I. INTRODUCTION

Legal scholarship in the United States has evolved greatly over the course of the twentieth century and into the twenty-first.  

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This paper is made possible by the Time Warner Cable Research Program on Digital Communications, 2010.

toward various forms of interdisciplinary scholarship in law, including the combination of legal methods with methods drawn from the social science. There are some good reasons for the growing popularity of this form of interdisciplinarity. One reason is that, in certain subfields of law, it is impossible for a lawyer to make strong policy arguments without a solid grounding in the data gathered by those who specialize in other disciplines. The field of youth media policy is one such subfield. This particular form of interdisciplinarity will be increasingly important in the future.

Policymakers working on matters related to youth media policy need to listen to the findings of the best social scientists in our shared field in order to make better decisions. The reasons for adopting this particular interdisciplinary approach—beyond mere methodological hipness—are substantive. The relevant youth practices are shifting very quickly. Social norms in digitally mediated environments are extremely powerful—often trumping law and public policy and, in turn, posing special problems for those who seek to impose traditional methods of direct regulation. Our public policy goals are often in tension with one another; reconciling them can be tricky. Social science research can help us to understand the broad frame in which these discussions are most helpfully grounded. And as we look to the future, it is important that we understand the substantial shifts in youth practice in order to be able to craft effective policy in this area.

In this paper, I set forth a broad framework, grounded in social science research, within which a policy conversation can be held. The paper also presents a case example examining privacy issues for youth where public policy might be improved by data-driven discussions.

II. THE NEED FOR A NEW FRAMEWORK

Our youth media policy ought to be grounded in a stable theoretical frame that guides our decision making at a high level. This broad theoretical frame should be informed by, and in turn inform, the kinds of questions social science researchers are asking when they are in the field. This framework should also serve as a starting point for our policymaking.

For the purposes of this Essay, I start with the theory that youth media practice holds enormous promise to help support a bright future of learning, economic growth, and civic engagement. At the same time, I recognize the limits of the use of any technology to address major social issues (for instance, inadequacies in our system of education); these issues must be addressed at a fundamental level, and not merely through more effective employment of new media. I recognize that not everyone has equal access to or skill in using new technologies, and that we risk exacerbating important

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AFTER (1920–), at 34 (Michael Grossberg & Christopher Tomlins eds., Cambridge University Press 2008).
societal problems (for instance, the gap between rich and poor) if we ignore these differences between groups of youth. I recognize the extent to which new information technologies are used by those who would do harm to our youth through child pornography, sexual exploitation, bullying, and exposure to unwanted, harmful content. I acknowledge, furthermore, the extent to which the use of new technologies amplifies other complicated trends in society that need to be addressed through policy, such as the commercialization of the childhood experience and the collection of data about our youth by many parties without sufficient protections.

The overarching public policy goal should include an affirmative effort to balance a series of interests that are sometimes, but not always, in harmony with one another. The goal is to seize opportunities associated with digital-era youth media practices (for instance, learning, creativity, innovation, entrepreneurship, and civic activism), while mitigating the challenges (for instance, safety, privacy, intellectual property, information quality concerns, and so forth). Social science research can help to determine those places where these interests are in harmony and those places where they are in discord. It can also help us to see paths forward as we track the practices of youth across time as the technologies and the patterns of use continue to change.

III. PRIVACY FOR YOUTH: A CASE EXAMPLE

I propose a method of public policymaking in the field of Internet regulation that is grounded firmly in data about human practices using new technologies. For instance, as the phenomenon of sexting—most commonly, the transmission of sexually explicit images via mobile device from one youth to another—rises to the attention of decision makers, the first step should be to ascertain the nature and extent of the practice and the risks posed to youth.

The range of possible solutions to the rise of sexting should be considered in light of these data, even as they change over time. For a complex problem such as sexting, the best solution is likely to involve a combination of approaches that address the underlying drivers and practices involved and bring a range of actors into the process of developing and implementing solutions. The mode of direct regulation—declaring the practice to be a violation of bans on the creation and transmission of child pornography—should be one of the tools to consider using, but not the only one. The involvement of parents, educators, social workers, and pediatricians may lead to more constructive solutions and fewer criminal prosecutions of youth involved in unfortunate but commonplace youthful behavior.

Privacy regulation, too, cries out for greater social scientific involvement in the public policymaking process. If sexting is an acute example (it
arose quickly and somewhat unexpectedly, and may or may not be quickly treatable), then privacy is a chronic one (we have known about this issue for a long time and it is almost certain to persist as an ongoing challenge).

In the digital age, there are more and more pressures on individual data privacy. We tend to trade convenience for control, and in turn, data about us are held in more and more hands for longer and longer periods of time.

Parents are often concerned that their children share too much personal information online. They worry that potential predators could use that information to harass or harm children, either online or offline. Since data disclosed online are often persistent, searchable, and hard to delete, youth who behave too openly may suffer consequences in the future, when their personal information is used in unforeseen ways by potential employers, educational institutions, or other parties. These fears, though widespread, are generally not borne out in the research.

However, there are real concerns facing youth and their privacy in a digital age. Youth are subject to a great deal of surveillance, online and offline; their activities are frequently monitored by parents and other adults in ways that they perceive violate their privacy; and information about them is consistently collected and subject to exploitation by marketers seeking to sell them things. (These practices are the subject of the comprehensive review of research into youth practices with respect to new media, privacy, and reputation, which draws together the work of researchers from around the world.)

Adults tend to misunderstand youth behavior with respect to their privacy. The predominant myth is that young people do not care about their privacy. This presumption is a mistake. Youth do care about their privacy, but they care about it in specific ways. For instance, youth care about keeping certain information about themselves from their parents and their teachers. They also express their dislike of the idea that large amounts of information about them are kept in corporate hands, but they often need to be nudged to think about this issue. Given more information about their privacy and skills and tools to do something about it, youth are likely to adopt practices that are more protective of personally identifiable informa-

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tion than they are otherwise.\(^5\) (The same, to be clear, is likely true of adults, who often make the same ill-informed decisions that youth make about sharing information about themselves online.)

What studies demonstrate on this score is that both youth and adults have a range of concerns about privacy. Some children and teens do show less concern than adults about their privacy online, although the data are inconclusive on this score.\(^6\) But studies also show that teens, in fact, are often “more vigilant than adults in terms of privacy-protecting behaviors, although they are more likely to engage in ‘less ethical’ approaches like flaming and providing false information.”\(^7\)

When youth are concerned about risk, they will engage in privacy-protective behaviors, such as adjusting their privacy settings, refusing to provide information, providing false information, or avoiding certain websites.\(^8\) However, most youth (like most adults) do not read websites’ privacy policies or practices, and may be unaware when their information is at risk of disclosure to third parties.\(^9\) These findings put pressure on the current “notice and consent” (also described as “notice and choice”) model of privacy protections in commercial websites. These models are unlikely to be the most effective ways to empower Internet users to manage their personal information in light of youth practice in digitally mediated environments.

\section*{IV. THE NEED FOR NEW COLLABORATIVE POLICYMAKING MECHANISMS}

We need to establish mechanisms that enable collaboration between those who set policy—through law, regulation in schools, policies in corporations, or policy enforced by computer code—and those who best understand youth media practices. In addition, we need to establish a feedback loop that works and a dialogue that genuinely runs in two directions: between those who are under pressure to set rules and those who are in the field, listening to the way that our youth are relating to information, to one

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5. This finding emerged from focus groups that the Author, along with his coauthor, Urs Gasser, performed as part of the research for a book, \textit{Born Digital: Understanding the First Generation of Digital Natives} (2008). Similar studies have also shown that youth are capable of learning to control more effectively the information that they disclose, up to a point.

6. \textit{See} Marwick et al., \textit{supra} note 4, at 12.

7. \textit{Id.} at 33 (emphasis in original).


another, and to institutions. There is an important role, too, for those who focus not so much on the data, but on the theory behind our policies. Any policymaking requires a stable theoretical frame as a starting point and an ongoing refinement of these theories where the data point to the need for adjustment.

This mechanism should be deployed to address, at a minimum, a range of policy interests that affect youth and their media practices. These policy issues include both big “P” (law, rules, and regulations passed and enforced by national, state, and local authorities) and small “p” (less formal policies at schools and common practices that strongly govern behavior) versions of policy issues. The first cluster of relevant issues includes those that tend to dominate the public discourse and which frame the policy discussion in negative terms. The second cluster includes “metaissues” that relate to big-picture, forward-looking policy and funding issues that are equally important areas of focus.

A. Cluster One

In the primary cluster fall those issues that arise from problems rather than opportunities. A major issue that tends to present itself—mostly through the concerns of parents—is child safety. These fears relate to risky behaviors, predation, sexting, bullying, and access to harmful content, and tend to drive public discourse and debates about strategies such as filtering of online content and connections. Closely related in public discourse is privacy, associated with the fear that kids share too much information about themselves online. Discussions of intellectual property likewise merit our attention, from the perspective of both piracy (instances in which kids take someone else’s copyrighted work for consumptive purposes without permission) as well as remix (where kids take copyrighted material for the purpose of creative reuse). Concerns about the credibility of information, information quality, and information overload are less often addressed as policy issues, but are likewise extremely important.

B. Cluster Two

In the secondary—less obvious—cluster of issues fall funding and other crosscutting issues that could have a large-scale impact on youth media practice, especially related to teaching and learning. Examples include the Obama administration’s “Race to the Top,” American Recovery and Reinvestment Act of 2009, and related funding streams that can support innovative work to reimagine learning. The FCC’s National Broadband

Plan is another such example, insofar as it addresses not only issues of access to technology for all communities (including but limited to open access and network neutrality) but also how the nation can leverage access to increased broadband for learning, activism, and entrepreneurship, and funding opportunities for innovative work using the network. The National Educational Technology Plan also falls in this cluster. The internal policies and funding decisions in schools, libraries, and museums are highly relevant and broadly crosscutting. Debates about after-school and extended learning time and related conversations about learning inside and outside of schools have potentially enormous consequences. And innovation policies, designed to engage business leaders, entrepreneurs, and venture capitalists in preparing kids for a 21st-century workforce, might well play an important role in the future.

Young people tend to view the Internet as a social space. The relationships that youth maintain are not segmented between “online” and “offline.” The social dynamics of friendship for many youth make the sharing of information online a part of creating and maintaining a coherent sense of identity. Most youth interact online with people they already know offline. On the other hand, between forty-five and seventy-nine percent of youth report “chatting with strangers online,” especially while playing online games. Youth tend to focus more on the potential benefits of information disclosure than they do on potential harms.

benefits from sharing.\textsuperscript{17} For many young people, being part of popular online social network sites carries meaningful social benefits.\textsuperscript{18}

The context in which information is solicited or shared online is very important. Youth often do not see information as strictly “public” or “private” in a binary sense of “on” or “off” (much as they do not tend to distinguish crisply between the online and offline aspects of their lives). They distinguish between different levels of privacy; for example, on the popular social network site Facebook, youth may divide friends into different groups, to which in turn they may grant access to different types of information. Youth may share passwords with friends for perceived social benefits\textsuperscript{19} while simultaneously expressing concern about keeping their online activities private from parents.\textsuperscript{20} Rafi Santo recently observed that “youth see benefits in sharing information online, but among peers rather than with adults in their lives.”\textsuperscript{21}

However, differences in privacy attitudes are not simply generational. Attitudes toward privacy and reputation also vary considerably among youth themselves. Age, gender, and Internet experience are important variables; research indicates that the most Internet-savvy, experienced users are the most concerned about privacy and the most likely to take privacy-protecting steps.\textsuperscript{22} When youth are aware of and concerned about risk, they engage in protective behaviors like refusing to provide information, providing false information, or avoiding certain websites.\textsuperscript{23} However, neither youth nor adults are always concerned about risk when they should be.

Youth also vary in terms of their behavior related to certain types of personal information. Studies have found that teens share email addresses and passwords with one another,\textsuperscript{24} possibly in order to demonstrate trust or to get technical help with accounts.\textsuperscript{25} Social network sites require the dis-

\begin{itemize}
\item[\textsuperscript{17}] See Youn, supra note 8, at 390; Seounmi Youn, Teenagers’ Perceptions of Online Privacy and Coping Behaviors: A Risk–Benefit Appraisal Approach, 49 J. BROAD. & ELEC. MEDIA, 86, 98 (2005).
\item[\textsuperscript{18}] See boyd, supra note 3, at 119.
\item[\textsuperscript{19}] See Steeves & Webster, supra note 9, at 10.
\item[\textsuperscript{20}] See, e.g., Anne West et al., Students’ Facebook ‘Friends’: Public and Private Spheres, 12 J. YOUTH STUD. 615, 620 (2009).
\item[\textsuperscript{21}] See Santo et al., supra note 16, at 10.
\item[\textsuperscript{22}] See Ian Grant, Online Privacy–An Issue for Adolescents?, PROCEEDINGS OF THE CHILD AND TEEN CONSUMPTION CONFERENCE 9–11 (2006), http://www.cbs.dk/content/download/41873/616561/file/.
\item[\textsuperscript{23}] See Marwick et al., supra note 4, at 33; Youn, supra note 8, at 403.
\item[\textsuperscript{25}] See, e.g., boyd, supra note 14, at 183.
\end{itemize}
closure of certain information, but studies suggest many public profiles are incomplete. Public information often includes first names, photos, and information about interests, but surnames, phone numbers, and addresses are shared less frequently. Teenagers sometimes lie about their information, often because they believe that inaccurate information is necessary for online safety. One study shows that females are more likely to have private profiles than males. Most relevant studies have examined social network site practices among college students; supplementary research on younger children is needed to discover what information they typically share. In addition to profile information and passwords, youth commonly share user-created content, like photos, videos, or blog entries.

Social network sites require sharing at least some personal information, but the choice of what information to disclose is part of the dynamic process of defining identity for young people. Research shows that youth do not always understand and use the current generation of privacy-protecting tools on social network sites.

V. TRANSFORMING LEARNING, SOCIALIZING, AND COMMUNICATION PRACTICES

The use of electronic media has led to transformations in learning, socializing, and communication practices among youth—many of which are overwhelmingly positive. Since technologies and youth practices change rapidly, we can, at best, take only a “snapshot of a moving target.” As difficult as this research task is, we do know several important things about

27. See id. at iii.
28. See boyd, supra note 14, at 149.
31. See LENHART & MADDEN, supra note 26, at ii–iii.
34. See Schrock & boyd, supra note 15, at 120.
current youth media practice. First, young people as a group are using me-
dia—digital media in particular—more than ever before. Among young
people born after roughly 1980, activities like content generation, remixing,
collaboration, and sharing are important aspects of daily life. Many of
these activities are friendship-driven: most youth interact online with
people they already know from their offline lives, using the Internet to
maintain existing relationships. Activities can also be interest-driven: op-
portunities to develop expertise in specialized skill areas, like animation or
blogging. In either context, the casual use of new media is an important
way to develop social and technological skills.

Though we often generalize about youth media practice in America, it
is important to note that not all children are “born digital.” Not all forms
of Internet access are equal—the “digital divide” still limits opportunities
for many youth, especially those in lower socioeconomic brackets. Youth
who do not have access to the Internet at home may be missing out on op-
portunities to develop important social and technical skill sets. Youth who
do not have the opportunity to develop familiarity and confidence with
electronic media may have trouble navigating social interactions in online
communities or recognizing biased, unreliable information, placing them-
selves at increased risk. Access alone does not guarantee parity in expe-
rience. Youth who depend on computers in libraries and schools, which
often use one-size-fits-all filtration software, may be not able at all to
access certain sites and services, placing them at a disadvantage compared
to peers with better access. Many youth, likewise, rely upon mobile devices
rather than fixed-line connections with faster speeds, or mobile devices
without the ability to download new applications in the manner that smart
phones do. The notion of the participation gap between those with sophisti-
cated skills to use digital media and those without has been developed in
detail both theoretically and through empirical data.

The full picture of how electronic media are changing both learning
and socializing is still emerging. This orientation toward the future is yet
another reason why social science—in the form of observations over

35. VICTORIA J. RIDEOUT ET AL., THE HENRY J. KAISER FAMILY FOUND., GENERATION
36. See, e.g., ITO ET AL., supra note 14, at 23–26; PALFREY & GASSER, supra note 32.
37. boyd, supra note 14, at 106; see also PALFREY & GASSER, supra note 32, at 95.
38. See boyd, supra note 14, at 106.
40. See generally PALFREY & GASSER, supra note 32.
41. See Eszter Hargittai, Digital Na(t)ives? Variation in Internet Skills and Uses Among
Members of the “Net Generation”, 80 SOCIOMETRIC INQUIRY 92, 93 (2010),
time—is so important to the establishment of a better shared understanding of youth media practices and to better lawmaking in this field. One of many challenges associated with research in this area is that we are only now observing children who have grown up with email, social network sites, cell phones, and other technologies. It is clear, however, that engagement with electronic media has great educational potential. A recent ethnographic study examined peer-based learning practices among youth, and found that electronic media provide the opportunity for intense, self-directed, interest-driven study.\(^{42}\) \textbf{Geeking out}—developing specialized expertise and sharing it with others\(^{43}\)—in many respects does not resemble traditional classroom-based education; yet it fosters important technological and social skills, including confidence, leadership, and communication. Youth also benefit from socializing in digitally mediated environments, learning the social skills necessary to participate in creative and collaborative work environments.\(^{44}\) As we seek to protect youth from the unforeseen risks of online engagement, it is essential that we do not in turn foreclose the benefits made possible by self-directed, informal learning and socializing through new technologies or experimentation with teaching using new technologies in the classroom.

For some students, the use of new media also offers great opportunities in the context of formal education and research endeavors. Most of the studies of media in formal educational settings to date focus on college students (the study of which population poses fewer methodological challenges than young children). According to one such study, most college students use Google, Wikipedia, and friends for everyday, informal research; for course research, the most-used resources are course materials, Google, and scholarly databases.\(^{45}\) While students welcome online access to library resources, their frustrations and challenges include narrowing down topics, sorting through results to find relevant resources, and assessing the credibility of sources. Some critics are concerned that the widespread practice of media multitasking impairs effective learning.\(^{46}\) These observations underscore the need for more effective media literacy education. Technology can generally improve educational curricula by enabling

\(^{42}\) See Ito et al., supra note 14, at 1–2.
\(^{44}\) See id. at 17.
instructors to address individualized needs. Technologies can also help to support new and enhanced pedagogies to provide multiple avenues for expression, engagement, and content presentation. Some promising recent efforts have focused on harnessing gaming interfaces to supplement curricula. Technology can also play a crucial role in making information more accessible to youth with disabilities. For example, mobile devices (such as cell phones and smartphones) can facilitate communication between hearing-impaired students and their teachers and classmates. Assistive technologies can and should go beyond basic accessibility, so students have an educational experience that is not merely adequate, but enhanced.

Social science research can also serve an important function: to help policymakers envision what might be, in terms of new potential improvements in teaching and learning, entrepreneurship and innovation, and activism and civic engagement. These lessons are too rich, and too instructive, to ignore. As we look to the future—the future in which our children and grandchildren will lead—the ability to understand how they see the world and mediate their experiences through technology will take on greater and greater importance.

Some studies suggest that children may be more likely than adults to restrict access to their information on social network sites. However, if privacy settings are too complex, they may confuse or turn off youth (and adults) and render their protections useless.

The participation gap between the most sophisticated Internet users and the most naïve is extremely important in this context. Youth who are less Internet-savvy—often younger children or teens without home Internet access or supportive teachers and mentors—might be expected to have the most trouble negotiating privacy settings, and thus be at increased risk of unwitting public disclosure of personal information. While privacy settings should be complex enough to permit granular control of personal information within one’s various networks and friend groups, social network hosts should also take responsibility for making these controls easier to find, understand, and use. Help should be provided, especially for younger users, and there should be a straightforward and transparent way to identify what profile information is publicly available. Social network site providers should also allow users to access what information is kept about them, how


48. See generally JAMES PAUL GEE, WHAT VIDEO GAMES HAVE TO TEACH US ABOUT LEARNING AND LITERACY (2007).

49. See TRACY GRAY ET AL., NAT’L INST. FOR TECH. INNOVATION, UNLEASHING THE POWER OF INNOVATION FOR ASSISTIVE TECHNOLOGY 7 (2010).

50. See, e.g., LENHART ET AL., supra note 30, at iii.
it is used, and who can see it. Social network site providers should set privacy defaults that favor increased security for personal information so that the least sophisticated users are protected from unwanted information disclosure.

Parents should be aware that discussing media content with their children (during web-surfing or afterward) can be an effective strategy to help reduce the amount of personal information disclosed—more so than simply prohibiting or limiting children’s access. Teens whose parents monitor or participate in their Internet use are more concerned about privacy than those who do not. However, youth also may perceive monitoring by parents as a violation of their privacy. One recent study of parent-child pairs found that children were more resistant to protective strategies involving parental monitoring and coviewing than they were to user empowerment strategies, or even some forms of government or industry protection. Resources to help parents understand the ever-changing and complicated privacy settings used by websites like Facebook can be very constructive, but parents should be advised that filtering and monitoring strategies can backfire by undermining the trust of their children, especially as they grow older.

VI. CONCLUSION

Based upon these social science research findings, public policymakers ought to consider five approaches to addressing the privacy concerns of youth in the online context.

1. Understand the manner in which youth are engaging in life in a digital era, both online and offline, and how they think about the concepts of public and private. What is “public” and what is “private” for youth has not changed overnight as a result of the advent of social network sites. But a


53. See West et al., supra note 20, at 617–18, 620–22; ITO ET AL., supra note 14, at 19.


great deal of social life for youth is occurring in networked public spaces, which means that a great deal of information about youth as they go about everyday life is recorded, whether through their active disclosure or otherwise.

2. Adults need to acknowledge and take responsibility for their roles in supporting or violating young people’s privacy, especially in ways that can backfire.

3. Teaching media literacy skills relating to privacy in a digital era should be emphasized in a manner that is not focused on scare tactics.

4. Private companies—those that hold a great deal of information about young people in particular—need to emphasize software design that makes privacy settings and rules easier to adjust and to understand. These companies should take steps to avoid commercialization of the environments in which childhood is taking place for today’s youth.

5. As a matter of public policy, the dominant “notice and choice” and self-regulatory framework for data held in digital forms should be rethought. We need to rethink this issue for youth in particular to ensure a greater level of user control over and awareness of personally identifiable information over the long term, including substantive legal protections for user information privacy.

The above five approaches are in addition to traditional regulatory approaches to protecting youth privacy in digital contexts. We should consider methods of both direct and indirect regulation. Social norms are extremely powerful and can be leveraged for good. Peers can be great teachers and role models—or may reinforce risky behaviors. Technology companies have important roles to play, as do parents, teachers, social workers, doctors, and other mentors. Our approaches to public policy need to take advantage of these multiple approaches and modes of regulation, with public officials providing both leadership and a backstop where things go wrong.

Social science research can help policymakers understand the dynamics of youth media practice that give rise to the concerns associated with life online and offline that we need to address. This research can help policymakers anticipate which solutions or approaches are more or less likely to mitigate the harms that we seek, as a society, to address. The case of privacy policy for youth is illustrative of the role that social science can play in developing more effective public policies.