down on story 4, and it then goes back to top of the page.
Theo: That is a card already, that is a known issue that we haven’t gotten to.
Alex: That’s fine, it just needs to be acknowledged to him then.

This exemplified the difficult position Alex was put in at this point in the process. She was fielding all of Michael's feedback, but as usual it was hard for her to prioritize it because some of it was minor and some of it was major. And she wasn't managing the developers day-to-day, as a product manager in a real software firm would be doing. That role was Todd's at Studio One, along with Theo's—two people outside her organization entirely. She was buffering a lot, without a lot of information or visibility. Todd was trying to manage the process, while also teaching Alex the somewhat elusive art of product management.

Zach: So I am going to put down as the last Michael card then that Zach and Alex will triage and elevate relevant issues into Trello and document their existence. So Alex can go back to Michael, and say that's a known issue, assigned to Bobby.

Alex: Sure, but some of his requests are also insane.

Theo: I went through that list carefully with Anna, so most of those at this point 100% known, and we think there are like 2 of them which are worth talking through again with Michael. So that list has not been ignored, just so you know.

This seemed to satisfy Alex for the moment, though it was not a long-term solution to handling Michael's feedback. And it was early November with no private beta and no public beta. They moved on to the equally long list on the Trello card for "Bugs and QA Backlog."

As the team was working through the cards, it became apparent that the migration of the content from the old site to the new site was more complicated and prolonged than they had anticipated. For instance, the tools that created social media posts for the old site, when those posts were imported into the new site, looked terrible. And as long as the old site was active and people were using it, any content made in the old site would override changes in the new site. Bobby wanted to make a social media override function in the new site to avoid crappy migration issues, but Zach pointed out that, without a social media strategy, that didn't make sense.

But in this case, it was Alex who had to remind everyone that this was a *beta site*, and not everything was going to be right. Though some migration bugs were nastier than others.

Alex: but it's a public beta, and a *beta*, and if its just a few crappy photos that get ported over to the new site that's ok and we can deal with it when we've fully migrated to the new site.

Bobby: Yeah, but the problem is that small, medium, and large photo requests can break the site.

The conversation moved on, without a decision, to the other bugs in the list.

The static static pages

And then came time for the bane of Alex's existence, the one thing on the new site that no one seemed to care about but her: the static pages for the other departments. There was a card in the list which said, "About Pages - Hide the links until they are ready for navigation?" This was going to drive Alex nuts. How many times had she brought this up?

Alex: Why is the existing About stuff on the site not part of migration?

Bobby: We haven't figured out how to differentiate between WABC as a channel or WABC as a series of static pages—so, for example, the "About" page. We're not sure where in the WABC navigation it should live.

Alex, despite her months of insistence that the team take this seriously, had not been able to break through. And now what Bobby was telling her was that there wasn't actually a natural place in the information architecture they had built for the site to house the static pages. This was about to drive her through the roof.

Alex: Ok, but your migration has mostly focused on editorial content, but *30% of the site* is associated with membership, events, and other static pages.

Bobby: No, we have close to 80K word press posts, and 50 normal posts. So that's not quite right.

Alex: *But those pages are important*, and there is pent up demand for dealing with them. When are we going to port that over? Other people in this organization will look at the beta site and say, "where is our shit?"

Bobby was still blasé about this need. Or perhaps he was just as tired as Alex was from being the digital service window for the rest of the station. If this site was supposed to ease the burden on the digital team by making it easier for others in the station to publish to the site, then why not ask everyone to do their part?

Bobby: I would say we don't migrate those pages because the content is poor. People will still have access to it. Like our podcast. We will build some of that for them automatically.

Alex: Ok, but it's a big project and where does it fit in? Those are just the guts.

Zach : Right, you are saying it's 30% of the surface area, not really 30% of the content, I get that.

Bobby: I would rather have someone tell me what to do next… like do this and this and this.

Alex: People here are dying to see that stuff, so when do I do that?

Aaron: What do you mean by page?

Alex: I mean everything that that's not news! Directions to WABC, support pages. You say it's not a big deal, but it's *more important than news* in some ways! This is site infrastructure stuff.

Now it was Zach's turn to try to be helpful, and encourage some self-help in the station.

Zach: So if a senior manager makes a piece of content on the old site, that will that get overwritten by the migration and import to the new site. My point of view is that everyone earns their spot on the space. People need to get set up in the work flow to make their pages. I agree that porting existing things over doesn't make sense. But what we can say is, here is a page that is ready for you to fill out, and when you fill it with content it earns a spot on the navigation. I think shouldn't be building things into the navigation and then go chasing content. We can introduce them to the workflow and have them write their content so they earn their place.

Alex: Ok, but build what exactly? They have static content pages on the site currently, do they just throw that in? That stuff is not in an article structure.

Bobby: For anything About WABC, I agree we can't bulk copy over that stuff.

Alex: Ok, but they don't want to! it's a chance to start over.

Bobby: So they could log into the beta, go to pages, channel, and then start by uploading photos, titles, publish.

Zach: They should start with the design that Theo and Anna have down. standards, subheads, block quotes are simple. Everyone has to earn a design treatment from their content, not the reverse.

Alex: *Guys*, this is one of those bigger conversations, I think.

This was definitely a bigger conversation. Alex was absolutely right — not only would the station managers want to see their pages on the new site, some of the navigation-type content—like the broadcast schedule, or directions to the station—were actually more popular pages than any given random local news post. But Bobby, who had been the original site master and, as he liked to say, "tech-in-a-box" — seemed annoyed at the thought of building everyone's pages for them.

Bobby: I have made and maintain the static About pages on the site currently — that has always been us doing them! The senior managers won't go and build About pages, but they *should* be the ones to do that.

Aaron put on his diplomat hat, and tried to offer a compromise.

Aaron: Going back to our contract, theoretically there is training built into this process. Maybe that is how the workshopping goes — with Alex and with designer X putting together the model T static page, then refining it. And then we can give people the keys to their new model T's to show them how to build their own pages.

Alex: I think we need another conversation about it. I would not be able to do this for myself. These guys need a starting space — they can color but not draw.

Aaron: Ok, so we build a 101 template.

Alex: A starter template for beta?

Zach: It would be just a layout not a design.

Alex: Ok, but who does the layout?

Aaron: It should be a card or captured somewhere.

Bobby: Right now a channel is what is on the home page, but we haven't solved a way to have pages within that.

This was a tail-chasing conversation. Finally, Zach brought some closure.

Zach: Let's update the architecture so we can get the static pages us, and let's fix the generic pages fr the people who are bugging Alex for it.
Theo: We could have suggested style guides.
Zach: the first thing we want is just the dumb fallback. So it doesn't look broken if we have to bring stuff over.

No roadmap, no resources

They continued down the backlog page. And there it was again! "*Branding artwork for the front-end*."

Aaron: Is that blocked by Michael's meeting with marketing and the outside designer?
Bobby: We made our own placeholders for now on the beta site, if there is a problem we can change it.
Theo: Let just leave it for now.

They added a card for clearing out the Michael Card, and creating on-boarding pages. As the meeting dragged on, Alex cut in — she was nominally the station's product manager, but she hadn't seen changes pushed to the beta site in a while.

Alex: I haven't seen changes pushed in a while.
Zach: Yes, I'm sorry. We need to do a better job of saying when builds are published to the new site.
Alex: There's lots of business to take care of, so *when are changes going to be pushed*?
Bobby: Over the weekend.
Alex: After this, will changes be pushed regularly?
Bobby: We will still be climbing out of Forrest leaving and the backlog, but yes.
Josh: And we need curation sign off on a few things.
Aaron: We are not CTO's though.
Josh: The decisions we're making on curation tools seep over into editorial — like who will freak out when they see it.
Alex: I'm anxious for changes to get pushed because I feel behind and there are weeks of work I haven't seen. I'm paused on my side for dealing with internal feedback to wait and see what's real.

And then Aaron brought up the elephant in the room. What, exactly, would be the roadmap to a public beta? It was November, and they had missed the fall deadline for a public beta. And they weren't even in striking distance of a private beta.

Aaron: What will be the roadmap to public beta is the other question? When will we do that? today is not the day.
Zach: Today is not the day. We have notes from earlier on what the public beta will be. Can you take a look? [Aaron says yes.] Is this new-tools conversation Michael is suggesting not an urgent conversation?
Aaron: Not to me. She is the sales person saying she can get us a guy to help us do this. But I want to make sure this is the right thing to do, now that Michael realizes we have to do finish this site — I defer to the team on this one, but this contract person could get started on Monday.

Zach, who was trying his best to keep the team focused and act as the station's CTO, all while being employed by another organization, could not help but let his irritation slip through.

Zach: Regardless it's just not a good idea right now.
Aaron: So *where are there extra resources* to help us launch this site and can we tap them? That's Alex's point.
Zach: On the get shit done front, new people slow down first and then speed up.
Aaron: Ok, so I will say go away.

But that wasn't to say that Zach wasn't worried about meeting the deadlines. He backtracked a little and tried to explain to Aaron how hard they were working, at the same time that he was shuffling around Trello cards to re-prioritize Alex's concern about the static pages:

Zach: I have told our technical lead that we are prioritizing WABC. And if you want to hire a front-end developer to replace Greg, that can mean lots of things. The stuff ahead aren't tech problems, but logistical and management problems. I will sacrifice myself doing what i can to facilitate that so you don't feel the stress you feel — which is that you know there is work to do but are not sure what it's going towards.
Alex: My only question is WHEN to do that. If the train is leaving the station, like I thought migration was going to be everything, but now it's only editorial.
Zach: After Thanksgiving would be a good time to tackle that.
Alex: ok, so it's just a bottleneck then.

Zach was now completely frustrated, but trying to be as diplomatic as possible:

"We all want to get this done, and your development guys have an interest in what you are doing and where. But we need to focus more on *what we are doing and why*. The best place for the developers to get things done is probably at Studio One, but Alex and Aaron know best. The most important thing is to be able to have the space to go through these things carefully — and clear the bottlenecks by focusing on the top priorities and ignoring the rest. I think our role here is technical consultants to help you. From my point of view, things went the fastest when the developers were standing with us looking at each other and saying what are we doing today? And that has trailed off. I want to get that back."

All dressed up and not ready to go

After Greg had left the station for his new job, the in-person sprints had trailed off. And that was part of the process loss of the last few months. The group talked about whether it would make sense for the developers to go back to Studio One through the end of the year. But without a clear path to getting to the beta release, they were all struggling to figure out what the work should even be. The problem was, as Bobby said, "at this point everything else relies on everything else." And it was completely confusing who was actually in charge at this stage. Zach

left the conference call, with the promise that at the very least Bobby would go back to Studio One. But Alex and Aaron were still confused.

Alex: We can't really help if we don't know what's in the sprints either. When do we do that? Now?
Aaron: I'm confused too. We feel like we're all dressed up and not ready to go. I'm disappointed Zach just walked out on the call. Theo, I hope you can pick up that slack to give us some direction on where we are going on the sprint. Are we doing sprint planning w you guys? Now that Zach has left?
Alex: Wait, this was booked as a sprint planning? Or that was Friday? The stuff we talked about today was more stuff that has bled over and the big clean up on backlog. So we're losing a day of the sprint now.
Josh: It's not like we don't have a queue from which to get stuff to work on.
Bobby: But we did just prioritize the bugs and sprint backlog. The backlog has never disappeared.

So now there was even more confusion about what the last hour was supposed to have accomplished. This was not going well, and the frustration on all sides was evident. And December 18th, the end of Studio One's contract, was getting closer.

Alex: Since we need to do some planning to get to Dec 18th, should we consider this a backlog organization sprint? Or is there other extra stuff to talk about? Or should we have a mid-sprint check in? There seems to be more of a backlog than I understood. Is that the way to move forward?
Bobby: It seems like full sprint worth of crap here, between adding stuff to the Michael list, the schedule page, the explore audio stuff. We have a lot of API fixes and tweaks, and then figuring out the technical aspect of static pages.

Alex was doing her best to keep the process moving, but without a clear roadmap to public beta, the whole thing was looking like a Chinese finger trap.

"This is my suggestion, we should take today as we have planned a portion of this sprint, and then check in next Wed or Thursday and have shorter session on what has happened to get us here. Aaron, Zach and I should have a conversation on the next 6 weeks. It's hard to say where everyone should be except based on these cards."

Josh, the new developer, had no interest in going to sit at Studio One if there wasn't a clear reason for him to do so. And Aaron didn't really want to be exercising any authority at this stage. He was out of his depth and wanted Studio One to be making the big decisions. But this put Alex in an incredibly awkward position again, of having nominal responsibility for the product roadmap, and being the frontline to Michael and the other station stakeholders, but having no real authority over the developers. That meant there was actually no one clearly authorized to make and execute critical product decisions, with the end of Studio One's contract six weeks away, and no path to a private or public beta.

Aaron: We could talk to them all day, but Studio One as our acting CTO's should be leading these guys. That is my own bias.

Alex: I have lots of stuff to discuss that I didn't want to do today because I didn't want to mess sanctity of the sprint. But if this is day one of a sprint, then I am confused about what the point of this sprint is. Without the global conversation of what we're doing in the next 3 sprints, hard to say if it's over or under packed.

Bobby: I think it's overpacked. We might need to take stuff off.

Alex: Ok, but who should do that?

Theo tried to offer some clarity:

"Well today we did card prioritization, we did a combined review and prioritization. The whole reason to have that front-end worksheet is so Anna and know what we need to get done for this beta release. So i think that work that we did was prioritization. But how much we get done is always hard to predict. Our check ins should be how its going."

Aaron asked for Studio One to establish regular check-in calls so that they could keep up with the progress. They said that was said fine, and the call ended.

Josh argued to Aaron that they could easily have remote stand-up meetings every week and he would not need to go over to Studio One. But Aaron was more focused on what he saw as Studio One's neglect of any process in the previous few months.

"There was never a standup that they put in place for us! This was Zach's role and he vaporized. But for these next six weeks we need it! We lost four weeks of development time because of our developer Greg leaving. When the meter is running, and the pressure is on, let's follow the rules here. They fucked up are trying to get their hands back on it."

There had been many screw-ups, and the process was now completely tangled. But by early December, they were still far away from even a limited public release. The year would close without a private beta.

Chapter Conclusion

This chapter extends the story of the redesign to the second half of my fieldwork. All of the dynamics I described in the Product chapter are present in this chapter as well. But what I want to highlight in this chapter are the particular barriers to digital revenue innovation that the digital team faced in the second half of their redesign project.

As should be clear from the chapter on Innovation, Michael and his senior team believed that finding new sources of revenue—and *digital* revenue in particular—was the only pathway out of the existential threats facing the station. One might assume that this sense of urgency around revenue would create the openings necessary to radically rethink and recreate the digital revenue strategy on the station's main digital product, its website.

But that is not what happened. Instead, the site launched without a new digital revenue strategy. And in fact, it launched without even basic backwards-compatibility with the digital underwriting spots that Thomas's team had been selling. It launched without a membership log-in or a digital membership conversion strategy. How had this happened?

Financial incentive barriers

In some ways, the barriers to creating new revenue strategies at the station mirror what we know about barriers to innovation in other settings. The financial incentives that come from the efficiency and scale of existing business operations can crowd out the kind of investment and experimentation needed to launch a new product aimed at a different market.

In this case, the combined and growing revenue power of the radio membership and underwriting departments were both huge sources of inertia facing the digital team and their efforts to make a new digital revenue strategy. The head of membership was, as he said, running a widget-producing factory in membership and he couldn't afford to slow down and still meet the ambitious growth targets that station business manager and the GM had set for him.

A related logic held for underwriting. Radio underwriting spots were so much more lucrative compared to the pennies that the station could make in digital underwriting, that it just didn't make financial sense to spend much time on selling digital advertising, other than as an

added bonus for big clients who wanted a bit of digital ad space. The station had found a way to boost digital CPM's *despite* these skewed financial incentives. Yet in terms of total digital ad revenue, the site was still generating, as the GM pointed out, a rounding error compared to the overall revenue of the station.

Infrastructure ownership and political barriers

There is an additional layer to the traditional story of financial incentives as barriers to innovation that is also discernible in this chapter. The financial incentives in membership were undergirded by patterns of infrastructure ownership that produced political resistance. The membership database was owned by the membership department, and maintained by the IT department. Try as they might, the digital team were never able to make much progress on working with either membership or IT. And furthermore, because the membership database software was designed for radio, to upgrade it to work with the site in a different way was incredibly risky to the radio business—almost as risky as entirely replacing the system. Thus, technically and politically, the digital team could literally not get access to one of the core pieces of station infrastructure they needed in order to build a new digital revenue strategy.

Similarly, the financial incentives in underwriting were undergirded by patterns of infrastructure ownership that produced political resistance. The ad-serving system was owned and operated by the underwriting team. At a bare minimum, to make underwriting work on the new site, the digital team would have had to exert influence over that system. And to really make a change to the underwriting strategy on the site (or to axe it all together, which is what they wanted to give given there was really was no money in digital advertising, and there still isn't), the digital team would have also needed to either own the ad-serving infrastructure directly or

coordinate effectively with the underwriting team. Yet digital revenue fell somewhere in between the digital team and the business departments, which made coordination politically difficult. Coordination was also increasingly costly in terms of time as the redesign dragged on. Over time, the digital team had to become more and more focused on what was possible to execute on the new site, rather than what was desirable, in order to get to launch.

The other infrastructure systems that the digital team would have needed to own and to use were also outside their control: an email marketing database and an integrated payment system. The station had a single email marketing database but there were multiple users of that system spread haphazardly around the station. The station's various internal constituents were, as was pointed out both in Katie's short-lived conversion consulting project and the online fundraising workshop, "email hoarders." That meant listeners' email addresses lived in infrastructure silos and never crossed over between departments and shows. And there was an additional structural barrier with email too—there was no one in charge of email as a *digital product*, thus there was no one who the digital team could lobby for coordination either.

The payment processor infrastructure presented similar ownership and political problems. A real digital revenue strategy on the site would have required a much better digital payment processor that was wired into a real CRM and, ideally, an email database for tracking member leads. Yet because the station's existing payment processor was connected to the membership database, it was owned by membership and IT. This pattern of ownership made it subject to the same technical and political barriers as the membership database itself.

The payment processor was also configured to support radio pledge drives by giving the membership team the real-time fundraising data they needed to tune a pledge drive minute-by-minute on the radio. To destabilize that routine in the station would be to destabilize a core

source of revenue. Furthermore, the payment processor was configured to maintain a strict compliance with the licensee's procedures for handling of sensitive data. As Aaron discussed with Studio One after they had done some research on upgrading payment options, the political work required for Michael to convince the license holder to go with a digital-first payment system was out of the question.

Technical infrastructure for digital revenue

As I described at the start of the chapter, the combination of an integrated Customer Relationship Management database (CRM), email marketing database, and payment processor comprises a technical infrastructure stack that is the backbone of innovation in digital media. What this stack would have allowed the digital team to do is to build the basics of an identity-management system on the site. With this identity management system in place, the team could have designed a site that was optimized for conversion of digital listeners into digital members.

Yet as the preceding analysis should make clear, creating this stack as part of the redesign proved to be impossible because of the combined technical, political, and structural barriers at the infrastructure level of the organization. As impossible as it was, the lack of this integrated technical stack manifested, ironically, as a persistent problem. It was like a Gordian knot: the bedrock puzzle that the digital team kept coming back to, time after time, in each and every one of its attempts to change the digital revenue strategy of the station. And there was no way that the team could find to slice through it.

Expanding sources of inertia

There is a deeper layer to the Gordian knot problem that went beyond the combined

technical, political, and structural considerations, which begins to answer the question of how a public service mission influences digital revenue innovation. There was an institutional barrier to creating this kind of integrated technical stack at infrastructure layer of the station. Public radio professionals consider themselves to serve the whole public. As I described in the Innovation chapter, serving the whole public is set against, and in opposition to, serving particular members of the public. So to even try to build such an user-identifying system would have been to deploy it into an institutional vacuum. There was little understanding in public radio in general, and in the station in particular, about how think about and manage listeners beyond a diffuse notion of "the public." So what use could the whole station actually make of a digital identity-management system if that is not, by and large, how they thought of their mission and their audience?

Thus, what the revenue part of this redesign story shows is that the inertia of the existing business went beyond the usual barriers of financial incentives, resource allocation patterns, and routine inertia. It even went beyond the organizational identity barriers since, in this case, the station explicitly positioned itself as a multi-platform media organization seeking to innovate on its digital revenue.

The most vexing source of inertia was a knot of political-technical-institutional features at the infrastructure heart of the station which related to its *public service broadcaster* mission. In this knot, the existing technical infrastructure systems were mapped onto an organizational division of labor and a radio-focused business model that created a particular pattern of resistance politics, all of which was underwritten by a deep, virtually unspoken institutional distrust of identifying listeners. This knot gave rise to the financial incentives, resources allocation partners, and routine inertia that we traditionally associate with barriers to innovation

and adaptation.

This distinction opens up another insight about how inertia operated in the redesign project. In the end, the progress that the digital team was able to make on its innovation goals centered on the visual and audio elements of the site—dimensions that were politically tractable and within the team's mandate. What the team was not able to make progress on were the elements in the Gordian knot—the politically-sensitive, structurally-segmented, buried technical infrastructure—all related to revenue, that enshrined the most institutionally-cherished assumptions about the mission and character of the public radio audience. Why would that be?

In the visual redesign aspects of the site, the digital team was able to surface the dependences in branding and design across the station's online and offline presence, get the senior team to address the institution constraints, and do the political work to innovate, because that work *related to product features everyone could see*. The revenue infrastructure, on the other hand—the membership database, the ad-serving software, the email marketing database, a member identity system—were basically invisible to the GM and most of his management team. And because that infrastructure was hard to see, it was hard to explain, plan for, and implement. Thus, the Gordian knot of infrastructure that locked the current revenue model in place was so knotted in part because it was submerged and invisible. This also made it, I would argue, much more subject to take-for-granted institutional assumptions about the public service mission, that acted like the cement that locked everything in place.

Chapter 9: Metrics

Introduction

As described in chapter 5, public radio came to embrace broadcast audience metrics and audience research as a way to both define its mission and create financial stability. The language of the public broadcasting act had given fledging public radio stations wide latitude within which to interpret their public service missions. The threats of federal funding cuts in the 1990's prompted a wave of professionalization and a turn towards audience research as a way to help stations garner the small-dollar philanthropy they needed to survive federal funding shortfalls. This research also helped public radio stations define and measure their public service mission.

The definition of public service as public support which emerged from this period was built on a base of broadcast audience research which showed that *frequency of listening* and *personal importance* were the two main drivers of audience giving. Furthermore, the research showed that the frequency of audience listening and personal importance could be encouraged by explicit station programming choices. This definition of public service, and the programming choices which underlined it, in turn created a very particular audience—white, educated, affluent radio listeners who resonated with the programming choices and had the means to support their local stations.

Yet importantly, this *public* that mainstream, professionalized public radio produces—an audience of white, educated, affluent listeners—also remains rhetorically obscured. Much as the professional ideology of journalism allows journalists to lay claim to public service, even while sociological studies of news production reveal the technical and economic particularities of

audiences, a similar dynamic is present in public radio. Public radio professionals lay claim to the serving the public, while the logic and methods of mainstream public radio produces a particular kind of audience that is not representative of the public as a whole. As described in Chapter 5, while community radio stations and "ethnic" stations have consistently questioned whether the public produced by mainstream public radio in fact means stations are living up to their public service mission, the core of public radio professionals rarely engage in such questioning. This disconnect between rhetoric and reality, produced by the taken-for-granted ideas and practices of public radio, constructs a peculiar paradox at the heart of the institution: a broadcast public that is not reflective of the public as a whole.

A core aim of this dissertation is to explore how the pursuit of a public service mission influences the process of innovation in a changing digital media context. A key to answering this larger question is understanding how public radio stations go about attracting digital users, serving them, and measuring those activities. What metrics do stations identify as mattering for fulfilling the public service mission of public radio on the internet? How does the pursuit of a public service mission affect the creation and adoption of a metrics regime?

These questions are not as straightforward as they might seem. As I have argued in Chapters 5 and 6, and summarized above, the taken-for-granted definition of public service which underpins the system of public radio is tied financially and technically to the medium of broadcast radio. This definition of public service entails a particular financial model and is supported by a set of broadcast metrics that produces a particular kind of audience. Does this arrangement get imported wholesale into a new medium, or taken apart and reassembled? The interlocking pieces of public radio suggest that the managerial challenge of serving a digital public radio audience may be more complicated than simply selecting and implementing a

selection of digital audience metrics. So what are the challenges of adopting a digital metrics regime in public radio?

The purpose of this chapter is to help answer this question through an analysis of the station's attempt to build and launch a metrics dashboard.

2. Initial Inspiration for the Dashboard

In the early summer, as part of helping the digital team scope out their community and mobile strategies, Katie reached out on Twitter to a local entrepreneur and software developer who seemed smart and data savvy: Shawna. In early July, just a day after the online fundraising brainstorming workshop, Katie emailed Shawna to ask her to come to the station. "We're convinced that mobile and community are key for us, and we'd love to talk to you about what you've done in that area."

Shawna told me later:

> "I get things like this all the time, people are always emailing me. But this one was exceptionally good because it was exceptionally vague. They were trying to change things over there, wanted to understand what the deal with their data was."

Aaron and Alex and Katie met with Shawna, but didn't know quite how to make use of her given where they were in the redesign. So they suggested Jessica meet with her. Jessica explained to me later,

> "They didn't know quite what to do with her. So, they said you should talk to her. So, I met with her. We knew there was an issue with not understanding who was coming to any of our platforms or engaging with us in any way, and who was a member. So, how do we start to understand user engagement, with WABC in any capacity. So, that is when we started to talk with Shawna specifically."

In mid-August, Katie brought Shawna over to the station to meet with Jessica and the other station folks who were interested in solving the data problem.

Shawna was in many ways the ideal person to run, heedlessly, fast, and hard at the station's data problem. She was a fast-talking, high-strung, polymath who was part software engineer, part

entrepreneur, part musician, and part mad scientist. She had gotten her PhD in information systems and had started a successful concert-management software company then became a freelance engineer and consultant. It often seemed like there was more child-like energy and arcane intelligence coiled up inside her than her 5-foot frame could handle. Except that she also had a very rare phasic sleeping disorder, which meant that she was literally out of cycle with the rest of the world on a regular basis. She was, as far as the station culture was concerned, basically lightening in a bottle. And Jessica would eventually decide to throw this bottle directly at the senior team.

The first dashboard meeting

The day Shawna came to the station, August 19, was the day after Studio One had given Michael the big "pre-beta" presentation in which he had given even more feedback for the team to incorporate. It was also the day that Alex had given me the update on how she had taken Studio One to task for brainstorming instead of building. It was the height of summer, which meant chunks of the station were out on vacation, Aaron was spending almost every weekend at his house on the Cape, and the feeling of dread about what the fall would bring was starting to creep in.

Jessica had assembled Katie, Alex, Aaron and Rachael, Henry's new deputy in membership, to meet with Shawna in the innovation space at the station. This was part meeting room, part lounge space—an architect's partly-realized vision of a room for creative thinking. In reality, it was more like a windowless, padded fish tank, with a wall of glass facing the newsroom and a small collection of uncomfortable, modern-hued couches and armchairs inside. It got unbearably hot if you were forced to meet in there for too long. There was, strangely, no white board in the

space, so Jessica had asked Karl to drag one in for her. We all crowded into the room, like digital stowaways in the hull of broadcast ocean liner, and shut the door.

Jessica explained their charge:

"The Innovation Lab is coming up with projects, but when I need to target a small group of people, we have no way of digitally connecting with these people. There are fragmented databases and knowledge all over the org. Luckily, Katie found you, Shawna, on the internet. Most people not in this room don't understand the need for a metrics dashboard. So we need to get an early MVP out in the world — so we can get people on board with using it."

Shawna dove right into talking about how most of her clients had worked with a waterfall development process, but she was ready to start as quickly as possible: talking with people, getting a sense of priorities, spec-ing out a product quickly and getting it built. "I hear you that it's urgent, that you need to get data to support meetings where you want to talk about a swath of people and projects" she said.

Shawna's springing into immediate planning mode surprised Aaron a bit. He interrupted her train of thought: "Ok, let's do some table-setting first." He went around and introduced each of us, including Rachael who was very new to the station:

"Rachael has a background in digital. She was a futurist in development at a university before coming here. The people you see here have not been assembled randomly. No one is more excited about getting this kind of horsepower in the room than I am. What we are trying to do is figure out how to get the money to do this. Jessica has the money to do it through the Lab. She is supposed to be outside the org, but we are melding this mission into both. Then where Alex and I come in, we need a baseline of metrics for when we release the new site."

Shawna was still ready to spring into action, and started asking a series of rapid-fire questions about buy-in, resources, results dates, MVP, deadlines. Jessica tried to clarify The Innovation Lab's needs:

Jessica: This could help us right away, right now The Innovation Lab is moving slower than it should be. We are trying to get funding, buy-in, and comfort levels of senior level people here. There is a board meeting on Sept 10 which should speed things up. After that point, I would love to have a concerted effort of building stuff. I don't know which piece of the data we begin with. What is the first corner that we put out there? Whatever that is, it could correlate to the first projects that The Innovation Lab does. We laid out an aggressive plan for the lab, we want to do three small projects per quarter. Other technologists would laugh at that, but for scale for us, that would be aggressive. So could we see a first prototype in mid-October?

Aaron: What we need to show is a "show don't tell" data product. No one can get their heads around what we mean without it. The minute there is "data" in a sentence, people's eyes glaze over.

Shawna was nodding along, and so she asked the next logical question: where did it make sense to begin? Rachael, only a few weeks into her time, had clearly already understood one of the station's main data problems.

Rachael: We do know where to begin, we need a better database system so that we can get better data about our members. I mean a CRM. What we have is not only for member tracking, but we think of it as a silo-ed product. Our business office uses it, but no one else does.

Shawna jumped again into problem solving mode—so maybe she could build a patch onto the membership database? How do people get into this database?

This kicked off a long discussion on just how fragmented the station's data systems actually were.

Data problems

The first problem the group identified was the lack of connection between membership data and website activity data. The website had no login for members to see their giving history, and no way of tracking member behavior on the site.

The membership database had separate a plug-in application to pull in social media data about donors, but the website had no such tool. The development team had yet another social media application for identifying potential high-net-worth donors, but it had no connection to the website. The membership database communicated with the SAP database that the business office used to track revenue and expenses. The membership database was also connected to a tool which ensured financial compliance for taking member credit card numbers. That tool was controlled by the IT department which made it difficult for the digital team to upgrade its (terrible) web donation form.

But the problem was deeper than databases not talking to each other. What this disconnect meant is that no one had a clear picture of how different patterns of listening (and reading)

behavior related to donations. Alex reported that the digital team could see—through Google Analytics—if a user clicked through from an article to a donation ad. But they had no way of identifying member behavior on the site—like what kinds of stories members liked to read or what kinds of stories they liked to listen to.

Rachael reported that someone on her team maintained a paper binder in which she manually compiled google analytics and donation rates during on-air campaigns, but it was a binder, "that no one reads." In general, the group informed the developer, the station did not track the relationship between call-to-action on the air with behavior on the site. Aaron gave an example of why,

Aaron: So we don't know the relationship to site activity when we say things on the air, like "donate your car" — those donations just come through on the web like magic.

Alex: And we say on air to "go to the website to donate," but without a tracking code it's hard to trace what calls-to-action on the air link to what behavior on the site. We know some percentage of listeners have heard the message on the air but we don't track that.

Shawna: Have you tried using a modified URL for campaign tracking?

Alex: We tried, but it was not supported by the people who write promos on air. They didn't want to complicate the on-air call-outs. It felt like donating should be so simple that it should just be on the home page.

Jessica: They didn't want to say SLASH on air.

Aaron: [laughing] actually, that was me.

And despite the popularity of the station's podcasts, it was difficult to identify and track that audience, especially for pop-up podcast seasons. Alex explained, "We started a podcast on a big trial in the city, and it just ended, but we don't know who the subscribers were, and then we can't message them when we have our next podcast. So we have these little groups of audiences pop up and then disappear."

Exacerbating the lack of data connections in the station was the sheer number of ways listeners could access the station's content. There was simply no way of linking any listener behaviors. Shawna summed it up: "Your big problem is "cross-device" tracking. What you are trying to figure out is what are the technical crumbs shared between data so we can unify that into a super view."

Unanswered questions

The group came up with a wishlist of questions it wanted to be answered by the tool. Jessica wanted to be able to segment listeners for testing her new products. Alex wanted a better view of the digital listenership and its relationship to revenue. Alex explained,

> "I want to be able to track listening metrics as good as I can track page view now. So how many people have listened to the live stream? Stream guys makes it hard to tell, and you can't compare their data over time… In a perfect world I would want to be able to know that a piece of content inspired donation…And to be clear, the only reason why we want people to listen is that we ASSUME there is a correlation between listening and giving. I think it would be nice if people who read donate, but we're not sure…And the holy grail is to build a one-click pledge, we could do that if they were logged in to the site, and we had all their info. That would be mind-blowing."

Aaron thought it would be especially important to get listening and reading metrics for the current site before the new one was launched. They all agreed that it be would the ability to see the relationships between listener behavior and revenue that would change the behavior of the station managers. That required answering the question "why do people donate? what do they do before they donate?" said Katie. But broadcast metrics, they all knew, also tended to motivate people.

Risks of building the tool

There was conversation at the end of the meeting about the risks of building a tool that was never used or updated. Rachael shared,

> "I am really nervous about a one-off, bespoke project. and THEN WHAT — so then we have this new thing, but what happens when people change their API's and nothing happens." Alex added, "there is no culture of pulling together data in a meeting in this organization. There are just no physical touch points here."

Jessica was convinced that the project would be blessed by the board which already saw the need for better data, and that would lend the project the legitimacy it needed amongst senior staff. Aaron had a similar view of the Board's interest:

> "When I was talking to the head of our digital committee she said, you need to stop the bleed, the fact that you don't know this stuff is costing you. We need to do this fast, create urgency and traction to it. What you are looking

for is the tradeoff between velocity and results. She said, you can't spend two years trying to get to this, you have like 6 months."

Shawna promised that she would build something that would work with how the station worked: "We need to move the organization to a place where it wants to put more resources on this problem."

Aaron followed up:

"the Lab is the way to do this because it doesn't mess up the station's digital stuff, and I'm not the outside disruptor. This is a good way to figure out what is currently happening at the station, and then to translate that into other insights that can help the Lab."

By mid-September the Board and the General Manager had given their blessing to the project. The first step was for the developer to do an "internal audit" of the tools and data being used by each department in the station. Yet what seemed at first as a very straightforward exercise—to interview a few people in the underwriting, membership, digital, development, and IT departments quickly became more complicated as it became clear that there were more tools and more people using those tools than anyone had realized.

2. It's Not Just the Technology, Stupid

Though she was originally slated to talk with 5 people, Shawna eventually interviewed 23 people — the entire senior team plus a few of their direct reports — to understand what tools the station was using to collect listener and revenue data, what data they looked at regularly, and why. The results were surprising—the issues with data were far more organizational than technical.

In early November, I met up with Shawna, Jessica, and Katie to hear about how Shawna's interviews had gone, what she was learning, and what she wanted to do next. Sitting in the innovation lounge, in the same seats where we had been less than three months before, Katie and I and Shawna waited for Jessica.

As we waited, Katie asked Shawna how it had been going. Shawna was thinking hard about the form of the analytics report. She had churned up a lot of material, and she was hesitant to drop it on the senior team without a plan for addressing the challenges she was seeing. This was important to her because what she found in her interviews is that, while the meeting over the summer with Aaron and Alex and Rachael had focused on database issues, most of the problems around data in the station had to do with *human* issues that everyone knew about.

I was surprised at how much this is an organization problem and not a technical problem. It could be human or technical was my coming in assumption, but it was surprising the extent to which it is a human problem. On the ground the senior managers see what is happening.

The imposter syndrome

But the most surprising thing to me was that Shawna had a fascinating interpretation of Michael. She saw, underneath his charisma and occasional grandstanding, a version of the imposter syndrome. She shared:

"In my interview with Michael, he has done a lot of work to bring people in and make improvements — so he thinks many problems are being fixed. But I was surprised about the level of adult-man insecurity that is being covered up. It is like the imposter syndrome — but the baby boomer man version is different. Katie: what does that look like?] You can picture the stereotype of it like in a Law and Order episode where the dad still goes to work even though he's been fired. The attitude is like, I am going to continue to pretend I know what's going on in a peacock way, in a bloviating way. It's weird seeing that in a public radio context, and it's softened by his good heart, but that's how the imposter syndrome manifests.

This was a deep interpretation, and not one that I had heard before. For Shawna, though, it was also very personal. In Michael, Shawna saw her own father—who had, like Michael, been the General Manager of a broadcast television station. What she saw told her that there were going to be very strong feelings tied up in whatever direction the project took next. She shared with us:

"We need to account for that very emotional element, and making sure people feel safe and accountable and supported to learn new tricks. My dad was GM of TV station — I saw him change from baby boomer shouting man

to being more empathetic leader and people love him. He did it because he's an entrepreneur, and he saw it works better to manage people that way. He could retain people. You can't yell at people and have them stay. People don't tolerate that way of being anymore. But these guys often don't understand, *what do I change into?* That is what I am trying to figure out how to address with Michael. So I think what I have to do is not just giving him a roadmap but helping him think about what does to be more agile, empathic, what does caring look like?"

And the problem was deeper, too — Shawna needed a way to craft and implement a plan that would actually create change. She told Katie,

"I am also focused on trying to figure out what kind of a plan would be best received, that people would want to be enacted. Is it a matter of how that plan is delivered, how deep it goes into the org, how it gets past the territorial issues, is it framed as change or something else? Katie, you've had to get plans across the table. I got this proposal across, but what's the best way to make this real?"

Katie agreed that making it tractable and digestible to the senior team was a vitally important part of the project to manage. Shawna had also clued into one of the core issues for making anything clear and real at the station, and it was the same thing Michael had coached Michael on earlier in the year: giving things up. That put the dashboard project in the strange position of having to both encourage top-down clarity and focus, and bottom-up change. Shawna explained to Katie and me:

"The org wants clarity, but that has to be enforced from top down. But thinking about what an experiment could be from the top down — that might not make a total change, that could end up more like —Michael saying things need to be slightly tightened and improved. But that would just feed into people's "you can't throw stuff away" mentality. People who are successful internally are the ones who said, we had to GIVE UP X, because you have to throw something away if you want something more. So you have to MAKE CUTS. That attitude is not pervasive. So things will die on the roundtable because of a lack of agency and circularity. And some things die on the roundtable because it's no one's responsibility."

Katie agreed—cutting through the layers of interconnected issues, problems, and initiatives was not going to be easy. And the senior management decision-making process was totally broken. How was a detailed organizational diagnosis, like the one Shawna was crafting, going to land?

Katie: I think we will have to figure out how best to package what you are writing. This is really a detailed report you are working on, and you have to figure out what's digestible. That has to happen for Michael and for the rest of org to figure out what is right now impenetrable to them. They want something to do that is off the shelf and that they don't have to think about. Are you thinking about this dashboard as a Trojan Horse?

Shawna: Yes! It is. But it's very much wanted. And in my personal framing for Michael it's about — how do you help someone going through this uncertainty? Really, they all don't know what to do. And they are all asking me, like how doI know if my work is good or not? No one else knows! But simultaneously they have a desire to be on the vanguard. So it's weird, it's like we are the leader, the best, but we don't want to be too far ahead.

Katie — This is important stuff about the emotional stuff around process and decision-making. When I'm in these situations with them, like when Aaron and Alex try to push stuff through, something about the decision making is totally broken there. The things that go through my head are fairy tales — like Chutes and Ladders or the Princess and the Pea.

Getting past the shield of the impenetrable

Shawna talked through a few more of her findings, and then finally Jessica arrived. She had read what Shawna was working on and she was excited. She came into the room and announced:

"So this is the inflection point of the whole year! Shawna was going to build a technology but really she's realizing it's 90% of a human problem!"

Shawna told Jessica she was puzzling over how to make a change possible on the senior team:

"What I've been discussing is — when I say these problems are systemic and organizational — we need the boss to get up and say, 'here is the revamped process.' That is big organizational change. OR we can take all of that and fold it into an experiment, or try to change part of it. We know what needs to happen, but we need to have a report that has the grounded principles, then a plan to execute. We could make like three different plans to choose form, and we can ask which way gets eaten by the org best."

Jessica wanted to know what kind of timeframe Shawna was thinking about: a short-term change, a year-long project? Shawna responded that basically, anything that had a good chance of working was the place to start.

"The answer is that we can choose anything because it's a big problem — but we should choose the one most likely to be adopted. But if you read the last interview with Michael — I think — one of things, I think it's awesome we did, is that it was hard to get data out of him, which is because he was doing non I-statement, generalization, PR version of the things at the station. I was trying to trick him into saying something real. It's so hard to deal with the boss — it's like dealing with the shield of impenetrable."

Jessica and Katie could both deeply relate to the "shield of impenetrable" when it came to Michael, and his out-sized expectations.

Jessica: I *so* know what you are saying. I'm always thinking when I'm talking to him, 'so like The Innovation Lab is supposed to do all of this??'"

Shawna: And it's not just The Innovation Lab, because he thinks that *everyone* who is doing internal moving and shaking should be doing all of it, but he doesn't get that everyone is waiting on him. So he needs to be made to say to his team that it's different now. I think he is waiting for you guys to make him do that. He said, I hired these people THEY ARE SUPPOSED TO FIX it.

Katie pointed out the irony in Michael's method for creating change:

Katie—Yeah, but then everyone comes up to him with ways to fix it, and then you have to fight him on every part of it!

Shawna—And now he says he wants *me* to fix it.

But, hope springs eternal, and Jessica was hopeful that this time, with Shawna, thing would be different. And Shawna was raring to go at the challenge.

Jessica—Michael said he really enjoyed his meeting with you Shawna. And I'm glad because with the message you have to deliver, he is really listening. If Aaron said the same words you are going to say, it would be a different outcome.

Shawna—I like this because, you have to *get him* — you have to aim for the knees. And I am so used to this kind of thing… though at the senior manager table, people's inclination may be to dial it back with him, but my inclination is to dial it up to 11.

Jessica tried to help Shawna come up with a structure for her intervention. In an attempt to counter-act the fuzzy goals and loose metrics of the station, she had created an "OKR" template, borrowed from Google, for all the Lab's projects. She offered that Shawna could use it for the dashboard project too:

"In terms of formatting the plan, we have been using the OKR structure from google. we have been making it up as we go. It's just in google, not in the station. We are outlining, Objectives — which feel uncomfortable, big and hard to obtain. Underneath we lay out key results that are measurable — usually binary. And key results underneath. it's a spreadsheet. Underneath it is to dos for people involved — then you can dish them too."

Shawna liked this because it would bring some systematicity to the organization—one thing that she had found clearly lacking.

"One of the things that needs to happen is that there needs to be a system — there is no system at the station right now. There is no flow in this organization. On the news side there is— there is content coming out all the time. But even there, after content comes out — when it comes to dissemination, archiving — that is all busted. So a system needs to happen on many scales. So one of the key things are about these folks to learn scoping themselves. There are teams, but making hierarchies and feedback loops and cycles is what needs to happen. This OKR stuff, and what we can show and the report can show— is that the plan should be about what happens at the high level, then the next level, then the report itself. And the people who are doing things are the people who should decide what should be done. And that should be a rule. If you do the process, you should decide how it gets done — this is the most efficient."

The heart of it, in Shawna's estimation, would be to build a process that would force the senior team to create some concrete goals, and maybe using OKR would get them there.

"The biggest issue is scoping clear org goals, clear team goals, clear individuals goals — with timeframes, yes/no threshold, and an associated resource pool to achieve that goal. There is this issue that you can't build part of an engine and expect to have a car that works."

If our project depends on culture change, we are screwed!

Shawna was on a roll. And when she got on a roll, she was really moving. Words and ideas were tumbling out of her mouth faster than I could capture them. She had some serious

inspiration about what had to happen to whip this senior team into shape. But the other part of it, was working on "Dad"—Michael—and what he needed to say to his team. She kept going:

Shawna: Then one of the big hurdles, that I am seeing partially, is the need for Dad to get up — and talk about the culture of "Data." There is no way to tell what's *right* about data. And in their minds, not using numbers is linked to journalistic integrity — like if you follow the numbers you aren't doing journalism. So even the idea of data has been overloaded with stuff at the station, so all that needs to be cleared up. The biggest problems are unclear and shifting goals, the lack of agency for people to solve things and push things to the end, which leads to dead initiatives because no one has agency, and the lack of cycles and feedback loops. People are afraid, if we track data, then we will have info overload — those are the anti digital folks. But there is already too much data! There are nosebleeds of data — even if you were mad autistic you couldn't get it all. There is too much information!

Jessica—it's so funny it's so true.

It was true. The station was literally drowning in data, but no one seemed to know which end was up, ever. Some of that was linked to an allergy journalists have to data, but some of it was lodged deep in the public radio psyche, and had to do with not looking too closely at who the audience actually was beyond simple demographics and broadcast ratings.

But Shawna wasn't done. The numbers and goals had to be linked. This led to a funny exchange in which Katie—who had been sitting back with her arms folded and smiling for a while—interjected her cynicism. She was channeling the skepticism—about the managers' ability to change—that Aaron and Alex would soon throw at Shawna and her plan too.

Shawna: So there needs to be fewer numbers that they pay attention to, but more scoping. Like, what is the main goal this year — revenue? audience?

Jessica: The main goals are audience growth, revenue growth, and excellence in content. That last one will take care of itself.

Shawna: Ok, for revenue and audience, we have to get them to think about, how do you break that down? Then how do you break it down for each team?

Katie: If our project depends on culture change, we are screwed!

Jessica: We can do it Katie! stop being so pessimistic.

Shawna: I think Michael and the org wants this! Or they at least want a fight about this.

Jessica: Michael's favorite thing is to fight!

Katie: Ok, so let's say we designed a dashboard. If we said, in the back of our mind, we know that lots of people never open a dashboard. So what if we just arm the rebels?

Shawna: You will have no effective change doing that. I'm glad we've been opening up all of this, and I see the reluctance to push into the truth of what we're finding. But that is the only way to fix it. I won't tell you that you can fix it by doing something else — I've told you how I think you can fix it.

Katie: But there is a decision-making and leadership problem.

This exchange would be the fulcrum on which the success and failure of the project would ultimately turn. Could Shawna and the Lab actually structure an intervention that would force enough clarity on process, metrics, and goals on the senior team to make the whole organization change? Or was there some, bedrock, decision-making and leadership problem that would throw them back on their heels?

Shawna was an optimist. To Katie's blunt assertion that the station had a decision-making and

leadership problem, she replied:

Shawna: But it's not that hard to fix! Michael is *aware* he has a vulnerability, but it hasn't been exploited. My conversation with him opened my mind to that being an issue — there is no way he can't know it. His people are saying, "I don't know if we are going fast enough, things aren't changing, though things needs to change." In three years, you will lose everyone — developers are rats on the ship, they go first! Michael isn't *resisting* the change, he wants to change, but he *doesn't know what it means* to fix it. He's been told "you need to fix it, boomer boss," and he's afraid, so he keeps it all the same — because the same is better than getting worse. So if we can empower him with the ways to fix it, then he can change. At the end of my interview with Michael — I reminded him of the one-day experiment they ran with the website, when they did a one-day online fundraiser - and they got money more than they thought. I said, you drew conclusion from a single experiment! And after that I called him on it — I said, you changed your behavior one time, but you expect others to do it all the time. So, I said, think about systemic, cyclic change, so showing processes like — having this meeting every month — like having goals, and then revisiting the goals. Like having an agenda — and then sticking to it — and no nonsense."

Was it really "not that hard to fix"? This was an interesting hypothesis: that the senior managers and the General Manager wanted to change, but didn't know how, and that the GM spent a lot of time and energy either expecting others to change for him, or pretending he knew how to change when he actually didn't. If that were true, then perhaps a healthy dose of coaching and structure would help shift things.

Katie was willing to concede that some kind of structured decision-making would help, at least when it came to Aaron and Alex's (drowning) team.

Katie: the digital team has 37 projects in various stages of complete, but no one can say, like let's imagine seven criteria and rank them according to priorities. They wouldn't kill *any* of them.
Shawna: Because there are no clear, overarching goals! That's why!

A plan to take over the Wild West

For Jessica, this was more evidence that the senior managers were looking for a change and that she and Shawna were the ones to help deliver it. And this was her moment, finally, to put the strategy meeting to good use. Shawna instantly loved the idea:

Jessica: Whether we use OKR or whatever, we do need objectives and ways to lay them out. And we need to give the managers partnership in the idea. Then I think we can use the Strategy meeting to work with each group.
Shawna: What is that?
Jessica: It's the wild west, it's 11 managers meeting weekly.
Shawna: THIS is MY meeting.

Shawna was elated—all the pieces of her plan were starting to come together.

Shawna: This is great! I think what needs to happen, this is probably part — the first half is the audit — then second part is — not a proposal for a new project, but almost like that — it's phase 2 — we have to — with each team, work in this plan, then we have to develop the OKR for each team. We will sit with the team and do that with them. We can use Trello boards for some. It could be spreadsheets for others. It's like internal consulting, sharing knowledge, we can figure out how they have similarity to another team — the plan is not like 'here is what you should do Michael,' but 'here is what we are going to do through these work sessions' — and that will change the team. People are saying they have no time to do strategy. But here it is. And the first use is — how do we measure ourselves.

Jessica—They so need that.

Shawna: Then that might actually give you a foundation to insert new projects. So there are rules for experimenting.

The Lab having a foundation for new projects was exactly what Jessica had been hoping to build. Shawna was getting more and more worked up as she talked through the pieces of the plan and how she would run the Strategy meeting.

Shawna: I am starting to see — the Strategy meeting is what we can co-opt. That should be perfect. That is what I used to do at my company.

Jessica: It's gold!

Shawna: It was run with the high-level goals, then every week I would go through and ask each person about about their numbers, no shame or blame —

Katie: Honestly, just getting these guys going back to the same thing every week would be HUGE! That in itself would be enough.

Shawna: And we can each share good things/bad things — people in my organization loved it. So it was all about achieving objectives as a team — and the dashboard rolled up into four team goals. Then it was how all the individual stuff rolled up.

Jessica: Right, so if every week you looked at audience growth, revenue growth, content excellence — that could be Michael doing that part.

Shawna: Right, and everyone can say their numbers — like the number of members. Then it can roll up through the levels. We can use the meeting, then have a plan for how to get each team to do that, then a weekly meeting structure. Then my work with Michael is to have a session where we define and quantify the goals for the year— then broach that conversation with the manager team— like what's the goal and how does it roll up — and you have to have something to contribute every meeting. If we can give them a rigorous structure, and a timeline for the revolution in January, then as we are thinking this through, our project is to enable the creation of that dashboard for Michael. And that could be an app, could be a front-loaded Google spreadsheet. Then we can pull in the threads for each team to get the data they need. That is what the project really is!

Consistency, counting, and the truth

One major obstacle to this dream was the inability of station managers to agree on how to count things. This was the spectacle I had seen unfold at the July digital underwriting meeting with Thomas and Aaron and Alex. Shawna highlighted this next:

"Across the org, there is one final piece — the lack of shared understanding of how we count certain things. Like with podcasts — the coin of the realm is downloads, but everyone knows that means nothing because it's not a measure of a listen. So there is still this breakdown where no one really knows what's happening, but people go to conferences, and they said, when they are talking about making ad sales, everyone knows it's fake. But one of the missing things — this comes back to the value of journalistic integrity and they are at the vanguard — that is how

they should think about counting their audience as well — they should stop saying "it can't be done and no one is doing it".

Jessica recognized this too. But she had also been learning about journalism and public radio, and its demonization of commercial practices, and the generally gauzy thinking around audience. She tried to explain the deeper meaning of this to Shawna, and so did Katie:

Jessica: I zeroed in on those things in your report too. There is some serious issues there — with that mentality — it's not everywhere in the station, but in parts. Arming a rebel will not change that— that has be a Michael message. In a place with journalistic values, a key strength is integrity. So many of the people at the station came from commercial media where WHEN YOU COUNT you respond to the numbers like an addict —but you don't have to be *commercial* in order to count. That is different!

Shawna: And you can blame it on tech or say the technology obscures it, but it's a willful ignorance of what's going on. So you need to embrace fully with a mandate from the top down. Even when they say they believe the radio ratings, they are also willing to be wrong. So it's about Michael saying, the mission is not growth but TRUTH.

Jessica: And saying it's our responsibility to count this stuff accurately! This issue comes up around mapping where the listeners are too. And it's not just developers asking for shared understanding, news people are saying that too, asking where are our listeners and where is our reporting — people say they want it.

Katie: But it's also NPR not really wanting to count and not wanting to know how white it is. There is a legacy of that going on right now. It's not unique to WABC, lots of NPR stations are dealing with this — not wanting to count where people are.

Jessica: But every single person says they want to know it. But they also say they don't want to know it because they say they don't really want to know how bad they are. You need to hold up a mirror to that.

Shawna: Yes! Investigate your org a little deeper. Stop saying it's not knowable because of course it's knowable, that's silly. Worry not!

They were getting to some deep layers here, all of which I had seen play out over the months I had been at the station, but was interesting to hear laid out so succinctly. Shawna, for all her technocratic optimism, had a very nuanced understanding of how numbers worked socially—and how, at the station, those numbers were by turn agents of persuasion, objects of fear, and political weapons. But, as Katie was about to point out, most of that confusion was actually about *digital* data, and what it meant, and how to use it, and the problems of reconciling a broadcast number regime with a digital number regime. I was reminded again of the crazy collision of traffic numbers in July when Shawna observed:

Shawna: No one has the same information. All the numbers — everyone quotes these number strings that are coherent but opposite. Then they use it as judo on Michael — someone tells him one fact — and then someone else tells him something else. And then people say, I WANT TRUTH AND FACTS, but on our side of the building.

Katie: There are certain types of data they don't relate to in that way — fund drive goals, the number of new members and money like underwriting. I think they would orient to a single podcast way of measuring if Michael insisted that they get underwriting for podcasting.

Shawna: You're right. Certain things are not being counted because they are worth "less" — so digital things.

But on the other hand, there is a lack of understanding how to actually to count those things accurately, and people keep asking, "What is the right way to count?" The reality is there is no right way to count, there is only CONSISTENCY in counting. That is a systemic thing too — we must agree on how and what to count. In the digital world, there is NO GOLDEN STANDARD. Comscore, downloads, they all say different things. And then you say, we had 8B downloads on iTunes. Well, okay, but if we could create a roll-up number, then they could use that instead, and the whole org could do it - and then they could be a leader in that in the whole space.

In Shawna's mind, the clarity that would come from focusing on a handful of numbers, all of them counted consistently and transparently, would solve the bulk of the decision-making problems on the senior team. Those numbers could be enshrined in the dashboard, and the rest would, for the most part, take care of itself. The senior team just had to decide "how do we count this from now on" and the write down the procedure for counting so it could be shared and repeated. She was imagining how to add this to the plan:

"So there could be a guide for deriving those KPI numbers — like go to Google Analytics, log in, click on this button. You could write it so a monkey can get it. And if you do it differently, that's wrong. And if you want it to be changed, then you have to change the documentation."

A big change or a small change?

Jessica and Shawna remained optimistic that Michael was going to say yes to this increasingly ambitious plan for changing his organization.

Shawna: I think this is good. If we have a step by step plan — I will think it through logically. Like how would you spread these meetings out, etc. I think we need to talk about that too. If we bring something so complete to Michael, it would be hard to say no to. At the very least he would be off his guard.

Jessica: He is expecting your audit to be an essay, a high-level essay.

Shawna: Ok, so am I pushing in a hard or uncomfortable direction with this?

Jessica: No, this is perfect! Nothing will change unless we CHANGE WHAT WE ARE DOING. And make a plan for doing it.

It seemed like the level of ambition for the dashboard project had just upped several levels in the course of the conversation. It was interesting that Shawna had paused long enough to consider whether they were asking too much. It turned out that Shawna, too, was not very excited about setting herself up to fail. It was just that she—and Jessica—could not quite figure out whether this was a big deal or a little deal. It had to be a big deal to make the kind of change they knew the station needed, and said it wanted. But it had to be small or else they were trying

to sell a group of people on a process that no one had the time or bandwidth for. So which was it? The meeting ended with an ambiguous tone: it was easy *and* it was hard.

Shawna: Yes, what they are doing needs to be different. I am incentivized to keep working on projects I take on, but I don't want to shoot myself in the foot. I only like to do things that are correct. This feels like a big deal, but it also doesn't have to be. It's just Michael saying, "these are the new rules, before there were NONE." It's just like "clean up after yourself" is now a rule, and then we have a plan, and that can change. If Michael has that down and it starts on Jan 1…

Jessica: He knows he needs to edit what he is doing. I hadn't seen him in weeks before we checked in last week. And he said he's really looking forward to what is going to come out in working with you. He knows that transformation is needed — He wants to leave an organization to the next generation that will exist for them. He said, "I am going to be retired soon, I need to hand over a viable heartbeat in this org to whoever it takes next" and he has nothing to lose.

Shawna: I know he is thinking that someone needs to step up and take it. But what this org needs it decisive leadership at every level and he has been hiring for that. That is the what the org values. When people praise each other, it's about getting it done. I think he is primed for this.

Jessica: He definitely is.

3. What the Audit uncovered

Shawna compiled a report with her interview findings that diagnosed the state of data and communication in the station. At the beginning of the report, she explained the change in scope:

"Specifically, the scope of the study has changed from the original proposal in three main ways. First, the roles of the participants to be studied were expanded to include not only members of the organization who directly gather data, but also those who rely on that data. Secondly, the nature of the data in question was broadened beyond the solely digital to cover all key areas of data for the organization like terrestrial and financial information. Finally, the responsibilities of the participants to be studied shifted the scope from a solely practice-focused inquiry examining technical tasks to include an exploration of operational knowledge sharing and strategic management processes."

What she uncovered were not just the problems that the Lab and the digital team had identified about disconnected databases, many manual processes, and no one with the full picture of station operations. Her findings pointed to larger organizational problems.

First, she identified what she called an "oral tradition" at the station in which people relied on each other for informal, and in-person, gathering of the bits of knowledge and data they needed throughout their days. The few people who did have a working knowledge of the data tools—mostly junior people—were feeling overwhelmed by the constant barrage of requests and "drive-bys." The fact that only a few people accessed and interpreted data, and that those interpretations were then mostly circulated by in-person communication, meant that the resulting "facts" could

have a fuzzy quality. She wrote: “the unreliability of data in general is a concept widely acknowledged across the organization. This results in the creation of a culture in which information is always open to interpretation.”

She assessed that people were “adhering to tradition” by spending time on many inherited, repetitive, manual routines for getting data into workable forms from legacy systems. The problem of these slow, time-consuming routines based on legacy systems (such as the membership database) was compounded, she found, by the slow time cycles for some metrics (broadcast metrics lagged by 3 weeks) and slow decision-making.

She cited an interviewee as saying, “*It’s very consensus based in terms of the team. Everything just takes a lot of sign off. I can't make decisions.”* She linked the glacial pace of change and adherence to tradition to the sense of “never giving up ground” on decisions that had been made or milestones that teams had achieved.

The audit report also identified a feeling amongst senior managers that, “digital is dangerous and worth less.” People felt simultaneously that, “digital” was transformative and disruptive, but also not worth as much as “terrestrial” radio. She quoted one senior manager repeating what the Lab discussions had touched on frequently: “If we could do what we've recently done terrestrially, if we take that business model to the digital landscape, it could be large. Except it's dimes to dollars.”

The report pointed out another paradox in how people spoke about “digital”:

The organization is at once both too small to need to, and to be able to, understand digital. Some participants conceded that even if the organization had grown to a size where it should be taking a closer look at digital, many questions about digital are actually too hard for any organization to answer.

This "skepticism of technological innovation" which the report identified had a final component: a sense of impending organizational doom. The organization simultaneously "can't monetize digital" and yet, if it couldn't do that, it would be destined for disaster. The report framed this as a "myth" of disaster:

> "The great manual legacy of the station ends with a foretelling of a disastrous future. One day, when digital has taken over this world, the organization will die because it cannot adapt to the new and toxic landscape."

Her next finding echoed what Jessica had heard from her early days at the station: that the organization was overwhelmed, with people living in a state of "frenzy and panic," "putting out fires," and struggling to juggle too many responsibilities. This state of overwhelm manifested in chaotic communication patterns and a lack of time and space for reflectiveness. All of Shawna's interviewees expressed the feeling of having "no time to think" because they were going so fast.

The feelings of constantly fighting fires also contributed to out-of-sync work streams between different departmental teams, reactive (rather than proactive) data sharing, and on-the-fly adjustments of teams' agendas and goals.

"It is embarrassingly seat of our pants. We're getting pulled into the office saying, "what are things we can think of right now? Right this second." the reported quoted one participant.

The constantly shifting nature of agendas and goals, the participants told Shawna, also resulted in many abandoned initiatives and projects that were finished and then never followed up on or reassessed. She interpreted the silo-ed nature of the organization as originating not in the limitation of legacy systems but as a response to the constant feeling of crisis.

The crisis mentality, out-of-sync coordination, and organizational silos took a deep toll on individuals, the audit stated. People reported an acute lack of accountability for results and goals because there was so little follow-up and reflection, and because of a diffuse sense of who was responsible for what. The report summarized:

"Without a shared understanding of each members' official duties, it is often left up to the individual to interpret their role in the organization. On a more practical level, this means many participants were left to define, and figure out how to achieve, their own objectives."

Furthermore, she reported, people felt the goals of the organization were often conflicting, overlapping, or ambiguous.

"Individuals are forced to make impossible, critical choices on their own. This brutal necessity is often the result of, and exacerbated by the fact that, members of the organization do not feel that they have a firm grasp on the big picture."

She identified a fundamental confusion in the organization about just how to navigate a digital future.

"With old myths unable to explain the digital present, many individuals find themselves lost and struggling without any clear signposts to guide them. Indeed, several participants implored: *Are we doing this right?"*

While most members of the organization have abandoned the notion that digital can't be done, many people find themselves confused about where to go next. There is a certain sense of collective confusion. The organization no longer believes the old truths, but it isn't precisely sure about how it will create new ones. Many participants feel stumped:

"When it comes to digital we don't know what to make of it. We don't know how to, I guess the term is, analyze it. Even when we have the data we look at it and say, "Okay. I don't know what to do with that."

For all the data the organization now collects, no one seems to know what it means.

The report, for all its doom and gloom, closed its narrative findings on a positive note. New members joining the organization were resulting in "the bottom-up creation of discipline, rules, and documentation." People were asking for organizational focus: for more clear and shared plans, agendas, and meaningful goals, and were willing to give things up to get there.

The report pointed to the healthy role of competition both externally and internally, in helping people create some focus, and the shared sense of mission and purpose that allowed people to persist despite the organizational challenges. And it called out the desire amongst the senior management team to have some shared visibility into the core metrics of the organization and how each part was contributing to the whole. She sensed a willingness and eagerness amongst

the senior managers for change.

The report ended with an audit of what kinds of data were being collected at the station, from what tools, and by whom. It identified ten different types of data (on-air listener information, donor information, podcast ads, on-air ads, revenue, costs, web pageviews, web donation banner clicks, web stream events and podcast downloads/stream) being collected by 22 different people using 23 different tools. From these numbers, the report concluded:

"It is clear that the organization must become more focused and streamlined in its internal communication and practices. On the most fundamental level, then, in order for its members to work towards a common goal, the organization must first define for itself exactly what that goal is."

Yet when asked to identify the most important station metric, the senior managers gave multiple responses: time spent listening, information about our listeners and how they're interacting with our website, preferences of our audience, revenue, size of audience, donors and dollars, number of on-air listeners, the cume, the AQH, how much radio audience are we losing, the average age of our listeners, who's listening when, the surplus, fundraisers, the Arbitron numbers and the aggregated data of on-demand listening. This was evidence, the report said, of station leaders each running in a different direction. Yet at the same time, the report expressed hope for change because the senior team could identify improvements the station could make:

"The organization is on the brink of defining its future. Its members know where it needs to go and how to get there. Now the organization must begin the process of putting this collective consensus into action."

The problem of accountability

A week later, I met with Aaron, Alex, Katie, Jessica and Shawna to review the next round of Shawna's Operations Upgrade Plan and the skeleton dashboard she was mocking up. The question left hanging at the end of the audit report was where the organization was heading, what was it aiming for and how would it get there. Shawna commented on this last point:

"I believe there is not a consensus on where you are headed, but good ideas about where to go. Your weaknesses are all the dead initiatives — all the enthusiasm will get drained out without people having agency and letting them

fail."

Everyone seemed on board with that interpretation, so she headed into the newest version of the Operations Upgrade Plan.

"Now we're starting to look at what the operational plan will contain. This is totally possible. how bad is this you asked Alex? it's not that bad, but the frustration is real. if everyone is rowing in different directions, then you are stuck. everyone is working hard, but that is getting wasted. You can start changing it by becoming a data-driven organization, which you are not. Your data is a hundred horses pulling in different directions."

My observations of the organization for the previous nine moths lined up with this observation of, "a hundred horses pulling in different directions." Shawna wanted to share her plan for how to get those horses all headed in one direction. She kept going:

"The goal of operations plan is to figure out the goals, and the numbers, the parts of numbers to monitor… it's down to a group way of figuring out how to do the job and creating a set of new rules to live by — which will conflict with current stuff. But then you can have a reason to fight about something external to the conflict, rather than just feelings."

This alone would be huge—depersonalizing the conflict and the politics, which everyone seemed to spend so much time dealing with—would be a good way to begin a clean-up process. Shawna gave an idea of how this process might work.

"So if you are a senior manager and you know what Alex is responsible for doing — so if you stop her in the hallway and ask her a random question, she can say that she is responsible for page views and not other things. And it will be clear that she doesn't have the resources to get the things done that she needs to. it becomes ways to not fight about them, and to get everyone on the same page. it will be hard to decide! but once you decide a thing, it will be like that. Then you will stop trying to change it, when I tell you that you just have to keep doing it."

That all seemed reasonable to Aaron and Alex, in theory. But as Shawna pulled up the mock-up of the dashboard that would drive this process, Alex peered at the top-level boxes which were supposed to hold the high-level goals, and asked a question that was somewhat obvious, but in the context of the station, was far from certain:

Alex: So who decide what goes in those high-level metrics boxes? Michael?
Shawna: We will do that at the first meeting — together we will define station-wide goals for the next year. They are in the Strategic plan, but there are 80,000 of them. Like, there is a "rethink" goal — how do you determine that? "I thought about it, CHECK!"

Sucked into the quicksand that takes you to the center of the earth with no map

Michael had actually started the year by sending around to the Strategy meeting managers the list of goals for that year. It wasn't 80,000, but it was a very long list. Shawna was certain that if the managers could decide on a limited set of goals and metrics, and write them down, the rest would take care of itself. Now it was time for Aaron and Alex to respond. Did they believe her? Did they believe this would work? Aaron was again, skeptical that such a plan would tackle the real issue.

Shawna: Do you believe me?

Aaron: I believe in aspirations! [Shawna—there are five of those now!] There is such a level of concentration of where the issue truly is. Where your aspirations are is one thing, but there is a lack of agency on the senior management team *One person* cannot possibly get his arms around every aspect of what you described. *One person* has to TRUST. *One person* has to believe that there is a level of competency and capacity in his organization to fulfill the goals of the organization. That is not a stretch for every organization. But what we have right now, and I think this will be your challenge… I think it will be great…but you can have no idea how HIGH TOUCH you will have to be with the GM, and how fast the back sliding will happen, where you think you are on terra firm, and then you are sucked into quick sand that takes you into the center of the earth with no map.

Shawna knew Aaron was referencing the GM and his decision-making style and she began laughing. Aaron did not think it was funny.

Shawna: I never trust the ground beneath me! I hover!

Aaron: I am deadly serious. Alex and I are forces for good, we are trustworthy, we have integrity and experience…and we are often mistrusted and completely overruled.

The perils of having a non-technical leader making final technical decisions remained a source of deep frustration for Aaron and his team. But for Shawna, this was just further proof that the lack of clear, shared goals was creating s vacuum of accountability. Aaron did not agree.

Shawna: But there is no accountability!

Aaron: There IS accountability except for *one individual*. How do you build the accountability into that individual who will constantly say "I want data" and then will say "data is meaningless"?

Shawna: Data is not something that is built into people, it is distributed. And accountability is that a system reckons with itself.

Aaron: I am just telling you that this is what has happened.

Shawna: Ok, so loops close or things bounce. There isn't currently accountability.

Aaron: There *is* a system.

Shawna: But there isn't accountability.

Aaron: Yes there is.

Shawna: There is reckoning, and blame, but NO accountability.

Aaron: But accountability presumes agency.

Shawna: There is a certain aspect of that as well. If there is a lack of agency, how can there be accountability? I get that. You have a problem with the boss.

Aaron: I don't actually, I do better with him than most.

This was true—Aaron did manage Michael's style better than most, and there was a semblance of a decision-making system in the yearly budgeting and planning process and the

regular check-in. But the question of where the ultimately accountability might or might not be located from in such a complicated place was a really important one. Shawna clearly had her own hypothesis, but so did Aaron.

Shawna: I think the problem is the lack of a good system. That is when a dictator arises. This dashboard, for me, was the North Star. This was my board was all up on me about.
Aaron: So you had someone to be accountable to.
Shawna: I was accountable to the board no matter what.
Aaron: Well, there is no board here.
Shawna: There are *always* stakeholders.
Aaron: As long as we are is showing a surplus, there is ZERO accountability.
Shawna: Sort of.

This was a vitally important piece of context that Shawna was missing. At the station, there really was no strong governance mechanism. There was a fundraising board, which played an advisory role to Michael and his team. The stakes on that board were not small—if the station looked like it was poorly run, there would be reputational as well as financial consequences for the station. The board members (all thirty-odd of them) were major philanthropists and business people in the city. The station was a major cultural institution in the region. The dollars and the goodwill of the advisory board were not at all small potatoes.

But ultimately, the board members were not *fiduciaries* of the station. That responsibility was with the university license holder's governance structure, many layers above the station management. Governance oversight was in reality lodged with a single university administrator. It is not uncommon for public radio stations who are licensed to community institutions like schools and universities, to have these relatively diffuse and complicated governance structures. But what this meant for the GM and his team is that, when it came to oversight, they were more like the staff of a university department or research center than like corporate managers. Accountability is more complicated to exercise in large educational institutions. The financial success of the station also insulated it from a layer of scrutiny.

Aaron: I am completely support of what you are doing. What you are going after is something that is

fundamental, and that will keep you up at night, which will be exhausting carrying that.

Shawna: I assure you that this could not possibly exhaust me.

Shawna was not accepting a word of what Aaron was saying. To her, this was basically like going on a diet, or working with a personal training. It was a matter of discipline, and tracking, and sticking to the program. And there was nothing Aaron could throw at her to make her change her mind. The conversation was at risk of spiraling downward. So Katie intervened and tried to find a middle ground between the problem being a political one and the problem being a technocratic one.

Katie: The people in this room have some agency, but it's limited if we want to get regular paychecks, which we do. At some level the problem is a *political* problem, not technological. However, let's say that there were two potential political solutions — go to boss man and he has a conversion experience and then does this process faithfully forever. Or you convince enough department heads to opt in, and it drifts from Michael's responsibility to the team's. I think what you are saying is maybe plan A would work, but is above our pay grade and could stick nails in our eye. So the question is, would plan B work — would enough senior managers to choose and metric and report it every week, even if nothing else ever happened?

Shawna—This is the point.

But Katie was trying to help Shawna take what Aaron was saying seriously. So she tried again.

Katie: Aaron has been at the station a long time. Aaron, do you think this Plan B would work? The senior managers coming in every week and reporting their numbers?

Aaron: My opinion is that there is one ultimate decision-maker at the station— and that as siloed as the org is, there is *no sense* of people coalescing to do something for the greater good. For true change to take place, the GM has to do this.

Katie: I feel like there is a leadership vacuum at WABC, I think that's true. I don't know what we can do about it.

If there wasn't strong enough accountability at the governance level to help the GM follow through on changing the culture on the senior management team, where did that leave them? Shawna was getting bored.

Shawna: This sounds great, but I am getting bored. This this is the same stuff I have been hearing.

Aaron: I am not saying that that the GM won't try this and want to do it. I am saying that you, Shawna, are a shining star of hope, and you will have to be the engine that drives it. I've seen people try things like this, and I put my money on you. What I think, and why i'm disappointed that Brian is not here, this is not a job for one mere mortal, he needs more like 2 or 3 to help hold the GM accountable. At a certain point, love you as he will, and say he wants to hang with you, there will be a period of time when you aren't a shiny toy anymore. He needs outside advisors to coach him along in this. I can't do that, Alex can't do that. But it HAS TO BE done.

So Aaron was back to his triangulation strategy—and the hope that some combination of

Shawna and the Kitchen Cabinet (which over the summer had stepped back, but were still meeting with Jessica occasionally) could help hold the GM accountable for the changes he said he wanted to make.

Shawna: I think we can get outside help. I am right, it's not that hard of a problem. This is a good description that I have in the report of the problem. He doesn't need to trust me, but he needs to see this report as an objective thing, so he trusts this this document. I don't need to be a star, that's not what will carry this, it's that everyone thinks the plan is good and wants to follow it. If Michael sets the example enough times, I think the others in the org will like it and we will all do it together. This is really for everyone. This is not an "arm the rebels" strategy.

Shawna's belief that quality and soundness of the plan, combined with the clarity of numbers and goals, would create change, was quite laudable. It was also clear that she and Aaron were operating on completely different understandings of how organizations work. She had rejected an "arms the rebels" strategy from the beginning. And she wasn't stopping now. She had absolute faith that with an airtight plan, and *knowledge of what to do*, Michael would be able to lead his team in a new direction.

Shawna: Michael has ultimate control over how the plan goes. Its a way for everyone to be aligned in the same direction, it's a way for him to give up control without feeling like he has to step back — he is controlling the outcome, and he is giving it up INTO something better. If you are the ultimate boss, and you know you're wrong but you don't know what to do, you will just keep doing the same things — better to keep doing it than not know. I have ideas about what the top level goals should be, but it will be interesting to see what people come up with. then it starts to be common and simple.

They continued going through the operations upgrade plan, and the next version of the report. Alex had some very astute observations, ones that would prove to be prescient about the ultimate direction of the project.

Alex: The other thing that didn't come out in the report is measuring editorial — like how good is the podcast content? even if we measure downloads, etc. that is something i wonder about.

This was a very big concern. Shawna had already picked up that journalists had a default allergy to numbers. Trying to measure quality, especially in this group of public radio stewards, would probably not go over well. Alex also had a concern about what would happen when the dashboard project, like all the other zombie initiatives leading their walking-dead lives around the station, was no longer the shiny penny. She continued:

"I'm not worried about the start of this, but I am worried about middle and end (Aaron: when it's not shiny and new.) When you get to the end and you're out of gas, like in any of these things. So that is the only thing to think about now — the competition of what else will get in front of the queue, like the funders called and now we have to do this at the strategy meeting."

This was the day-to-day life of the digital team, and everyone else at the station. And while it was reflected clearly in Shawna's report, she didn't seem to be planning for it. Alex's final concern was just as important: why this particular strategy meeting? Why not the weekly manager meeting?

And the other question is, the strategy meeting, it's less about the strategic plan and more about getting all the people in the same room at the same time to say the same things. So why not do that at the manager meetings —this applies to the running part of the org that is not digital. Do we make it too much about digital if it's in the strategy meeting? Even though not all of the strategic plan was about digital—it was also about events—that is a lot of what we talk about.

Shawna was confused about the manager meeting versus the strategy meeting. Alex explained that because she didn't have "manager" in her title, that she didn't attend the weekly manager meeting. The strategy meeting was supposed to be more… future-focused.

Alex: This strategy meeting is a new meeting, for this legacy org. At the manager meeting they look at the revenue sheet — just to weigh the two, there is a routine that needs to happen to keep things moving on Thursdays. I've never been in that meeting, but it's basically like there is a routine. We are supposed to have this strategy meeting to work on things, but no one says anything. Every month, you think someone might say "what's the size of our digital audience" you think that might come up. But it doesn't.

Shawna: Starting with the strategy meeting is not the only right thing, this is *A* right thing. it could be this strategy meeting isn't optimal, but it's a place to start.

Finally, Shawna addressed the question of how to measure editorial quality.

Shawna: To your question of how to measure editorial quality — at the end of the report, some of them edge into that — I wish there was a way to say what our quality is — don't we care most about editorial quality. IN FACT you can!

Aaron: That very conversation has already happened.

Shawna: We might measure editorial quality as having something to do with retention. The number of people who come back. And we develop our own Neilson rating for ourselves.

Alex: Ok, but some of our content managers will not be able to participate in the same way because they don't have audience numbers.

Shawna: It might be less obvious, but everyone should be measured, and come to consensus about that. You can figure out how to measure that — you are adult people. there is no one else, just us. we can decide that together and codify that.

Towards the end of the meeting, Aaron was slowly starting to soften up to the ideas Shawna was proposing. He and Alex were cautiously optimistic.

Aaron: I support it, it's desperately needed.
Shawna: It's a way in the dark.
Aaron: Anything towards the light is positive. I hope you don't consider me or my personality a blocker. i am trying to refine it to make it work. I don't know where this place goes without a radical shift.

In other words, this was not a small problem Shawna was about to throw herself against.

4. The Starting Line

The first strategy meeting of 2016. I had been in the first strategy meeting of 2015. And here I was, a year later, crammed into the same conference room, wondering how the unstoppable force of Shawna and Jessica and The Innovation Lab were going to collide with the GM and his senior management team. This was going to be the launch of the Operations Upgrade Plan.

Michael, before he introduced Shawna or the project, launched into a ten-minute meditation on data. It nicely encapsulated some of the ambivalence about data that had shown up in the adder report.

"For the next 6 weeks, we are going to enter into a new and interesting world with the help of Shawna around the world of data. I hope you all got the briefs and read them. She will take us through it. I thought this was a great way to start off the new year. So why are we doing this? There are some practical and strategic and philosophical things to think about. We asked Shawna to create a dashboard for us, to gather in one place all the data we can find in a digestible form. So we have a sense of how we are doing, on every level we are thinking of — audience size, revenue, growth, or some things we might not yet understand."

Michael indeed loved to think on multiple levels at once: practical, strategic, and philosophical. So he started with a very important question—one that his managers, according to the audit report—were dying to hear the answer to.

"How do we measure success? David and I were talking about this. We got our once a quarter package from Nielson that gives us a view of radio ratings over the last 6 quarters. So we can look back and see what our radio audience is like compared to a year ago. as crude as i might be, it is kind of our bible for how we're doing. it's not very good, and it's only one measure of how we're doing well. so from a tactical perspective, what are the measurements we need to determine how we are growing and engaging audiences? what is the relationship between our listeners and our users and on apps, etc. and soon to be on other platforms?
I am particularly interested in our new event platform. And also what is the relationship, what can we learn about the relationship around audiences and revenue, and how do we convert audience to revenue. We know from

basics of Nielson that not all listeners are equal — we have P1, P2, more and less engaged listeners. we have lots of non-listeners in our market too and who are they?"

The obsession with radio ratings on the senior team between was real. Radio ratings, how to use them, how to interpret them, how to parse their charts and graphs to reveal the secret truths of hearts touched and minds altered, of the mission fulfilled—this was a deeply ingrained habit not just at the station, but across the set of strong public radio stations in the country. This was Giovannoni's legacy in action: identifying, in the sterile, fluorescent light of Nielsen's statistically-generated bar charts, those coveted "P1s" — the segment of the most engaged public radio listeners, who tuned into their local station daily and found what they heard to be of enough "personal importance" that they would open their wallets. Those P1s were the lifeblood of the station, and the system as a whole. Yet, as a year before, it was as clear to Michael as to everyone else that there was more out there in the public these days than the P1s and P2s.

"From a strategic perspective, and when you think about our strategic plan, one of things in the last meeting before break we talked about was how do we engage in and continually advance our transformational goals when we are daily, weekly, monthly worried about our own departments and running those and our own goals and stations goals. It's hard to do. Mostly we do that here and then go back to doing what we have done. That is tactically okay, but how do we get strategic on reaching our transformation goals?"

Michael had been asking himself and his team this question for a long time. The problem was, as I watched him up in the front of the room about to introduce Shawna and her deep analysis of the leadership of the station… the problem was that the question he was asking was actually the question that *everyone else* wanted *him* to answer. And furthermore, there was no "right answer" to his question of how to define success. A library full of airport-lounge management books, or the entire catalog of HBS Press, was not going to yield to him what he wanted to know. And yet, he just kept looking for the answer key to the test of leadership that is defining organizational success. At that moment, I felt deep empathy for him.

His meditation turned more philosophical.

"But on philosophical level, what kind of organization do we want to be? Do we want to be data driven? I have

thought about that my whole career. How much do I want data to drive my work and our decisions on a daily basis? I think it's interesting philosophically because there are organizations that are in the creative realm who have to develop new things that don't exist. It reminds me of Steve Jobs, and a speech of his where he says you can't research your way into creating something that doesn't exist yet. If you want to create something entirely new, you have to look into the future, determine what people want and need and they don't know they need that you can't ask them to come up with the iPhone or the iPod. You can't ask people to do that. That is our job."

I had heard a version of this same philosophical, existential questioning on my very first day at the station a year before, sitting in his office, when Michael had explained his comparison of Amazon Prime membership and public radio membership. Creativity could be in opposition to data. But not necessarily so.

"From a creative perspective, can you look at a lot of data and end up creating the amazing shows we have created? How much of the creative process is decoupled from data, and how much can you harness it to create that which is new? So we know for instance that in the future, if we are still here, I suspect that public radio will look and sound different. Will there be breakout new programs to replace the ones that are slowly dying? And will those new ideas come from data or something else? And even worse, can data snuff out the creative instinct? "

This counterposition in his mind: between managing with data about what "the audience" wants, versus managing for the creativity that can spring from professional expertise—this was a very common mapping in the world of digital journalism. I explored this in detail in Chapter 3. And as with the findings of that literature, Michael's fear of data and measurement wasn't so much a fear of data per se, but of the loss of autonomy and creativity and *b*reakout hits that might result if the organization was a slave to the numbers.

But the interesting conclusion he was drawing from the opposition of a data and creativity—that creation should not be left up to "the audience"—was equally troubling. What room was there for participation with the public—or for there to be more than one public—if professional expertise was the final value in public radio?

Yet his conclusions about the dangers of data were also not without merit. And his background as a commercial television executive had born this out. He shared this next.

"I know from working for 25 years in TV. Part of my hesitancy is that data can be corrosive and anti-creative. There is company called Magid out in Iowa, and it was well-named. He was one of the most corrosive influences in the industry. Not because he was a bad man, but because he industrialized audience research. and anyone who wanted to cover their ass would hire him. The research would say, here is what people are looking for in local news.

Weather was number one, crime another — so everyone does tons and tons of both, etc. That research and data narrowed over time and narrowed over time the stuff that local TV would do, until they abandoned the local educated viewer. And until they all ended up sounding alike. And Magid would measure the attention of the viewer, via a button clicker of like when a viewer got bored. So then the stories got shorter and shorter until 1 min stories were common in 11pm news. All that data I thought was horrible. And it destroyed the local TV industry.

We clearly don't want that. I don't think we are in danger of that. but clearly this is part of what i think about when I think about data. we do not want it to be used as a dictator to us, to control and limit our creative instincts. to keep us form investigating and inventing new things, to chase people's interests as opposed to what we know they need from a journalistic perspective."

What the industrialized research that Magid had relentlessly pushed did to local television programming was to flatten and homogenize it. The rise and consolidation of cable television worsened those trends. Michael, and some of his closest managers at the station had been television journalists living through the local television apocalypse and they had seen it happen. So everyone knew what Michael was talking about. But now they were running a public radio station. What lessons should they apply?

"It always struck me that NPR grew up without a lick of marketing. it was all word of mouth. it was driven by a set of values and passion for what could be on the radio, and it didn't look at data. That was part of the luxury of not having to look at data. Now it has hit the ceiling, trees don't grow up to the sky. when you stop growing as an industry, that is really a moment, when you reach the peak."

This was true—National Public Radio, as a news production company, had started out as a band of idealist misfits who were more interested in storytelling values than in audience. The Giovannoni audience-research wing of public radio had come two decades later, when NPR's ambivalence about audience and finances had finally run it directly into a financial wall, and Gingrich was on the ramparts threatening to cut the whole public broadcasting system down. Since that time, there had been an institutional tension at the heart of public radio (which made digital journalism's existential crisis a late-comer to the conflicting-values pity party) between *producer* values and *audience* values. So Michael had to manage a complicated set of institutional cross-pressures, not just as a journalist but as a *pubic radio* journalist.

But as in every given sector of American society, you also can't get far without having to worry about *the market*. And this was an added layer of existential questioning. He went on:

"If you haven't noticed, companies in a capitalist environment are rewarded for growth, and not for anything else. Companies that are generating profits, but not growth, are seeing their stocks destroyed — even though they are generating billions a year in profits! So growth is really the definition of success right now. And public radio is not growing, and WABC is not growing in terrestrial audience. That is partly because of competition. And we are also not-for-profit."

Michael's search for existential reference points, and for definitions of success, was reaching far and wide. Though he seemed to be hinting that he was ambivalent about the market value of growth, growth was the one thing he had been pushing his organization to do—and he had been very successful at creating it. So there was also a strange contradiction to manage: the station had massively grown, in listenership and in revenue. So why was he saying they weren't growing?

There were hints in the station's local radio ratings that listening might be flattening out relative to its historical trends. But that happened in certain quarters and not others, and sometimes alongside a change in the audience panel that Nielsen used, which put some of those changes in the category of "measurement error." NPR's data showed some flattening out of radio listening, but digital listening was robust and growing. So it was not strictly true that public radio wasn't growing in listening. And, as would become clear later, the system as a whole was actually *growing* in terms of revenue during that time period. It was very possible that this was a deep and consequential *mis-specification* of the existential threat. He went on:

"I think there are lots of things about data that can help us run this org better. From the negatives to the positives. We can't be afraid of data, I think data used well can bring efficient, disciplined, creative insights, and interdisciplinary work together in the way that if we all share the same data and are working form them same data, this could be a transformative thing for WABC."

As Michael was working his way to the center of his thinking, he finally hit upon what Shawna had seemed to grasp almost instantly in her first conversation with him. He and his managers didn't actually *understand* the business they were running.

"I spend a lot of time not really understanding this business. Our revenue has grown tremendously — more that 50% in 5 years, we have grown the digital and national and local audiences. And all of you have the credit. But I can't help this nagging feeling that we are kind of walking around in the dark.

We just don't really know why things work as well as we do. when it works, we try to replicate it, but we really don't know why. we don't really know why things work or don't work, and there is no absolutely understanding, but if we do share the same data and operate from the same perspectives, I think what Shawna discovered is that we all

sense things that we are frustrated with NPR."

This last move he made—eliding his lack of understanding of the business into what he claimed to be a shared sense of frustration with NPR—was a revelatory moment. The report had shown how his senior managers wanted leadership from Michael, and even if he (and they) didn't understand the business, they wanted him to at least put some stakes in the ground around priorities and goals and a vision they could share.

But that was not a responsibility he was willing to bear alone. What he saw in his managers frustration—as plainly laid out as it was in Shawna's report—was a common position he felt they were all in, in relation to NPR's lack of system leadership. There was a lot of truth to this—though it would take another dissertation to spin it out fully. But suffice to say that the existential crisis facing Michael and his managers was *not only an organization one*—it was a deeply institutional one. Which raised the troubling of question of how much room to maneuver Michael *actually* had.

In fact, just a week later, I would have breakfast with Michael. What he wanted to know from me wasn't how he could run the station better—that would have been a classic ask-the-ethnographer moment. Instead, what he wanted to talk about was something more complicated, that very few in his organization—with the exception of Aaron—could help him with. He wanted to know, given what I was learning about the different major stations and their digital efforts, and NPR's own digital efforts—what he should do to navigate and perhaps even exert some kind of influence at the institutional level. I didn't have great answers for him, only empathy that it was indeed complicated terrain. And that NPR, ever divided against itself in its dual impulses for institutional and organizational survival, was structurally unlikely to exert the kind of bold leadership he was longing for any time soon.

So perhaps that is why—given Michael's apparent feelings of powerlessness over his

organization *and* his institution—gave a soft spin on Shawna's findings about the decision-making difficulties at the station.

"And by the way, this is still a far better org that most, she put her finger on frustrations here, but you can imagine what they are at others! And at orgs that have tens of thousands of employees you can see how they become bureaucratic and are looking for efficiencies. we have to find the right balance between efficiencies, better communication, investing in tapping into strengths of staff in ways that data will help us with."

No one had said anything while Michael had been talking. He wrapped up.

"I am excited about moving into being data driven org. We have healthy skepticism about this, we won't let the data define us or dictate to us what we do. We are still going to do, as Gladwell would say, blink and our intuitions in many cases will help us figure out how we advance WABC and come up with new ideas for the future. We can do that alongside being smart and data driven. That is the purpose of the next 6 weeks. we are going to have 6 90 min meetings around ways in which we hope we turn into a more effective data driven org. So that is my thinking on it. Anyone want to respond?"

Before anyone could respond, Shawna jumped in and grabbed the proverbial mic. She launched into explaining what she had done, whom she had talked to, and what questions she was trying to answer. She then went through, in detail, every part of the report. The past, the present, the future. What people were frustrated with and what they were asking for. She ended with the Operations Upgrade Plan, and it's 8-week weight loss program. The OKR, the metrics identification, the metrics rollups, the RRR cards, the quarterly target strategies, the action minutes. She gave people homework. She offered office hours. She laid out the ground rules.

In the five minutes that remained, she took some questions. Donna asked a somewhat benign question about whether the metrics were supposed to be calendar year or fiscal year.

But then David tried to tackle two of the many elephants that were also squeezing into the room with us. Could she talk about the culture? And what were editorial metrics supposed to look like? Shawna didn't really address either.

David: So reading your report, it said it would talk about the culture, but inside it was not talking about was the culture, it was about data. Can you talk about that? My second question, on the creative and programming side, when our shows decides on stories, they aren't thinking about metrics.

Shawna: There is this difficulty, I can help you understand, that measuring something doesn't mean that you are a slave to it. Like, measuring your weight doesn't make you on a diet. Measuring doesn't force you to do something. if you pick stuff to pay attention to, you can think what it correlates to. I'm a musician, I don't write songs to data. But on the creative side, in having these breakout sessions, we can ask whether there is something to pay attention to to help you know if your stories are doing well. It's not that you will make decisions then to max or mix that metrics,

you might want just an even keel.

And to your question about culture — to me, the notion that data or bits is different from a job doesn't make sense. You are making decisions somehow. But for people who are so good at their jobs, those people say their decisions are based on intuition, but its actually lots of info you are processing to get to the right answer. So we are asking, is there a way to get some of that info out of your brain and share it? We won't switch roles, but we to be able to say why what you are doing is part of this bigger thing. So this is about the meaning of the data which comes when we agree what to measure and can correlate that with external phenomenon like people giving us more money."

Michael jumped in with his own answer. He told a story about how the Washington Post versus the New York Times were using metrics. But the place he landed was to recapitulate what he had communicated to everyone earlier—that he had no idea how metrics were supposed to work in a public radio context—though he sensed that the mission was probably part of it.

"So what is the goal of Aaron and Alex as opposed to Henry and Donna? and Jim's goal in reaching people on air? We are a nonprofit organization that doesn't charge for our content. All these things, when you start to think about data, depend on how you define what the data is. in the purest sense, we are still measuring how many unique views, etc. but the *context* changes everything you think about that and how you interpret it — and that is about strategy. A million digital subscribers have saved the NYT. Data is not as obvious as you think it is, you have to think about data in the context of *finances* — what are you doing to do with that data, how is it going to sustain you, how are you going to use it to serve the public which is what our primary role is?"

The conversation was beginning to play out, in real time, just how many different definitions of data—and its uses and abuses—were circulating on the team. Thomas thought about data in terms of dollars per user. Alex thought about it in terms of what the audience cares about. David thought about it in terms of what stories would do well on the air versus on the web. This was a tower of Babel about data.

Thomas: You could have metric that could be equalized by how much money the NYT versus Washington Post are raising per user, that would be the equalizing metric.

Michael: You could do that, right. So the broader question of unique views and page views is immaterial. And you can get into another large thing which is how much should we focus on revenue. We are a nonprofit. Sometimes you can spend too much time thinking about revenue as a goal unto itself.

Alex: To me, it's interesting to think about audience, not as in how many of them are there, but in terms of what they care about and what they do with it. In terms of editorial judgment, lots of those decisions have numbers behind that, but it is intuitive. Jeremy [an on-air host] might have an intuition for story choice, but that is based on years and years of choosing a story, setting it out, comparing it to others over years and years. There are still numbers attached to that, and its different than the broad strokes of audience and revenue you are talking about.

David: Our major host will tell us about a touchy feely interview she did on the radio with no web response. She says that is what people want to hear — which may be for good for people who responded, but in itself it's solo information.

Michael: And that is different for web than air.

Alex: There are many audiences, and it matters what they care about and how we measure them.

Catherine: And there are stories that have mass appeal, and then we have niche stories. that is the balance.

Henry: The guiding principle is of focusing on what does the listener want. That applies to you in programming

and to us in membership. How frequently do we send donor emails? Maybe the metric for us is looking at increasing p1 engagement? Or is it the fringe listeners getting more engaged using the tool? What we can spend more time on is spending time thinking about and articulating not just from content perspective but in general how do we serve the audience.

Despite the proliferation of interpretations, this was as a productive and thoughtful a discussion of metrics of success that I had heard in my year at the station. This project seemed like it had the potential to accomplish something.

And then it was Aaron's turn to take another go at David's culture question. He wanted one particular elephant to be on the table and reckoned with.

Aaron: Shawna, when you were doing your interviews and working on the report. Michael's rollup metrics really important, and we aren't islands, we are working on a single continent. Did you sense in your conversations that it was a very clear what we're aiming for — are we all going in the same direction? There is one thing, like Michael needs to come up with GM goals, theoretically that is a roll-up of our individual goals. Did you feel like there was alignment that we can come up with our metrics without an overarching sense of where we are doing? Did that come through in your research already as a vision?

Shawna: There is a chicken and egg problem. You have big goals that are in some ways ineffable, idealized states. Those are good. In the OKR version — those are the objectives. When you ask, are we all in alignment already? No. This is about getting everyone to row in sync. If everyone isn't timed and pushing in the same direction, there can be undoing each other's work, competing goals pulling people apart. Sometimes that happens that you push in the same direction, but the idea is that if you can come up with some kind of a steering view, then there might be changes in resources or focus on the lower level, and you won't be in competition with each other. I think that can be the case now accidentally because of lack of coordination and pulling in different directions. But when you have the chicken and egg, you don't just decide one or the either. Michael will come up with his metrics, and you will all have yours. It might be harmony or mismatch, but likely somewhere in between. Just acknowledging what we are looking at is the first step.

So there remained no vision, explicit or implicit, and no shared set of goals tied to an articulation of it. And Shawna's gamble for the team was that if they all threw enough (well-specified, repeatedly measurable) spaghetti at the wall, something would stick and a collective vision would emerge.

Was this actually possible? Time would tell.

5. Getting Rolling

And so the group was off. Shawna began by meeting with each senior manager individually to help them choose the individual metrics that would best capture their work. As they worked

through the particularities of each of their roles, Shawna recorded the numbers they regularly interacted with and discussed in detail which ones would make sense. She also began coaching Michael on his high-level metrics.

January 1, 2016 10:30am Strategy Meeting with Shawna

The next week, January 11, the senior management strategy group met again to go over the results. Michael came into the meeting fired up about the work he and Shawna had been doing together to identify the top level goals.

They had gotten stuck on one issue which had plagued Michael and Aaron's relationship—how to classify digital revenue. Michael, with Shawna's help, was slowly changing his mind about how he treated digital revenue. He started off the meeting by explaining,

"I heard the conversations went well. the more we get into this, the more excited we are about how we measure success and how we transform bur in the digital age, following the four pillars of future cast. Shawna and I spent a couple of hours on Friday looking at that — looking at programming, digital, and community as high level metrics would could track from a data perspective. We got stuck on issues of revenue, interestingly, not in basic or overall revenue, but Aaron know this well….we got stuck on whether we would consider online contributions to be digital revenue.

I said no, I think digital is a tool if someone listens to on air fundraiser and goes online rather than call, we won't credit that to digital because we are making specific investments in digital revenue. She wanted me to try to think about that differently, nicely pushing back, on the issue of giving online and measuring giving online is perhaps more important that I acknowledge. We talked about how the distinction between snail mail cheeks, phones, and online should be tracked and how those differences are more important than I had taken seriously. We went around and around, and did not come to a conclusion."

This was progress. And so was Shawna's work with Michael to narrow down the top-level focus to three areas—which, perhaps not surprisingly—mapped to the three pillars of the strategic plan—On Air, Online, and In-Person:

Shawna: If we look at the kinds of metrics Michael can track at the high level — we talked about one common expression across metrics in on air, online, and in person —is think about *the total minutes consumed*. Think about the total minutes consumed on air. the ratings system pretty good. total minutes consumed online — streams and podcasts. then we can think of total minutes we spend in person. That is one of the controversial ones — then do total minutes not just at events, but opening a letter or engaging anything physical in daily life. But wouldn't it be interesting to think of the revenue in each of those channels? its a new way of seeing and representing your business.

This was a breakthrough on the way to a coherent dashboard for the station. It was exciting to

see how this rubric had the potential to map everyone's work. So then the team launched into sharing the individual metrics that they had worked with Shawna to identify. Everyone went around the room and spoke. It was fascinating to hear each manager grapple with the complexities of their roles through the lens of a metric. The meeting had more much more conversation than usual, with people asking each other questions about their metrics and where they came from. I was surprised at the level of actual interaction and mutual curiosity. This was unusual for the strategy, and unusual for the manager group in general. And Michael was sitting and listening, only interjecting a clarifying question or two, as Shawna was going around the table.

When every had had their turn, Shawna was elated. She addressed the whole group:

"So now what you all see — the counts you did for the week — is to use this method to get you thinking on a weekly basis in this room. The kinds of conversations you had today and will have are *different* ones. if you are saying you weren't happy with how things were in this meeting, my job is to get you to think different. As we were going around, there was this eruption of WHY IS THIS. Then you answered each other and that generates learning. So we are trying to figure out what we do share and what we don't share in explanations and then explore it. So now you can see how you value and rank each others' work, and you have exposed your work to others! Congratulations for doing it! That is not easy [clapping] - you weren't comfortable *but you did it*.

So how how are these things synced up? The plan is to now is to WRITE DOWN THE PROCESS that it takes for you to make this calculation. I will help you write it."

And with those marching orders—to now write out the steps that were required to generate the weekly numbers—Shawna called the meeting to a close.

January 25, 2016 10:30am Strategy Meeting with Shawna

The following week was a holiday, so there was no Strategy meeting. But during that time, Shawna was hatching a plan for convening "thematic groups." As she had been working through the ranks of the senior managers, cataloging the tangle of data facing each of them, and parsing the most relevant metrics, it was becoming clear to her that there were some shared measurement issues that would benefit from sub-groups of the managers getting together to work through. She

was getting ready to launch that idea at the end of January, when The strategy meeting next met.

Shawna wanted to start the meeting on January 25 by sharing the progress she had made with Michael in creating the "steering" view of the dashboard. The steering view needed a set of high-level classifications, and they had worked on them together. She flashed them up on the screen:

"Classifications — These are the big buckets to group data into. We are wanting to pull away from the representations that we have currently and think about how we talk about things.
1) Distribution Channel: The distribution of content happens in three ways: on air, online, in person.
2) Content/Product: audio, text, video, events, physical mailers, email newsletters, ads, social media postings"

The first classification, of distribution channel, was not controversial. These were, after all, the pillars of the strategic plan. But lumping all of the station's creations under a single rubric of "Content/Product" was more contentious. Particularly to David, the program director, and (in Aaron's words) "keeper of the flame" of public radio. David saw this on the slide and immediately cut in:

David: I find this confusing. Some of those things are a product that is being consumed as part of our service, but other things are marketing. Why would we put them in the same ecosystem?

There were a number of sacred lines being crossed here. The journalistic line between content and advertising was the most obvious. But so was the public radio line between content and membership. Shawna had already worked through this resistance from Michael in her one-on-one with him, so she was ready to respond.

Shawna: What's in here are the things that WABC produces. if I'm a consumer, when I get something that is WABC branded, my differentiation between a mug, audio, your mailer, etc. is not as high as yours. Your distinctions come from your WORK being separated. But as a consumer, everything that says "WABC" is part of the "WABC experience" and the things you are generating. When I choose to use the WABC umbrella, that is for a reason. So we want to think about that whole soup to nuts thing. Some of your content we can think of that as taking longer to produce, etc. But we are trying to think about all of the things you produce as one thing as opposed to classifications that allow us to pace our work with each other.

She wanted to press on and get through the classification, so she did.

"3) Revenue Streams: development, membership, underwriting, syndication, other. When you think about revenue as opposed to product, you can see how you can monetize products through different streams. Sp membership might be doing social media posts, whereas development is focused on merchandise."

This one has been more challenging:

"4) Revenue/Income Channel — this is a lot like the distribution channels, but I am giving them different names. So its how revenue comes in: digitally, by analogue means, or physical. Like on air, online, in person. Revenue comes through web donations, through paper checks, or it comes through people buying tickets or money in person.

So we can think of these as four, major high-level classifications."

This was another impressive intervention into the cognitive maps of the station's managers. But, because of the sacred lines it crossed, some of them were still hesitant. David tried again to express his dislike.

David: I think in the content/product bucket, we should separate the journalism and PR part of the station. I think mixing the two is not a good thing to do.

Michael did not cave. If he was willing to think differently, then David should too.

Michael: In the same way I have been pushing back on Shawna on the issue of counting digital revenue as anyone giving online in a on air fundraisers, this is a different way of looking at our business and our mission and our organization. This is a challenge to our assumptions about what our content or product delivery is. We should suspend our disbelief here, and go with it and see where it takes us.

Shawna: This is not set in stone, what I want to make it easier to group your data. All I am trying to do it take what you are telling me and synthesize. This does hide complexity though. This is saying: the content/product is THINGS YOU MAKE. So you make audio, but then you also make journalism that spills into text, and then video. But at what point do events not require the integrity of audio product to back them up? I think in putting these things together, it brings the nature of ads and social media up to the integrity of the journalism rather than dragging them down — so you raise the level of the importance of this among yourselves, and making sure your integrity goes from your journalism all the way to the mug.

Michael: Integrity all the way to mug! Now that's a mission!

Catherine: At its most simple, it is a single impression.

Michael: Yes.

Shawna: Yes! And you treat that the way you treat audio. For me, these are higher-order motivators.

It's hard to overstate what a radical evolution of thinking this was. To conceive of the work and the mission of the station from the point of view of the *audience member*—of the consumer—and to understand and design for the seamlessness of their experience of the station, required a radically different point of view than the organization-centric, profession-centric, survival-first, revenue-above-all thinking that usually dominated. Part of that old thinking stemmed from the professional values of journalism, which David was ready to take a stand for. But part of it is just *how many bureaucratic organizations think.* Shawna was pushing all of them in a different direction.

In a hilarious testament to trying out this kind of thinking, Michael launched into a riff on

one of the favorite pledge-drive premiums: the station coffee mug.

Michael: In a nod to the integrity of the mug, it sounds weird, but Henry and I have been going around on this. I have been trying to find a good mug for WABC. This has been a 9 months process, with Henry searching, me searching. I haven't found a mug that I think represents us! There is lots of shitty stuff out there, and we stand for something different. I WANT A GOOD MUG. Like I want a good mug!

Jim: Yes, a microwave-safe-and-not burn-your-hand-on-it mug.

Michael: When a mug says WABC, we want people to think that is a lovely and beautiful mug, not one where the paint comes off. Some people might say don't spend money on this. But it is important. Our umbrellas are really nice, too, and won't break when the wind blows. There really is something there about treating it all as content.

Shawna went on and on for a while longer, explaining the motivation of the classifications. The point was to help the managers think from the experience to the distribution, to the product, back to the revenue—rather than from their departments first.

Towards the end of the meeting, Shawna introduced the idea of thematic groups. She was proposing six of them: Digital Listening (for figuring out how to calculate overall digital listening minutes), Terrestrial Listening (for people who needed to have a strong grasp of the radio numbers), Verticals (for people working on the station's digital content verticals), the Funnel Group (for people who needed to track user conversion and engagement), the Financial Group (for figuring out how to map revenue from departments over to the new rubric of channels), and finally Process Upgrade (to review the quality and effectiveness of the core software and enterprise systems of the station).

Of all of these groups, the most important and innovative would be the Funnel Group—since this kind of thinking would bring the station closest to the state of innovation in media and digital journalism as a whole. Shawna said as much in her introduction of it to the managers. And people were very excited to join this one.

Shawna: For many of you this is the holy grail, and really what you want to know. There are a couple of levels of the funnel. [She gets up to draw a funnel.]

"Awareness: At the highest level, does a human know about WABC? How do they find us social media (since that is how things work now)? Or our marketing campaigns?
Then next level is:
Interaction with WABC
—listening, viewing website

Then
Engagement
—coming back and returning to the content
—user profiles, cohort analysis, email opens
Then
Commitment/donation
—that is something we do know: amount of money, drive-by donor vs. sustainer."

So this group will be working on how to track all of this. So we have to think about how to tie all the threads together through this. This will not be something we can do in a week, but we can get closer. This has some overlap with other groups. But the point of this group is to track user experience through the system. There is cycles, blowback, etc. I'm thinking: Rachael Aaron, Alex, Catherine, Lyra

Donna: And me!

Henry: And me!

Jessica: And The Innovation Lab!

Thomas: For one time versus sustainer, should it be annual, one-time, and sustainer donors — which is tied to renewal rate?

Shawna: Yes, that would be better. I'm adding you Thomas.

Alex: Maybe add the social team as needed.

Shawna: Yes we can add their insights into it.

Something remarkable had just happened: the entire Tstrategy group had signed up for a working group to think about the funnel. The idea of a funnel was not something that Katie had been able make progress one year previously, in her digital membership conversation consultation to Aaron and Henry. This is something the redesign had not been able to make progress on, despite the summer's productive online fundraising workshop. This was big.

And, as I touched on in the Revenue chapter, "audience funnel" thinking would go on to be an even bigger deal in the news industry as ad revenues continued to collapse. I would publish an entire white paper on strategies for integrating revenue and engagement strategies through the idea of a customer funnel almost exactly two years from that moment. Of all the future-focused conversations the station could be having, this was by far the most important one.

As if to underline the momentousness of what was transpiring in The strategy meeting, after Shawna had explained the homework ("we will have breakout groups this week, but start trying to fill in numbers in the spreadsheet yourself. Get in the habit of filling in those numbers. So next time it will be all full"), Michael took a moment to close the meeting talking about how his thinking was changing. But also, where the limitations were.

Michael: I am starting to give up on some of my preconceptions. I am being willing to suspend disbelief. But this last Process Upgrade thing needs work to me, feels a bit like a grab bag. for instance, in Karl's IT group, what we need to think about is our technological reach. We spend a lot of time and money thinking about expansion of our terrestrial reach — like if we go up on a tower, can we get more people. And we should measure the IT infrastructure around that.

And our content innovation lab we need to talk about too. We are spending a lot of money on that — we are committing more of our reserves to that than almost anything. I think we need to think more about that and where it fits into measurement structure. And then for The Innovation Lab, what are the metrics to measure the success of The Innovation Lab? So our Labs, basically. Where do they fit?

Shawna: Part of our challenge today is that those are in individual metrics conversations — signal expansion, and The Innovation Lab learning metrics. but we're bridging those to this group.

Michael: ILab was 500K, and we spent 500K on The Innovation Lab this year. How do you measure the dollars against outcomes? And measure levels of success? I think it's a central part and it trickles down into everything. And the launch of our big new podcast that touched so much of this org. I think this continues to be a process that makes me look at this business and institution in an entirely new way. And I am anxious to see where it goes.

There were definitely initiatives and priorities that were oddly fit to the classification Shawna had helped Michael come up with. Perhaps that should have been a warning signal that not every expansion the station had chased necessarily made sense. But that would have to be tackled another day.

February 2, 2016 10:30am strategy meeting w Shawna

On February 1st, Shawna kicked off the Strategy meeting by marveling at the 20 pages of step-by-step instructions for pulling their metrics that the group had collectively produced. All the managers were not only working hard at their metrics, but were now being pulled into intensive side meetings as part of the thematic groups. Shawna tried to reassure them,

"This is a creative, messy process. You are engaging in the work of doing it in the same place, together, making it together — that is the most important part. Some of you are finding that it's not all 100% accurate, but that's okay, and the refinement is continuing."

Michael was still marveling at how it was coming all together. He repeated to the group his insight from the previous week, that a shift in thinking about the station's various outputs as *a single product* provided basis for reinventing the station's mission.

"This is starting to coalesce for me into a rollup, into a singular way of saying, are we going in the right direction, are we healthy, are we creating a sustainable model here? I am specifically thinking about that as total minutes of consumption. i am starting to think about things in different ways. I am thinking about different distribution models — on air, on line, in person — and how that syncs up with the strategic plan.

This idea that every touch point with consumer, whether email, text, to outreach to members— that our content

is ACTUALLY PART OF THE SAME THING—and we have thought about it until now as separate —to think about this as content and then revenue to support content. If we think about it as all part of the same thing, then you think about what we do differently?

That starts to reorient our collective efforts and how we think about success. Email, snail mail, even, our 10am talk show — is that all the same thing? We would never have thought about that until Shawna showed up. I think that's excellent. And breaking down our revenue channels around analogue, digital, physical, rather than on air, online, in person — is quite interesting. I'm not sure i have a lot more to say other than, if you open your mind to how we think of our work — and our relationship between listeners/consumers/donors — we have the makings of starting to invent ourselves that I would not have done on my own certainly. The dashboard is just a means to something else."

This was a sign of amazing progress. And that he had sustained it over two weeks was even more remarkable. Shawna said she, too, was surprised at what was emerging and what they were creating together. David pushed her on this.

David: What did you expect?

Shawna: I didn't expect this kind of classification to emerge. I wanted to write down a hypothesis but I also didn't want to bias what we came up with, and I didn't want to come in with a preconceived notion. i have been looking for an easy, shared thread for this dashboard. But i didn't expect this. now in hindsight, the more it seems obvious, which usually means it's correct.

With this introduction, the group dove into the weekly numbers sharing, and Shawna walked them through the step-by-step instructions for pulling those metrics that they had each shared. Some of the lags and snags in the process floated to the surface. There weird variations in some numbers, and other numbers—like Rachael's active donors number—took 14 steps to pull out of the membership database. David was still getting stuck on using quantity numbers for tracking the weekly newscasts, and didn't think it helpful to assessing quality. But the group kept going through each of their metrics, how they got to them, and what needed to be done to refine the estimates.

The next step was supposed to be for everyone to fill out their "RRR"—Role Responsibilities Resources cards—but since the thematic groups were still meeting, Shawna put it off for another week. The process was picking up steam.

February 8, 2016 10:30am strategy meeting w Shawna

A week later, I had to be in New York on the day of The strategy meeting, so I dialed into Jessica's cell phone to listen. People were talking about forming and organizing the thematic groups. But scheduling was becoming complex, especially with the amount of meetings already on everyone's calendar, and the fact that each of the thematic groups required the participation of almost the whole group. The Terrestrial Listening Group hadn't met yet, and there were two new groups Shawna was about to add—or rather, one revision and one addition to the current set: a Critical Systems Group (which had been the Process Quality group) and a Product Quality Group.

But Shawna had another innovation to introduce into the meeting that day: Good Things/Bad Things.

She explained:

"Today I want to go around and do weekly metrics, and introduce a new thing — from the weekly plan — that the teams I work with tend to enjoy. It's called "good things/bad things" —and you share what you are motivating and proud of, and talk about the thing that is hard or difficult or made you bummed out or sad."

Dutifully, each manager went around the table and talked about a good thing and bad thing, and their metric for the week. Shawna recapped the progress that had been made in the thematic groups that had met: the Verticals and Channels group, the Funnel group, the Digital Listening group, and the Finances group. She introduced the two new groups and assigned managers to each.

Then she paused, perhaps sensing that the managers were now on overload. Jim said, "I am now a member of four committees. As I try to manage my time, do I *need* to be on this Product one?"

Shawna tried to allay the creeping fears of meeting overload, but not very successfully.

Shawna: Going forward we have seven of these groups now. I think meeting twice a month in these group

formats for an hour makes sense. My goal with these, if on average you are part of three, that would mean 6 hours a month. Which I think could be a more productive way for you to share out of parts of the dashboard. The goal is to create a space to have alignment around these topics, which has been lacking. But if that is overly burden, then we can do it monthly. I have been pushing you to do it more often first. Does that feel scary?

Aaron: We can try.

Donna: It is a lot of meetings. Can someone else on my team represent me?

It *was* a lot of meetings. And it had already *been* a lot of meetings. One of Michael's metrics—which he had shared earlier in the meeting—was the number of meetings he had the previous week: 41. He was not afraid of meetings, and clearly he was not going to let meeting overload stop Shawna and his team either. Shawna tried again to address the issue of meeting overload.

Shawna—Sure. My goal, as we go through this process, these are very interdepartmental and also focused. We need to put the engagement to good use but not overwhelm people. The touch point is important, but just keep it going with the feedback. It seems like roughly these groups will need to meet every 2 weeks. So one of these meetings per week, kind of. That could take the place of meeting with me individually.

She ended with the home assignment: to fill out the RRR cards and send them back to her. The following week was another holiday, so it wouldn't be for another 2 weeks until they met again. Jessica said she would leave it to Shawna to coordinate the scheduling.

"Go forth and meet!" Michael exhorted everyone.

I was on the phone, but could sense some resistance starting to creep through.

6. Hitting Some Bumps

Two weeks later, nearing the end of February, Shawna was back at the strategy meeting. The thematic groups had continued to meet, including the first meeting of the Terrestrial Listening group and the first meeting of the Product Quality group. These discussions had been revelatory, and Michael started the meeting with a long meditation on what he had learned.

"I want to talk about the discussion we had on broadcast ratings and the data discussion on that. And we had an interesting meeting on product quality and how do you measure quality. I won't go on a long thing, but both of these discussions revealed what they should have — that we operate on a lot of assumptions about what we know collectively and what we share with each other and what we need to know.

The Terrestrial listening group had apparently made a lot of progress in digging into the Nielsen radio numbers,

what they meant, and how to use them. As taken-for-granted as the radio numbers were, it had been revealed—just like in digital—that not everyone was getting the same numbers or the same reports. Michael's framing of this conversation, and his reaction to it, was clearly shaped by his experiences in television.

We talked about the Nielsen numbers, and it's so interesting, we are already working with a lot of data here. Nielsen is one of our prime data sources, and so much revolves around it. Everything about our sense of success revolves around our broadcast audience, but it also plays a big role in understanding quality. It took us a long time for us to get to clarity on what to measure and what we should care about, and how do we distribute the information. We don't do a good job of distributing it so we are all self aware of what this means for our individual work. But it felt completely right. It turns out that there are some reports that David and Adrienne get that I don't get and that they don't know each other gets. She was saying we can get daily Nielson ratings — but David didn't know that! — and he's only been here 25 years! ? The lack of knowledge of basis is well earned, because at the end of the day we haven't sat down to say — who should get what? Like, should everyone here get Nielsen ratings once a week? Or once a day? At my television station, everyone could go into the Sales department at any time and look at the Arbitron and Nielsen numbers on the wall — that worked effectively to get everyone on the same page. But then we talked about whether we should care about those things — and did not get a lot of clarity around that. But Shawna's work is forcing us to have important conversations."

But as before, the discussions were raising more questions than could be answered.

His recapitulation of the Product Quality discussion was even more fascinating. This group was peeling back the layers of the onion, and getting to a core truth about the audience versus mission tension in public radio. And again, there were no easy answers.

"The conversation on product quality is equally important. When you talk about how to define quality from a data perspective, it's hard to put numbers against that. We mostly work intuitively. We had interesting discussions on how do you turn values into numbers. So when we say "Good story" "bad story" — "successful program" — what are the values that we are talking about and can we turn them into numbers? Do we want to be a slave to our audience's interest or is that part of what has destroyed other parts of media? Where they pander to other parts of the audience and they destroy the product in the process."

This was standard journalistic hand-wringing about what data can do to editorial judgement. But where he went next is not usually talked about in discussions of journalism and data. And it had to do, again, with the sacred mission of public radio. This topic had come up in Michael's very first meditation on data, at the January 4th strategy meeting. And here it was again, almost two months later—coming back with a force, but also, it seemed, unanswerable.

"One of the great strength of public radio is that it grew up as a grassroots product, with no marketing for the first 20 years. It was just, here is what this scrappy group of people in 1972 thinks is high quality news for the public — if you like it, listen, if not go someplace else. I think so much of what is brilliant about public radio is the inherent set of values, and that most of us appreciate. How do we work with data around quality and values without destroying our core mission? I do worry about that a lot."

And, interestingly, what Michael feared would destroy that core mission was not anything digital—but an over-focus on the radio ratings. Here was the audience versus mission

institutional tension, rearing its head with full force. The ghost of Giovannoni, and the spirit of Bill Siemering, was definitely in the room.

"I worry that when we have a ratings book — and the ratings aren't good but the demographics are, I hear "this is a terrible book what are we going to do?!" We really, really, really cannot let that drive our decision making. Should we not worry that our terrible book says we have an older audience and losing a younger audience? Sure. but not because we are losing underwriting — because that is not what a nonprofit, journalistic enterprise is about. How do we think about how we not let ANY of this undermine our core service to the community and our nonprofit mission. We didn't come up with solutions. It was filled with interesting doodles on Shawna's white board, but these are discussions we have NEVER had in my time here, and maybe ever. And where we go — from these discussions — into creating a dashboard that will drive us in good directions is part of what we have to tackle in the coming weeks."

So what the dashboard was doing—more than forcing people to look at the data—was forcing a discussion about values that, according to Michael, had never happened during his tenure at the station. This was another remarkable outcome of the project.

But rather than jump into that conversation, he left it there. And he let Shawna take over with what was next in the weight-loss regime.

Shawna: That is a good transition to what we want to work on today. I have a preview for you— we will go through the work on the Idealized Dashboard. But before we get to that, want to keep us in the rhythm of going around the room, look at progress that we've been making, and go through our good things and bad things.

And then, dutifully, as they had the two weeks before, the senior managers went around the room and reported their metrics, and their good thing and bad thing. When they were finished, Shawna projected a prototype of the dashboard. It was really coming together—with a high-level metrics view, and then a table for each of the major goals. Shawna rabbit-holed a bit into the mechanics of what would have to happen for all of it to get filled out.

The group watched patiently.

When Shawna paused to take a breath, Michael took a look around the room and decided it was time for a process check.

Michael: Ok. How many weeks have we been doing this? We're at meeting 6, but we've been doing this for 8 weeks. I wanted to get a quick sense from you all, how you are feeling about the project, and whether or not anyone has any feedback to me or Shawna about how these things are working in relation to what you think we are heading towards, and the time spent on this compared to your pressures. Does anyone want share? There has been enthusiasm. Are people still feeling excited? It's hard to see where the end game is, but is this a worthwhile exercise?

This was really opening Pandora's Box. The dashboard process had clearly dredged up just about every broken system, misaligned part, dead initiative, blind alley, and deep existential question that had been, until the last 8 weeks, at least somewhat safely buried in the darkest nooks and crannies of the organization. And this exposure had happened in a series of relentless, forced-march meetings and homework assignments that everyone had had to add to their already overburdened calendar. It was amazing they had gotten this far. It was high time for some bumps in the road.

And some bumps were forthcoming.

Henry was the first lay his cards on the table.

Henry: I think as you said, it's a little unclear as to where the endgame is and what the outcome will be of all this. There are an awful lot of meetings to participate in. Even in this exercise, even the exercise of good/bad, this feels repetitive to what happens in the weekly manager meeting. I'm not sure its' effective or not. I'm not feeling as great as others.

Paula: I would add, there must be more efficient way to divide up the work of the meetings. I am in 4-5 groups which is impossible. Meetings have been set arbitrarily in way that is not respectful of our schedules. It's not efficient, but my sense is that there is a lot of learning that goes on these meetings. [She turned to Shawna] I think that is your learning, but could some of that have been done behind the scenes? So that you have the knowledge already and we work from there?

Paula, who was very close to Michael, was probably the only one (except for maybe Thomas) who could dare to go at Shawna—and the process—that directly. If she was feeling overburdened, then chances were most of the rest of the table was feeling similarly. This was not a group that was open with their discontent in such a public way.

But, the shots had been fired, and now it was time for Michael and/or Shawna to address the discontent. Michael went first.

Michael: As a response to the first two comments. There are a lot of meetings. I'm not sure how you pull together people without it feeling arbitrary. But in the meetings I have been to, the conversations have been enlightening to me. I know these are not conversations we've had before. I know we are sometimes talking at some basic level that people in business and in work never do. But you walk in with lots of assumptions of what we are working towards in this is our core values, how we define success. We almost never do that. It's taking time, yes, but conversations have been enlightening.

The process of talking about data and metrics was forcing conversations about values, and

success, and navigating their sacred public radio mission in the midst of a massive set of changes that none of them quite had a handle on. Michael knew they needed to have these conversations—every one of them. Except… that the process was layered on top of everything else, too.

Then it was Shawna's turn to defend the process.

Shawna: It's not an easy process, but I appreciate how much participation you all have put in. The work I am trying to do, I see myself as a coach and facilitator, helping you coordinate and achieve consensus. I could go off and build you something, but you wouldn't use it and it wouldn't be any good. But what I am encouraging today is that we can be more efficient. So it's a good reminder to me to distribute the work load better. But it's also like exercise. It's not 100% fun all the time, but you should be able to see a benefit, so then I can tweak what I do. The dashboard is a mathematical collection of a selection of information that is useful. That is hard to design for an org of 300. As I have been working on the dashboard, I think we are cruising over the hump and now we have to focus on finishing. It's not easy, but you want to be able to open it and see the information that you want to know on a regular basis. We are building it and its hard, and then we will go tell people we've built it. So let's keep up the momentum, I will continue to try to make it less and less time-consuming.

This had been Shawna and Jessica's ultimate goal all along—to make a dashboard that the managers would actually use, with numbers that were actually useful. But there was some distinction between the process as an information-gathering exercise to build the dashboard, and the process as a transformative routine to change the station's culture, that was getting lost in the mash-up of Michael's existential probing and Shawna's obsessive technocratic management. The team needed a blended average of Michael and Shawna to guide them. But thus far, the result of their efforts to lead the managers into a new era were more schizophrenic than integrated.

So two complaints on the table, mostly handled, and more to go. Now it was Aaron's turn.

Aaron: So the RRR cards. That was weekend work for me. It's hard to do that work during the week. But as I was doing it, I was wondering how it fits into the data project per se. Then I was also trying to figure out for my individual teams, I wanted to talk to people — I want to democratize this as much as possible. But how much are we supposed to do that? And how does it fit into the data project?

Shawna: I designed this process to be able to achieve consensus by finding clarity. These are all exercises based on problems I saw in your organization — like the lack of understanding of who is doing what. Having individual metrics is important, but in thinking about how your team fans out is one road into folding more subordinates into this process. So we want the structure for that. Those will become user profiles in the dashboard. We are building this in a spreadsheet, but you could make it an app in google analytics, and each person has a sign-in, and then you can click as see that users' RRR profile, and who they are. So we want the fodder to do that, but we want to build up bases of knowledge in a spreadsheet and in text form.

Aaron—so is there a goal of re-organizing the station itself around the real RRR versus the defined RRR?

It was easy to see why the RRR cards, in particular, would feel difficult and painful. There were some people who had managed to wrest role clarity and a set of goals from the station. Donna had very clear expectations for herself and her team as the head of major giving, and she had put in place the tools and processes to get there. She had insisted on reporting directly to Michael when she joined the station and she was thriving. But others were not so lucky. Aaron and Alex in particular had sprawling, diffuse mandates with no goals or metrics attached to whatever it was they were supposed to be doing. Understanding the ultimate aim of the RRR card would actually help them fill it out correctly. In the absence, they were left to wonder whether to write it in order to complain? To get more resources? To make a statement? Who knows?

Shawna: The specific nature of that exercise gets us to the point of saying, what are you responsible for? What do you do? What is your job? Having this for each person allows us to see who is in charge of which part of the sheet. So you can go ask that person, and it stops being just like 3 people who randomly know things. Then Adrienne could be responsible for less than 5,000 numbers like she is now. I wasn't pushing you to do this at expense of other things, but in the interest of time, we can't do all of the ideal exercise we want. But I will start putting it all to ether.

Donna: Ok, but when we have a project like RRR cards, it would be good to know why we are doing it. To have a task and have no idea why you are doing it or what it's for is hard. Had I known what you wanted to do with it, I would have answered the questions in a different way. The more you can give us guidance about the finish line and how this contributes that would help.

Shawna: I will do as much as I can, but please ask me more, I probably see more clearly than I am explaining.

Alex: Ok, so now knowing the audience for this — like this will be listed publicly in a dashboard database, it will be enshrined, that would be helpful to know. But the idea of who I am writing this for — for me, for this group, for the station? That is not clear yet.

Shawna said she would send more specific instructions for the RRR cards, and the meeting broke up.

7. A Dashboard without a Destination

The Strategy meeting in the last week of February marked a turning point in the dashboard project. The managers' concerns about the time commitment that the project was requiring came again to the surface. But this time, the deeper reason for their discontent became even clearer. It

wasn't just that they felt Shawna was creating extra work for them, it was that there was *no contex*t for the numbers they were chasing. Without quite understanding what they were struggling with, and without Shawna in the room, the group finally had to reckon with the problem that had been buried under the surface for a long time: the lack of a clear, shared vision for their work together. No one knew what success meant. They had new tools, and new metrics, and lots of new initiatives, but there was still nothing to make them add up.

Shawna was working on the prototype dashboard, which left Michael to run the meeting. Rather than ask people to report their metrics (as Shawna had done) or say good things/bad things (as Shawna had done), Michael opened the floor again for people to share their assessments of how the project was going, now that they were all deep into it.

The reactions were mixed. Thomas began by saying that Shawna should, essentially, do her own homework on their metrics rather than making all of them meet and tell her how their departments and numbers worked. This was missing the point of what the thematic groups were supposed to do, but was a continuation of Paula' unhappiness in the previous meeting. Jessica took the opportunity this time to defend Shawna and the process.

Jessica: I think Shawna has a good grasp of the data that flow in and out. The purpose of the sub group meetings is for the group as a whole to have a conversation together and to get on the same page together. Although it might seem like there is a lot of repetition and you know it, the conversation is important. It's rare that we get the people around the table to talk about the data flows that happens, so that is the real reason we have been diligent on that. That is also why we hit pause on that, because people feel like it's a lot. The feedback we have gotten is that it is going well, but it's not efficient.

Thomas: But we are still defining things for her, so it's not efficient.

David took the opportunity to pile on. The Futurcast meetings hadn't really been conversations more than they had been report-outs, and he was eager for an actual conversation.

David: I haven't been to a strategy meeting yet that feels like a conversation. It's felt like it's been data gathering as a group. Let's have a conversation about how these things fit together. It feels like we are still doing data collection. Can the data stuff happen behind the scenes? So we can take advantage of this group being together to have a conversation?

Donna was a little more optimistic about the idea of the dashboard, but she had a slightly

different concern, which had also been raised at the last meeting: that there wasn't a clear plan for the final outcome.

Donna: I love the idea of a dashboard, I think we will learn a lot about how our org is shifting and how our work relates to each other. Right now it's hard to tell how our audience is shifting and how our organization is shifting and that will help. But it's helpful to know where we are going, as opposed to saying, let's do this and then this and then this. So we can know what the pain is for and where we are going.

Aaron also took a turn to defend Shawna and the process. He was finding the thematic groups very useful:

Aaron: I think what Jessica is saying about getting people on the same page in these meetings is important, there was moment at the funnel and revenue meetings where everything kind of came together of where one began and where one ended in terms of getting people through the funnel, then the finances group we talked about how to monetize that funnel. Distinguishing those parts and getting people to understand that is the key. We can get bogged down like in smaller questions— but for those meetings, for an hour, that coming together is great.

Aaron also saw something in the process that Thomas, Paula, and David hadn't: it was the act of getting people together, to talk about seemingly simple things, that was generating discussions they hadn't had before. The groups weren't about making Shawna smarter so she could build the dashboard, they were about the conversations and insights coming out of them.

And getting clear about metrics and measurement was particularly important to the digital team, Aaron shared, because it was helping them to realize just how much work they had taken on. But they were still overloaded.

And despite being a champion of the process, even Aaron agreed that Shawna was doing a fair amount of "leading the witness" in some of the group meetings, and that was not helping manage people's anxiety about the time it was taking up.

Jessica: I talked with her, she has some perspective on where you are now as a team, and that should help. In terms of leading the witness, can you give me insight?

Aaron: We just need more transparency. She is figuring this out and thinking about it, but we need for her to say - here is where it should be and then let's work backwards from the conclusion rather than going through the machinations of getting there. We need transparency for where she's at and then working backwards rather than forwards.

The conversation continued on for a while with measured complaints about the bandwidth required to participate and to fill in the weekly metrics. Henry said he was open to the dashboard

having an impact, but he wanted it to expedited: “I can invest time if it feels like it will have an impact, if I know there is a payoff for it, I will do that. We are at a pivot point for something we can see and touch, if we know something is there.”

Jessica acknowledged that people were ready for a simple dashboard they could use, rather than a complicated one that would take many more meetings to complete.

And then Jonathan jumped in to bring up, again, the issue of editorial metrics. His metric of page views for the verticals was fine, he said, for measuring how much content. But how could he come up with a metric for quality? Aaron said he had been thinking about that too, and wanted to figure it out. Jim agreed. As head of the newsroom, Jim said he was “anxious to get going on putting a system in place to measure quality.” This was David’s worry about the dashboard as well. And he was still very wary of anyone on the editorial side using quantity metrics:

> David: That is essential! we have NPR as a backup. we don’t want to have a thing where we feel like we need to increase quantity and decrease quality. That is not how we got here.

But at the same time, but Jim and then Dawna shared that they were hopeful something good would come out of the process, despite the real strain of the additional work.

With mostly everyone’s views on the table, it was Michael’s turn to say what he thought. And he began, as he had the week before, sharing his delight that the process was forcing conversations they had never had before, and forcing them to unpack their automatic assumptions and ways of doing things in a way that they had not done before either.

He gave on example from the revenue meeting the week before. The group had discussed the different types of station events that were beginning to be programmed by the station’s new director of community engagement, and how they related to each other and to the station’s annual fundraising event. I had been at that meeting, and it had devolved into a bit of a rabbit

hole on definitions, but the group had made progress on articulating an event strategy. Michael observed,

"We kept trying to one up with an easy answer. Like what kind of event is the fundraiser? We struggled with it, and in the end got into a simplified approach. That was useful. We have NEVER had that conversation in my five years. Like who is in charge of that event? When I got here, there was no one in Amy's position, Catherine was new, and Thomas was in charge of filling seats. Now that we have more people, it begs the question, do we need to rethink that. That is just one of 20 things we have to sort out of the data and what to do and what we are doing."

But where he connected with his team's discontent was that the whole dashboard project and process was missing a key ingredient: context. This led to a long, funny, and revealing metaphor—which carried the rest of the meeting—on the function of a dashboard in a car. Michael began:

"Data works well in some places, and not so well in others where quality matters. You can go crazy with a dashboard, but everything about a dashboard is contextual.

Imagine you are sitting in a car and just looking at the speedometer — like it says 60MPDH, but you can't see outside. Is that fast or slow? Good or bad? Who knows? If is Comm Ave, it's too fast. On Mass Pike its just fine. Everything is about context. That is what I was saying. there are only a few key things you need in a dashboard. you need to be able to see how much fuel you have left. but if you are going .5 mile down the street and parking, then the fuel gage isn't important. If the temp gauge says you are overheating, then that is important too. Every bit of it is some degree of context. Some things bring context with it — like temperature gauge. You don't have to know where you are to know you have a problem."

This was an important point. The metrics, as the managers had been discussing them, were revealing gaps in strategy and, at a deeper level, a gaping hole when it came to context. Shawna was an organizational technocrat: she was highly skilled at getting the managers together inside of a structure to talk about very specific numbers. But that was only half the existential problem facing the station. The other half of the problem—and the real source of the existential angst—was the lack of shared context for their work. No combination of numbers was ever going to define success, for Michael or Aaron or David or anyone else. This was the existential angst at the heart of the confusion. And it was, at this moment, threatening to sink the dashboard project—the only intervention that had managed to make real progress towards resolving any of the existential questions facing the station.

But what was interesting to observe, is that as that lack of context reached its peak level of

consciousness, what Michael *thought* would provide that context was a point of comparison by which to judge success. He went on:

"But with lots of other things, if its middle of the year and we say, we have generated $XM, without context that means nothing. If we are a growth company, and if that is important, then we can ask how fast do we grow and what does that growth allow us to do, then comparing that number with last year's revenue is essential. Without that, you have no idea if that is good or not."

And, he needed his managers help with coming up with comparison points:

"Without that comparison we will have a dashboard that means nothing! so I would ask you to think about, if you are looking out the window of WABC — like a car dashboard — what is the context that you need in your areas to know if you are doing well or not?"

This question of "are we doing well or not" was one of the core questions posed in Shawna's audit of metrics and the senior management team. It was fascinating that Michael was now turning this question back to his team. He went on:

"In the end that is the only thing you care about and I care about. Are we doing well or not? It's somewhat subjective, but we are trying to get some data attached to that. The reason this conversation was starting to feel like it was meandering around is because we were dealing with how do you measure things, and not having ANY conversation about the context. How do we define good in the newsroom? Or marketing? Or even as far as revenue is concerned? I have never had a conversation about that. … For me, this process is more about the CONTEXT, the metric, the metric that defines success than it has to do with the pure data itself."

But there was a limit to that kind of thinking. Because coming up with a metric of success would just throw the question back on itself: because what does success look like? This was beginning to look like the chicken-and-egg problem that Aaron had pointed out to Shawna all the way back in December. David commented:

David: That's a great point, but how do these numbers help us be strategic? And prioritize? if there are 75 numbers, what are the important ones?

To answer this question, Michael tried to extend the analogy. Which landed the group in a very odd place.

Michael: Ok, if you have car and dashboard and you are driving, what does it help you do?
David: Not to hit any cars, and stop at a red light? Or tell you when you need to slow down?
Michael: Like when I need to have a meeting downtown, I know I need to leave early to find parking . What do I do to prepare?
David: I might leave sooner or take an uber?
Jessica: Or put it in the GPS of the car?
Dawna: And be prepared for the meeting.
Michael: So it's about managing time. I go through an elaborate strategy when I go to a meeting about how to

get there — transportation strategy. There are a million variables that go into that. but we have spent very little time talking about our version of that — if our plan is what our strategy is for driving this vehicle for one year from here to there — how do we make sure we are prepared, going from here to there, have enough fuel, and do it efficiently.

Jim: Then if you park twice you have to do two expense reports!

This one direction to answering the question: a dashboard could help get you somewhere, but it didn't dictate where you were going, or how to get there, or what time you should leave, or how you should prepare. But there was still something missing from the analogy. Michael tried to keep pushing on why comparison points of success were important to have on the dashboard.

Michael: We haven't had those conversations though. Like, look at like the content innovation lab, Paula is doing fantastic, even though it's cool, its our incubation for new content, its a little chaotic, we do one thing, hope it's good, we make some accounting of success or failure — like for our podcasts — all those decisions about how long to run them and when do to them and how much — all of that is driving down the road. We can turn a lot of that into data and compare that against some measurement of success or failure and we haven't done that!

Paula: The number Shawna has me coming up with is total downloads for podcasts, but there are different priorities and strategies and goals for different podcasts. I break up the numbers myself, and it's more useful than total downloads — there is no context for that number.

And here is where Michael finally pushed—that it was not his responsibility, but his team's, to come up with the context measurement that would define success:

Michael: But it is measurable? Its your responsibility in each area to figure out the context… And this is an important moment to say what is the context in which we are going to measure success or failure?.. Not that what we have been doing is wrong or bad, it's been fantastic an interesting, but some of the unease is that it's time to get into that context, and understand how we are doing through measuring success using the data.

At last, Paula put her finger on the problem:

Paula: I think what we are talking about making this dashboard MEANINGFUL. Too much felt like it wasn't meaningful. We want to invest our work lives with meaning.

Katie put a slightly different spin on it:

Katie: You and Michael got to an important point, dashboards are only meaningful if they help you make a different decision that you would otherwise. It doesn't sound like that total number of podcast downloads might help you make a decision, Paula. That might help others make their decisions. But it sounds like the metrics you need are different than others. We wouldn't want to have no windshield but a dashboard. What would it mean to have a windshield and no dashboard?

Michael: That's what we have now! We're just driving down the highway hoping we don't hit anyone!

Katie: I kept driving when my motorcycle speedometer broke… it matters what we collect. If we feel like we are collecting things that aren't meaningful to us individual and collectively, then we need to reassess. Does it help us make a different decision that we would otherwise? That should be the criteria.

The group was circling and circling some vitally important, existential questions. But also not quite managing to answer them. Alex interjected her own question—she didn't know what

numbers others needed to see from her because she still wasn't sure what the *destination* was supposed to be.

Alex: What does this group need from me in terms of numbers? That is what I thought this conversation was about. So I can imagine podcast downloads being use to generate rates for advertisers. And I can tell you that in the digital team we have 8,600 hours of backlog work, so I report that so that we can get more resources? *What is the destination* would be helpful to know, because without knowing who is using these numbers and why, it does feel like you are putting numbers into the void a bit.

This could have been another moment to talk about the destination rather than the dashboard, the mission of the station rather than the metrics. Michael picked up instead on the thread of why one department should care about another department's numbers. This was also important, but still not the existential question.

Michael: Let's talk about why for instance, Paula should care about your numbers. Or why should Karl care about Catherine's numbers? How do we take an organization that has so many different parts many of which don't impact the others except as a whole sense of are we doing well or not. we do have a sense of WABC as a whole, and this group is responsible for its well being. I'm sure we all care at some level whether Henry succeeds or not. But there are certain things where we would get that if Henry and Thomas suffers we all suffer. But if Jim's department is suffering, then we would all suffer? we are kind of balkanized. that was one of my observations early on. Does our show give a shit about how another show is doing? no. does our other show care about how finance is doing? no. how do we make us care? some of this shared dashboard is from my perspective, if everyone get to look at others' data we would develop a shared sense of destiny. Does that make sense? [yes].

Aaron had been quiet for a while. And as the person who had predicted that the chicken-and-egg problem would sink the dashboard, it made sense that he would try to insert the bigger picture.

Aaron: When we started our strategic plan four years ago, and I'm thinking about the posters behind us, we recognized that this point where we are now at was going to be inevitable. We could no longer maintain our fiefdoms. There was going to be a melding of responsibilities between marketing, news, etc., and it has all happened Online. Before there was online, it was easy to play checkers here. If you hit your number on the radio, then the online doesn't matter. But as the audience has shifted, there is now an on-air, online, and in-person ways to be looking at things, which adds three dimensions to what was an easy org to understand. That is why it really does matter for everyone to know everyone's stuff. Like Karl, the two of our departments impact the whole org in the background — we are the connective tissue to how this whole operation works. Donna and Thomas are more reliant on online, and for the station to know what projects we have — greater transparency will help the org make better decisions for where we are going. Programming also is impacted by online.

This was both an incredibly important piece of missing context, and a plea for respect for his work and his team that I had rarely seen Aaron make. Michael did not back him up.

Michael: Let me push back and say, for 4 years ago when did The strategic plan and 2 years ago when we did the update, it was a great experience because we were working on a broad plan for the station. But once that was

done, people went back to their corner and worried about their own thing. Donna and Henry have to worry about their numbers, and Aaron has to worry about the site. If it stumbles that's bad, but it's not Jim's job to make the site work. When everyone has their own stuff to do, which is normal in any org, are there ways that we should pull all that together, that we're not doing now. This process might help, a dashboard might help. Is there something else that makes a well run organization create real investment across the departments in ways we aren't doing now?

So here is the problem, laid out very plainly in the exchange of words and ideas between these two central figures in the station: the General Manager, and the Director Digital. What Aaron saw is that the context of the station was changing, and *had* changed, and that the organization *had changed too*—reluctantly, slowly, partially, and only by necessity. He was on the frontlines of that change, and so was the head of IT. The fiefdoms could no longer be maintained, but in many ways, they were not being maintained. But where Aaron saw an emergent organization growing inside and out of the old one, Michael saw the old one, in a context that he increasingly did not understand and was worried would ruin the station. Yet the one thing that could make the organization more "well run" and the one thing that could "create investment across departments" was leadership around a renewed mission and vision, manifested in an ability to see what the organization was *already* becoming in relationship to a context that was *still changing*. When the GM saw that, if he saw that, he could find the levers and the metrics to evolve the whole operation to more fully meet its existential threats.

The problem was that he didn't see it. And because of that, there were battle lines being drawn and defended within the organization that just made things worse, rather than better. Like the line between editorial and marketing.

Thomas: How things are interrelated makes the best use of the asset. So if we do something once across the marketing an underwriting — then if I can see how its interrelated, then I can maximize it.

David: Ok, but let's say you find something you like and you want to maximize it, but it has an impact on how we sound like a station. Would you think about how that might sound? It might not seem like a big deal, but will you make sure that me or Paula is at the table to see how they are interrelated? Sometimes we don't think of how things are interrelated. Where this then has an impact because you take programming promos away to maximize something else. Sometimes it feels like we don't involve other buckets of the station because it's our own thing.

Henry: From what i'm hearing, it's all about shared leadership and accountability. I always put David and the station first. I would like to think that when I am making decisions I am thinking about the station and the listeners. Even in the fundraisers, you, David and I are collaborating together and I listen when you say I can't go 12 min in a pledge break or we push listeners away. There are examples hour by hour to have shared sense of leadership and

keep each there accountable.

David: That's a good example.

That was an excellent example of emergent collaboration transcending tribal lines.

Michael: Does anyone think that this exercise around data will bring us together?

[Answers of "yes" around the table]

Jim: I think it already has. Anyone can go around the table and say, this person is connected to me for this reason. I know how I am connected to other at this table. In some of our local coverage, I have been connected to national programs in a good way. We go through the Thursday meeting with Thomas, the numbers can go in one ear and out the other, but coming together as a group saying, this is what the important data is and why will help us be connected.

Catherine: And how it all relates to the listeners and the user in the end.

Dawna: The transparency has helped a lot of collaborations. When you listen to people talk about their areas, you might not have realized relationships and you start to see the bigger pictures. so transparency has help do more collaboration more I think.

But finally, as he had done previously, Michael left it to his managers to come up with their own context.

Michael: I appreciate this conversation. I think you will find she is moving in this direction based on our conversations and we will get more grounded. If I could give you one little thing — as you are thinking. What is that ONE contextual metric? If you could choose one out of all the things you do that YOU would say is the thing that when you look from the windshield of every things you do to the dashboard, what is the one most important thing you want to see for yourself? it turns out that we all need a dashboard with six or eight things you are measuring. You do want the door is ajar metrics. But is it he speedometer? Or fuel gauge? Please share that.

8. Breaking Down

The next week, the car—running as it was with a windshield, only part of a dashboard, and no destination—broke down.

David, Paula, and Aaron were not in the Strategy meeting. Thomas was late, and Shawna had asked Michael to lead the meeting since she was working on the visual version for the dashboard, as the group had requested.

It was only a few moments into the meeting, and it was clear the car was drifting off the track. Michael began:

"Shawna is working on our dashboard and has asked me to lead our meeting today. We have no David, Paula, Aaron. Thomas not here yet. Let's run through these metrics, then there are a few other things to go over. I think Shawna has heard our feedback, she is working on a visualized dashboard. We will all be delighted to see that in a concrete way."

The managers who were present went around the table and reported their metrics. There were a few questions, particularly around context—as per the last meeting. But everyone seemed eager to get through the exercise. The most striking moment—which I will return to later—was when Alex reported out her metrics for the digital team. They were drowning in the redesign. The Friends and Family beta had finally been released on February 1st, but this was February 29th and they were still nowhere close to a public beta.

Alex: We spent lots of last week trying to organize our projects — we have 80 active projects for the beta, and 10 other new projects in progress. An "other" project is like implementing the new innovation vertical on the site

Michael: This is a scary number!

Alex: Yes! There can be as few as 4 as many as 40 Trello cards for each project. On the cards pushed metric, we had 72 hours worth of work in last 2 weeks, and we pushed 18 cards.

Michael: What is a card?

Alex: A card is a task that has to be completed. One card might be, like, create designs for hosts on the new landing pages. Another card might be to publish it in our system. Another card might be, research ADA compliance to make sure REACT works with screen writers. Then some cards are big — like implement a commenting system in the beta. So that could be broken down.

Michael: What is card pushed?

Alex: It is code that exists on the site.

Michael: So card hours completed and cards pushed is just coincidental. They are not subsets?

Alex—Our active projects will expand from 90, we are meeting with Shawna today and she had a count too.

Michael had never asked before about Trello cards, or how many active projects the digital team had, or what else was in their queue to get the redesign finally public. That was about to come to a head, and if nothing else, the dashboard metrics exercise was at least getting the digital team's bottlenecks out in the open.

The team kept going around the table—Thomas reported his numbers, which Michael said were confusing and without context for whether it was good or bad, and Dawna reported hers. Jessica assured everyone that Shawna was working on the problem of comparison numbers.

And then, the pivot came. The strategy meeting reverted to being like every other strategy meeting I had sat through before this project began. Michael had a couple of updates to share about progress in getting new office space, which elicited a few random questions. And Rachael took a few minutes to share her plan for a new type of one-day spring fundraiser and what others

could do to help.

And then the meeting adjourned.

9. Breakdown

On the day the dashboard began its long, slow death, Shawna was back at the strategy meeting with an amazing visual prototype. I had missed the previous week's meeting, in which Jessica had given a preview of it. And the group had gone through a long list of possible success metrics. This had prompted a discussion about updating the strategic plan. So Michael opened this meeting by reminding the group, as he passed around copies of the old strategic plan, to give their updates on the three areas they each thought should be added to a new plan.

There was some confusion about whether Shawna or Michael was supposed to be running this meeting, but Michael ceded the floor to Shawna so she could walk through—at last—a visual representation of the numbers and schematics they had been talking about for the last three months.

Some of the data was estimated, but most of it was real. And it was quite an impressive visualization of the station's operations, and its reach.

In a nod to Thomas and his weekly revenue pacing report, the Revenue Pacing chart was first. But this was a different visual representation than the spreadsheet Thomas walked through every week in the manager meeting. It showed that the current year's underwriting revenue far exceeded the other sources of revenue, and was on track to meet its forecast estimates. The next gauge, Revenue by Medium, was a compromise between Michael's view of revenue and Shawna's: it still showed revenue broken out by department, but the composition was visible in the mix of in-person, online, and on-air sources that created each bar.

The Audience Funnel visualization was a true accomplishment, that—as of this writing—just about every news publisher I can think of would die to have someone make for them. It was a composite view of volume of activity in four progressive stages of listener engagement and conversion: awareness, consumption, talking, and giving. But these stages were further shown as originating on-air, online, or in person. What the graph showed was that station's funnel was very, very wide on awareness, but very narrow and sharp from consumption to giving. And it also showed that the majority of the awareness and consumption was happening online.

The next graph, Live Listening, was equally incredible. It showed that the major of live listening to the station's content was happening online, and only a tiny fraction was happening on air. The page view trends were difficult to interpret because, as Shawna explained, some of the data was real and some of it was made up for the prototype. But it also showed a substantial amount of traffic to pages listed as "General"—back to Alex's concern about the "static pages" (like the schedule) that the audience liked to visit. The final visual was meant to capture On-Demand Listening and was a cross-cut of downloads for all of the station's broadcast and original-production podcasts, for the previous three weeks (though one week of data was missing).

It was an impressive visualization she had put together, from a mind-numbing amount of data. She had then broken down the visualizations even further to show the input sheets and who was responsible for inputting each metric, by department. She had created another set of thematic output sheets which showed Revenue by department, the Audience Funnel, Engagement metrics, and Engagement by different channels—these were all numbers that helped to produce the beautiful visualizations.

Everyone was looking at the prototype in awe. It was pretty cool. And it had some pretty

apparent take-aways. Like just how much listening was happening on digital channels.

Shawna had some very specific guidelines for what this dashboard was, and what it wasn't. She marched through her next several slides.

What it is: A Starter Car
—a manual "see-through starter car to practice on"
—fully functional prototype we can begin using today
—simple means of input immediately producing meaningful weekly charts
—tracker for minimum common ground of metrics across the themes
—vetted using real (or closest approx of) actual station data

What it Isn't: A Luxury Vehicle
—An automatic luxury vehicle with all the bells and whistles
—Automated or integrated with existing technical systems
—High in-depth tool allowing one to drill down for further detail
—A magic crystal ball that tells you what to do :)

Phase 3, Shawna explained, would be to use this Google spreadsheet prototype as a model to guide development of and launch of a standalone web dashboard.

Key Features of the Stand-Alone Web Dashboard:
• Scripts/crawlers to automatically gather as many data points as technically feasible
• Simple user interface allowing for manual input of remaining data points
• Responsive web interface for computers, smart phones & large public displays

She also had some ambitions milestones set for what would happen next.

Milestone Timeline
April 15: metrics finalized and owners assigned — this is what we have agreed on as a group.
May 15: regular pattern of data gathering established using prototype dashboard
June 15: roll-out of and roll-over to stand-alone web dashboard begins
June 30: rolled out and in use station wide

How will we succeed?
—Michael runs strategy meeting and Shawna attends as dashboard trainer — and I will show you how it works
—Aaron meets with Shawna weekly to keep development on track
—Small group of workhorse stakeholders meet with Shawna bi-weekly
—thematic groups meet one more time to vet Phase 2 results

Thematic Group Sessions
—discuss in detail metrics composing visualizations
—finalize chosen metrics or agree on small changes
—assign owners to every metric
—brainstorm alternate forms for relevant gauges
—determine if meeting again/with another group/with more people is necessary

No one was particularly happy at the thought of more meetings, even if Shawna promised it

would only be one or two. But the introduction of the "workhorse stakeholders" (later re-named "first-mover squad," perhaps to avoid the impression that the managers were not workhorses), marked a serious change of strategy. Shawna and Jessica had decided, in consultation with Michael, to focus on the mid-level managers below the senior managers as the people who would actually input the metrics, approve new visualizations, and advocate for the usefulness of the tool. This was the "arm the rebels" strategy that Katie had suggested, and which Shawna had so vehemently argued against in December. And yet, here they were. The devolution of responsibility was in full swing.

Shawna walked through her slides on the "workhorses" next.

Workhorse Stakeholder Sessions
—beta test dashboard with evangelists/enthusiastic early adopters who will
—vet and synthesize decisions across thematic groups and departments
—approve new gauges
—Wrangle metric owners to do data entry
—explain to others around the station how the dashboard works and what it "means"

There was much that could have been discussed at that moment—not least of which was the fascinating strategic insight about their digital properties that was plainly projected on the wall.

But instead, Michael took the opportunity to ask for feedback and questions for Shawna. And, he had some things he wanted to cut out of the dashboard.

"Let's take the rest of this time to give Shawna feedback and ask questions. I'm sure it's not all self evident. There are a few of the seven things on the original dashboard that I have said that I think we should change. I think the audience funnel and the revenue by medium need to change, and live listening by medium/live listening by trends needs to change. When Shawna wasn't here, we went through a long list of possible metrics that we thought of as the ones that should be the highest priorities. There are three of these I think can be replaced with things that are of more high-level importance. I would love your feedback on this and in relation to what her work has been with you. So start talking kids! Or ask questions or whatever."

After all the coaching and nudging and persuading and talking and revelation about how there was one station product, and one audience funnel, and how digital revenue being its own metric was worthy of tracking, and the endless debates about how to measure live listening and the hand-wringing about digital disruption… Michael was asking Shawna to *undo and delete*

three of the most important conceptual advances, and three of the most important visualizations, that the last three months of collective effort had produced. Aaron had said to expect back-sliding, but this was very intense level of back-sliding.

Donna tried to surreptitiously rally in support of the audience funnel.

Donna: Is there a 'below the dashboard" dashboard? Because there are some other things we might want to see. If Michael is eliminating the funnel, I think the funnel is interesting, if the data is being collected already, could we see it there…?

Shawna: The pictures depend on what data is being inputed. There are two things at work in the dashboard. There are the charts that we see, and the underlying metrics. There could be other charts too — but it depends on the underlying metrics going in. So making new combinations of what we are collecting is easy. If there are other things you want to see, you might have to horse trade for other metrics.

Michael, perhaps sensing that not everyone was going to be on board with his idea of axing the audience funnel, defended his thinking:

Michael: I'll tell you why I thought the audience funnel should go — the thing that matters to me is to be able to see changes over time. What concerns me about the funnel, while there will be small bits of change over time, essentially I think it will look the same every week. It will be hard to find meaningful change that we can work around.

Donna: I agree, but as a reference point, it's an interesting thing to see our conversion rate.

Shawna: There is the information the funnel contains, then there is the way I have attempted to display it. Seen in this way, the first thing this showed me is the funnel is incredibly narrow and sharp. Not typical. If it won't change regularly, then we can think about maybe a stacked bar chart with more detail — so you need to talk about, is the data right and the visualization bad? Or the data itself all wrong?

This would be the line that Shawna would continually turn to in the rest of the meeting, and one that was hard for everyone—Michael included—to understand. The metrics and visualizations represented data that *they had told her was important*. It was all information about the station. They could see it sliced in any number of ways—and there was no "right" way, and—as she had told them—she didn't have a crystal ball to tell them what they should do. But for some reason, seeing their data in a dashboard was eliciting an opposite reaction: all the ways that it was wrong and not helpful.

Michael: I consider revenue by medium to be inherently really important, but we also know intuitively without tracking it weekly that our overall revenue comes form our on air. Our second bucket comes from revenue that is online and our third is in person. Those two are going to change very little on a weekly basis. And we might have some usual blips like the fundraiser as an in-person thing. Maybe if we have a whole series of events in our new auditorium, that could change things. But in a general way, we know we have a challenge to move from on-air revenue stream to other, more diversified revenue streams. So I want to be able to see things change in a way that allows us to be responsive. There are other ways to look at large macro trends, like if we build out more revenue

online around podcasting, that could become more meaningful. But we know that, those are big chunky things. For me, this should be tracking things that we couldn't see otherwise. The trends around growing digital, growing events around in person are going to be over longer stretches of time and maybe not weekly to generate insights.

The question of timing and weekly metrics versus monthly metrics was, in one way, perfectly reasonable. And yet, Michael still made Thomas review revenue line-by-line every week in the manager meeting, in a much more confusing and obtuse format. Was this really just things everyone knew already? Katie tried, again, to bring up the unresolved question of goals.

Katie—one thing that might be interesting, this tells me where I am. but it doesn't tell me how I am making progress to a specific concrete goal. The fact that it's not on there, I'm not aware of where we have concrete goals in these areas. I wonder if we should do that, put the goals in.

But at this point, Shawna was getting frustrated. She had led them all through endless rounds of thematic group meetings, and weeks of coaching Michael, to get to goals. And no goals were yet forthcoming. Was that her fault? And now there was a new schematic to think with.

Shawna: *I have tried.* If you look through the phase 2 plan again, I *wanted* to get to the point of targeted goals with you. But it's been challenging to get to what's meaningful because you've been loading up like a thanksgiving plate. I have been trying to motivate you so that you can see what we've done with our work. This is part of the process. I would love to see those targets. In Phase 3 we could do high water marks, and comparisons. But those goals, for a lot of the stuff here, there *haven't* been goals set because you haven't been paying attention to any of this. So let's put numbers in this, get the graphs to look better, then let's pick apart real data and then do that.

Michael tried to work with her on this point, but it ended up sounding like things he had said before. It was looking like Groundhog Day all over again.

Michael: So podcast download trends — from a data standpoint, what would be really interesting here — Paula — we could say, what is our goal? What number would we consider to be a success? we haven't discussed it. we're thrilled with our new podcast. But it skyrocketed and then leveled off. we are struggling with what counts as an accurate count of podcast listening. And even if we have an imperfect count, as long as we agree on it, would be interesting to argue what is our goal based on a variety of different things? What goal do we have to reach to be revenue positive? Where we are generating more money in revenue than we are spending to make the podcast? That would be a goal. We don't have a number there, we haven't set a goal. I think starting looking at this data will prompt us to meet some goals. We do that on our overall revenue. We are forced by our budgeting process to pick a number and re-forecast. So we compare to budget and last year. And we can eyeball it instantly. Why shouldn't we take that sort of approach in most of what we do?

This is about the fourth time I had heard this exact same conversation about podcasting—beginning all the way back in March when Michael had held a podcasting strategy meeting. The trouble was, then as now, the conversation never *got* anywhere. It just recapitulated the questions, and the need for goals, as if talking about setting goals and dreaming about goals and

wishing for goals were the same as actually *deciding* on them.

And Shawna was still an optimist in all of this. In her mind, she had just offered the managers a brand new car to drive around, and they could use all of its features, luxury or not, to help decide just where they wanted to go.

Shawna: This is just like the revenue pacing report — you can imagine the budgeted and last year baseline metrics for all of these. if you remember weeks ago we were talking about that. I think it's not as fun unless you can think about what you want the pictures to look like. It's a self-started process. The more you work with the data, the more you can see what you want, and then you just get better. This is the process. I want to get into more details of how we could improve these charts — what could we add to podcast downloads to make it more meaningful. A high water mark? More meaningful goals? We can test and chuck way what we don't need. and then I will simultaneously build a real version.

But the process she was talking about—to learn by doing, to test it out and see what it felt like, over time, to compare their experience to particular visualizations of numbers—was not a process the group seemed eager to engage in. In fact, they were, at this very moment, in the process of utterly rejecting it.

David: Looking at charts, like live listening trends. I understood when we had that original conversation of why weekly data is good. I think the monthly listening reports are more meaningful and have more data than weekly inputs. When is it better to be a monthly input rather than weekly?

Shawna: We can get to that question for sure. But here, I was trying to get to a minimum set of metrics. So here we are doing Cum and AQH [radio listening metrics] and we're not doing it by demographics.

David: Ok, but we can parse the monthly data in a much more interesting way.

Shawna: Sure, but here, [pointing to the chart] how would what you're asking for change *this*? Precisely what is it that you want to know? That is totally possible, but we have to answer that question.

There was no real answer to the question, just resistance to the process, and perhaps also to the data. Jessica tried to turn this into a "teachable moment" for how the senior managers could help improve the dashboard, rather than just pick it apart.

Jessica: Into your next thematic group meeting, you just described a use case for you for looking at the data. So what is your specific use case for the data? is it checked off for what you are inputting into the sheet? Ask yourself a question, *does it make sense to set a goal based on your numbers*? if you think about that for yourself and your teams, that will be great info for what to react to and for what Shawna wants people to input beyond this table.

David: Ok, so looking back we had Cum and AQH as measure of awareness, and we had a measure of people calling in? What was that?

Shawna: This came from the funnel group conversations—it's a way to measure the people who talk back to WABC. There are a non-negligible number of people who are calling into the shows to interact with you. If someone picks up the phone and calls the station, that is sign of a huge commitment.

David: Ok, but how do you calculate the people who don't call in and we only take 3 callers?

Shawna: We talked about that in the group. I'm not here to solve that for you, but that is what the groups are for—to talk about this. If we tried to gather the data and found out that it was impossible, then we can get rid of it

here.

This, to me, was a sign of a group in meltdown. Attacking Shawna, attacking the metrics, attacking the process. It was looking like this group was *not* going to be using this tool any time soon.

Michael: I think there are some things that we don't need to measure. Like we know that there are so few phone calls, though we do take them, and we know more people try to get through and can't — even of the ones we talk to, fewer get on the air. The numbers are so small that we might not need to track it.

Paula: We also talk about what is the value of phone calls. It's not necessarily a positive value for engagement, it can be manipulated.

Shawna: Yes, but I don't have a horse in that race. if your peers have misjudged that phone call metric, then we can revisit it.

Questioning the value of listener phone calls was surprising. It was not unlike digital journalists bemoaning online commenters. But still, discouragement of listener participation—especially ones that took the trouble to call in—was not a good sign of becoming audience-centric. Rachael, one of the few other under-40 members of the Strategy group (along with the newcomers Jessica and Katie; and Alex), tried to help soften the resistance.

Rachael: We keep saying that we know all of this, but is it that hard to pull it together? Maybe it will surprise us!

David: We can do that, but taking phone calls is editorial decision that is not related to the rest of this.

Rachael: What if it were people who wanted to give us money?

David: Editorial decisions to take calls and membership money are completely separate.

The invocation of the editorial/business bright line shut down that line of discussion. But Michael seemed to pick up on the devolution of the conversation, because he tried again to rally the troops to the value of the tool they were rejecting.

Michael: I think Rachael was saying, let's see if there is a correlation between people who call the station and give us money, not to *influence* the people who call in. I am not worried about crossing editorial line. But yes, we could test that, and there are lots of things that we could test. There are the known unknowns — we know a lot about our business, some of it we should test, but some we just know. And we don't want to go down rabbit holes when there are so many things that have been surfaced. We have to figure out what is marginal vs. central. The whole purpose is that we can each run our departments more efficiently and collectively move forward.

And then, finally, it was time for Michael to put his stake in the ground for what this dashboard was going to be all about. What was going to make it meaningful, and useful.

"When Shawna and Jessica and I met, we talked about what's the goal here? Our goal is *growth*. There are many other things inside of growth. But growth changes many things about how you think about your business. If

you think you are atrophying or you want to maintain your business, that is different. I have set out a collective goal that we *grow*. How much is a whole set of decisions around goals, and we do have different goals for the parts of this org, and we have to apply them to this. But my hope is that if we have this dashboard, it will help us *to understand if we are growing*. Sometimes it is really hard to know — sometimes you go up and down and over time you won't know until you see things like this.

I think not every public radio station will embrace this. They could be embracing other values like around public service, and they could say that growth on an audience or revenue basis is a secondary set of issues. But for us, we have decided growth is the overall metric and it defines all the things we can and can't do in the future. If you think of it from that perspective, that will help you prioritize that first page of the dashboard."

And so, there is was. When push came to shove, growth in audience and revenue was the best success metric the GM could come up with to guide the station. But that was actually all he had been saying all along anyway. This statement was nothing new, it was a reconfirmation of the old. And because it was a reconfirmation of the old, it didn't solve any of the real problems or existential questions facing the station, it just encouraged more expansion.

Yet, this was also not surprising. This was the same conclusion that Giovannoni had pushed the entire system towards years earlier: that the surest measure of public service was the volume of public support. So if you wanted to fulfill your public service mission, your best bet was to grow your audience and grow your revenue. The contradictions and complications that such a formulation entailed could barely be reckoned with, only endured, or ignored entirely.

Yet this time was also different. If my last fifteen months at the station had taught me anything, it was that focusing on audience and revenue growth as a measure of public service—when most of the listening was happening off the radio—was at best becoming meaningless and at worst was an increasingly wasteful of resources and of public trust. And that was the saddest outcome of all.

There was actually more that Michael said, I think, at the very, very end of that strategy meeting. My notes trail off, and though I've searched my various records, I can't find the final lines.

But then I remembered. I had stopped taking notes because I was *tired*. I had felt it wash over

me, and I took my hands away from the keyboard, and looked up and away, out the window at the city behind us. This was my last day in the field. I had been hanging on, hoping that this dashboard would be a transformational turning point. There had been so many insightful senior manager conversations as part of the dashboard process that had seemed to make progress on the existential angst. And yet, by noon on March 28, 2016, I knew I had heard it all before.

I remember thinking, *I think I'm done here now. I think this is the end of the story.*

Chapter Conclusion

This chapter has told the story of the station's attempts to launch and use a metrics dashboard. For a station obsessed with addressing existential threats, incorporating metrics into its managerial practice would make sense. Metrics can help managers to motivate and evaluate performance. And in fact, the station was already using radio metrics and financial metrics to assess its broadcast performance and the overall financial health of the station. So the idea of metrics in itself was not foreign. So what made the project so difficult to execute? Below I walk through an analysis of what made the creation and adoption of the metrics dashboard so difficult, in ascending levels of complexity.

First, this case reveals that the real technical difficulties in assembling a metrics regime in a digital context. The technical difficulties of making different data sources sync up was what the early discussions of Aaron and Jessica and Shawna focused on. And as I laid out in greater detail in the previous chapters, the various technical systems running the infrastructure of the station were owned and managed by different teams and departments. Thus baseline coordination around technical integration was difficult, and subject to the same dynamics as the redesign.

Yet what this chapter shows is that the baseline technical difficulties were compounded by

the fact that there was so *much* data floating around different parts of the station. Nearly every operational routine at the station threw off data—from serving an ad, to making a schedule change on the radio, to posting a story on the website. A huge contribution of the dashboard project was to uncover and lay bear all these different data sources so that the management team could see the range of information available and talk about it.

Operational difficulties layered onto the technical difficulties. The metrics audit revealed the ad-hoc data sharing practices at the station, and how the expansion of new initiatives made coordination around data an operational strain. The managers experienced a severe lack of time for coordinating around data. And the cultural beliefs about "digital"—that it was scary, not understandable, and out of reach — also mitigated against understanding and incorporating metrics into everyday work and decision-making.

The technical and operational difficulties of building and using the dashboard were surpassed by an even deeper problem. The real obstacle to the senior team's identification of metrics, and ultimately its use of the dashboard, was the *lack of context* for making the data meaningful. I want to focus on two elements of what might have constituted "meaningful context" and explain why each were ultimately out of reach, and how each relate to the station's public service mission.

Context Trouble: The Challenges of Generating New Architectural Knowledge

First, there was no context for dashboard because there was no context for an integrated view of the station. What the audit revealed, and what the managers experienced, was a hodgepodge of goals and initiatives and shifting priorities. The pace at which the station was expanding its ambitions for new content and new programs far outpaced its operational

discipline, but also far outpaced its own understanding of evolving self. The the strategic was supposed to provide a new framework for understanding the station mission as unfolding "on air, online, and in person" in a new, multi-platform organization. But the actual organizational and operational mechanics of how that was supposed to work had never been translated beyond a list of new things to do, and so remained mysterious to everyone. The strategic plan was a useful guide for expanding, but not a useful guide for organizing.

The knowledge about the station which was missing—and which the dashboard had the potential to reveal—was in fact *architectural* knowledge. Architectural knowledge is defined as knowledge about the interfaces *between* the components or subsystems that make up a product (Henderson and Clark 1990). Interestingly, there were two dimensions of architectural knowledge at stake in the station's dashboard: audience and organizational.

If we consider all of the station's outputs as a single product—as a listener would, and as Shawna tried to convince the management team to grasp—then we can see that the first dimension of architectural knowledge at stake in the dashboard was *audience* knowledge. If the senior managers had used the dashboard, they could have generated knowledge about how the audience moved between the interfaces of the station's products: between how often a user might listen on the stream, how often she might read an article, and how likely she was to become a member, for example. The Funnel tab on the final dashboard prototype was aimed at generating this kind of architectural knowledge. This was what the digital team and the Lab really wanted and could have really used—new architectural knowledge about the audience and how it used the station's products.

The second dimension of architectural knowledge that the dashboard could have yielded was new *organizational* knowledge. What all the ad-hoc coordination and mixed priorities masked

was an emergent organization, actually built around the station's new, integrated, on-air, online, in-person product. That product, though, was *emergent*, and was getting layered on top of the traditional radio broadcast operation. The ways in which the redesign brought the senior managers together is an example of that emergent organization. What the architectural knowledge from the dashboard would have done is highlight which parts of the organization should be working together differently. By showing what the audience was actually doing in different channels, and how that was leading to revenue, the senior managers could have sifted the signal from the noise to see which of the many departmental interfaces needed to be elevated and organized, and perhaps which new organizational interfaces needed to be built.

These two components of architectural knowledge—audience knowledge and organizational knowledge—were latent in the dashboard's design. This was one part of the missing context that everyone kept asking for. And as Shawna kept saying, this could have been inductively generated from the dashboard. Yet this case also reveals the limits of the development and use of architectural knowledge in an public service-driven organization.

To see this, consider Shawna's management theory-in-use versus Aaron and Michael's. Shawna, as I have pointed out over and over again in this chapter, was a techno-optimistic. She believed that all the management team needed was a tool, built to their specifications, that gave them just the information they needed and no more, and a structured process for decision-making wrapped around it. With these two elements, she believed, the team would come to generate the architectural knowledge about the audience and the organization that they needed to make better and better decisions. By making decisions and then watching the metrics change, the managers could *learn* their way into building new architectural knowledge.

In that way, Shawna's approach to the station's data problem exemplifies the optimism of

older cybernetic approaches to management. It is also deeply resonant with the faith in technology and process so prevalent in Silicon Valley today. With a different group of managers, and in a different context, such an approach might have worked to generate the architectural knowledge the team needed. But instead, it failed to take hold on the team. Why?

The reason why even the smartest socio-technical intervention could not get off the ground in this case is because it missed the other dimension of context that was lacking at the station—a shared sense of why, of purpose, for what the station was supposed to accomplish in the world. The station lacked a real mission.

It was on this dimension of context—the *why* of what the station was doing, what it all added up to, *why* it was important, and what mattered most—those were the real missing pieces. Aaron sensed this from the beginning of the project when he argued with Shawna that without a strong sense of direction from the top, all her efforts would come to nothing. It was also lurking behind the extended conversation about the dashboard versus the destination. On some level, the managers were right to reject a piece of technology that added work but didn't answer their existential crisis. But where they got it wrong was expecting that anyone else was going to come up with a sense of purpose for them. Without that purpose, as one senior manager said, the metrics were meaningless.

Institutionalized Organizations and Institutional Logics

This brings us to the true irony and deeper puzzle of public service organizations navigating new digital contexts. In many ways, market firms have it easy. Supply, demand, price and ultimately shareholder value are the metrics and values by which organizational success and failure are determined. Those are widely shared cultural frameworks. When technology changes,

enlightened leaders need only ask how the direction of technical change, articulated through product choices, might influence supply, demand, price, and ultimately shareholder value.

Public organizations whose missions connect them to the good of the public outside the market do not have such an easy compass, as this chapter—and this dissertation has revealed. Questions of what is good performance and what is bad performance are ultimately questions of values, mission, and purpose. This is what Selznick theorized as both the uniqueness and difficulty of institutionalized leadership. Technical change—particularly digital technical change—can seem to offer easy answers. And cultural narratives of market-based heroism and digital disruption can seem to point the way. But institutionalized leadership is hard, and institutionalized change is hardest.

What was most fascinating and revealing about the GM's final assessments of the dashboard was that, when pushed, his definition of success was an institutional one that had been settled in public radio almost three decades earlier: public support equals public service. Growing the audience and growing revenue were the best answers the GM could come up with, and it was almost like he had torn out a sheet of Audience88 to get there.

This final insight also brings different strands of institutional theory together. In the long-standing push and pull of neo-institutionalism and old institutionalism, two definitions of "institution" vie for meaning. In old institutionalism, "institutionalized" refers to the meaningfulness and character which differentiated organizations can develop through careful leadership and service to their communities. "Institution" in neo-institutional thinking refers to the taken-for-granted scripts and routines, which often exist at the field level, that constitute the underlying structure of meaning and action.

Both are here in this final reading of the station's failed dashboard. As leaders of a public

organization, the station managers had an opportunity as they faced a new technical era to re-institutionalize the organization, to make its public service mission meaningful in a radically changed context. The dashboard could have helped them figure out how they were doing on the various dimensions of fulfilling that mission. But the mission of the station was not well-articulated enough to make the dashboard meaningful or useful. Yet on the other hand, in the absence of a strong mission, the the field-level institutional logic of public radio (in a neo-institutional sense) filled in. The impulse on the senior team was to repeat the older public radio logic in a desperate attempt at making-meaning. Thus the final theoretical takeaway from this chapter is that when public service organizations fail to institutionalize at important technical transition, they can nevertheless try to adapt by—for better and worse—repeating their taken-for-granted institutional logics.

Chapter 10: Coda

Introduction

This short Coda chapter is meant to tie up some of the loose narrative threads from the first three chapters, and set the stage for my theorizing of the entire case. To do that, I want to briefly touch on the fate of the metrics dashboard, the redesign, and the Innovation Lab.

1. The Computer at the Bottom of the Ocean

The dashboard was handed off from the Lab to the digital team. Jessica and Aaron had decided it was an ongoing operational project, and it was time to pass it over from the launch pad to the landing pad.

After the last strategy meeting of Phase 2, the one in which the dashboard began its slow death, I crowded again into Aaron's office with Alex, Jessica, and Shawna as they discussed the state of the project and what would happen next. Aaron started off the discussion with a joke about Shawna,

> Aaron: Somehow I have taken custody of this problem child here!
> Jessica: What do you mean? Shawna is the best!
> Aaron: Michael does know about this, right?

But Jessica assured him that she had gotten approval from the General Manager for the dashboard to become a digital project (upping the number of digital projects from 90 to 91). It was partly for financial reasons: the Lab was running low on funding, and Jessica needed more room to pursue other projects without having to pay Shawna from her budget. But it was also the first real project that had the Lab had done as a "launching pad," using the station as a "landing pad." This is what the Lab was supposed to do—launch projects that could find a home—and a

path to transformation—in the station. This was the tether in action.

Aaron helped, again, with the framing that the General Manager would require if the issue came up again. “If Michael asks about it, I would say to him that the dashboard has become operationalized and is no longer the Lab’s. It has been set free from the Lab and is now impacting the organization on a results basis.” But it still wasn’t clear what Aaron was supposed to do with the project, exactly. “Shawna, what is your perception of Michael’s perception of my role for you? As just a touch point?”

Shawna said she had been given instructions from Michael in the previous weeks to simplify the dashboard—to make it less of an “airplane dashboard” and more of a “car dashboard.” That is what she had presented in the strategy meeting that day—the stripped down, car dashboard version.

Aaron: Wait, so that was a stripped-down version? It’s not that stripped down!
Shawna: I was trying to get everyone’s metrics on there, and the suggestion was to go for the lowest common denominator. That was helpful. The dashboard I ran my company on was way shittier than this one, the thing I made is really good! This is supposed to help people figure things out.

Her dashboard was very good, but even at that lower level of complexity, the senior managers had rejected it.

Aaron shared his thoughts on where the strategy meeting had ended:

“My reaction to today’s meeting is that you have fulfilled your part of the bargain. What has not been fulfilled is the WABC part of the bargain, and how do we get us to catch up to you?”

Shawna despaired that the group had not shown much interest in starting to use the dashboard as she had hoped:

Shawna: Yes, that is what I have been frustrated with. This dashboard is like turning into the Achyrthmic machine — that was first computer that got stuck at the bottom of the ocean. I am worried this will get put in a drawer and forgotten…
Aaron: That is what I heard today too. That worried me.

But Shawna, still the techno-optimist, was ready for Aaron to be the new leader of the

dashboard project. Or she was going to quit.

Shawna: So here is where *you* come in, this dashboard is about to not get adopted because there is a leadership vacuum. I need a boss-like person or the group to emerge. Michael has not emerged as that person. If it is not going to get adopted, I am going to leave! I don't like my creations being inferno-ed. So I was thinking, can I get a small group to help me, and swap in Aaron for Michael?

But a boss-like person had not emerged, and the manager group had rejected the process and the product. Aaron chuckled. It had only taken four months to get to exactly the place he had predicted:

Aaron: Well, you got the short straw with me. In terms of people who can move Michael, I am the opposite. At the same time, I get shit done. I believe in getting shit down [Jessica: precisely] I can make this building get shit done. And he appreciates when I get shit done.

Aaron was being self-deprecating, another favorite mode. Shawna hadn't gotten the short end of the stick in Aaron, she had gotten a lifeline. That said, Aaron understood much more about the difficulties that might lie ahead than Shawna did. So he began shifting into strategy mode, and empathized with what she had just been through in the strategy meeting:

Aaron: I felt *every single thing* you felt today — that this thing will never launch, that Michael won't realize what he has, that he doesn't want visibility of things that you want visible. Except he is telling everyone, "I am going to recreate this org based on this dashboard." So this is going back to the very beginning of this project which was him saying in the first January strategy meeting, "I am enthusiastic about this but I hate data." But I think in working with you, I can see what the job to be done is, I saw it immediately today. It's to go back — the thematic groups are good, I think they are a more organic way of looking at WABC—but I think you need a step before those groups. A walk before you run. Using me as an example, it would be helpful to revisit with the people who are loading stuff into the dashboard — what have you got out of it, what is working and not, and don't get caught up in the mechanics.

He started to walk through a persuasion strategy for each of the senior managers too—to go back, and work with them on picking a target for their KPI's. But Shawna was getting frustrated—the group wasn't ready to do this, because the higher-level framework hadn't been stabilized yet. What was the use of picking targets if there was no agreement on the outlines of the dashboard? It would just create another round of tail-chasing, and going back to pick *new* individual metrics.

Aaron: Oh, I did not realize that.
Aaron: [giving some feedback on the specific dashboard numbers] — why the incoming slack messages again?
Shawna: *the group said it, not me!*

Aaron: OK, so maybe, for example… give people homework?

Shawna: This is *a machine*, so if people don't like their parts, they can't just rip them out. If I send an email, only some people will open it. And everyone will have problems with this, and I want them *to talk to each other* and not just me.

So this was getting nowhere fast. All the same problems were coming up. Shawna said she thought her best bet would be to focus on the deputies: "I think I should meet with the cadre of workhouse stakeholders — only half of the people in that strategy meeting should be putting in data anyway." She ticked off the deputies she thought would be most helpful, and who actually wanted to participate. This would be a bottom-up, arm-the-rebels strategy.

Shawna: These junior people really want to participate. And they can do it for their bosses. People get stink face in the manager meetings about what the data should be. I want to get out of that dynamic by focusing on thematic groups and workhorse stakeholders. So if we like it, then go back to our bosses and get them to like it, and then they can take that to the manager meetings. We need some people who are excited and evangelists. And then the slower ones can see other people using it and learning from it and then adopt it!

Aaron agreed — he had often used this strategy which he termed, in another of his favorite phrases, "going with the coalition of the willing." He helped Shawna think through the politics of each of the "workhorses," and their relationships to their bosses, and getting the senior managers to sign off on them spending time on the dashboard.

Shawna was getting animated and excited again about how this could work. Despite the fact that she swore in December that she would never "arm the rebels"—apparently this was the last avenue open to her and the last hope for the dashboard. But Aaron, as strategic and helpful as he was trying to be, couldn't help himself from pointing out an obvious fact:

Aaron: Ok, but we are dancing around the elephant in the room. What is going on with the GM who is truly the only stakeholder in the room who *has to give a shit* about using this dashboard. How can we bring him along to make it HIS dashboard and make him feel like it's his dashboard? Are we meeting with him every week? Every two weeks? With me there or not?

Shawna: I have been trying to get Michael to be in the driver's seat and his hands have been sweating and falling off the wheel. So now let's have others try to run it. Like Rachael, get her up there to run strategy meeting with the dashboard. If we have the stakeholders paying attention to this — we would see some interesting stuff!

Aaron: How about that picture about digital listening plain as the nose on your face? Rather than whining about the radio cume? We have nothing else to talk about in that meeting, so let's figure out THAT chart.

Shawna: So now I have to get them all jealous about how other people drive that meeting with the dashboard!

This was still sounding like Groundhog Day, or the Titanic, with a new arrangement of desk

chairs. And Jessica had her own arrangement of the chairs to offer:

Jessica: And now I have another end run around this! Abraham Stone, he's a new advisor to the Lab. They met, and Michael instantly loved him. Abraham is a saint said he wants to help WABC. He said he can be an advisor to the Lab to help with this tool in particular and creating experiments around use cases. For example, keeping track of the people who pick up the phone…

At the reference to the strategy meeting exchange about listeners calling in, Shawna slapped her forehead.

Shawna: I can't believe they said, "Fuck the people who call in!" If that's really the case, then that is so sad. I am just going to slump away.

Jessica: Abraham said, define your use cases for the tool, and strategy coming out of your use cases, and then design experiments around it.

Shawna: OK, but I *tried* to explain that, and then people wanted to get rid of the Funnel!

Aaron: I can tell you, many people in that meeting could not *believe* that we would get rid of the funnel. Like Katie.

They talked a bit more about who should be in the workhorses group. And Shawna said again, what Aaron had known all along.

Shawna: There is a vacuum of leadership that I am trying to deploy this into. But you are stepping up.

Aaron: This is the elephant in the room. This place has no driver, and it wants to go in the same direction every time.

Shawna: But that is the problem we are facing, that's ok, we just need the solutions for it. So I am just attacking it from a different angle. As long as we are willing to jump on this train, if we agree this makes vague sense and this plan doesn't suck.

Aaron: And I can keep it moving. This plan is what the project needed.

Shawna: Yes, and someone like you to pass it to.

They kept talking for a while about budget, and calendaring, when Shawna would meet with the stakeholders. But after they had been going for a few minutes, Aaron stepped back again:

Aaron: The burning question for me is, if you had to give this a percentage, of becoming the Archimedes computer, what is your probability that this ends up at the bottom of the Aegean?

Shawna: Well, now very low. When it looked there was a 30% confidence of working, I was happy to walk away. but now it's like 80% I think this could happen.

Aaron: Ok, because I am happy to jump on any ship, sinking or not, but I want to know whether to wear a life jacket.

Shawna: Michael will eventually use it because all of you are using it. Its like when Dads say, "what's happening?!" And people tell him. Michael barely sits and does anything at the computer, that's clear. He's always in a chair, with paper. There's very little reference to digital technology in his life. But people will be printing it out and using it and putting it in his face. That is what he wants. That is how he gets things done, it's how he does things at the top. It's not an end run, it's the call he's making about how to manage the station.

Aaron: Ok. I like filling in my numbers, it makes sense operationally.

Shawna: Yes and you will use your numbers and communicate them to him, and you will lock horns until you get into an agreement. As you master it, so will others.

Jessica: And there are other forces are in our favor for this getting picked up. Funders, the upcoming public

media marketing conference.

But this is not quite what would happen. The thematic groups did meet again, and so did the workhorses. In a few weeks, Shawna and Jessica would present the dashboard to the station's Advisory Board, to much fanfare. Shawna and Jessica would coach Michael on how to use the dashboard, and they even tried it out in the weekly strategy meeting a few more times. Two months later, at the end of May, Shawna would go into full-time development of a real, working web-based dashboard. In July, Jessica and Michael would present her beautiful tool to all of the system's general managers at the annual Public Media Development and Marketing Conference. But it would never get fully adopted.

And Jessica departed the station a year later. She explained to me later that she had been so focused on fundraising the fall after the dashboard's development, that she hadn't checked back with the digital team to see where they were on using the dashboard. By then, it had dropped to the bottom of the digital team's long list of projects, and there wasn't money anywhere to hire Shawna to finish it, and there wasn't anyone at the station to implement it.

Jessica: And so, because I was then focused on fundraising in general like it remained dormant and none of the management team was like "how can we help you to do this?" I always operated only focused on my own budget. Some of the dashboard had been paid for out of other budgets like digital, like that last wave of research. So, in other companies where I worked, if someone else's budget got applied to like a project, then they became an owner of the project.

Elizabeth: I thought digital was supposed to be the owner of the project after that the prototype went into development.

Jessica: They never were.

Elizabeth: Oh.

Jessica: That surprised me too. I was like this is Aaron's budget shouldn't Aaron like now take this thing and go, because they said all along it's a foundational thing. I said — "Like you guys need this, so go! No one is leading this! Be the data leader! I shouldn't be your data leader!"

Elizabeth: So, it died at the point of throwing it over the transom essentially.

Jessica: Basically. The digital team has it. They have the files. But their development team is totally underwater. They don't have time to deal with that. And so, you know they could easily, and in fact I recommended to them, like you guys should reach out to Shawna and talk with her about on-boarding the tool to the strategy meeting again, like getting the product up and going.

But that hadn't happened. And by the time I had this conversation with Jessica—more than a year later, in the summer of 2017, the relationship between Jessica, Shawna, and the station had

completely deteriorated. Jessica had left the station, and all of her Innovation Lab projects had been halted. When I asked Alex that summer about whether the dashboard had been revived, she just shook her head.

The dashboard ended up in a drawer, at the bottom of the ocean.

2. Unsticking the Redesign

Supermarket sweeps

If there was one tangible, short-term benefit to the three months everyone spent working on the dashboard, it was that the process managed to help unstick the redesign. When it became clear to Aaron and Alex just how tangled their work on the redesign had gotten, Michael let them hire Shawna as a consultant to figure out the roadmap to the beta launch. Studio One's contract had expired, but until Aaron and Alex could get a handle on what needed to happen before the beta site was launched, they weren't even sure what to ask Studio One to do next.

In late February, as Shawna was taking over the strategy meeting, she met with digital team on laying out their outstanding projects and what needed to get done for the beta site to be ready to launch. Aaron summed up the problems facing them, as they looked at the stack of 80 projects they had just extracted from Trello, Alex's spreadsheets, Aaron's unreadable white board, and the back of all of their brains:

> Aaron: Some of these projects have dependencies that we control, but some do not. We lost a month from January to February with Bobby and Josh and the app. And then we lost Bobby to a podcast launch for another week. So we've been buried in responding to little, unrelated things. If we had the month of January back, including meetings about dynamic ad insertion and adding that to the app, we could have made more progress. Now we have Josh working on the app and the API, and Bobby doing dynamic ad insertion for the podcasts, and we are dealing with all the maintenance we had put off. That alone took us a month away from deliverable. When we were saying to Michael, timeout you can't have dynamic ad insertion AND have the site in time, that will cost us time, he didn't hear us.

But at the same time, Michael and the Advisory Board were exerting serious pressure on the team to finish the site. One board member, who had helped launch a successful internet

company, also met with the team in early March to help them prioritize. She pointed out what the previous year's worth of work on the redesign had made plain: the lack of a product management person with sufficient authority and resources to handle the station's digital ambitions was a *huge* problem.

Shawna continued meeting with the digital team through February and March to white board all of their projects and the dependencies in the tasks needed to launch the beta site. At one point, the digital team took over the entire event room and filled three giant 8-foot poster boards with all of their projects and sub-tasks. Michael walked in and was amazed at what they were managing, and asked them to come up with a launch date. Now it was Shawna's turn to try to explain to Michael what Aaron and Alex had not been able to. And it came down to…prioritization.

Shawna: the first thing we did was just a brain dump — and the 40-page text wall you see behind you. we've made a lot of progress just to think this through. we got to the point of the tasks we want to do, and then the first estimate of tasks and adding it up. today we prioritized it, and so we can see some of this goes down by an order of magnitude. that is where we are at right now. it sounds like it could take a year. that is a truth of development. when you get into the weeds, they are infinitely deep and you have to make a decision about where your cut point is. That is the biggest weakness here. You could just keep going. In doing this process, we are consciously attempting to give up things — I have been pushing the digital team to give stuff up. we are making a tremendous amount of progress. we are laying it out. we can actually cross it from here — we had already planned to do it. so going through this, if you have to gut punch me, I think you could be prepared in three months, or maybe 3-6. It depends on what you have to get done, and on making a lot of concessions. But, we are trying to push as fast as possible BUT with reality. The things that are a 1 in priority you have to do. I think we will get to that hard number pretty soon. I am seeing all these cards go down in number or eliminated, so we have already saved hundreds of hours just by doing this.

Michael: I get that you have saved time by doing this and there is more work to be done. the flip side of that equation is that we were supposed to be where we are now *last September*. We had a vision with Studio One of being functional beta by September, that clearly hasn't happened. If it's another 3-6 months to launch, then we are talking about this thing being essentially delayed by over a year or more LATE. Which is not good. It is either some mistake or miscalculation had to have played a role.

Shawna: I can assess your past! You bit off more than you can chew, then you took two more bites. You are ambitious, but that is OK because you are the best public radio web property and you are swinging for the fences. So ok you aren't launching on time, you won't change the past. A planning process like this is how you won't make that mistake again.

Michael: I don't want to point fingers about the past. But it says something about what we need to spend and what role we are responsible for doing versus Studio One. We spent hundreds of thousands of dollars on them. And we're supposedly going to spend more. And yet I think we're at a point where I'm not 100% sure what they are supposed to do for the significant additional money we would spend with them. I guess its fair to say that my faith in them is a little shaken by this and I didn't understand their capabilities. They are more design firm than a development firm.

This was true enough, but what Michael still didn't seem to see — despite the three 8-foot-tall boards behind him, plastered with all the digital team's projects—was that when it came to software development, to product development, *there is no launching with prioritization*.

On my last day in the field, I went to lunch with Shawna, Aaron and Alex. Shawna made a funny analogy to the GM managing the redesign like the Supermarket Sweeps game show—running through the aisles, sweeping as many hams into the digital team's overloaded cart as he possibly could. "No more hams!" She chided Alex and Aaron. "You have to get him to stop putting in hams! Or if you give him a ham, you have to change the launch date!"

The biggest hams in the cart on that date—March 28, 2016—were infinite scroll, the stocks and weather on the homepage, and the persistent audio player.

It really was Groundhog Day.

Two months later, in June, the public beta site went live. It was a beautiful site, with a persistent audio player. There was no infinite scroll, but eventually there would be stocks and weather.

I attended the celebration party.

The cost center

The following February, shortly after the election of Donald Trump, Katie invited me to a Valentine's Day brunch. Alex was there too, and I hadn't seen her in a while. It was almost a year to the day since I had left the station, and now the world had really turned upside down. I asked her how things had been going since the site launched.

She said the developer resources continued to be a stumbling block — they were still being asked to do a lot with very little.

And even worse, most of her work since the site had launched had been about back-filling

the site's revenue components, since they hadn't had the capacity to work on it before the launch. Because the beta site hadn't included a redesign of the banner ad serving system when it was rebuilt (it had placeholders but there ultimately wasn't any coordination with the underwriting team) — they had had to spend the last 6 months rebuilding the system that serves banner ads from underwriting to the site.

It had turned out that the existing banner ads which the underwriting team had been selling were the wrong size for what Studio One had designed, and needed to be integrated differently. So basically, underwriting on the site had been completely broken since the beta launch—which no one in underwriting was happy about. This had the effect of reinforcing the label of the digital team as a "cost center," and now both the GM and the station business manager were upset and wondering what the return on investment of the new site actually was.

The digital team also had to spend time installing dynamic ad insertion software into their podcasting distribution system. And they were spending time building out a native advertising module which was supposed to be a separate site. She said she was spending no time on journalism. All her work had been on revenue and she was *not* having fun.

Meanwhile, Katie reported that she was finally working on an email conversion strategy using newsletters. This was going to take people all the way down the funnel to engagement but not conversion — the newsletters were going to be lead generation for membership, she said. In February 2017, this was exactly the same strategy she had suggested to the digital team in February 2015. Except now she was sort of in charge of it.

I asked her who in membership was going to handle those email leads. She said maybe Rachael will help out, and maybe not. But so far it didn't sound like much coordination was happening with membership. But how could there be? Without a new CRM, they would just get

back to the original problem of the membership being walled off from the rest of the station's digital products. BUT, Katie said, "we have reached peak radio — that audience is not going to get any bigger." So, she felt it was finally time for the station to focus on digital products for lead generation. And yet, Katie confirmed that, despite all the brainstorming during the redesign, they hadn't yet built out any new calls to action on the site.

A Case of Disruption?

The story I have told so far, of the implications of using innovation, product, revenue, and metrics for addressing existential threats is a story that has reached far inside one public service organization. The outsized expectations for what innovative structures can deliver; the challenges of managing digital products inside legacy organizations; the entwined infrastructure and coordination problems involved in chasing new revenue streams; and the problems of meaningless metrics have all, I hope, coalesced into a picture of what makes responding to a new technological context so difficult in legacy organizations. In some ways, this is not a new story. Organizations are now as ever, as Phillip Selznick wrote, recalcitrant tools.

Yet at the same time, it's important to contextualize these innovation challenges, relative to the overall growth and success of the station, and relative to the station of innovation generally in public radio. The reader may conclude from this story that the station was headed for disaster. But in fact, the innovations it was able to launch were very much ahead of its peers. The app was beautifully designed, integrated an experimental donation mechanism, and included the on-demand elements that the GM had requested. The new site had the system's first embedded persistent player, and showcased digital audio in a fresh and compelling way. Over time, the digital team did fill in some of the missing pieces on the site: new modules for advertising, an

events portal, better curation, a rationalized navigation. The station launched a number of very successful podcasts, and the new site provided a home for all of them. When the event space launched, it opened up the station to the city in a new way, and provided another powerful platform on which to convene conversations in art, culture, and current affairs. The podcast business began to grow, and the membership remained healthy. The local newsroom continued to be one of the strongest remaining in the city.

In other words, despite the considerable challenges, the station was also in many ways at the top of its game, and at the top of its field. How can we reconcile these two dynamics? Is this a case of digital disruption waiting to happen? Does the public service mission matter, and how? I will turn to that question in the final theory chapter.

Chapter 11: Theory

Introduction

The animating question of this dissertation is: how does the pursuit of mission affect the process of innovation in public service organizations? This question is important to answer because, while we know much about how firms adapt (or not) at technical transitions in product markets, public service organizations may face special challenges when their technical context changes, as both the meaningfulness and efficiency of the enterprise are challenged. I have explored this question empirically in the context of public radio broadcasting, an ideal setting in which a field of organizations with a public mission faces both massive technical changes in the evolution of digital media and the strong institutional context of public broadcasting and journalism.

The bulk of this dissertation has presented an in-depth ethnographic description of digital change at one public radio station. This chapter brings together my empirical findings at the station with the insights generated from the institutional context chapters and presents a theoretical framework for understanding the intersections between them. Using what I have learned so far, this chapter will begin weaving together a theoretical explanation for the challenges faced by public service organizations attempting digital transformation, and how those challenges are met. I begin by laying out some theoretical elements before diving into a further theorization of the findings.

At the close of the empirical chapters, I posed the following puzzle: how could it be that the station was so successful in raising money, launching new programs, and creating new products,

and yet also exhibit the patterns of difficulty and confusion I detailed in their attempts at innovation and adaptation? The Innovation Lab, the redesign, and the dashboard each encountered significant difficulty and fell short of their stated ambitions. And yet the station also thrived and expanded during my time there, and beyond.

1. Organizations versus Institutions

To help make sense of this puzzle, and to make progress on the question of how public service organizations innovate and navigate technical transitions, I turn to the work of Philip Selznick (1949, 1957, 1994) to draw out a distinction between organization and institution. Whereas more contemporary variants of institutional theory have emphasized the nature of institutions as existing outside and across organizations (Thornton, Ocasio, & Lounsbury, 2012), Selznick's brand of institutionalism treated formal organizations as existing on a continuum between organization and institution, ultimately sharing aspects of both (1957).

Selznick conceptualized organizations in their pure form as technical instruments that are designed to meet specific goals. The creation of organizational features, he wrote, is "an exercise in engineering; it is governed by the related ideals of rationality and discipline" (Selznick 1957, p.5). Organizations are expendable tools (1957, p.5) for accomplishing particular aims. Selznick put organization in contrast to institution: "An 'institution,' on the other hand, is more nearly a product of social needs and pressures—a responsive, adaptive organism" (1957, p.5). Those social needs could be internal—for example, organization members' needs for affiliation, identification, and fulfillment. But those social needs could also be external (as in the neo-institutional sense), and refer to the pressures exerted by powerful actors, or the force of law and regulation, or the need for legitimacy.

To what extent a given entity is more organization or more institution is a matter of empirical investigation, wrote Selznick. Furthermore, organization and institution as variables pull an entity in different directions. Organizations might be expendable instruments, but they are also flexible and can be put to many purposes. Their flexibility makes them highly unstable. Institutions, on the other hand, lend stability and weight to an entity—institutions tend to persist over time (Selznick 1957).

Selznick theorized that in any given organization, the point-counterpoint of organizational requirements and institutional needs produced much of the drama. For example, rivalry and politics, he wrote, are the result of complex interplays of rational organizational functioning layered with human concerns for constructing meaning and seeking affiliation (1957). Rivalry and politics arise because the forces of specialization and the division of labor within the organizational machinery tends to produce subgroups—people identify with their department, team, etc. Subgroups often vie for power and status within organizations, producing rivalry and politics. The task of leadership in this context, according to Selznick, is to create a balance of integration and shared meaning that works against the fragmentation borne of task specialization (1957 p.15).

But what does it mean for an organization to become an institution? Institutionalization, according to Selznick's thinking, is a process, directed by leaders who infuse the organization with value. The working out of those values builds organizational character, and also organizational identity—features which are not easy to change. Selznick explained: "The test of infusion with value is expendability. If an organization is merely an instrument, it will be readily altered or cast aside when a more efficient tool becomes available. When value infusion takes place, however, there is a resistance to change. People feel a sense of personal loss; the

"identity" of the group or community seems somehow violated; they bow to economic of technological considerations only reluctantly, with regret" (1957 p.18 - 19).

The concept of value is unique and central in Selznick's organizational theorizing. Values are more than what transform an organization into an institution—they are what gives work meaning and what binds individuals to the collective. Values are also what people fight for on behalf of the organization when the context changes. Selznick wrote:

> "There is a close relation between "infusion with value" and "self-maintenance." As an organization acquires a self, a distinctive identity, it becomes an institution. This involves the taking on of values, ways of acting and believing that are deemed important for their own sake. From then on self-maintenance becomes more than bare organizational survival; it becomes a struggle to preserve the uniqueness of the group in the face of new problems and altered circumstances" (1957 p.21).

Yet there is an additional, somewhat latent feature of values that distinguish organizational institutionalization from concepts like organizational identity. Values are meaning structures that connect people to each other, but values are also what connect organizations and their members to society (Selznick 1957, 1994; Miller and Rice 1967). In that way, values function as the connective tissue between the individual, the group, and the social collective. Societal values are given substance through the work of organizations. Selznick explained: "Organizations do not so much create values as embody them. As this occurs, the organization becomes gradually institutionalized" (1957, p.20). The particular constellation of values and commitments that leaders make are encapsulated by the mission and purpose of the institutionalized organization in relationship to its social context. Organizational mission, carried out over time, creates distinctive competence and organizational character (1957).

2. Institutional Pressures on the Station: Journalism and Public Broadcasting

With these theoretical tools, I turn back now to my central question of how public service organizations navigate technical transitions, and how to make sense of the empirical puzzle of

both success and failure at the station. Using a Selznickian conceptualization of institutions versus organizations, my first step has been to understand the various external institutional pressures on the station and how it managed them—how did the values of journalism and the values of public broadcasting come to bear upon the adaptation efforts of the station? To what extent were those values being incorporated into the station's adaptation efforts and how did those values play out?

As I showed in Chapter 3, journalism as a field entails a set of occupational values that guide journalists' work. The journalistic values of public service, objectivity, autonomy, immediacy, and ethics have been developed in a particular economic, social, and technical context of news production (Deuze, 2005). The rise of digital technologies and the spread of their use into journalism has changed the context in which journalists do their work and so must necessarily change those values (Anderson, Bell, & Shirky, 2012). The use of digital technologies in the production and dissemination of journalism have brought both more openness and more rationalization in the work of making news. A new set of values is now ascendant in the work of digital journalists: impact, engagement, and user-as-consumer are the terms on which journalists must now do their work in the digital sphere (Hansen & Goligoski, 2018). This has prompted a wave of transformation in the identities of journalists and news organizations, and re-oriented the relationship between a journalist and her audience (Anderson, 2011).

My ethnographic data reveal how WABC was attempting to orient its innovation against this new set of values and practices in digital journalism. The Innovation Lab in particular was the venue in which the values of engagement and user-as-consumer were most visible, through the Lab Director's commitment to human-centered design. Yet my analysis has showed those ascendant values were very difficult for the station's leadership to understand in relation to their

legacy, broadcast public service mission. The confusion between the Lab Director and the General Manager about who is the audience and what are their needs revealed a very traditional notion of the journalist/audience relationship still embedded in the mission and the operations of the station. While the Lab Director saw her work as uncovering the particular needs of particular listeners, the General Manager was adamant that the station served an undifferentiated "enormous, polyglot public." This difference in values—and difference in understanding the meaning of public service—was ultimately irreconcilable. Indeed, although the Lab Director was able to pursue her set of projects through the human-centered design lens, her projects were ultimately deemed a failure.

The ascendant values of digital journalism were not the only institutional forces at work shaping the form and outcomes of innovation at WABC. As I laid out in Chapters 5 and 6, public broadcasting provides another set of institutional values through and against which adaptation took place at the station. I have characterized public broadcasting as a 'diffuse institution' — and indeed, the Public Broadcasting Act provides very thin symbolic resources with which local stations can build a public service.

The diffuseness of public radio has cut two ways. On the one hand, the weakness of federal (and often state) funding has produced an organizational innovation in the form of a diversified business model for public stations that is proving remarkably robust as commercial news media shrinks. On the other hand, the values that should guide the provision of local public service are not well-specified in the Act. What it means to "serve the public" has mostly been left to local stations to figure out. On the public radio side of public broadcasting, the efforts of Giovannoni in the 1980's and 1990's cemented the measure of public dollars as the best indicator of public support, and thus, the best measure of public service. This has produced a very particular kind of

programming and a very particular kind of broadcast audience: white, educated, affluent. It has also saved public broadcasting from becoming more of a political football, and has provided the best hope yet for a sustainable model for local journalism. Yet, as I have shown in the rest of the dissertation, this institutional equation can have profoundly mixed consequences at the local level.

3. Institutional Ends versus Organizational Means

To understand how and why the institutional values of public broadcasting—and the working definition of public service as the dollar volume of public support—came to have negative consequences on WABC's innovation efforts, consider again the Selznickian distinction between organizational methods and means, and institutional goals and ends.

"The tendency to emphasize methods rather than goals is an important source of disorientation in all organizations. It has the value of stimulating full development of those methods, but it risks loss of adaptability and sometimes results in a radical substitution of means for ends. Leaders may feel more secure when they emphasize the exploitation of technical potentialities, but the difficult task of defining goals and adapting methods to them may be unfulfilled. This is so because the definition of goals requires an appraisal of many co-ordinate objectives…whereas technical development can be more comfortably single-minded" (1957, p.12).

The methods of public radio broadcasting are building a radio audience through a distinctive set of programming practices, selling underwriting, and running pledge drives for support. These are very effective means and methods, but in absence of a clearly articulated and distinctive institutional mission, they can easily become ends. For example, as I showed in the metrics chapter, at each moment when the General Manager was pushed by his team to articulate a set of goals and priorities for the station—to, in Selznick's words—articulate a distinctive institutional mission, he fell back on measures of organizational growth. Thus growing the audience and growing revenue remained both the *indicator* and the *end goal* of the station's success. Yet, as Selznick explained, organizational growth does not make a truly distinctive

institutional mission.

To theorize the precise nature of this failure requires understanding the slippage between institution as a trans-organizational taken-for-granted social prescription (Thornton et al., 2012), and institution as a feature of organizational meaningfulness (Selznick 1957). Selznick is clear that institutionalization via the creation and manifestation of an organizational mission and purpose is a creative act of leadership. Institutionalization as an act of leadership requires the exercise of agency. The General Manager and his senior team clearly did not exercise institutional leadership at the station—they failed to institutionalize WABC. Yet we could also say that the institutionalization of the definition of public service as dollars of public support at the *field* level of public broadcasting is what the managers at WABC fell back on. They didn't know what else to say, so they said what everyone else was saying, and had been saying for a very long time, about what it means to be in the public service business in public broadcasting.

Why does this distinction matter for thinking about innovation? In the first instance, it helps clarify why organization theorists might need more both more theoretical preciseness and more theoretical richness in their uses of the words *institution* and *institutionalization* (this author included!). What the WABC case shows is institutionalization as a process was operating at different levels—one at the field level, one at the organizational level—but puling in different directions (one towards replication, one towards agency) in relationship to innovation, and impacting each other. At the organizational level, the General Manager and his senior team failed to institutionalize the organization at a moment of a major technical transition. But at the field level, the process of institutionalized had produced a definition of public service that provided a default answer when a better one could not be created.

The second reason why this distinction between organization and institution matters is

because it helps explain how it could be that the station as an organization was successful—in dollars earned, hours of program produced, audience reached—but as an institution it could falter. The technical transitions literature is full of empirical findings and theorizing about how and why organizations stumble at major technical transition. But the relationship between institutional struggle and organizational success is not a question that has been able to be posed before. So what does it look like for an institution to falter while the organization succeeds?

4. Explaining Mixed Innovation Outcomes: Organizational Success and Institutional Struggle

To demonstrate how the distinction between organization and institution might be used to understand the mixed adaptation innovation at the station, I turn next to a closer examination of two dynamics which cut across all the previous chapters: the dynamics of the senior team, and the dynamics of constructing innovations.

I first examine the dynamics of the senior team. Top management teams (TMT) occupy a special place in an organization: these teams are the locus between the organization and the environment (Hambrick, 2007; Hambrick & Mason, 1984), and their strategic acuity and cognitive modeling strongly determine the adaptation outcomes of the organization (Benner & Tushman, 2003; Robert Mitchell, Shepherd, & Sharfman, 2011; Smith & Tushman, 2005). Theories of senior teams navigating technical transitions show how their cognitive as well as emotional flexibility can play a huge part in framing technical change as the context for either threat or opportunity (Gilbert, 2005; Raffaelli, Glynn, & Tushman; Smith & Lewis, 2011; Vuori & Huy, 2016).

For example, Raffaelli, Glynn, and Tushman (2019) have presented a model of how a senior

team's ability to expansively frame innovations, and to cast those innovations as emotionally resonant, can have the effect of pushing an organization through inertia towards adaptation. In what follows, I add to this model by using my case data, and the distinction between organization and institution, to specify an additional source of inertia on the senior team: the risk associated with making certain kinds of institutional choices—and the dynamics of negative emotion that such a risk creates.

To do this requires first a definition of leadership. Selznick's definition of institutional leadership was two-fold. First, he defined leadership as a kind of work or activity. Leadership is not something that inheres in a person or office, but in a type of work that links an organization to its context: "Leadership is a kind of work done to meet the needs of a social situation" (1957, p.22). His theory of leadership was thus also embedded in a theory of the social nature of organizations. The social nature of organizations, as I have described above, is both internal and external. Internally, the social nature of the organization relates to the needs for affiliation, meaning, and satisfaction of organization members. Externally, the social nature of the organization related to its role amidst other organizations in its field and to the relationship of its work to the needs of society. The exercise of institutional leadership (as opposed to organizational administration) involves crafting the mission of the organization, along with a set of values and clear goals that were fused to an organizational structure that could carry out the organization's purpose (Selznick 1957).

In the study and theory of top management teams and technical transitions, identity—as a conceptualization of "who we are and what we do"—is the closest analog to institutional mission and purpose (Navis & Glynn, 2010). But the richness of Selznick's thinking is such that identity is only a small part of a complex set of ideas related to institutional leadership which include

mission, value, character, purpose, and distinctive competence, as well as identity (Selznick 1957).

A distinctive institutional mission is clearly a core defining feature of an organization that transcends mere technical efficiency. The technical transitions literature has shown that identity is often a source of inertia during transitions—in that the meanings held by the senior team around "who we are and what we do" can blind them to opportunities as well as threats and slow down change (Nelson & Irwin, 2014; Tripsas, 2009; Tripsas & Gavetti, 2000). The cognitive approach to understanding senior teams and technical transitions understands concepts like identity as "perceptual filters" that have varying degrees of flexibility. What might an institutional lens add to this?

From an institutional leadership perspective, the definition of failure becomes more complicated. A deeply-held identity might facilitate or impede a senior team's ability to generate organizational success, but a distinction between organization and institution opens up the possibility for simultaneous organizational success and institutional struggle. In fact, Selznick defines two types of institutional leadership failure, neither of which entail organizational failure.

The first type of institutional leadership failure is the failure to set goals. He wrote:

> "Once an organization becomes a "going concern," it can readily escape the task of defining its purposes. This evasion stems partly from the hard intellectual labor involved, a labor that often seems but to increase the burden of already onerous daily operations. In part, also, there is a wish to avoid conflicts with those in and out of the organization who would be threatened by a sharp definition of purpose, with its attendant claims and responsibilities" (1957, p.25 -26).

The second type of institutional leadership failure is the failure to fully implement those goals across the breadth and depth of the organization. This is a failure to help organization members understand the goals as well as a failure to align the goals with the structure and resources necessary to implement them. Selznick wrote: "Anther type of default occurs when

goals, however neatly formulated, enjoy only a superficial acceptable and do not genuinely influence the total structure of the enterprise" (1957, p.26).

In Selznick's thinking, an institutional leader "is primarily an expert in the promotion and protection of values" (1957, p.28). Thus leadership is both about values and competence: "Building special values and a distinctive competence into the organization is a prime function of leadership" (1957, p.27). Yet importantly, the absence of values and distinctive competence doesn't necessarily entail organizational failure. In fact, Selznick sees institutional failure and organizational success as a likely outcome:

> "The default of leadership shows itself in acute form when organizational achievement or survival is confounded with institutional success. To be sure, no institutional leader can avoid concern for the minimum conditions of continued organizational existence. But he fails if he permits sheer organizational achievement, in resources, stability, or reputation, to become the criterion of success." (1957, p.27)

As I have shown over the last few chapters, the General Manager and his team fell prey to exactly this kind of leadership by default: confounding achievement and survival with institutional success. This confounding produced achievement and survival, but what else did it produce? Taking a step back from the data, it is possible to use Selznick's definition of institutional leadership failures to look across the station's innovation initiatives and analyze the unintended consequences of their failure to define an institutional mission.

Table 4 below begins to identify the patterns associated with institutional failure and their unintended consequences in each of the station's innovations. With this view across the activity of the station, it is possible to begin to link the institutional workings of the stations with their organizational outcomes.

Table 4: Common Patterns of Unanticipated Consequences Produced by Institutional Failure

Innovation	**Institutional Failure to set goals**	**Institutional Poor execution**	**Unanticipated Consequences**
Innovation Lab	Confusion about who the Lab should serve Confusion about how the Lab should relate to the station	Unrealistic monetization goals Lab not given enough autonomy or resources Station not able to provide necessary data on audience and revenue to map needs	Lab very close to the station Lab only able to launch a few small products Lab director fired
Product/ Redesign	Goals too ambitious and diffuse for allotted time and resources	Digital team unable to manage unforeseen design and infrastructure interdependencies, making coordination more costly	Politics and pragmatism drive development process Redesign delivered late, radical elements of product scaled back
Revenue/ Redesign	No revenue targets set for the site Refusal to count digital donation revenue as digital revenue Undifferentiated understanding of "the public"	Infrastructure design and ownership fragmented and mostly in the radio operation Lack of coordination between radio and digital revenue strategies	Political resistance to infrastructure change Financial incentives to protect radio infrastructure Digital team unable to redesign infrastructure for revenue
Metrics/ Dashboard	Dashboard launched because of lack of shared goals and metrics	Proliferation of data and tools with multiple owners across the station Culture of ad-hoc data collection and sharing Senior team overwhelmed by process	Organizational and audience interdependencies surfaced through the technical dashboard interface, but fails for lack of goals and context

A few patterns emerge from this table. First, innovation without a sharp and aligned institutional mission leads to a mismatch of ambition and resources. This played out in each of

the innovation strategies the station attempted. For example, the Lab was under enormous pressure from the General Manager to come up with a "$10M idea" but the Lab Director was never given the resources or autonomy to execute on projects that had the chance of reaching that scale. She and the General Manager could not agree upon goals because they couldn't agree on a definition of the problem the Lab was trying to solve. The Lab Director saw the goal of the Lab as understanding the unmet needs of listeners, and then reaching and engaging with them around new products that might, eventually, bring them into a new relationship with the station. The General Manager's definition of the problem the Lab was meant to solve was a purely financial one—he believed that the station was facing an existential threat to its business model and so needed to find lucrative new revenue streams.

The mismatch of ambition and resources played out in the redesign as well. The ambition of the redesign was to make the web product a platform for digital innovation that would combine new content with digital revenue. Yet the digital team was not able to garner the time, software development resources, and political cover it needed to execute on those ambitions. Similarly, the station's ambitions for the dashboard as a centralized and shared source of Key Performance Indicators were never matched by the amount of senior management time, attention, and development resources needed to fully build and implement it.

A second pattern of unintended consequences flowing from institutional struggle is apparent in the persistent infrastructure-level problems that the Lab and the Digital team encountered in trying to build and launch innovations. The core systems which comprised the technical infrastructure of the station were housed in silos that mirrored the silos of the organizational structure. Thus any integrated product (like the website) that the station tried to build ended up necessarily reflecting the schisms and politics of the existing organizational and technical

infrastructure. The interdependencies between pieces of infrastructure that either needed to be built (like connecting to the membership database) or needed to be managed (like the underwriting spots on the website) were headaches as well as roadblocks that slowed down the process of innovation in each of the projects.

A final pattern of the unintended consequences of institutional struggle is apparent in the clearly missing and under-developed organizational roles that should have been in place to fully execute the innovation projects. The fact that the station had no one responsible for digital product and revenue, no chief operations officer, and no chief technical officer presented persistent and recurrent problems on the senior team when big decisions had to be made about the Lab, the redesign, and the dashboard.

The upshot of these patterns of unintended consequences were the predominance of politics and rivalry in shaping the innovation outcomes. This is a consequence that Selznick includes in his theorizing, and comes to light clearly in this ethnography as a huge source of inertia.

5. The Dynamics of Institutional Leadership Struggle on the Senior Team

Primary task, primary risk, and basic assumption groups

For my purposes in explaining the mixed outcomes of innovation at WABC, I have emphasized the importance of a distinction between organization and institution, and the importance of mission and values aligned with structure and resources as a component of institution leadership. To explain the group dynamics on the senior team, however, requires one more refinement. How might I be able to account for the senior team's dynamics in relationship to the mission and values of the institution? How and why did their group process contribute to the unintended consequences of the station's innovation efforts?

To help construct this explanation, I want to draw here on systems psychodynamic thinking (Miller & Rice, 1967) (Gould, Stapley, & Stein, 2001). Systems psychodynamic literature highlights how, in the process of embodying social values and discovering their mission, organizations also take up work on behalf of society (Shapiro & Carr, 1993). The combination of values and work "on behalf of" the collective is called the organization's primary task. Miller and Rice (1967) define primary task as, "that which is necessary for the group's continuance… and that which is carried out on behalf of its larger context which may be as vast as society."

According to systems psychodynamic theory, a missing or poorly specified primary task is experienced as particular type of existential threat to the group that the psychodynamic literature has termed the primary risk (Hirschhorn, 1999). Taking on the primary risk is also itself anxiety-provoking because the group's very existence is called into question when it is missing an explicit link to the larger context (Hirschhorn, 1999). The anxiety associated with facing existential threat is the flip-side of the hard work it takes to construct a primary task—or what Selznick calls an institutional mission and purpose (1957). When leaders and their teams are unable to confront the primary risk associated with constructing a primary task, it is — in the words of Selznick — partly a failure of nerve and partly a failure of understanding.

But this failure to address existential threat by taking on the primary risk has consequences for a senior team. Bion, in his analytic study of group dynamics, observed that when a group's primary task is missing or poorly specified, the group tends to regress (Bion, 1961). He identified three types of group regression (though the systems psychodynamic literature has since identified a handful more): fight/flight, dependency, and pairing. A group is in fight/flight mode when it focuses obsessively on either fighting with each other and the leader, or fleeing from the work at hand. Fight/flight dynamics prevent a group from being able to engage

productively with each other. A group is in dependency mode when it gives up its authority and collective decision-making power and instead focuses obsessively on the leader and his or her personality as the sole provider of the group's needs. A group in pairing mode idealizes a pair of people or ideas as the savior to the group's questions and needs for survival. Bion called groups displaying these kinds of behavior "basic assumption" groups, and distinguished them from task-oriented groups that are able to engage productively and think together in order to accomplish their work (Bion, 1961; Rioch, 1970).

Seen through this lens, one important indication in my ethnographic data that the station was missing a strong sense of mission or primary task, was the basic assumption group dynamics on the senior team. The Lab and Metrics chapters especially show how the senior team was often engaged in regressive behavior. For example, in the Lab chapter I showed how the General Manager would often either fight with his managers over the meaning of innovation or flee to digressions on case examples of corporate innovators. The team would either fight back (as when the senior team argued with him about the nature of inertia), or would sit passively and listen to the General Manager's lectures on innovation.

Similarly, during the dashboard project, the team would sometimes fight with the Lab's deputy Shawna (who had stepped into the leader role) about the meaning and process of the dashboard. And the group would also flee from the task of putting in their numbers when the General Manager took over the meeting. Dependency dynamics were similarly visible on the senior team, when, as I showed in the redesign chapters, everyone would agree that the General Manager was the primary stakeholder in all managerial decisions. That Shawna was also the target of group dependency dynamics throughout the dashboard project shows how the regression in the group was not limited to the General Manager's leadership. Additionally, the

dynamic of basic assumption pairing was visible on the team through the group's idealization of the Lab Director Jessica and Shawna, as well as the Lab's outside advisors. The senior team also idealized the ideas of data and disruption during the dashboard project—seeing these as panaceas to the existential threats facing the station.

These senior team dynamics were consequential for each of the innovation efforts I studied. The inability of the senior team to think clearly about the station's audience and their needs hampered the Lab's efforts to create new products. The excessive dependency on the General Manager amongst all his senior managers made him into a bottleneck for the Lab, the redesign, and the dashboard. The fight/flight dynamics on the senior team meant that, at best, hours could be wasted in meetings arguing over ideas that went nowhere; and at worst the team would lapse into silence and listen to the General Manager digress on topics that had captured his attention. The pairing dynamics were also destructive, particularly when they involved the idealization of outsiders who could "save" the organization. The Lab Director Jessica and Shawna were idealized and then ejected from the station system when their projects failed. But, more subtly, the Lab's outside advisors were never able to coach the General Manager in the ways he needed because of their idealized pairing. The tragedy is that these pairing dynamics, though they had the potential to bring in much-needed perspective and new ideas, ironically ended up reinforcing the collective inertia and dysfunctional dynamics on the senior team. Table 5 below summarizes these dynamics on the senior team.

Table 5: Basic Assumptions Dynamics on the Senior Team

Innovation	**Fight/Flight**	**Dependency**	**Pairing**
Innovation/Lab	Team fight with the General Manager over Lab mission The General Manager flight to business case speak	Focus on the General Manager as primary decider	Lab Director and deputy The outside advisors
Metrics/ Dashboard	Fight on senior team over dashboard meaning and process, eventual flight	Lab deputy as savior and savant	Disruption and Data

6. Co-optation as Response to Existential Threat

This brings to me to a deeper point about the function of innovation during technical transitions in public service organizations. As we have seen, technical transitions can create the organizational experience of existential threat. This is especially true under the shadow of cultural stories of digital disruption that foretell the death of legacy organizations and the conquest of new entrants. Under such conditions, innovation becomes an organizational need that requires an organizational response.

Selznick takes a special interest in such needs. He explains: "One such [organizational] need is specified as "the security of the organization as a whole in relation to social forces in its environment." The organizational responses to these existential threats, however, are repetitive and compulsive. He goes on: "responses, moreover, are themselves repetitive—they may be thought of as mechanisms, following the terminology of analytical psychology in its analysis of the ego and its mechanism of defense. One such mechanism is ideology; another, which is the primary focus of tis study, we have termed co-optation" (1949, p.259).

Co-optation is the primary focus of Selznick's first and masterful empirical study of the TVA.

He defines cooptation as, "the process of absorbing new elements into the leadership or policy-determining structure of an organization as a means of averting threats to its stability or existence." He distinguishes between formal and informal cooptation. Formal cooptation occurs "when there is a need to establish the legitimacy of authority or the administrative accessibility of the relevant public," and informal cooptation occurs, "where there is a need of adjust to the pressure of specific centers of power within the community" (1949, p.259).

These are two different types of threats, both of which Selznick says indicate the organization is in, "a situation in which formal authority is actually or potentially in a state of imbalance with respect to its institutional environment" (1949, p.260). In the first instance of informal cooptation, the organization may not reflect the actual balance of power in its community. There may be special interest groups, for example, (in the area of politics and policy making) or powerful new entrants (in the area of the market) which are not being accounted for in the policy or strategy of the organization. But there is also the possibility that the organization is out of sync with its institutional environment in that it lacks legitimacy relative to some important social and cultural development. Selznick writes: "it may lack a sense of historical legitimacy or be unable to mobilize the community for action" (1949, p. 260).

In engaging in cooptation as a form of organizational adaptation, either the actual power of the organization is shared or the burdens of power are shared. Cooptation of the sort which entails actual power-sharing, Selznick theorized, is likely to be informal when what is at stake are concrete demands and over conflict with other actors. Yet often what the organization needs to adapt to changing circumstances is not concrete threats to its resources or power, but threats to its legitimacy. He explained:

"However, the need for a sense of legitimacy may require an adjustment to the people in their undifferentiated aspect, in order that a feeling of general acceptance may be developed. For this purpose, it may not be necessary to actually share power: the creation of a "Front" or the open incorporation of accepted elements into the structure of

the organization may suffice. In this way, an aura of responsibility will be gradually transferred from the coopted elements to the organization as a whole, and at the same time a vehicle fo administrative accessibility may be established"….The way things seems becomes, in this context, more important than the way they are, with the result that verbal formulas (degenerating readily into propaganda), and formal organizational devices, appear adequate to fulfill the need" (1949, p.260-261).

When it comes to formal cooptation, public opinion is the target. The brilliance of Selznick's theorizing is that he realized how this kind of formal cooptation would actually put the leadership of an organization in a dilemma.

"Formal cooptation ostensibly shares authority, but in doing so is involved in a dilemma. The real point is the sharing of the public symbols or administrative burdens of authority, and consequently public responsibility, without the transfer of substantive power; it therefore becomes necessary to ensure that the coopted elements do not get out of hand, do not take advantage of their formal position to encroach upon the actual arena of decision. Consequently, formal cooptation requires informal control over the coopted elements lest the unity of command and decision be imperiled. This paradox is one of the sources of persistent tension between theory and practice in organizational behavior. The leadership, by the very nature of its position, is committed to two conflicting goals: if it ignores the need for participation, the goal of cooperation may be jeopardized; if participation is allowed to go too far, the continuity of leadership and policy may be threatened" (1949, p. 261).

This nicely sums up the dilemma faced by public service organizations—such as WABC—which are, in some way, beholden to "the public" in the era of digital media. To what extent is public participation a formal cooptation and to what extent is power actually shared?

The outcomes of innovation at the station—in the Lab, the redesign, and the dashboard—suggest that the possibilities of digital media as a set of open, participatory, and rationalized tools were ultimately more formally coopted than fully integrated into a new institutional mission and a new definition of public service. The needs of the audience as accessible through the tools and methods of digital media were never fully accounted for in any of the station's adaptation efforts, despite Lab Director, and the digital team's best efforts.

The implication of this formal cooptation was the *appearance* of digital transformation at the level of the organization, as opposed to the creation of a fully transformed digital *institution*. This is not to say that the station's formal cooptation of digital tools was not a successful adaptation strategy. To the contrary, the station could and did publicize its Lab, its new app, its new website,

and its dashboard as important innovations that proved WABC's digital savvy. These successes helped the station raise money from donors and members, and helped boost its reputation amongst its peers. In that sense, the innovation-as-formal-cooptation was organizationally successful. But those innovations were, as I have been explained in this chapter, never institutionalized. The leadership team was not able to use them discover a new institutional mission, create a new definition of public service and remake the organizational infrastructure and resource flows to support it.

7. Discussion and Conclusion

The literature on technical transitions, particularly on the adoption of innovations, has evolved in recent years to include the role of meaning-making in producing adaptation outcomes (Benner & Tushman, 2003; Smith & Tushman, 2005; Tripsas & Gavetti, 2000). This literature tends to emphasize the stickiness—and stuck-ness—of cognitive formations such as frames (Kaplan, 2008) or identity (e.g. Tripsas 2009), which appear to change more slowly than the pace of technical or economic change in a firm's environment. Raffaelli et al (2019) argue, however, that cognitive frames can be used flexibly, and re-created—often at a more abstract level—to lend a senior team more strategic space and agency. They argue that organizational identity, in particular, can be re-articulated to encompass a wider range of categories, values and meanings such that an organization can take the leap into innovations that, from the perspective of an older understanding of the world, would have seemed too far afield.

What might a Selznickian distinction between organizations and institutions, such as the one I have been developing above, bring to this literature on adaptation and the adoption of innovations at technical transitions? I argue that taking this approach allows two major leaps

forward in our theorizing. First, a distinction between organizations as goal-oriented technical apparatus, and institutions as meaningful social organisms allows us to theorize a wider range of adaptation outcomes than the existing literature can account for. For example, under a purely technical adaptation frame, we would expect WABC to be a success story: its team was able to reframe its identity from a "radio station" to a multi-platform "on air, online, in person" media organization. The senior team—and the General Manager in particular—understood the threat of podcasting and other forms of digital media that might, someday, eat away at the audience and revenue model of the station. The Lab and the digital team were both given resources and mandate to build digital products and find new audiences. And, as I explained in the previous chapter, the station was in many ways wildly successful—growing audience, revenue, and its product line. So what accounts for the kinds of innovation challenges I have laid out in the previous chapters? Seen through the distinction of organization and institution, we can see that the station experienced organizational success but persistent institutional struggle.

The institution struggle was—in the words of Selznick—partly a failure of nerve, and partly a failure of understanding (1957, p.25). The station's struggle was not a struggle to grasp the presence of a threat, nor a struggle to allocate resources to problems, nor a struggle to change routines at the station. The struggle was—in psychodynamic terms—a struggle to redefine the primary task of the organization in relationship to a new role in society for public broadcasting in the context of digital media. The crafting of a new mission for the station would have entailed understanding the current task of the institution (such as it was, and one that was not a fit for the environment any more) and articulating a set of values, a set of goals, and creating an organizational structure which fused the values and goals into a purpose. That was hard intellectual work—and it was a failure of understanding, as the metrics chapter showed, in that it

was too much for the senior team to take on amidst the pressing everyday organizational concerns.

But as I have explained above, the institutional struggle was also a failure of nerve. The work of remaking the primary task of the institution—and aligning the organizational machinery to it—provoked such incredible anxiety that the senior team was literally in flight from it. The group dynamics on the senior team of fight/flight, pairing, and dependency were the symptoms of an inability to work through the anxiety associated with the remaking the primary task of the institution. The irony, though, is that the organization was actually perfectly well positioned economically and technically to take advantage of the other trends in the media landscape, and the station did a decent enough job at digital cooptation, that it could simultaneously organizationally succeed and institutionally struggle.

A focus purely on cognitive framing and identity would not be able to explain this mixed innovation outcome. The ability to flexibly re-frame an innovation (like podcasting) is part of the work of recreating a primary task, but without the added distinction between organization and institution, the risk is that a senior team can pursue—as this one did—an innovation which has no integration into its other activities and no link to society and the needs of the public. Just because an innovation—like The Innovation Lab—can rhetorically fit into an expanded cognitive framing of an organization's activities, does not mean that it necessarily reshapes the primary task of the organization (The Innovation Lab didn't) or that it contributes to the organization's work in the world and service to the public.

I want to close by arguing that being able to make this theoretical connection between institutional mission, organizational transformation, and public service in the context of digital change is vitally important for two reasons.

First, the business-school-based popular management literature has done a terrible disservice to the world of management in the propagation of the disruption discourse. Disruption has become a cultural meme that lashes digital change to existential threat. What a distinction between organizations and institutions allows scholars and managers to do is understand what existential threats reside where in the rising tides of digital transformation, and what to do about them. The existential threat facing the station, as I have been arguing, was not a purely organizational one. In fact, as an organizational instrument with a set of personnel, capabilities, routines, and business model, the station was actually perfectly well suited to address the threats that are decimating local newspapers. The station was also perfectly well suited to address the threat of podcasting: the station had more audio producers, audio producing equipment, and history of podcasting than many other media companies that have subsequently jumped into the podcasting game.

The real existential threat facing the station, as I have shown, was not organizational but institutional. Institutional purpose links an organization to the public and the society in which it is embedded. Institutional purpose constitutes the service to the public in a public service organization. Though structural functionalism is not popular, there is a strain of functional thinking which an institutional leader must absolutely engage in: what work are we going to do in the world, how are we going to do it, and why does the world need it? Answering those questions are the preconditions for identity formation.

This brings me to the second reason the theoretical argument I have been advancing is important. Making clear a distinction between identity and institutional mission brings scholars and leaders back to the bedrock function of institutions in society—integrating people into meaningful and productive collectives larger than themselves such that we can continue this

project of creating societies that promote the thriving of humanity. Crafting institutional mission and purpose is the most important function of public service leadership. Identity is a by-product of institutionalization. In that sense, the obsession with identity in the organizations and management literature over the past two decades has put the cart before the horse. Identity in a public service context is an outcome of successful institutional leadership that links an organization to the public in meaningful work and service. Even when guided by an expanded sense of identity, the pursuit of profitability or growth as goals in and of themselves, as the station shows, can be a recipe for organizational success and institutional failure. Perhaps not all bad, considering the upsides of organizational success, but if the health and continuance of civil society depends on diverse and thriving institutions, then it seems we have been lacking some important theoretical tools to contribute to building a (desperately needed) new vision and version of it. This dissertation is an attempt to help build new theory that can fill that gap.

References

Abbott, Andrew. 1991. "The future of professions: Occupation and expertise in the age of organization." *Research in the Sociology of Organizations* 8(1):17-42.

—. 2014. *The system of professions: An essay on the division of expert labor*: University of Chicago Press.

Abbott, A.D. 2004. *Methods of Discovery: Heuristics for the Social Sciences*: W.W. Norton & Company.

Abernathy, Penelope Muse. 2016. *The rise of a new media baron and the emerging threat of news deserts*: Center for Innovation and Sustainability in Local Media, University of North Carolina Chapel Hill.

Abrahamson, Eric. 1991. "Managerial fads and fashions: The diffusion and rejection of innovations." *Academy of Management Review* 16(3):586-612.

—. 1996. "Management fashion." *Academy of Management Review* 21(1):254-85.

Adler, Paul S, Barbara Goldoftas, and David I Levine. 1999. "Flexibility versus efficiency? A case study of model changeovers in the Toyota production system." *Organization Science* 10(1):43-68.

Afuah, Allan, and Christopher L Tucci. 2012. "Crowdsourcing as a solution to distant search." *Academy of Management Review* 37(3):355-75.

—. 2012. "Crowdsourcing as a solution to distant search." *Academy of Management Review* 37(3):355-75.

Aitamurto, Tanja. 2011. "The impact of crowdfunding on journalism: Case study of Spot. Us, a platform for community-funded reporting." *Journalism Practice* 5(4):429-45.

—. 2013. "Balancing between open and closed: Co-creation in magazine journalism." *Digital Journalism* 1(2):229-51.

—. 2016. "Crowdsourcing as a knowledge-search method in digital journalism: Ruptured ideals and blended responsibility." *Digital Journalism* 4(2):280-97.

Alejandro, Jennifer. 2010. "Journalism in the age of social media." *Reuters Institute Fellowship Paper, University of Oxford*:2009-10.

Alexander, Melvin. 2001. "Six Sigma: The breakthrough management strategy revolutionizing the world's top corporations." Taylor & Francis.

Altman, Elizabeth, Frank Nagle, and Michael L. Tushman. 2015. "Innovating Without Information Constraints: Organizations, Communities, and Innovation When Information Costs Approach

Zero." in *The Oxford Handbook of Creativity, Innovation, and Entrepreneurship* edited by Christina Shalley, Michael A. Hitt, and Jing Zhou: Oxford University Press.

Ananny, Mike. 2018. *Networked Press Freedom: Creating Infrastructures for a Public Right to Hear*. Cambridge, MA: MIT Press.

Ancona, Deborah, and Chee-Leong Chong. 1996. "Entrainment: Pace, cycle, and rhythm in organizational behavior." *RESEARCH IN ORGANIZATIONAL BEHAVIOR, VOL 18, 1996* 18:251-84.

Anderson, Benedict. 1991. "Imagined Communities, revised edition." *London and New*.

—. 1991. "Imagined Communities, revised edition." *London and New*.

Anderson, CW. 2011. "Between creative and quantified audiences: Web metrics and changing patterns of newswork in local US newsrooms." *Journalism* 12(5):550-66.

Anderson, Chris, and Michael Schudson. 2009. "Objectivity, professionalism, and truth seeking in journalism." Pp. 108-21 in *The handbook of journalism studies*: Routledge.

Anderson, C.W. 2013. *Rebuilding the News: Metropolitan Journalism in the Digital Age*: Temple University Press.

Anderson, Christopher William, Emily Bell, and Clay Shirky. 2012. *Post-industrial journalism: Adapting to the present: A Report*. New York, New York: Columbia Journalism School.

Anderson, C.W., L. Downie, and M. Schudson. 2016. *The News Media: What Everyone Needs to Know*: Oxford University Press.

Anderson, Philip, and Michael L Tushman. 1990. "Technological discontinuities and dominant designs: A cyclical model of technological change." *Administrative Science Quarterly*:604-33.

Ansari, Shahzad, Raghu Garud, and Arun Kumaraswamy. 2016. "The disruptor's dilemma: TiVo and the U.S. television ecosystem." *Strategic management journal* 37(9):1829-53.

Ansell, Christopher K. 2011. *Pragmatist democracy : evolutionary learning as public philosophy*. Oxford New York: Oxford University Press.

Anteby, Michel. 2008. "Identity incentives as an engaging form of control: Revisiting leniencies in an aeronautic plant." *Organization Science* 19(2):202-20.

Ashcraft, Karen Lee. 2013. "The glass slipper:“Incorporating” occupational identity in management studies." *Academy of Management Review* 38(1):6-31.

Assmann, Karin, and Nicholas Diakopoulos. 2017. "Negotiating Change: Audience Engagement Editors as Newsroom Intermediaries." *# ISOJ Journal* 7(1).

Athey, Susan, Emilio Calvano, and Joshua Gans. 2013. "The impact of the internet on advertising markets for news media." National Bureau of Economic Research.

Athey, Susan, Markus M Mobius, and Jenő Pál. 2017. "The Impact of Aggregators on Internet News Consumption." in *Stanford University Graduate School of Business Research Paper No. 17-8*.

Baker, Ted, and Reed E Nelson. 2005. "Creating something from nothing: Resource construction through entrepreneurial bricolage." *Administrative Science Quarterly* 50(3):329-66.

Baldasty, Gerald J. 1992. *The commercialization of news in the nineteenth century*. Madison, WI: University of Wisconsin Press.

Baldwin, Carliss Young, and Kim B Clark. 2000. *Design rules: The power of modularity*: MIT press.

Baldwin, Carliss Y, and C Jason Woodard. 2011. "The architecture of platforms: A unified view." Pp. 19-44 in *Platforms, markets and innovation*, edited by A. Gawer. London: Edward Elgar Publishing.

Barley, Stephen R. 1986. "Technology as an occasion for structuring: Evidence from observations of CT scanners and the social order of radiology departments." *Administrative Science Quarterly*:78-108.

Bartel, Caroline A, and Raghu Garud. 2009. "The role of narratives in sustaining organizational innovation." *Organization Science* 20(1):107-17.

Barthel, Michael. 2018. "5 facts about the state of the news media in 2017." The Pew Research Center.

Battilana, Julie, and Marya Besharov. 2017. "On hybrids and hybrid organizing: A review and roadmap for future research." *The Sage handbook of organizational institutionalism* 2:133-69.

Battilana, Julie, and Thomas D'aunno. 2009. "Institutional work and the paradox of embedded agency." *Institutional work: Actors and agency in institutional studies of organizations* 31:58.

Battilana, Julie, and Silvia Dorado. 2010. "Building sustainable hybrid organizations: The case of commercial microfinance organizations." *Academy of Management Journal* 53(6):1419-40.

Battilana, Julie, and Matthew Lee. 2014. "Advancing Research on Hybrid Organizing – Insights from the Study of Social Enterprises." *The Academy of Management Annals* 8(1):397-441.

Beam, Randal A. 1995. "How newspapers use readership research." *Newspaper Research Journal* 16(2):28-38.

Belair-Gagnon, Valerie, Colin Agur, and Nicholas Frisch. 2017. "The changing physical and social environment of newsgathering: A case study of foreign correspondents using chat apps during unrest." *Social Media+ Society* 3(1):2056305117701163.

Belair-Gagnon, Valerie, and Avery E. Holton. 2018. "Boundary Work, Interloper Media, And Analytics In Newsrooms." *Digital Journalism* 6(4):492-508.

Bell, Emily J, Taylor Owen, Peter D Brown, Codi Hauka, and Nushin Rashidian. 2017. *The platform press: How Silicon Valley reengineered journalism*. New York, New York: The Tow Center for Digital Journalism.

Benedikt, Michael. 1991. "Cyberspace: some proposals." Pp. 119-224 in *Cyberspace*: MIT Press.

Benkler, Yochai. 2006. *The wealth of networks: How social production transforms markets and freedom*: Yale University Press.

Benkler, Y., R. Faris, and H. Roberts. 2018. *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*: Oxford University Press.

Benner, M. J., and M. Tripsas. 2012. "The influence of prior industry affiliation on framing in nascent industries: the evolution of digital cameras." *Strategic management journal* 33(3):277-302.

Benner, M. J., and Michael L Tushman. 2002. "Process management and technological innovation: A longitudinal study of the photography and paint industries." *Administrative Science Quarterly* 47(4):676-706.

Benner, Mary J, and Michael L Tushman. 2003. "Exploitation, exploration, and process management: The productivity dilemma revisited." *Academy of Management Review* 28(2):238-56.

—. 2015. "Reflections on the 2013 Decade Award—"Exploitation, exploration, and process management: The productivity dilemma revisited" ten years later." *Academy of Management Review* 40(4):497-514.

Berger, Peter L, and Thomas Luckmann. 1966. *The social construction of reality*. New York: Penguin Random House.

Bermejo, Fernando. 2009. "Audience manufacture in historical perspective: from broadcasting to Google." *New Media & Society* 11(1-2):133-54.

Bion, Wilfred R. 1961. "Experiences in Groups ". New York: Basic Books.

Blank, Steve. 2013. "Why the lean start-up changes everything." *Harvard business review* 91(5):63-72.

Boczkowski, Pablo J. 2005. *Digitizing the news: Innovation in online newspapers*: mit Press.

—. 2010. *News at work: Imitation in an age of information abundance*: University of Chicago Press.

Boczkowski, P.J., and C.W. Anderson. 2017. *Remaking the News: Essays on the Future of Journalism Scholarship in the Digital Age*: MIT Press.

Boczkowski, Pablo J, and José A Ferris. 2005. "Multiple media, convergent processes, and divergent products: Organizational innovation in digital media production at a European firm." *The Annals of the American Academy of Political and Social Science* 597(1):32-47.

Boczkowski, Pablo J, and Eugenia Mitchelstein. 2013. *The news gap: When the information preferences of the media and the public diverge*: MIT press.

Boyles, Jan Lauren. 2016. "The Isolation of Innovation: Restructuring the digital newsroom through intrapreneurship." *Digital Journalism* 4(2):229-46.

Bright, Jonathan, and Tom Nicholls. 2014. "The life and death of political news: Measuring the impact of the audience agenda using online data." *Social science computer review* 32(2):170-81.

Broersma, Marcel, and Todd Graham. 2012. "Social media as beat: Tweets as a news source during the 2010 British and Dutch elections." *Journalism Practice* 6(3):403-19.

Brown, Tim. 2008. "Definitions of design thinking." in *Harvard business review*.

Bruns, A. 2008. *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. New York: Peter Lang.

Brynjolfsson, Erik, and Andrew McAfee. 2014. *The second machine age : work, progress, and prosperity in a time of brilliant technologies*. New York, N.Y.: W.W. Norton & Company.

Bunce, Mel. 2017. "Management and resistance in the digital newsroom." *Journalism*:1464884916688963.

Carlson, Matt. 2018. "Confronting Measurable Journalism." *Digital Journalism* 6(4):406-17.

—. 2018. "Automating judgment? Algorithmic judgment, news knowledge, and journalistic professionalism." *New Media & Society* 20(5):1755-72.

Carlson, Matt, and Nikki Usher. 2016. "News Startups as Agents of Innovation." *Digital Journalism* 4(5):563-81.

Castells, M. 2011. *The Rise of the Network Society*: Wiley.

Chen, Gina Masullo. 2017. *Online incivility and public debate: Nasty talk*. New York, New York: Palgrave Macmillan.

Chen, Gina Masullo, Paromita Pain, Victoria Y Chen, Madlin Mekelburg, Nina Springer, and Franziska Troger. 2018. "'You really have to have a thick skin': A cross-cultural perspective on how online harassment influences female journalists." *Journalism*:1464884918768500.

Cherubini, Frederica. 2017. "The Rise of Bridge Roles in News Organizations." in *Predictions for Journalism 2018*. http://www.niemanlab.org/2017/12/the-rise-of-bridge-roles-in-news-organizations/: Nieman Lab.

Cherubini, Federica, and Rasmus Kleis Nielsen. 2016. "Editorial analytics: how news media are developing and using audience data and metrics." Reuters Institute for the Study of Journalism: University of Oxford.

Chesbrough, H.W. 2003. *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Boston, MA: Harvard Business School Press.

Christensen, C.M. 1997. *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*: Harvard Business Review Press.

Christensen, Clayton M, and Joseph L Bower. 1996. "Customer power, strategic investment, and the failure of leading firms." *Strategic management journal* 17(3):197-218.

Christensen, Clayton M, Michael E Raynor, and Rory McDonald. 2015. "What is disruptive innovation." *Harvard business review* 93(12):44-53.

Christin, Angèle. 2014. "Clicks or Pulitzer?: Web journalists and their work in the United States and France." Paris, EHESS.

—. 2017. "Algorithms in practice: Comparing web journalism and criminal justice." *Big Data & Society* 4(2).

—. 2018. "Counting Clicks: Quantification and Variation in Web Journalism in the United States and France." *American journal of Sociology* 123(5):1382-415.

Ciampa, D. 1992. *Total Quality: A Users' Guide for Implementation*: Addison-Wesley.

Clayman, Steven E. 2002. "Tribune of the people: Maintaining the legitimacy of aggressive journalism." *Media, Culture & Society* 24(2):197-216.

Coddington, Mark. 2015. "The wall becomes a curtain: Revisiting journalism's news–business boundary." Pp. 79-94 in *Boundaries of journalism*: Routledge.

Coe, Kevin, Kate Kenski, and Stephen A Rains. 2014. "Online and uncivil? Patterns and determinants of incivility in newspaper website comments." *Journal of Communication* 64(4):658-79.

Cohen, Michael D, James G March, and Johan P Olsen. 1972. "A garbage can model of organizational choice." *Administrative Science Quarterly*:1-25.

Cohen, Nicole S. 2015. "From Pink Slips to Pink Slime: Transforming Media Labor in a Digital Age." *The Communication Review* 18(2):98-122.

—. 2018. "At Work in the Digital Newsroom." *Digital Journalism*:1-21.

Collins, J. 2001. *Good to Great: Why Some Companies Make the Leap...And Others Don't*: HarperCollins.

Cornelissen, Joep P., and Mirjam D. Werner. 2014. "Putting Framing in Perspective: A Review of Framing and Frame Analysis across the Management and Organizational Literature." *The Academy of Management Annals* 8(1):181-235.

Coyne, Shawn. 2015. *The story grid : what good editors know*. New York, NY: Black Irish Entertainment.

—. 2015. *The story grid : what good editors know*. New York, NY: Black Irish Entertainment.

Cranberg, Gilbert, Randall P Bezanson, and John Soloski. 2001. *Taking stock: Journalism and the publicly traded newspaper company*: Wiley-Blackwell.

D'Aunno, Thomas, Robert I Sutton, and Richard H Price. 1991. "Isomorphism and external support in conflicting institutional environments: A study of drug abuse treatment units." *Academy of Management Journal* 34(3):636-61.

Dailey, Dharma, and Kate Starbird. 2014. "Journalists as crowdsourcerers: Responding to crisis by reporting with a crowd." *Computer Supported Cooperative Work (CSCW)* 23(4-6):445-81.

Daniel, Anna, and Terry Flew. 2010. "The Guardian reportage of the UK MP expenses scandal: a case study of computational journalism." Pp. 186-94 in *Record of the Communications Policy and Research Forum 2010*: Network Insight Pty. Ltd.

Danneels, Erwin. 2002. "The dynamics of product innovation and firm competences." *Strategic management journal* 23(12):1095-121.

Deuze, Mark. 2005. "What is journalism? Professional identity and ideology of journalists reconsidered." *Journalism* 6(4):442-64.

DeWerth-Pallmeyer, Dwight. 1997. *The audience in the news*. Mahwah, N.J: Erlbaum.

DiMaggio, Paul J, and Walter W Powell. 1991. *The new institutionalism in organizational analysis*: University of Chicago Press Chicago, IL.

Djerf-Pierre, Monika, Marina Ghersetti, and Ulrika Hedman. 2016. "Appropriating Social Media: The changing uses of social media among journalists across time." *Digital Journalism* 4(7):849-60.

Douglas, Mary. 1986. *How institutions think*: Syracuse University Press.

Drew, Kevin K., and Ryan J. Thomas. 2018. "From Separation to Collaboration." *Digital Journalism* 6(2):196-215.

Durkheim, Emile. 1893. *The division of labor in society*. Paris: Arcan.

Espeland, Wendy Nelson, and Mitchell L. Stevens. 1998. "Commensuration as a Social Process." *Annual Review of Sociology* 24(1):313-43.

Espeland, Wendy Nelson, and Mitchell L Stevens. 2008. "A sociology of quantification." *European Journal of Sociology/Archives Européennes de Sociologie* 49(3):401-36.

Fayard, Anne-Laure, Ileana Stigliani, and Beth A. Bechky. 2017. "How Nascent Occupations Construct a Mandate: The Case of Service Designers' Ethos." *Administrative Science Quarterly* 62(2):270-303.

Ferrer-Conill, Raul, and Edson C. Tandoc. 2018. "The Audience-Oriented Editor." *Digital Journalism* 6(4):436-53.

Fishman, M. 1988. *Manufacturing the News*: University of Texas Press.

Friedland, Roger, and Robert Alford. 1991. "Bringing Society Back In: Symbols, Practices and Institutional Contradictions." Pp. 232-63 in *The New Institutionalism in Organizational Analysis*, edited by Walter Powell and Paul Dimaggio: University Of Chicago Press.

Friga, Paul N, Richard A Bettis, and Robert S Sullivan. 2003. "Changes in graduate management education and new business school strategies for the 21st century." *Academy of Management Learning & Education* 2(3):233-49.

Gans, H.J. 1979. *Deciding What's News: A Study of CBS Evening News, NBC Nightly News, Newsweek, and Time*. New York: Vintage Books.

Garud, Raghu, and Arvind Karunakaran. 2018. "Process-based ideology of participative experimentation to foster identity-challenging innovations: The case of Gmail and AdSense." *Strategic organization* 16(3):273-303.

Garud, Raghu, and Michael A. Rappa. 1994. "A Socio-Cognitive Model of Technology Evolution: The Case of Cochlear Implants." *Organization Science* 5(3):344-62.

Garud, Raghu, and Marja Turunen. 2017. "The Banality of Organizational Innovations: Embracing the Substance–Process Duality." *Innovation* 19(1):31-38.

Gavetti, Giovanni, and Daniel Levinthal. 2000. "Looking Forward and Looking Backward: Cognitive and Experiential Search." *Administrative Science Quarterly* 45(1):113-37.

Gawer, A. 2010. "Platforms, Markets and Innovation: An Introduction." Pp. 1-18 in *Platforms, markets and innovation*. London: Edward Elgar.

Geels, Frank W. 2004. "From sectoral systems of innovation to socio-technical systems: Insights about dynamics and change from sociology and institutional theory." *Research policy* 33(6-7):897-920.

Geertz, Clifford. 1973. *The Interpretation of Cultures*. New York: Basic Books.

Gehman, Joel, Linda K Trevino, and Raghu Garud. 2013. "Values work: A process study of the emergence and performance of organizational values practices." *Academy of Management Journal* 56(1):84-112.

George, Lisa M, and Christiaan Hogendorn. 2012. "Aggregators, search and the economics of new media institutions." *Information Economics and Policy* 24(1):40-51.

Gibson, Cristina B, and Julian Birkinshaw. 2004. "The antecedents, consequences, and mediating role of organizational ambidexterity." *Academy of Management Journal* 47(2):209-26.

Gilbert, Clark G. 2005. "Unbundling the structure of inertia: Resource versus routine rigidity." *Academy of Management Journal* 48(5):741-63.

Gillespie, T. 2018. *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media*. New Haven, CT: Yale University Press.

Gillmor, D. 2004. *We the Media: Grassroots Journalism By the People, For the People*. Sebastopol CA: O'Reilly Media.

Goffman, E. 1961. *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates*: Penguin Random House.

Gould, Laurence J, Lionel F Stapley, and Mark Stein. 2001. *The systems psychodynamics of organizations: Integrating the group relations approach, psychoanalytic, and open systems perspectives*: Karnac Books.

Graefe, Andreas. 2016. "Guide to automated journalism." New York, New York: The Tow Center for Digital Journalism at Columbia Journalism School.

Greenstein, S.M. 2015. *How the Internet Became Commercial: Innovation, Privatization, and the Birth of a New Network*: Princeton University Press.

Gulyas, Agnes. 2017. "Hybridity and social media adoption by journalists: an international comparison." *Digital Journalism* 5(7):884-902.

Habermas, Jürgen. 1987. *The theory of communicative action*. Boston, MA: Beacon press.

Hafez, Kai. 2002. "Journalism ethics revisited: A comparison of ethics codes in Europe, North Africa, the Middle East, and Muslim Asia." *Political Communication* 19(2):225-50.

Hall, Jim. 2001. *Online journalism: A critical primer*: Pluto Press.

Hallin, Daniel C. 1992. "The passing of the “high modernism” of American journalism." *Journal of Communication* 42(3):14-25.

Hambrick, Donald C. 2007. "Upper echelons theory: An update." Academy of Management Briarcliff Manor, NY 10510.

Hambrick, Donald C, and Phyllis A Mason. 1984. "Upper echelons: The organization as a reflection of its top managers." *Academy of Management Review* 9(2):193-206.

Hamilton, James. 2004. *All the news that's fit to sell: How the market transforms information into news*: Princeton University Press.

Hansen, Elizabeth, and Emily Goligoski. 2018. "Guide to audience revenue and engagement." New York, New York: The Tow Center for Digital Journalism

Hanusch, Folker. 2017. "Web analytics and the functional differentiation of journalism cultures: individual, organizational and platform-specific influences on newswork." *Information, Communication & Society* 20(10):1571-86.

Hayagreeva Rao, Philippe Monin, and Rodolphe Durand. 2003. "Institutional Change in Toque Ville: Nouvelle Cuisine as an Identity Movement in French Gastronomy." *American journal of Sociology* 108(4):795-843.

Heimer, Carol A. 1999. "Competing institutions: Law, medicine, and family in neonatal intensive care." *Law and Society Review*:17-66.

Henderson, Rebecca M, and Kim B Clark. 1990. "Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms." *Administrative Science Quarterly* 35(1):9-30.

Hermida, Alfred. 2010. "Twittering the news: The emergence of ambient journalism." *Journalism Practice* 4(3):297-308.

Hill, Charles WL, and Frank T Rothaermel. 2003. "The performance of incumbent firms in the face of radical technological innovation." *Academy of Management Review* 28(2):257-74.

Hindman, M. 2008. *The Myth of Digital Democracy*: Princeton University Press.

Hirschhorn, Larry. 1999. "The primary risk." *Human Relations* 52(1):5-23.

Howard-Grenville, Jennifer, Andrew J. Nelson, Andrew G. Earle, Julie A. Haack, and Douglas M. Young. 2017. "“If Chemists Don’t Do It, Who Is Going To?” Peer-driven Occupational Change and the Emergence of Green Chemistry." *Administrative Science Quarterly* 62(3):524-60.

James, Coleman. 1990. *Foundations of social theory*. Cambridge, MA: The Belknap Press.

Jay, Jason. 2013. "Navigating paradox as a mechanism of change and innovation in hybrid organizations." *Academy of Management Journal* 56(1):137-59.

Kaniss, Phyllis. 1991. *Making local news*: University of Chicago Press.

Kaplan, Sarah. 2008. "Framing contests: Strategy making under uncertainty." *Organization Science* 19(5):729-52.

—. 2011. "Research in cognition and strategy: Reflections on two decades of progress and a look to the future." *Journal of Management studies* 48(3):665-95.

Kaplan, Sarah, and Wanda J Orlikowski. 2013. "Temporal work in strategy making." *Organization Science* 24(4):965-95.

Kaplan, Sarah, and Mary Tripsas. 2008. "Thinking about technology: Applying a cognitive lens to technical change." *Research policy* 37(5):790-805.

Kerr, Clark. 1963. *The uses of the university*. Cambridge, MA: Harvard University Press.

Kimbell, Lucy. 2011. "Designing for service as one way of designing services." *International Journal of Design* 5(2):41-52.

Kleis Nielsen, Rasmus, and Sarah Anne Ganter. 2017. "Dealing with digital intermediaries: A case study of the relations between publishers and platforms." *New Media & Society*:1461444817701318.

Kosterich, Allie, and Philip M. Napoli. 2015. "Reconfiguring the Audience Commodity." *Television & New Media* 17(3):254-71.

Kosterich, Allie, and Matthew S. Weber. 2018. "Transformation of a Modern Newsroom Workforce." *Journalism Practice*:1-27.

Kovach, B., and T. Rosenstiel. 2014. *The Elements of Journalism: What Newspeople Should Know and the Public Should Expect*: Three Rivers Press.

Kraatz, Matthew S. 2015. *Institutions and Ideals: Philip Selznick's Legacy for Organizational Studies*: Emerald Group Publishing Limited.

Kraatz, Matthew S, and Emily S Block. 2008. "Organizational implications of institutional pluralism." *The Sage handbook of organizational institutionalism* 840:243-75.

Kumaraswamy, Arun, Raghu Garud, and Shahzad Ansari. 2018. "Perspectives on Disruptive Innovations." *Journal of Management studies* 55(7):1025-42.

Lee, Angela M, Seth C Lewis, and Matthew Powers. 2014. "Audience clicks and news placement: A study of time-lagged influence in online journalism." *Communication Research* 41(4):505-30.

Leonard-Barton, Dorothy. 1992. "Core capabilities and core rigidities: A paradox in managing new product development." *Strategic management journal* 13(S1):111-25.

Levy, S. 1984. *Hackers: Heroes of the Computer Revolution*. Garden City, NY: Anchor Press/Doubleday.

Liebold, Linda K, Thomas J Thomas, and David Giovannoni. 1988. *Audience 88: A comprehensive analysis of public radio listeners*: ICON Group International.

Lifshitz-Assaf, Hila. 2018. "Dismantling knowledge boundaries at NASA: The critical role of professional identity in open innovation." *Administrative Science Quarterly* 63(4):746-82.

Lowrey, Wilson, and Chang Wan Woo. 2010. "The news organization in uncertain times: Business or institution?" *Journalism & Mass Communication Quarterly* 87(1):41-61.

Lule, Jack. 2001. *Daily news, eternal stories: The mythological role of journalism*: Guilford Press.

MacGregor, Phil. 2007. "Tracking the Online Audience." *Journalism Studies* 8(2):280-98.

Mager, Birgit. 2004. *Service design: A review*: Köln International School of Design.

March, James G, and Johan P Olsen. 1989. *Rediscovering institutions: the organizational basis of politics*. New York: Free Press.

—. 2011. "The logic of appropriateness." in *The Oxford handbook of political science*, edited by Robert E. Goodin.

Marx, Karl. 1844. "Economic and philosophic manuscripts of 1844: Selections." Pp. 52-106 in *The Marx-Engels Reader*, edited by Robert C Tucker. New York: W.W. Norton.

McCauley, Michael P. 2005. *NPR: The trials and triumphs of National Public Radio*: Columbia University Press.

McKenzie, Carly T, Wilson Lowrey, Hal Hays, Jee Young Chung, and Chang Wan Woo. 2011. "Listening to news audiences: The impact of community structure and economic factors." *Mass Communication and Society* 14(3):375-95.

McPherson, Chad Michael, and Michael Sauder. 2013. "Logics in action: Managing institutional complexity in a drug court." *Administrative Science Quarterly* 58(2):165-96.

Merritt, Davis. 1995. "Public Journalism-Defining a Democratic Art." *Media Studies Journal* 9(3):125-32.

Meyer, John W, and Brian Rowan. 1977. "Institutionalized organizations: Formal structure as myth and ceremony." *American journal of Sociology* 83(2):340-63.

Meyers, Oren, and Roei Davidson. 2016. "Conceptualizing journalistic careers: Between interpretive community and tribes of professionalism." *Sociology Compass* 10(6):419-31.

Miller, Eric J, and Albert Kenneth Rice. 1967. *Systems of organization*. London, U.K.: Tavistock Publ.

Mitchelstein, Eugenia, and Pablo J Boczkowski. 2010. "Online news consumption research: An assessment of past work and an agenda for the future." *New Media & Society* 12(7):1085-102.

Müller, Roland M, and Katja Thoring. 2012. "Design thinking vs. lean startup: A comparison of two user-driven innovation strategies." *Leading through design* 151.

Napoli, Philip M. 2003. *Audience economics: Media institutions and the audience marketplace*: Columbia University Press.

—. 2011. *Audience evolution: New technologies and the transformation of media audiences*: Columbia University Press.

Navis, Chad, and Mary Ann Glynn. 2010. "How new market categories emerge: Temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio, 1990–2005." *Administrative Science Quarterly* 55(3):439-71.

Nelson, Andrew J, and Jennifer Irwin. 2014. "“Defining what we do—all over again”: Occupational identity, technological change, and the librarian/Internet-search relationship." *Academy of Management Journal* 57(3):892-928.

Nelson, Jacob L. 2018. "The Elusive Engagement Metric." *Digital Journalism* 6(4):528-44.

Nelson, Richard R. 1994. "The Co-evolution of Technology, Industrial Structure, and Supporting Institutions." *Industrial and Corporate Change* 3(1):47-63.

Nerone, John. 2013. "The historical roots of the normative model of journalism." *Journalism* 14(4):446-58.

Newman, Nic. 2009. "The rise of social media and its impact on mainstream journalism." in *Reuters Institute for the Study of Journalism: Working Papers*, edited by Department of Politics and International Relations Reuters Institute for the Study of Journalism, University of Oxford. Oxford, UK.

Nguyen, An. 2013. "Online news audiences: The challenges of web metrics." in *Journalism: New Challenges*, edited by Stuart Allan and Karen Fowler-Watt. Poole: Centre for Journalism & Communication Research, Bournemouth University.

Nip, Joyce YM. 2006. "Exploring the second phase of public journalism." *Journalism Studies* 7(2):212-36.

O'Mahony, Siobhan, and Karim R. Lakhani. 2011. "Organizations in the Shadow of Communities." Pp. 3-36 in *Communities and Organizations (Research in the Sociology of Organizations, Volume 33)* edited by Christopher Marquis, Michael Lounsbury, and Royston Greenwood: Emerald Group Publishing Limited.

O'Reilly III, Charles A, and Michael L Tushman. 2013. "Organizational ambidexterity: Past, present, and future." *Academy of management Perspectives* 27(4):324-38.

O'Reilly, T. 2009. *What is Web 2.0*: O'Reilly Media.

Onuoha, Mimi, Jeanne Pinder, and Jan Schaffer. 2015. "Guide to crowdsourcing." New York, New York: The Tow Center for Digital Journalism at Columbia Journalism School.

Orlikowski, Wanda J. 1992. "THE DUALITY OF TECHNOLOGY: RETHINKING THE CONCEPT OF TECHNOLOGY IN ORGANIZATIONS." *Organization Science* 3(3):398-427.

Orlikowski, Wanda J. 2000. "Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations." *Organization Science* 11(4):404-28.

Orlikowski, Wanda J, and Stephen R Barley. 2001. "Technology and institutions: What can research on information technology and research on organizations learn from each other?" *MIS Quarterly* 25(2):145.

Örnebring, Henrik, and Anna Maria Jönsson. 2004. "Tabloid journalism and the public sphere: A historical perspective on tabloid journalism." *Journalism Studies* 5(3):283-95.

Osiyevskyy, Oleksiy, and Jim Dewald. 2015. "Explorative versus exploitative business model change: the cognitive antecedents of firm-level responses to disruptive innovation." *Strategic Entrepreneurship Journal* 9(1):58-78.

Overholser, G., and K.H. Jamieson. 2005. *The Institutions of American Democracy*: Oxford University Press.

Padgett, John F, and Christopher K Ansell. 1993. "Robust Action and the Rise of the Medici, 1400-1434." *American journal of Sociology* 98(6):1259-319.

Pariser, E. 2011. *The Filter Bubble: What The Internet Is Hiding From You*: Penguin Books Limited.

Patterson, Thomas E. 1997. "The news media: An effective political actor?" *Political Communication* 14(4):445-55.

Petre, Caitlin. 2015. "The Traffic Factories: Metrics at Chartbeat, Gawker Media, and The New York Times."

—. 2018. "Engineering Consent." *Digital Journalism* 6(4):509-27.

Pfeffer, Jeffrey, and Gerald R Salancik. 1978. *The external control of organizations: A resource dependence perspective*. New York, NY: Harper and Row.

Phillips, Nelson, and Paul Tracey. 2007. "Opportunity recognition, entrepreneurial capabilities and bricolage: connecting institutional theory and entrepreneurship in strategic organization." *Strategic organization* 5(3):313-20.

Pickard, V. 2014. *America's Battle for Media Democracy: The Triumph of Corporate Libertarianism and the Future of Media Reform*: Cambridge University Press.

Piketty, Thomas. 2014. *Capital in the Twenty-First Century*: Harvard University Press.

Plowman, Donde Ashmos, Lakami T Baker, Tammy E Beck, Mukta Kulkarni, Stephanie Thomas Solansky, and Deandra Villarreal Travis. 2007. "Radical change accidentally: The emergence and amplification of small change." *Academy of Management Journal* 50(3):515-43.

Porac, Joseph F, Howard Thomas, and Charles Baden-Fuller. 1989. "Competitive groups as cognitive communities: The case of Scottish knitwear manufacturers." *Journal of Management studies* 26(4):397-416.

Porter, Theodore M. 1992. "Quantification and the accounting ideal in science." *Social studies of science* 22(4):633-51.

Post, The Washington. 2017. "The Post announces three new roles to standardize digital responsibilities in the newsroom."

Powell, Walter W, and Rebecca Friedkin. 1986. "Politics and programs: Organizational factors in public television decision making." Pp. 245 - 69 in *Nonprofit enterprise in the arts*, edited by Paul Dimaggio. New York: Oxford University Press.

Powers, Elia. 2018. "Selecting Metrics, Reflecting Norms." *Digital Journalism* 6(4):454-71.

Raffaelli, Ryan, Mary Ann Glynn, and Michael Tushman. "Frame flexibility: The role of cognitive and emotional framing in innovation adoption by incumbent firms." *Strategic management journal* 0(0).

Rashidian, Nushin, Peter D Brown, Elizabeth Hansen, Emily J Bell, and Jonathan R Albright. 2019. "Friend and Foe: The Platform Press at the Heart of Journalism." New York, New York: The Tow Center for Digital Journalism at Columbia University.

Ries, Eric. 2011. *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*: Crown Books.

Rioch, Margaret J. 1970. "The work of Wilfred Bion on groups." *Psychiatry* 33(1):56-66.

Robert Mitchell, J, Dean A Shepherd, and Mark P Sharfman. 2011. "Erratic strategic decisions: when and why managers are inconsistent in strategic decision making." *Strategic management journal* 32(7):683-704.

Romanelli, Elaine, and Michael L Tushman. 1994. "Organizational transformation as punctuated equilibrium: An empirical test." *Academy of Management Journal* 37(5):1141-66.

Rosen, Jay. 1999. *What are journalists for?*: Yale University Press.

—. 2006. "The people formerly known as the audience." PressThink.

Rothaermel, Frank T, and Charles WL Hill. 2005. "Technological discontinuities and complementary assets: A longitudinal study of industry and firm performance." *Organization Science* 16(1):52-70.

Ryan, Michael. 2001. "Journalistic ethics, objectivity, existential journalism, standpoint epistemology, and public journalism." *Journal of Mass Media Ethics* 16(1):3-22.

Ryfe, D.M. 2013. *Can Journalism Survive?: An Inside Look at American Newsrooms*: Wiley.

Saltzer, Jerome H, David P Reed, and David D Clark. 1984. "End-to-end arguments in system design." *ACM Transactions on Computer Systems (TOCS)* 2(4):277-88.

Schudson, Michael. 2003. *The sociology of news, Contemporary societies*: New York: Norton.

Schudson, Michael, and Chris Anderson. 2009. "Objectivity, professionalism, and truth seeking in journalism." *The handbook of journalism studies*:88-101.

Schultz, Ida. 2007. "The Journalistic Gut Feeling." *Journalism Practice* 1(2):190-207.

Schumpeter, Joseph A. 1942. *Capitalism, socialism, and democracy*. New York: HarperPerennial.

Schutz, Alfred. 1970. *Alfred Schutz on phenomenology and social relations*: University of Chicago Press.

Scott, W Richard. 2014. "Institutions and organizations: Ideas, interests and identity." Thousand Oaks, CA: Sage Publications.

Scott, W Richard, Martin Ruef, Peter J Mendel, and Carol A Caronna. 2000. *Institutional change and healthcare organizations: From professional dominance to managed care*. Chicago: University of Chicago Press.

Selznick, Philip. 1949. *TVA and the grass roots: A study in the sociology of formal organization*: Univ of California Press.

—. 1957. *Leadership in Administration: A Sociological Interpretation*. New York: Harper & Row.

—. 1994. *The moral commonwealth: Social theory and the promise of community*: Univ of California Press.

—. 1994. *The moral commonwealth: Social theory and the promise of community*: Univ of California Press.

Seo, Myeong-Gu, and WE Douglas Creed. 2002. "Institutional contradictions, praxis, and institutional change: A dialectical perspective." *Academy of Management Review* 27(2):222-47.

Shapiro, Edward R, and A Wesley Carr. 1993. *Lost in familiar places: Creating new connections between the individual and society*: Yale University Press.

Shirky, C. 2008. *Here Comes Everybody: The Power of Organizing Without Organizations*: Penguin Press.

Shoemaker, P.J., and S.D. Reese. 2014. *Mediating the Message in the 21st Century: A Media Sociology Perspective*. New York: Routledge.

Shoemaker, P.J., and T. Vos. 2009. *Gatekeeping Theory*. New York: Routledge.

Siebert, Fred, Theodore Bernard Peterson, Theodore Peterson, and Wilbur Schramm. 1956. *Four theories of the press: The authoritarian, libertarian, social responsibility, and Soviet communist concepts of what the press should be and do*: University of Illinois press.

Siles, Ignacio, and Pablo J Boczkowski. 2012. "Making sense of the newspaper crisis: A critical assessment of existing research and an agenda for future work." *New Media & Society* 14(8):1375-94.

Singer, Jane B. 2005. "The political j-blogger: 'Normalizing'a new media form to fit old norms and practices." *Journalism* 6(2):173-98.

—. 2011. "Community service: Editor pride and user preference on local newspaper websites." *Journalism Practice* 5(6):623-42.

Slotten, Hugh Richard. 2009. *Radio's hidden voice: The origins of public broadcasting in the United States*: University of Illinois Press.

Smith, Wendy K, and Marianne W Lewis. 2011. "Toward a theory of paradox: A dynamic equilibrium model of organizing." *Academy of Management Review* 36(2):381-403.

Smith, Wendy K, and Michael L Tushman. 2005. "Managing strategic contradictions: A top management model for managing innovation streams." *Organization Science* 16(5):522-36.

—. 2005. "Managing strategic contradictions: A top management model for managing innovation streams." *Organization Science* 16(5):522-36.

Soloski, John. 1989. "News reporting and professionalism: Some constraints on the reporting of the news." *Media, Culture & Society* 11(2):207-28.

Sorensen, J. B., and T. E. Stuart. 2000. "Aging, obsolescence, and organizational innovation." *Administrative Science Quarterly* 45(1):81-112.

Sosa, Manuel E, Steven D Eppinger, and Craig M Rowles. 2004. "The misalignment of product architecture and organizational structure in complex product development." *Management science* 50(12):1674-89.

Sparks, Colin. 2000. "Introduction: The Panic Over Tabloid News." Pp. 1–40 in *Tabloid Tales: Global Debates over Media Standards:* , edited by J. Tulloch V C. Sparks. Lanham: Rowman & Littlefield Publishers.

Stark, David. 2011. *The sense of dissonance: Accounts of worth in economic life*: Princeton University Press.

Stephens, Mitchell. 2007. *A history of news*. New York: Oxford University Press.

Stieglitz, Stefan, and Linh Dang-Xuan. 2013. "Emotions and information diffusion in social media—sentiment of microblogs and sharing behavior." *Journal of management information systems* 29(4):217-48.

Strang, David, and Michael W Macy. 2001. "In search of excellence: Fads, success stories, and adaptive emulation." *American journal of Sociology* 107(1):147-82.

Stryker, Sheldon, and Peter J Burke. 2000. "The past, present, and future of an identity theory." *Social psychology quarterly*:284-97.

Suchman, Mark C. 2003. "The contract as social artifact." *Law & Society Review* 37(1):91-142.

Sydow, Jörg, Georg Schreyögg, and Jochen Koch. 2009. "Organizational path dependence: Opening the black box." *Academy of Management Review* 34(4):689-709.

Tandoc, Edson C. 2014. "Journalism is twerking? How web analytics is changing the process of gatekeeping." *New Media & Society* 16(4):559-75.

Tandoc, Edson C., and Ryan J. Thomas. 2014. "The Ethics of Web Analytics." *Digital Journalism* 3(2):243-58.

Tandoc Jr, Edson C. 2014. "Journalism is twerking? How web analytics is changing the process of gatekeeping." *New Media & Society* 16(4):559-75.

Tandoc Jr, Edson C, and Patrick R Ferrucci. 2017. "Giving in or giving up: What makes journalists use audience feedback in their news work?" *Computers in Human Behavior* 68:149-56.

Tandoc Jr, Edson C, and Tim P Vos. 2016. "The journalist is marketing the news: Social media in the gatekeeping process." *Journalism Practice* 10(8):950-66.

Taylor, Alva, and Constance E. Helfat. 2009. "Organizational Linkages for Surviving Technological Change: Complementary Assets, Middle Management, and Ambidexterity." *Organization Science* 20(4):718-39.

Thierer, A. 2016. *Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom*: Mercatus Center at George Mason University.

Thompson, James D. 1967. *Organizations in action social science bases of administrative theory*. New York: McGraw-Hill.

Thornton, Patricia H, and William Ocasio. 1999. "Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990." *American journal of Sociology* 105(3):801-43.

Thornton, P.H., W. Ocasio, and M. Lounsbury. 2012. *The Institutional Logics Perspective: A New Approach to Culture, Structure, and Process*: OUP Oxford.

Times, The New York. 2014. "The New York Times Innovation Report." New York, New York: The New York Times.

Topuz. 1989. *Journalist: Status, rights and responsibilities*: International Organization of Journalists.

TRIPSAS, MARY. 1997. "UNRAVELING THE PROCESS OF CREATIVE DESTRUCTION: COMPLEMENTARY ASSETS AND INCUMBENT SURVIVAL IN THE TYPESETTER INDUSTRY." *Strategic management journal* 18(S1):119-42.

—. 2009. "Technology, identity, and inertia through the lens of "The Digital Photography Company"." *Organization Science* 20(2):441-60.

Tripsas, Mary, and Giovanni Gavetti. 2000. "Capabilities, cognition, and inertia: Evidence from digital imaging." *Strategic management journal* 21(10-11):1147-61.

Tuchman, Gaye. 1973. "Making news by doing work: Routinizing the unexpected." *American journal of Sociology* 79(1):110-31.

—. 1978. *Making News: a study in the construction of reality*. New York: Free Press.

Tucker, Robert C. 1978. "The Marx-Engels Reader."

Tufekci, Z. 2017. *Twitter and Tear Gas: The Power and Fragility of Networked Protest*: Yale University Press.

Turkle, S. 2011. *Alone Together: Why We Expect More from Technology and Less from Each Other*: Basic Books.

Turner, Fred. 2005. "Where the counterculture met the new economy: The WELL and the origins of virtual community." *Technology and Culture* 46(3):485-512.

Turner, F. 2006. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Chicago, IL: University of Chicago Press.

Tushman, Michael L, and Philip Anderson. 1986. "Technological discontinuities and organizational environments." *Administrative Science Quarterly*:439-65.

Tushman, Michael L, and Johann Peter Murmann. 1998. "Dominant Designs, Technology Cycles, and Organization Outcomes." *Research in Organizational Behavior* 1998(20):213-66.

Tushman, Michael L., and Richard R. Nelson. 1990. "Introduction: Technology, Organizations, and Innovation." *Administrative Science Quarterly* 35(1):1-8.

Tushman, Michael L, and Charles A O'Reilly III. 1996. "Ambidextrous organizations: Managing evolutionary and revolutionary change." *California management review* 38(4):8-29.

Tushman, Michael L, and Wendy Smith. 2002. "Organizational technology." Pp. 386 - 414 in *Companion to organizations*, edited by J. Baum. Malden, MA: Blackwell.

Usher, Nikki. 2013. "Al Jazeera English Online." *Digital Journalism* 1(3):335-51.
—. 2014. *Making News at The New York Times*: University of Michigan Press.

Vaidhyanathan, S. 2018. *Antisocial Media: How Facebook Disconnects Us and Undermines Democracy*. New York, New York: Oxford University Press.

Van de Ven, Andrew H, Douglas E Polley, Raghu Garud, and Sankaran Venkataraman. 1999. *The innovation journey*. New York: Oxford University Press.

Van Maanen, John, and Stephen R Barley. 1984. "Occupational communities: Culture and control in organizations." Pp. 287-365 in *Research in Organizational Behavior*, edited by B.M. Staw and L.L. Cummings. Greenwich, CT: JAI Press.

Von Hippel, Eric. 2005. *Democratizing innovation*. Cambridge, MA: MIT press.

Vu, Hong Tien. 2014. "The online audience as gatekeeper: The influence of reader metrics on news editorial selection." *Journalism* 15(8):1094-110.

Vuori, Timo O, and Quy N Huy. 2016. "Distributed attention and shared emotions in the innovation process: How Nokia lost the smartphone battle." *Administrative Science Quarterly* 61(1):9-51.

Wahl-Jorgensen, K., and T. Hanitzsch. 2009. *The Handbook of Journalism Studies*: Taylor & Francis.

Waisbord, Silvio. 2013. *Reinventing professionalism: Journalism and news in global perspective*: John Wiley & Sons.

Waldman, S. 2011. *Information Needs of Communities: The Changing Media Landscape in a Broadband Age*: DIANE Publishing Company.

Welbers, Kasper, Wouter Van Atteveldt, Jan Kleinnijenhuis, Nel Ruigrok, and Joep Schaper. 2016. "News selection criteria in the digital age: Professional norms versus online audience metrics." *Journalism* 17(8):1037-53.

Westphal, James D, Ranjay Gulati, and Stephen M Shortell. 1997. "Customization or conformity? An institutional and network perspective on the content and consequences of TQM adoption." *Administrative Science Quarterly*:366-94.

Williams, Andy, Claire Wardle, and Karin Wahl-Jorgensen. 2011. "'"Have they got news for us?" Audience revolution or business as usual at the BBC?" *Journalism Practice* 5(1):85-99.

Wu, Brian, Zhixi Wan, and Daniel A Levinthal. 2014. "Complementary assets as pipes and prisms: Innovation incentives and trajectory choices." *Strategic management journal* 35(9):1257-78.

Wu, T. 2016. *The Attention Merchants: The Epic Scramble to Get Inside Our Heads*. New York, New York: Knopf Doubleday Publishing Group.

Yoo, Youngjin, Richard J Boland Jr, Kalle Lyytinen, and Ann Majchrzak. 2012. "Organizing for innovation in the digitized world." *Organization Science* 23(5):1398-408.

Yoo, Youngjin, Ola Henfridsson, and Kalle Lyytinen. 2010. "Research commentary—the new organizing logic of digital innovation: an agenda for information systems research." *Information systems research* 21(4):724-35.

Zamith, Rodrigo. 2016. "On Metrics-Driven Homepages: Assessing the relationship between popularity and prominence." *Journalism Studies*:1-22.

—. 2018. "Quantified Audiences in News Production." *Digital Journalism* 6(4):418-35.

Zammuto, Raymond F, Terri L Griffith, Ann Majchrzak, Deborah J Dougherty, and Samer Faraj. 2007. "Information technology and the changing fabric of organization." *Organization Science* 18(5):749-62.

Zelizer, Barbie. 2004. *Taking journalism seriously: News and the academy*: Sage.

Zittrain, Jonathan. 2008. *The future of the internet--and how to stop it*: Yale University Press.

Zittrain, Jonathan L. 2006. "The generative internet." *Harvard Law Review*:1974-2040.

Zuboff, Shoshana. 1985. "Automate/informate: The two faces of intelligent technology." *Organizational dynamics* 14(2):5-18.
—. 2019. *The age of surveillance capitalism : the fight for a human future at the new frontier of power*. New York: PublicAffairs.