Kiva.org: Crowd-Sourced Microfinance & Cooperation in Group Lending

Working Paper & Appendix

Crowd-Sourced Microfinance and Cooperation in Group Lending

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ABSTRACT

Altruistic peer-to-peer lending, or crowd-sourced Internet microfinance, exposes a unique environment in which to observe cooperative behavior. Geographically diverse individuals coordinate to provide capital to others in need, often for minimal, or in the case of Kiva.org, zero financial return. While significant microfinance research has chronicled the windfalls of group borrowing in organizations such as Grameen Bank, little has been written on the cooperative dynamics of group lending, observing crowd-sourced microfinance and what online organizational structures facilitate cooperation.

At the end of 2008 Kiva.org announced the creation of "Lending Teams," or cohesive open or closed membership groups established and categorized according to scope. These Lending Teams introduce forms of cooperative many-to-one and many-to-many group lending, based on tenuous concepts of identity. Groups vary according to category, size, scope, and activity, and this impacts participatory vitality of crowd-sourced lending.

The "Kiva.org: Crowd-Sourced Microfinance and Cooperation in Group Lending" study focuses on evaluating the extent to which Solidarity as a design-lever impacts social behavior. Looking specifically at Kiva.org as a prominent online community for peer-to-peer lending, this study seeks to evaluate the advent of "Lending Teams," their subsequent impact on group lending behavior, and the extent to which group openness, size, and categorization does or does not substantively alter online cooperative behavior.

Based on Kiva.org data accessed through their public Application Programming Interface (API) in June 2009, this study qualitatively and quantitatively observes 120 Lending Teams. These 120 groups represent, on a per-capita lending basis, the Top- and Bottom-10 Open and Closed access Kiva.org Lending Teams across three membership thresholds "Small" ($N \leq 10$), "Medium" ($10 < N \leq 20$), and "Large" ($N > 20$). While longitudinal in qualitative observation of the 120 Lending Teams, this study does not compare crowd-sourced lenders within the construct of Lending Teams with more traditional individual lenders to draw normative conclusion. Lending teams are not studied in how they affect behavior outside lending teams. While not comprehensive, this representative overview of Kiva.org Lending Teams enables one to make positive observations about Solidarity as a "cooperative design lever" within the context of international crowd-sourced philanthropy and online peer-to-peer lending, and make normative observations about size and openness in contributing to the effectiveness of group *lending* dynamics.

The study provides taxonomy of top- and bottom-performing Open and Closed Lending Teams on Kiva.org, and provides prescriptive observation of Lending Team management. The study also provides normative guidance in structuring Lending Team orientation at various stages of group development to both limit downside participation loss, and maximize upside participatory vitality. Group membership thresholds for classifying small, medium, and large teams build on putative microfinance literature.

The study outlines key management choices that can foster greater in-group solidarity, and expand Lending Team participation on Kiva.org. More broadly, the study prescribes how online solidarity can improve participation in crowd-sourced microfinance.

ABOUT THE AUTHOR

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This research builds upon "Cooperation in Group-Based Microlending" literature reviewed by Anne Huang of Yale University's Law & Cooperation Research Group. Without the cooperation and solidarity of these individuals this paper would not have been possible.

BACKGROUND

Altruistic peer-to-peer lending, or crowd-sourced Internet microfinance, exposes a unique environment in which to observe cooperative behavior. Geographically diverse individuals coordinate to provide capital to others in need, often for minimal, or in the case of Kiva.org, zero financial return. While significant microfinance research has chronicled the windfalls of group borrowing in organizations such as Grameen Bank, little has been written on the cooperative dynamics of group lending, observing crowd-sourced microfinance and what online organizational structures facilitate cooperation.

At the end of 2008 Kiva.org announced the creation of "Lending Teams," or cohesive open or closed membership groups established and categorized according to scope. These Lending Teams introduce forms of cooperative many-to-one and many-to-many group lending, based on tenuous concepts of identity. Groups vary according to category, size, scope, and activity, and this impacts participatory vitality of crowd-sourced lending.

The "Kiva.org: Crowd-Sourced Microfinance and Cooperation in Group Lending" study focuses on evaluating the extent to which Solidarity as a design-lever impacts social behavior. Looking specifically at Kiva.org as a prominent online community for peer-to-peer lending, this study seeks to evaluate the advent of "Lending Teams," their subsequent impact on group lending behavior, and the extent to which group openness, size, and categorization does or does not substantively alter online cooperative behavior. Moreover, the study provides taxonomy of top- and bottom-performing, open and closed Lending Teams on Kiva.org, and provides prescriptive observation of Lending Team management. It provides normative guidance in structuring Lending Team orientation at various stages of group development to both limit downside participation loss, and maximize upside participatory vitality. Moreover, the study outlines key management choices that can foster greater in-group solidarity, and expand Lending Team participation on Kiva.org.

Most interestingly, the study prescribes how online solidarity can improve participation in crowd-sourced microfinance, and prescribes how these fungible observations can be applied across any online community seeking to cohere and coordinate disparate individuals.

Research Question

By qualitatively and quantitatively observing the highest and lowest performing (on a per-capita lending basis) Kiva.org Lending Teams, this study seeks answers to online lender cooperation questions such as the following:

- What impact does solidarity as a design-lever have on Internet-based lending?
- What are the features common to top-performing Kiva Lending Teams?
- What are the features common to bottom-performing Kiva Lending Teams?
- How does a Lending Team being created as "Open" or "Closed" matter?
- Does the size of the Lending Team have an impact on per-capita lending?
- Does the size of the Lending Team have an impact on group coordination?
- How does a Lending Team's self-described "Category" impact lending?
- How does off-Kiva.org Internet coordination impact per-capita lending?

The following introduction and literature survey in categories such as In-group Solidarity, Psychology of Lending, Microfinance, and Internet Peer-to-Peer Lending seeks to frame existing debate. Both the methodology and the study build upon this foundation.

Recent Trends

The Internet has increased the facility of geographically diverse peer-to-peer lending. Peer-to-peer lending, outlined in a subsequent section, allows individuals to provide capital for personal or business borrowing needs, via Internet-based matching platforms. Kiva.org, a burgeoning platform for zero-interest, international, Internet-based peer-to-peer lending, was unlike many of its counterparts. While peer-to-peer lending is not a concept unique to Kiva.org, Kiva offered a number of features that made it appropriate for this study. Kiva is interesting not only because it provides Internet-based international loans, but also because these loans are also provided at zero-interest return to the lender. Additionally, in late 2008 Kiva.org debuted a site feature called "Lending Teams" that allow lenders to coordinate activity on the site. Specifically, lenders can choose to assign their activity to certain "Lending Teams," and associate with others according to forms of human identity. They can thereafter cooperate in the lending of capital to specific borrowers. In short, the Lending Teams feature is a novel form of coherence and coordination around various forms of identity in the activity of peer-to-peer lending. Seen below, one of the highest performing large Lending Teams was the "Belgian" team. These users chose to join and attribute any loans provided to Belgium.

The advent of Lending Teams on Kiva.org provided a unique ability to observe the impact of Online Cooperation in the context of international, zero-interest, Internet-based many-to-one and many-to-many lending. Lending Teams allowed lenders to attribute loans to groups representing various forms of identity, and to interact with others who shared the same identity. Lenders could share identity passively via Lending Team observation, or actively via each internal message board. The introduction of the Kiva.org Lending Team therefore introduced a deeply cooperative dynamic into online peer-to-peer lending, and one highly nuanced in that groups are in variation, open or closed, large or small, old or new, active or inactive. This diversity of Kiva.org Lending Teams offered a rich and unparalleled ecosystem of cooperative online activity to study.

Literature Review

While substantial literature exists covering In-group Solidarity, the Psychology of Lending, Microfinance, and Internet Peer-to-Peer lending, none directly and cogently addressed the question of the impact of solidarity on lender cooperation within Internet-based, international, zero-interest peer-to-peer lending.

In-Group Solidarity Literature

Much literature exists relating to the dynamics and motivations of human cooperation within groups. While this literature broadly and theoretically addresses points relevant to an evaluation of Kiva.org Lending Teams, no article specifically addresses Internet-based peer-to-peer lending group dynamics, and whether the international geography of groups, their open or closed nature, size or composition ultimately contributes to in-group solidarity and group lending effectiveness as measured in terms of per-capita lending.

Relevant literature, such as Nancy Bunchan, et al. (2009) addresses globalization and human cooperation, finding that as globalization levels increase so to does individual cooperation. "Global individuals" draw broader group boundaries, "eschewing parochial motivations in favor of cosmopolitan ones." Previously, many argued that globalization would prompt a reactionary movement enforcing parochial distinctions between groups, with organizations favoring ethnicity, race, or language. Their conclusion revealed that globalization would strengthen the cosmopolitan attitudes of group members, weakening biases, and fostering more interconnected and diverse collections of cooperative individuals. As context for observing Kiva.org Lending Team composition, this research indicates that Lending Team cohesion around the broader mission of international peer-to-peer lending may supersede other forms of more parochial identity. As observed qualitatively across 120 teams, non-geographic Lending Team identities many times superseded regionally biased associations.[1]

Psychology of Lending Literature

Additional literature from psychology can be illustrative in deconstructing and observing the composite identities of Kiva.org Lending Teams, why certain people cohere in groups, and what impact this collective has on solidarity, and lending behavior. A 2008 study by Jerry M. Burger, *et al.* entitled "What a Coincidence! The effects of Incidental Similarity on Compliance," looked at the impact of incidental similarities such as sharing a birthday, having the same first name, or having similar fingerprints.[2] What they found confirmed Heider's description of unit relationships in which "perceived similarities lead to positive affect." Additionally, Chen and Li (2008) indicate that induced group identity when matched with an in-group member leads to a 47-percent increase in charity concerns, and "a 93-percent decrease in envy when they have a lower payoff."[3]

This has application for the Kiva.org Lending Team ecosystem in that open lending teams do not have moderation or accountability, and anyone can easily join; cohesion is eroded. A lending team for Alaskan natives could consist entirely of people who've never been to the state. Yet the perceived coincidence of similarity could generate in-group solidarity, and have a positive effect on group lending. On Kiva.org, greater charity concerns could foster greater per-capita lending rates, or increased focus on providing loans with the greatest social return. Alternatively, moderated, closed lending teams would be more cohesive and consist of individuals with verifiably consistent similarities.

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[1] Nancy R. Buchan, et al., Globalization and human cooperation, 4138-4142 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES (PNAS) 106, 11 (2009).

[2] Jerry M. Burger, et al., What a Coincidence! The Effects of Incidental Similarity on Compliance, 34-43 PERSONALITY AND SOCIAL PSYCHOLOGY BULLETIN 30, 1 (2004).

[3] Yan Chen and Sherry Xin Li, Group Identity and Social Preferences (2008).

Microfinance Literature

Since the 1976 founding of Grameen Bank, lending to groups has become an increasingly popular tool for poverty alleviation. It has also become a widely studied phenomenon. In-group lending, to mitigate potential for loan default, capital is provided to groups who – through having mutually re-enforcing loans– put internal pressure on those likely to default to maintain their credibility. The theory behind group lending is therefore fundamentally one of peer pressure encouraging repayment. Given members' joint-liability, individual performance is linked to group performance, and members therefore have a personal incentive to enforce proper behavior. This process reduces moral hazard if individuals think they can escape without paying, and the systemic formation of groups of borrowers reduces transaction costs associated with loan distribution and collection.[4]

"Group lending" within microfinance literature therefore typically refers to a single lender – often a microfinance institution (MFI)– providing capital to groups of borrowers rather than groups of lenders providing capital to one borrower.

On the borrower's side, microcredit institutions employ various institutional structures to provide loans to group-based borrowers. Grameen Bank and Muhammad Yunus pioneered in Bangladesh what it titled the "solidarity circle." Additionally, there are "self-help" and "community-based organizations" that have evolved from traditional credit groups. These intermediaries are especially popular in India. While "solidarity circles" and "self-help" groups of borrowers are similar, the former involves remote oversight whereas the latter strives to create independent, locally run micro-banks that encourage borrower repayment.

There is no paucity of academic and popular media coverage of *group lending.* It is covered in philanthropy, microfinance, and economic literature focused on group lending's ability to exploit social ties, and utilize social pressure to bridge the asymmetric information gap between lenders and borrowers.[5] While microfinance literature therefore covers dynamics of group lending, this literature is predominately focused on *borrower-group* organization with the goal of lowering borrower default rates. This literature tends to focus on more traditional forms of microfinance rather than the nascent field of Internet-based peer-to-peer micro lending. Extant literature on cooperation in microfinance is almost exclusively focused on *borrower-side* dynamics, rather than the novel complexities associated with online coordination of groups of lenders to provide capital to single borrowers. This Internet-based cooperative lending that is many-to-one, or many-to-many therefore has little microfinance coverage.

Whereas traditional microfinance is one-to-one, and one-to-many, the advent of Internet-based peer-to-peer lending has created a novel form of crowd-sourced microfinance, or a many-to-many platform, with loose cohesion across both lenders and borrowers.

Where microfinance literature is particularly helpful in framing this study is in observing the characteristics that studies have demonstrated play an influential role in the success of a borrowing group. For example, interaction with staff and hierarchy, such as borrower

[4] Julia Paxton et al., Modeling Group Loan Repayment Behavior: New Insights from Burkina Faso, 48 ECONOMIC DEVELOPMENT AND CULTURAL CHANGE 639, 640 (2000).
[5] Bruce Wydick, "Can Social Cohesion Be Harnessed to Repair Market Failures? Evidence from Group Lending in Guatemala," 109 ECONOMIC JOURNAL 463, 463 (1999).

interaction with lenders, is of critical importance to micro lending success.[6] In Costa Rica, it has been observed that formal rules that frame appropriate group behavior and obligations help improve repayment performance.[7] Many papers also focus on the homogeneity of the group, and how this impacts repayment. Studies indicate that homogeneous matching, namely when borrowers with the same probability of success are grouped together, improves outcome. Others, such as Sadoulet and Carpenter (2001) challenge this assumption, empirically observing in Guatemala that heterogeneity in individual borrower groups enables insurance arrangements that can improve repayment rates.[8] Subsequent research by Lensink and Mehrteab (2003) established that in Eritrea microcredit groups formed heterogeneously.[9]

In some cases, self-selecting borrower groups screening according to reputation have proven to have lower default rates and the further away the geographic location of the borrower, the better the repayment.[10] Sharma and Zeller (1997) indicate that self-selecting groups in Bangladesh had higher repayment rates.[11] *In both cases, the focus is on the borrower groups, and not on cooperative crowd-sourced lending as on Kiva.org.*

Additionally, culture can influence the effectiveness of joint-liability borrowing groups. Karlan (2005) demonstrated in Peru that culturally similar group members coalescing in borrower groups improved repayment performance due to cultural affinities that increased the probability of strong social ties, stronger screening, and enforcement.[12]

Perhaps most relevant to the observation of Lending Teams on Kiva.org is literature on the effectiveness of membership size in borrowing group effectiveness. While observation of Kiva.org will review cooperative lender dynamics, membership size in borrower microfinance groups serve as a useful baseline in establishing lending group membership thresholds. Building upon research conducted by Anne Huang of Yale University's Law & Cooperation Research Group, she observes that, "Ghatak and Guinnane (1999) argue that smaller groups are preferable because of stronger in-group coordination, and reduced free-riding."[13] Additionally, Osuwu and Tetteh (1982) studied a Ghanaian program with group sizes ranging from 10 to 100 individuals, coming to the conclusion that groups of 20 or more individuals posed more problems on the issues of loan supervision and collection.[14]

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[6] C. Leigh Anderson and Laura Locker, *Microcredit, Social Capital, and Common Pool Resources*, USA United Nations Food and Agriculture Organization, Rome, Italy (2001)

[7] Niels Hermes, Robert Lensink & Habteab T. Mehrteab, Does the Group Leader Matter? The Impact of Monitoring Activities and Social Ties of Group Leaders on the Repayment Performance of Group-based Lending in Eritrea, AFRICAN DEVELOPMENT REVIEW, Vol. 18, No. 1, 72-97(26), 1 (April 2006).

[8] Sadoulet, L. and Seth B. Carpenter (2001), Endogenous Matching and Risk Heterogeneity: Evidence on Microcredit Group Formation in Guatemala, ECARES, Free University of Brussels.

[9] Hermes, et al. *supra* note 7.

[10] Wenner, M. (1995), Group Credit: A Means to Improve Information Transfer and Loan Repayment Performance, JOURNAL OF DEVELOPMENT STUDIES 32 (2), pp. 263-281.

[11] Sharma, M. and M. Zeller (1997), Repayment Performance in Group-Based Credit Programs in Bangladesh: An Empirical Analysis, WORLD DEVELOPMENT, 25 (10), pp.1731-1742.

[12] Karlan, D. S. (2005), Social Connections and Group Banking, Economic Growth Center Discussion Paper Series No. 913, available at http://www.econ.yale.edu/growth_pdf/cdp913.pdf.

[13] Ghatak, M. and T.W. Guinnane (1999). The Economics of Lending with Joint Liability: Theory and Practice. JOURNAL OF DEVELOPMENT ECONOMICS, 60, pp.195-228.

[14] Owusu, K.O. and Tetteh, W. (1982), An Experiment in Agricultural Credit: The Small Farmer Group Lending Programme in Ghana (1969-1980), SAVINGS AND DEVELOPMENT, 6(1).

Studies by Devereaux and Fische (1993) in the Dominican Republic argue that small borrower groups are critical to micro lending success, but research in Malawi by Buckley (1996) argued that borrower groups with 10 or more individuals could still be effective.[15] Finally, Abbink, Irlenbusch, and Renner (2006) found that larger groups showed a tendency to shrink, but could better disperse risks, enabling them to be as effective as small groups.[16]

Thus despite broad literature highlighting the dynamics of borrower group size, there is little consensus as to the exact membership size that maximizes cooperative participation and effectiveness. Across literature, debate framed around size thresholds of 10 members, 20 members, and 100 members. Building upon this debate, this Kiva.org study has accordingly framed Lending Team membership thresholds. As such, Lending Team membership thresholds have been established at 10 members and 20 members with the goal of evaluating the impact of group size on solidarity and peer-to-peer lending.

Internet Peer-to-Peer Literature

While microfinance literature is focused on more traditional forms of lending, and specifically on the cooperation associated with group borrowing, there also exists literature that highlights the novel forms of Internet-based peer-to-peer lending.[17] Prosper has received fairly broad coverage, and some literature even addresses the motivations of online lending. Columbia Business School's Raymond Fisman, for example, asks if peer-to-peer lending websites such as Prosper even work, likening Internet-based lending to shopping for an online date in his Slate article, "It's like e-Bay meets Match.com." With unverified information, many lenders seemingly loan on the basis of anecdote and appearance, despite the fact that better-looking people are actually less likely to pay back their loan.[18] A Harvard University and University of Amsterdam study, however, highlighted that even with such apparent bias, online lenders are good judges of creditworthiness.[19] Yet while literature mentions and even provides overviews of Kiva's novel Internet-based, peer-to-peer lending model of crowd-sourced microfinance, none goes so deep as to longitudinally review the dynamics of on-site cooperation, and evaluate impact of online solidarity on group lending.

While substantial literature exists, extant study on In-Group Solidarity, Psychology of Lending, Microfinance, and Internet Peer-to-Peer Lending does not conclusively cover solidarity's impact on such crowd-sourced microfinance such as exists on Kiva.org.

Peer-to-Peer Lending

Internet-based peer-to-peer lending has become an increasingly prominent global means of capital acquisition, and also an increasingly popular form of crowd-sourced microfinance. The online peer-to-peer lending landscape is not unique to Kiva.org. In fact, Kiva.org

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[15] Buckley, G., Rural and Agricultural Credit in Malawi: A Study of the Malawi Mudzi Fund and the Smallholder Agricultural Credit Administration, FINANCE AGAINST POVERTY, ed. By David Hulme and Paul Mosley. London: Routledge (1996).
[16] Abbink, K., Irlenbusch, B. and E. Renner (2006), Group Size and Social Ties in Microfinance Institutions, ECONOMIC INQUIRY, Vol. 44, No. 4, pp. 614-628.
[17] See Jude Stewart, A Good Run for Your Money, SLATE, Mar. 15, 2007, http://www.slate.com/id/2161797
[18] See Ray Fisman, It's like e-Bay Meets Match.com, SLATE, June 30, 2009, http://www.slate.com/id/2221372/
[19] See Rajkamal Iyer, et al. Screening in New Credit Markets, available at http://www.slate.com/id/2221372/

trailed to comparable international loan providers, but created its niche by providing zero-interest venture-specific loans to emerging market entrepreneurs.

Lending institutions such as Prosper, Lending Club, ACCIÓN, TrickleUp, Global Giving, Grameen Foundation, and UniThrive exist alongside Kiva.org. Each, however, differs in its mission and scope, and was therefore less relevant as the focus of this study.

Prosper.com

Prosper, launched in 2006, is the pioneer in Internet-based peer-to-peer lending, allowing individuals to provide capital to borrowers in need while concurrently obtaining interest on their investment. As of August 2009, Prosper records over 840,000 members and has provided over $179 Million in loans. Prosper provides an auction model in which both borrowers and lenders find lending terms that are favorable to their capital, or return on investment, needs. Within Prosper, borrowers can request between loans of between $1,000 and $25,000, and stipulate terms under which they'd be amenable to borrowing. Concurrently, individual and institutional investors register as lenders, set minimum interest rates, and provide between $25 and $25,000 to borrowers in whom they believe, based on anecdotal profiles and stories, as well as credit scores and histories. While Prosper provides loans to individuals in need, much of the site is dedicated to lenders. Average lender returns are touted at 7.06 percent, and portfolio plans and pages detail the advantages and investment opportunities available on Prosper.com. Lending, however, is framed relative to investment in stocks, and bonds. Prosper describes itself as a platform for "Social Lending," or investing in something in which one believes.

LendingClub.com

Similar to Prosper.com, Lending Club is a leader in Internet-based peer-to-peer lending. Founded as a social lending network that allowed borrowers with a good credit score (minimum 660 FICO) to find loans at affordable rates, Lending Club also offers lenders the opportunity to, while assuming some managed risk, earn a return on their investment. Borrowers with a sufficiently high credit score can seek personal loans for amounts between $1,000 and $25,000 online. Requests indicating the borrower's information and credit are posted for two weeks, during which time lenders, also called investors, can choose in whom they'd like to invest. Based on the investor's assumption of risk he or she can choose to fund higher- or lower-credit-worthy individuals. Investments purchase notes, or shares in a borrower, and that lender assumes a portion of the risk. Lending Club touts its ability to provide online matching of savvy investors and smart borrowers.

ACCIÓN.ORG

Acción International is the private non-profit umbrella microfinance institute under which Acción USA, the Acción Network, iLab, EB-Acción Savings and Loans, and Center for Financial Inclusion at Acción International operate. Established in 1961, Acción has been a global leader in microfinance since 1973. In 2008 Acción and its global partners served 3.7 million clients. Domestically, Acción USA has been in existence since 1991. Acción USA is currently a leader in Internet-based U.S. microfinance, having provided over $117 Million across 18,500 loans to small business owners and micro-entrepreneurs. Under the broad Acción model, borrowers pay interest on loans sufficient to cover the expenses of loan creation, though remunerative returns are not provided to the lender. Acción borrowers are

globally diverse, and 65 percent are women, and within the United States they are low- and moderate-income individuals who seek capital for business expansion. Acción International focuses on developing sustainable MFIs capable of providing thousands to millions of loans.

TrickleUp.org

Founded in 2007, TrickleUp focuses on the support of women entrepreneurs in developing countries across Africa, Asia, and Central America, helping to expand over 10,000 businesses each year. Leveraging the local expertise of MFIs, TrickleUp identifies entrepreneurial women in need, and provides them with business training and seed capital grants of $100 to jumpstart their business endeavors. In 2009 TrickleUp will provide business training and seed capital to enable the expansion of businesses for over 55,000 people globally.

GlobalGiving.com

Global Giving is an online marketplace connecting individual lenders to the causes and countries about which they care. After creating the World Bank's Development Marketplace for philanthropy, two involved executives left to create Global Giving. A U.S. tax code 501(c)3 organization, they provide a tax-deductible means of providing capital to organizations in need. Partnering with Fortune 500 companies, Global Giving also designs custom corporate giving services. Global Giving performs due diligence, and provides individual and institutional givers the ability to select from reputable organizations and charities in providing their tax-deductible gifts.

GrameenFoundation.org

The globally recognized Grameen Foundation was established in 1997 to enable the world's poorest by providing resources and fresh ideas to more than 45 million people. The Grameen Foundation enables MFIs, credit unions, cooperatives, and poverty-focused organizations secure financing and operate efficiently. The Grameen Foundation is independent of, but closely affiliated with, Grameen Bank. Grameen Bank, founded in 1976 by Nobel Peace Prize Laureate Muhammad Yunus, serves over six million families today.

UniThrive.org

UniThrive, a recently established Harvard University non-profit, connects students and alumni to cover the costs of education. Using an Internet-based peer-to-peer lending model, UniThrive enables alumni to support students borrowing to mitigate the costs of education at their respective alma mater. These loans are provided at zero-percent interest over a five-year maturity to students, and range in amount from $500 to $2,000. Lenders can donate directly, or can pledge fractional amounts to support the educational endeavors of various students, and mitigate their risk exposure across investments.

Peer-to-Peer Lending Review

While Prosper.com and Lending Club is perhaps the most established peer-to-peer, Internet-based lending platforms, observation of Solidarity as a design-lever for cooperation is clouded by other motivations. Both organizations highlight lending as an investment activity, and do not provide zero-interest loans to borrowers in need. Although both have significant breadth of lending, neither is uniquely international.

TrickleUp and Global Giving both offer robust online platforms on which to observe Internet-based cooperation, but both diverge in the scope of their model. While TrickleUp offers business development services similar to TechnoServe, Global Giving caters to individual and institutional groups looking to choose between charities.

While Acción International and Grameen Foundation are less focused on providing high lender rates of return, and are instead focused on providing capital to developing world borrowers to target and mitigate global poverty, their scope is microfinance. Both institutions have longstanding histories of providing loans, but they are less involved in peer-to-peer lending than they are in the mentorship of MFIs and credit bureaus to improve access to capital on the ground in developing nations.

UniThrive has moved into the space of providing Internet-based peer-to-peer, zero-interest loans, but they are nascent in their development, and differ in scope. Lending can be sourced internationally, and its fractional investment options parallel the crowd-sourced investment aspects of Kiva, but its scope is tightly restricted to Harvard students.

Despite the diverse ecosystem of Internet-based peer-to-peer lending, substantive variations among these loan providers positions Kiva as unique in its Internet-based peer-to-peer platform, membership, breadth and scope of international lender and borrowers, its zero-interest lending scope. For this reason, and because of the advent of and minimal data surrounding Kiva.org Lending Teams, Kiva.org is the focus of this study on the impact of solidarity on Internet-based group peer-to-peer lending.

About Kiva.org

Founded in 2005 by Matt and Jessica Flannery, Kiva.org seeks "to connect people through lending for the sake of alleviating poverty." Kiva's model is described as international, Internet-based, peer-to-peer lending, and also as "social lending" because of its zero-percent interest yield for capital lenders.

On Kiva.org, internationally based lenders create and personalize individual profiles. Lenders can act individually, or can join "Lending Teams" to attribute their loans to a collective campaign or to compare their joint impact with other like-interest, regional or demographic groups. Lenders capitalize their Kiva.org accounts with personal money, browse the profiles of entrepreneurs located around the world, and choose those to whom they would like to lend money. The platform is additionally built with systemic checks and balances, such as the feature that lenders cannot view or post to message boards until their account is capitalized with at least $25, the minimum lending amount. Lenders are advised on potential country, Microfinance Institute, and personal loan default potential, described respectively as "Country Risk," "Field Partner Risk," and "Entrepreneur Risk." Loans are provided globally to Kiva "Field Partners," or MFIs, located in 48 countries that then distribute money to individual entrepreneurs. Capital is provided in minimum $25 loans at zero percent-interest, though repayment to the lender comes incrementally, with small cash installments that recapitalize individual accounts.

Field Partner risk is assessed by Kiva employees based on financial audits, organizational experience, and existing loan portfolio size and risk. Risk ratings do not indicate probability

of default, and exposure at default, but are qualitative one-to-five star ratings that have implications on initial entrepreneur loan requests. Field Partners with a risk rating of one star can post up to $10K in loan requests per month, while a five-star rated MFI can post up to $100K in entrepreneur requests. In this way Kiva.org additionally helps regional MFIs establish credit histories by allowing even historically poor performers to request loans to build a positive portfolio.

Prior to creating a profile, borrowers –entitled "Entrepreneurs"– are screened by a Kiva Field Partner. Kiva Field Partners are regionally located MFIs, and are often guided by the on-site expertise of centrally trained, pro-bono Kiva Fellows. Kiva has over 120 Field Partners around the world, and it is the responsibility of the MFI to screen entrepreneurs, determine whether entrepreneurs belong to borrowing groups wherein individual default is linked to group outcome, and post loan requests on Kiva. Once an entrepreneur has been approved by the MFI, they can create a Kiva profile, and specify the loan amount they require. The MFI is additionally responsible for the disbursement and collection of the loan provided to the entrepreneur, and for documenting loan impact.

While Kiva.org is neither the first nor the only web-based peer-to-peer lending institution with global focus, they are the first to pioneer zero-interest entrepreneurial lending. Kiva.org offers an online platform in which lenders collaborate, in various sized open and closed groups, and around various topical categories, to provide affordable debt capital to entrepreneurs in need. Kiva.org therefore offers a unique platform in which to observe online solidarity –looking at Lending Teams that cohere around various forms of identity, are established as open or closed groups, and vary in size– and how it impacts lending.

METHODOLOGY

Data Collection

Working with Berkman Center for Internet & Society summer researcher and Massachusetts Institute of Technology (MIT) graduate student Manal Dia, we designed scripts to pull relevant Lending Team data from the Kiva.org Application Programming Interface (API) hosted online at http://build.kiva.org/.

Since their creation in late 2008, Kiva.org Lending Teams have allowed individual lenders to opt into groups according with various forms of identity. Individual lenders may create their own Lending Teams that are representative of a unique interest or identity, or choose to join others that sufficiently encompass the identity with which they wish to associate. Associations are manifold, and Lending Team identities span geographic, ethnic, religious, corporate, academic, athletic, and common interest associations. Lending Teams are created as either "Open" or "Closed" groups, traits that describe the facility with which individual lenders can join. Corporate groups, for example, may only allow employees to join and thus establish "Closed" Lending Teams. Lending Teams are descriptively categorized by their founders, but with little Kiva.org oversight or true accountability. It is therefore possible, and common, for membership profiles to deviate from strict adherence to Lending Team purview. Lending Teams also significantly vary in membership size, and in membership participation. Some groups wield substantial mass, with high membership numbers, but have few loans attributed and see limited participation on their message boards. As individual lenders can join one or many Lending Teams, membership motivations are diverse and varied. For example, a student may join the Harvard Lending Team, but may attribute their loans to the "Beer Goggles Never Lie" team in accordance with their personal philosophical grounding.

Taking into account the nuance and diversity of Kiva Lending Teams, we devised a means to coherently frame the study, and to systematically select from over 7,000 Lending Teams. We determined that intra-team Per-Capita Lending would be the most important measure of Lending Team engagement, holding constant team membership. As there existed wide Lending Team founding-date and membership variance, per-capita lending was an efficient means of standardizing output irrespective of membership size. Looking at intra-team Per-Capita Lending, we determined that we ought to observe both the top and bottom performing teams. As a matter of scale, we chose to follow the Bottom-10 and Top-10 performing Lending Teams on the per-capita basis. As Lending Teams could furthermore be classified as "Open" to membership, or "Closed" access, based on individual criteria, we decided to add nuance by observing the Top-10 and Bottom-10 performing teams across both Open and Closed Access categories. Lending Teams have wide variance in membership, and though the baseline on which we pulled data was per-capita lending, observation across membership thresholds offered an additional level of nuance that we chose to engage. Micro-finance literature suggested that group-borrowing effectiveness varied across the membership thresholds of fewer than 10 individuals and greater than 20 individuals. We thus chose to evaluate Top-10 and Bottom-10 intra-group per-capita lending across Open and Closed groups, and across "Small" ($N \leq 10$), "Medium" ($10 < N \leq 20$), and "Large" ($N > 20$) sized teams.

To constrain the data, we additionally chose to screen Lending Teams for time in existence, setting a minimum of six-months duration to standardize Lending Team development. As groups grow, proliferate, take on greater membership, and can substantively change in cooperative scope, this was a necessarily introduced constraint. Additionally, when initially querying the data for Bottom-10 performing Lending Teams across 7,000 data points, we quickly observed that there were many more than 10 zero-loan Lending Teams with zero per-capita lending. Obviously the lowest performing, these defunct Lending Teams as observations were less relevant than observing the lowest non-zero per-capita Lending Teams for their individual and unique cooperative dynamics. We thus chose to impose a second data constraint to omit zero per-capita Lending Teams from the Bottom-10 performers, and include only those lowest non-zero per-capita performing Lending Teams.

From 7,000 Kiva.org Lending Teams, we therefore established the following dataset:

- Open Lending Teams
    - Top Performing Teams on Per-Capita Lending Basis
        - Top-10 Open Kiva Lending Teams (Small)
        - Top-10 Open Kiva Lending Teams (Medium)
        - Top-10 Open Kiva Lending Teams (Large)
    - Bottom Performing Teams on Per-Capita Lending Basis
        - Bottom-10 Open Kiva Lending Teams (Small)
        - Bottom-10 Open Kiva Lending Teams (Medium)
        - Bottom-10 Open Kiva Lending Teams (Large)
- Closed Lending Teams
    - Top Performing Teams on Per-Capita Lending Basis
        - Top-10 Open Kiva Lending Teams (Small)
        - Top-10 Open Kiva Lending Teams (Medium)
        - Top-10 Open Kiva Lending Teams (Large)
    - Bottom Performing Teams on Per-Capita Lending Basis
        - Bottom-10 Open Kiva Lending Teams (Small)
        - Bottom-10 Open Kiva Lending Teams (Medium)
        - Bottom-10 Open Kiva Lending Teams (Large)

The Kiva.org data therefore consisted of 60 Open and 60 Closed Lending Teams, or 120 total Lending Team observations across the established identities and thresholds. While closed teams were juxtaposed with Open teams, primary qualitative data observation focused on Open Lending Teams only because the classification did not limit membership and access to the group's internal communications.

The 120 selected Kiva Lending Teams are self-classified according to categories such as:

- Alumni Groups, Businesses, Internal Groups, Clubs, Universities, Common Interest, Events, Families, Field Partner Fans, Friends, Local Area, Memorials, Religious Congregations, Schools, Sports Groups, Youth Groups, Other

For for the 120 teams, we were able to classify the data qualitatively according to:

- Team Name
- Team Category
- Team Location

And quantitatively analyze the impact of Lending Team size on group solidarity and behavior for the 120 selected teams, across the following five data points:

- Number of Members
- Number of Loans Provided
- Aggregate Loan Amount Provided
- Per-Capita Lending
- Average Per-Loan Amount

For the 60 selected Closed Lending Teams, this was the extent to which we could evaluate their composition and interaction. For the other 60 selected Open Lending Teams, we were able to additionally observe the following sixth data point:

- Number of Message Board Posts

In the 60 Open Kiva Lending Teams the number of message board posts served as an indication of member involvement, and was part of the qualitative observation of the impacts of design-levers such as Solidarity on top and bottom performing teams. As the most salient form of on-site active cooperative behavior, quantitative observation of message board posting served as an indicator of group involvement. Additionally, qualitative observation of activity and discourse lent insight as to the scope of the group.

Lending Team Observation

For two months, from June to August 2009, subsequent to selecting 60 Open Kiva.org Lending Teams, I began systematically joining and monitoring each of the six clusters. By joining each of the 10 best-performing "Small," "Medium," and "Large" teams (30 in total), and the 10 worst-performing "Small," "Medium," and "Large" teams (30 in total), I became privy to each internal mechanism of on-site cooperation. I received daily Kiva.org Lending Team message board digest emails, and became a passive member of each Lending Team. I was able to observe member lending profiles, and the profiles of those borrowers to whom they chose to lend. I was also able to explore those websites to which each profile linked, and was keen to observe the presence of off-Kiva.org online spaces for coordinating cooperative lending, prolific and available as a comprehensive appendix to this study.

ANALYSIS

To quantitatively and qualitatively study the impact of solidarity on Internet-based group P2P lending, I tracked and observed Kiva.org for a period of two months along eight different forms of Lending Team identity. What follows is a synopsis of the most salient findings relating to the impact of solidarity on Lending Teams within these categories:

- "Top Performers" across Open and Closed groups
- "Top Performers" across three size thresholds
- "Bottom Performers" across Open and Closed groups
- "Bottom Performers" across three size thresholds
- "Top and Bottom Performance Extremes" across three size thresholds,

The Analysis contains roughly a dozen cross-sections of the 120 observed teams, each below section highlighting observations across the six observed variables: category, membership (N), number of loans (L#), amount of loan (L$), per capita loan amount (L$/N), average loan amount (Ave. L$), and number of message board posts (Posts).

TOP PERFORMERS
OPEN & CLOSED ACCESS LENDING TEAM COMPARISON

Mean Comparisons across Open & Closed Top Kiva Lending Teams

SMALL SIZE LENDING TEAMS		Type	N	L#	L$	L$/N	Ave. L$	Posts
Mean (0<N≤10)		Open	2	137	$11,222	$5,225	$117	0
Mean (0<N≤10)		Closed	2.2	218	$10,285	$6,370	$93	N/A
MEDIUM SIZE LENDING TEAMS		Type	N	L#	L$	L$/N	Ave. L$	Posts
Mean (10<N≤20)		Open	12	519	$21,037	$1,762	$106	2.8
Mean (10<N≤20)		Closed	12.5	169	$5,215	$423	$33	N/A
LARGE SIZE LENDING TEAMS		Type	N	L#	L$	L$/N	Ave. L$	Posts
Mean (N>20)		Open	67	2,203	$80,982	$1,119	$83	34.4
Mean (N>20)		Closed	81	753	$23,227	$376	$31	N/A
Overall Open Mean		Open	27	954	$37,757	$2,705	$102	12
Overall Closed Mean	Closed	31.9	380	$12,909	$2,390	$52.3	N/A	

CATEGORY COMPARISON

Figure 1

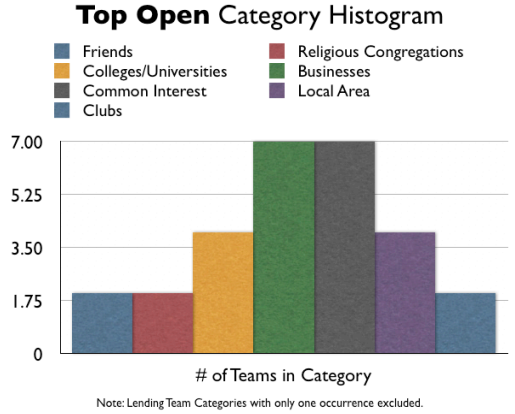
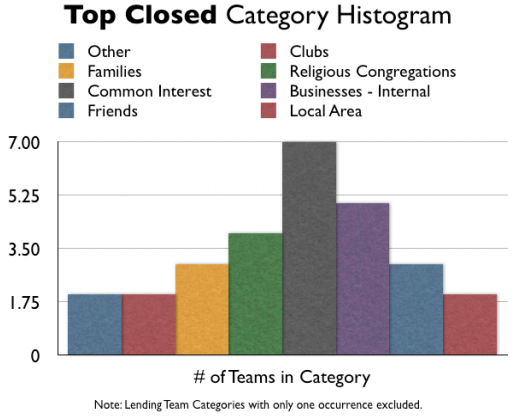


Figure 2



Looking across Open and Closed top performing Kiva Lending Teams, top performing Open Lending teams are most often associations based on "Common Interest," "Businesses," "Colleges/Universities," and "Local Area." Top performing Closed Lending Teams are most commonly "Common Interest," followed by "Businesses – Internal," and "Religious Congregations." *In comparing Open and Closed membership categorization histograms, Open groups have less variance in the frequency of assigned category, whereas Top-Performing Closed groups had a wider variance in description.*

MEMBERSHIP COMPARISON

Figure 3

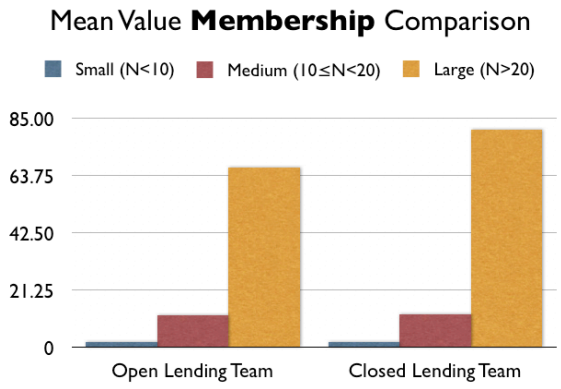
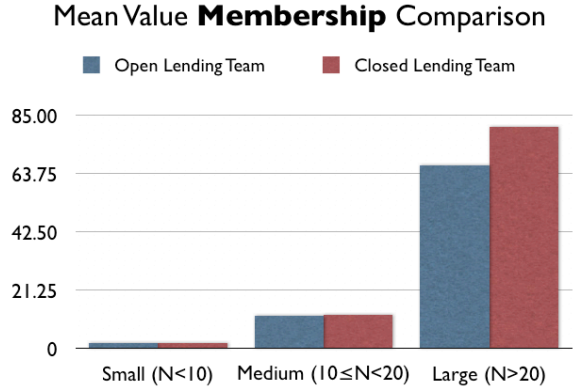


Figure 4



Looking at the mean membership sizes across the Top Open and Top Closed Kiva Lending Teams, one can observe that across Top-10 Per Capita Lending Teams, membership size does not vary except once Teams are greater than 20 members. *Without an upper-bound size threshold, Top Closed Lending Teams are, on average, larger than Top Open Lending Teams. This is surprising given the facility with which members can join Open groups, and the difficulty associated with joining closed teams, and points to a deeper observation that in many cases closed team membership appears more coerced.*

NUMBER OF LOANS COMPARISON

Figure 5

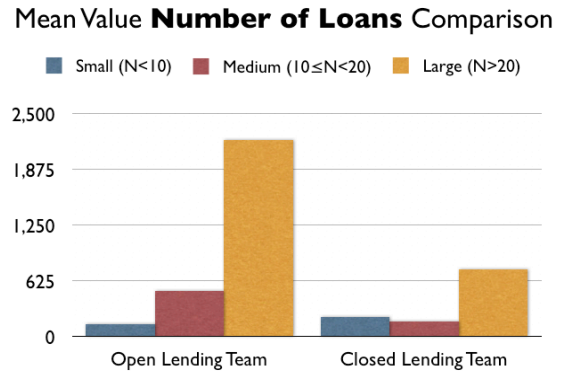
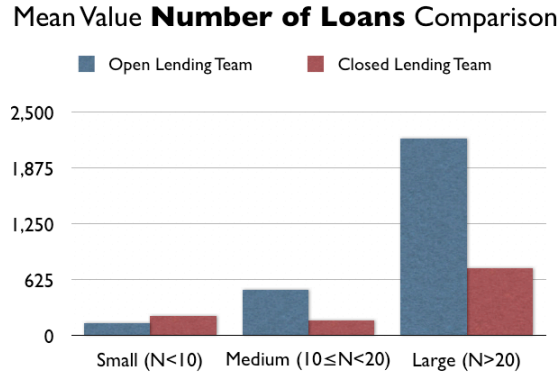


Figure 6



Despite the observation that Closed Lending Teams tend to have greater membership, *Open Lending Teams make substantially more loans to borrowers.* As observed in the graph above, *Top Large Open Lending Teams make over twice as many loans as Top Large Closed Lending Teams. This observation intimates that while Open Lending Teams are uniformly opt-in, Closed groups that are*

established by conjoining individuals according to shared corporate or other affiliation and appear more opt-out generally have fewer loans attributed to them. As such, despite large memberships *the number of loans provided and attributed to the Lending Team is far lower within Closed groups.*

LOAN AGGREGATE COMPARISON

Figure 7

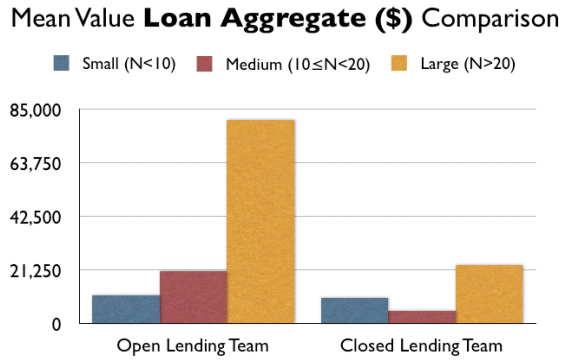
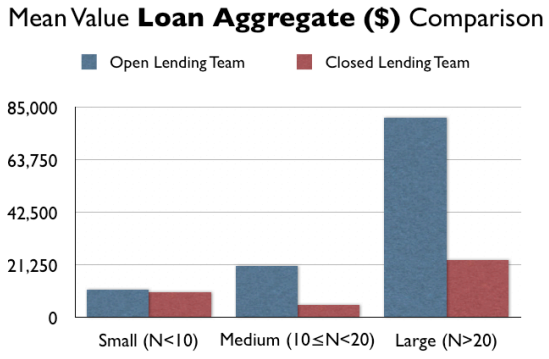


Figure 8



Again, despite the fact that, on average, *Top Large Closed Lending Teams have more members than Top Large Open Lending Teams, the latter loans substantially more as a dollar amount.* As observed in the graph above, *Top Large Open Lending Teams loan over three times as much money as Top Large Closed Lending Teams. This again indicates deeper lender affinity to attribute their loans to those Open Lending Teams to which they belong and have willingly opted into rather than Closed Lending Teams.*

PER CAPITA LENDING COMPARISON

Figure 9

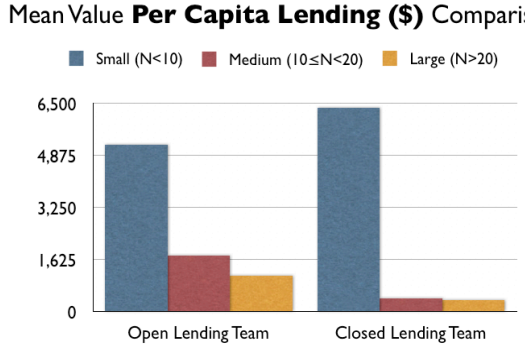
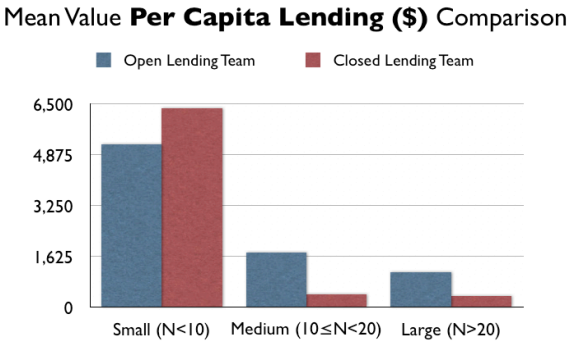


Figure 10



As shown above, Top Large Open Lending Teams provide a larger number of loans and a greater aggregate amount of money to borrowers than Top Large Closed Lending Teams. On a per capita lending basis, however, Top Small Closed Lending Teams loan the most amount per team member. While Top Small Lending Teams provide the most, on a per-capita basis among the Top Open Lending Teams, Top Small Closed Lending Teams loan the most money on a per member basis. Beyond ten member teams, however, Top Medium Open Lending Teams provide more than Top Medium Closed Teams, and Top Large Open Lending Teams loan more on a per capita basis than Top Large Closed Teams. On a per-capita basis, when membership grows beyond 10 individuals, Top Open Lending Teams engender greater lending to Kiva borrowers. For both Open and Closed Lending Teams "Small" membership teams often consist of single-member groups. As such per-capita

lending variance is less pronounced. Beyond 10-member teams there is greater variance in both size and participation across Open and Closed Teams, and again, lenders show affinity toward attributing loans to Open teams with greater frequency. *While this study did not longitudinally observe the loan attribution habits individual lenders, ad hoc observation indicates that while lenders may belong to many groups, typical practice is to attribute loans to one formative identity or idea. In most cases, the above data corroborates the notion that given the option to attribute to only one form of identity, opt-in Open teams are often preferred to Closed teams.*

PER LOAN LENDING COMPARISON

Figure 11

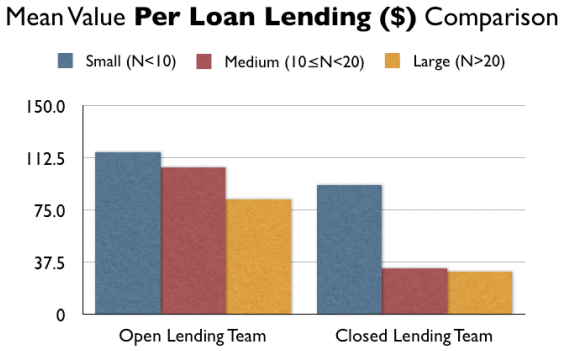
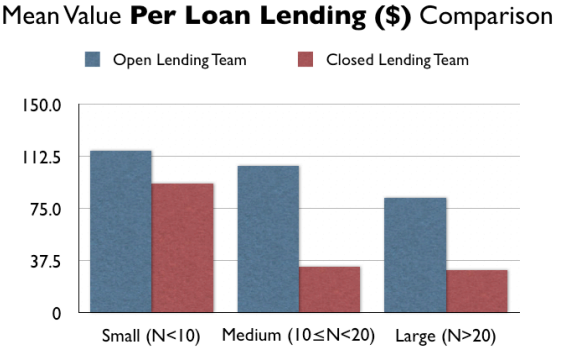


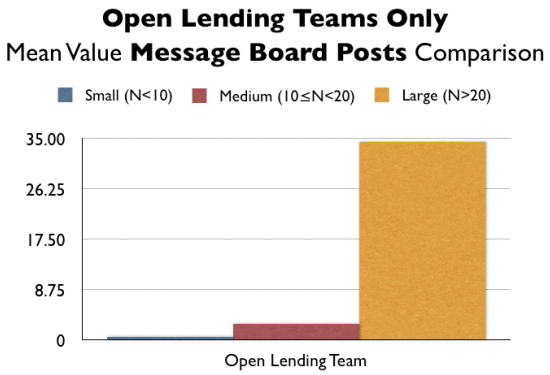
Figure 12



In all cases, for Small, Medium, and Large team sizes, Top Open Lending Teams provide loans with a greater mean value. While Top Small Closed Lending Team per loan lending nearly matches that of Top Small Open Lending Team per loan lending, for Medium and Large memberships Top Open Teams provide significantly higher dollar amounts per loan. Beyond 10-member teams, while Closed teams do receive nominal loan attribution, data suggests that such loan attribution is less fervent than within Open groups. For example, for Closed Lending Teams with greater than 10 members, nearly all loans attributed were for near the minimal lending amount of $25. *Contrasted with Open groups that had, on average over $100 for Medium –and over $75 for Large– as the mean per loan lending amounts attributed, this is perhaps indicative of the fervor with which lenders lend and attribute capital to strong opt-in forms of identity.*

MESSAGE BOARD POSTING COMPARISON

Figure 13



While data on message board posting is only available for Top Open Lending Teams, and not Top Closed Lending Teams, message board posting significantly increases after membership is greater than 20. The number of message board posts on Kiva.org increases by roughly 10 fold beyond 20-member teams. Provided that the majority of Top Open Small Lending Teams had very few members, many with only one member, a lack of message board use for teams with fewer than 10 members is not surprising. *Interesting, however, is that when teams are between 10 and 20 members, there is generally insufficient critical mass to create on-site engaged cooperative activity. Users may be passively involved in the Lending Team, but only when membership swells beyond 20 members is there dynamic, vibrant, active cooperation on Kiva.org. In many cases off-site coordination does occur, and there is a broad palate of Internet options for Kiva lending coordination. It appears that when individual Lending Teams lack critical size, lenders either post questions and interact with those Lending Teams with sufficient audience for contribution or response, or move their interaction outside Kiva to broad platforms within which thousands of lenders can coordinate to provide loans, or discuss the merits or determinations of effective social lending. Only when membership is greater than 20 does it appear that on-site Kiva.org active collaboration is sufficiently productive for lenders to utilize those cooperative features established for their use.*

TOP PERFORMERS
SMALL LENDING TEAM ANALYSIS
Mean Comparisons across Open Access Top Performing Lending Teams

Name	Type	N	L#	L$	L$/N	Ave. L$	Posts
Small (0<N≤10)	**Open**	**2**	**137**	**$11,222**	**$5,225**	**$117**	**0**
Medium (10<N≤20)	Open	12	519	$21,037	$1,762	$106	2.8
Large (N>20)	Open	67	2,203	$80,982	$1,119	$83	34
OPEN OVERALL Mean	Open	27	954	$37,757	$2,705	$102	12

Qualitative Analysis

The top-performing Small Open Kiva Lending Teams were significantly smaller than expected. Teams averaged 2 members in size; however seven teams consisted of only one member. The only 2-person team consisted of only one contributing member, and one free rider. Thus 80 percent of the top 10 Kiva Lending Teams, chosen on the basis of per-capita lending, consisted only of one individual. Only two teams had significantly more members, Global Agents for Change with seven, and Infusionsoft with four.

As would be expected with smaller teams, both the number of loans provided and aggregate amount loaned was less than within teams with larger memberships.

The smallest teams exhibited the largest average per-loan lending. Whereas teams between 10 and 20 members loaned an average $106 per loan, smaller with fewer than 10 members – but largely only one member– teams loaned $116.

Global Agents for Change, the seven-member team with no on-site coordination but significant cooperation on a third-party website, provided over $42,000 in loans with an average per loan amount of $228, ten times greater than the minimum of $25. At the same time, PGGM KLTO, a business consisting of only one altruistic team member, had the highest per loan lending average of $314.

TOP PERFORMERS
MEDIUM LENDING TEAM ANALYSIS
Mean Comparisons across Open Access Top Performing Lending Teams

Name	Type	N	L#	L$	L$/N	Ave. L$	Posts
Small (0<N≤10)	Open	2	137	$11,222	$5,225	$117	0
Medium (10<N≤20)	Open	12	519	$21,037	$1,762	$106	2.8
Large (N>20)	Open	67	2,203	$80,982	$1,119	$83	34
OPEN OVERALL Mean	Open	27	954	$37,757	$2,705	$102	12

Qualitative Analysis

The mean size for the Top Ten Open Kiva Lending Teams with a 10<N≤20 was 12 members, with an average of 519 loans provided. Unlike larger lending teams, the per-loan lending average among medium-sized Open Lending Teams had greater variance, with a low of $26 (approaching the minimum value of $25) and a high of $588. Across the ten Open Lending Teams, the mean per-loan lending average was $106.

Within medium-size teams the on-site coordination was minimal and nearly non-existent, statistically indistinguishable from the number of message board posts among top-

performing small teams, those typically with only a single member. Eight of the top ten teams had between 0-2 discussion board postings, many of which were repeat, non-unique "spam" posts from out-group Kiva users. These postings were common across the Kiva ecosystem, and typically referred to an initiative or agenda item against providing loans to domestic entrepreneurs. Only two top-performing open medium-size lending teams used on-site discussion boards to coordinate activity. The Fairbanks & Friends local area team from Fairbanks, Alaska posted 11 times and the Share-Partage common interest team had posted 7 times. Both teams demonstrated higher in-group interest, as well as no alternative off-site means of coordination –something that appears more common for businesses and religious organizations. Within medium-sized Open Kiva Lending Teams, high in-group solidarity and lack of off-site cooperation appears to lead to greater use of message boards to coordinate lending activities.

TOP PERFORMERS

LARGE LENDING TEAM ANALYSIS

Mean Comparisons across Open Access Top Performing Lending Teams

Name	Type	N	L#	L$	L$/N	Ave. L$	Posts
Small (0<N≤10)	Open	2	137	$11,222	$5,225	$117	0
Medium (10<N≤20)	Open	12	519	$21,037	$1,762	$106	2.8
Large (N>20)	Open	67	2,203	$80,982	$1,119	$83	34
OPEN OVERALL Mean	Open	27	954	$37,757	$2,705	$102	12

Large Lending Teams (N>20):

Despite setting the membership threshold for "large" Lending Teams at N=20, the mean membership for top-performing open Lending Teams was 67, with a low of 23 and a high of 161. Not surprisingly, those teams with more members processed more loans. Teams with more than the mean size of 67 members averaged 3,537 loans compared with 880 loans provided by teams with fewer than 67 members (20<N<67). Open Lending Team size had a direct impact on the number of loans provided. Additionally, among top-performing open Lending Teams, size also appears to contribute to greater use of on-site message board use. On-site coordination appears dramatically lower when personal ties are stronger. For example, the mean number of message board posts when membership was greater than 20 was 34. But when the selected category of the team was not a "Business" or a "College/University," two potentially stronger forms of off-site solidarity, the mean number of message board posts was 48, or 41 percent greater. Among businesses and universities, the mean was under two message board posts, more than 90 percent lower than the average number of posts for large top-performing teams.

Despite nearly no on-site coordination, "Business" categorized Lending Teams are still effective. Therefore, on-site coordination is not necessary for high lending potential. For example, "Purex Changes Lives," a top-performing open Lending Team categorized as a "Business" had only one message board posting. However, their per-loan lending average was greater than the large team mean by a factor of nearly 20. Purex had a per-loan lending average of $480, while Kiva Baha'is, a religious organization with very high on-site coordination had an average of only $124.

Within the large category lending teams the per loan lending averages were –with the exception of two teams, one a business and the other a religious congregation– almost

uniformly near the minimum lending threshold of $25. As membership increases aggregate amount loaned increases, but the per-loan lending typically falls to the minimum of $25.

BOTTOM PERFORMERS
OPEN & CLOSED ACCESS COMPARISON
Mean Comparisons, Open & Closed Access Bottom Performing Teams

SMALL SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
OPEN Small (0<N≤10)	Open	6.9	1	$25	$3.69	$25.00	0.20
CLOSED Small (0<N≤10)	Closed	6.2	1	$25	$4.05	$25.00	N/A
MEDIUM SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
OPEN Medium (10<N≤20)	Open	13.5	3.1	$80	$6.04	$25.63	1.60
CLOSED Medium (10<N≤20)	Closed	14.2	12.1	$322.5	$23.21	$28.16	N/A
LARGE SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
OPEN Large (N>20)	Open	90.4	22.9	$832.5	$12.12	$31.18	2.40
CLOSED Large (N>20)	Closed	77.4	26	$802.5	$16.19	$46.57	N/A
Overall Open Mean	Open	37	9	$312.5	$7. 33	$27.27	1.40
Overall Closed Mean	**Closed**	**32.6**	**13**	**$383.3**	**$14.48**	**$33.24**	**N/A**

CATEGORY COMPARISON

Figure 14

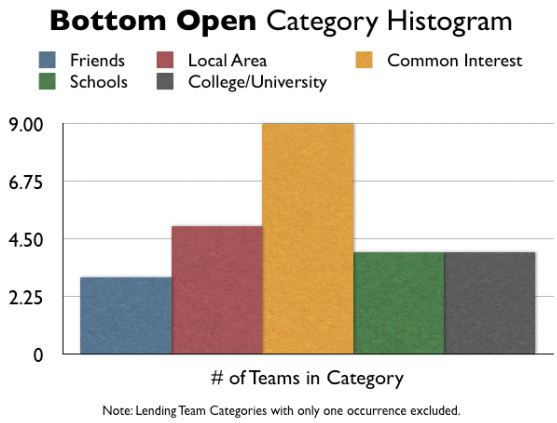
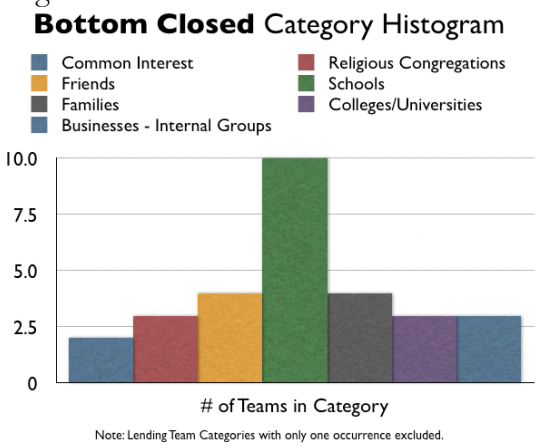


Figure 15



Comparing Lending Team categorization across Bottom Open and Closed groups, there were fewer repeat categorizations among Open teams. Among the worst performing Open Lending Teams, "Common Interest," "Local Area," "Schools," and "Colleges/Universities" were the most common classifications. Among the worst performing Closed Lending Teams, "Schools" was by far the most common, followed by" Friends," and "Families" as group classifications. *The worst performing Open Lending Teams appeared to have less variance in frequency of categorization, and the worst performing Closed Lending Teams were largely "Schools."*

MEMBERSHIP COMPARISON

Figure 16

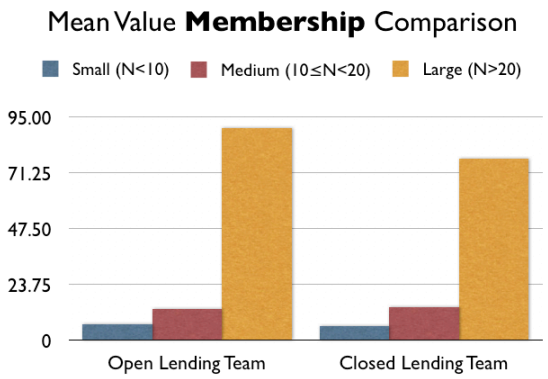
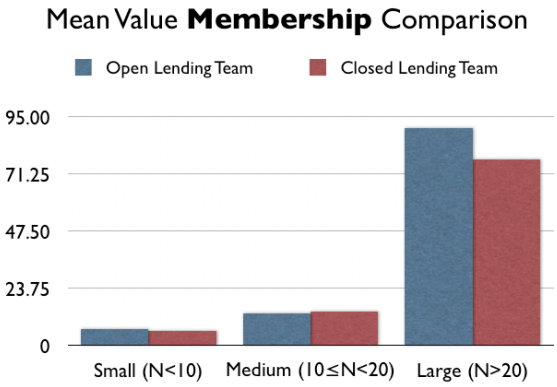


Figure 17



Across the Bottom Ten Lowest Per Capita Lending Teams, membership size is nearly identical except among large teams. A*mongst Large (N>20) teams Bottom Open Lending Teams are significantly bigger than Bottom Closed Lending Teams.*

NUMBER OF LOANS COMPARISON

Figure 18

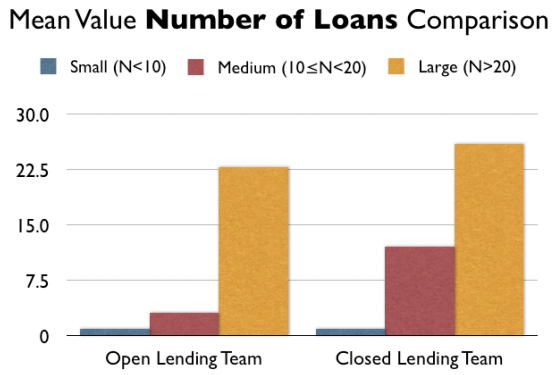
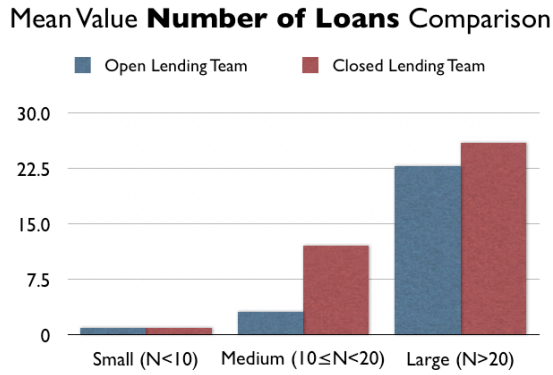


Figure 19



Looking across Bottom Open and Closed Lending Teams, the Number of Loans provided has the largest discrepancy when teams have between 10 and 20 members. Within medium size teams, Bottom Medium Closed Lending Teams provide roughly three times as many loans as Bottom Medium Open Lending Teams. Additionally, for Bottom Large Lending Teams, Closed Teams again provide a slightly greater number of loans. Though the worst performing Open Lending Teams had more members, the distributed fewer loans. Beyond a membership of 10 it appears that at their worst, Closed Lending Teams perform better than Open Lending Teams.

LOAN AGGREGATE COMPARISON

Figure 20

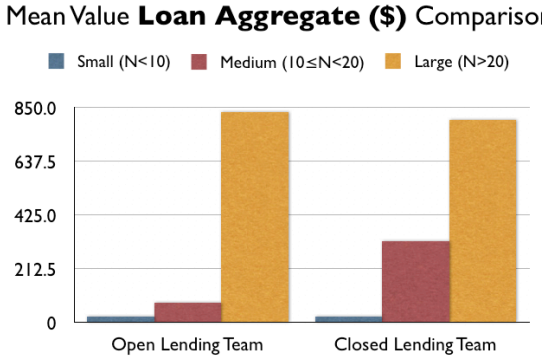
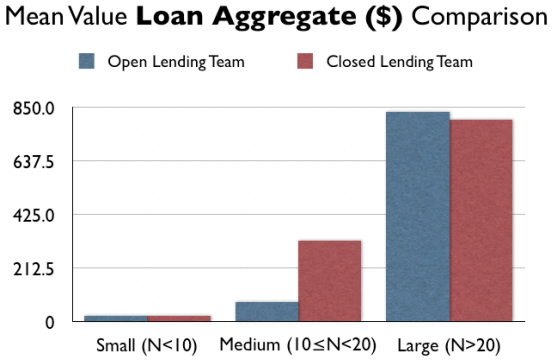


Figure 21



Looking at Bottom Open and Closed Lending Teams total loan amount provided, or loan aggregate, Bottom Medium Closed Lending Teams again lend substantially more money than their Bottom Medium Open Lending Team counterparts. Between membership size of 10 and 20, Closed Lending Teams again appear to distribute more loans and provide more money in aggregate lending than Open Lending Teams. Once these teams grow to a size beyond 20, Closed Lending Teams appear to lose their effective edge.

PER CAPITA LENDING COMPARISON

Figure 22

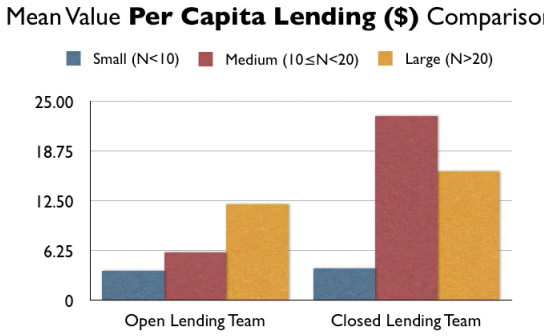
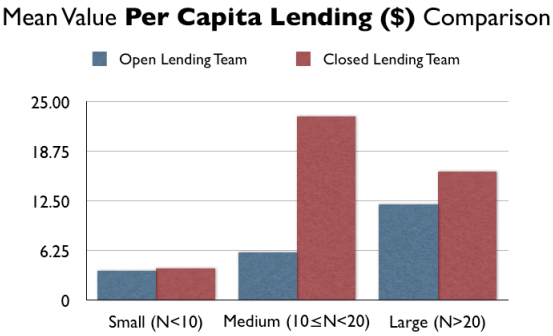


Figure 23



Looking at Bottom Open and Closed Lending Team per capita lending one again sees that while there is little difference between Bottom Small Open and Closed Lending Teams (with membership less than 10) there is significantly greater per capita lending for Bottom Medium Closed Lending Teams. In fact, members of Bottom Medium Closed Lending Teams lend nearly four times as much as do members on Bottom Medium Open Lending Teams. *This observation points to Closed Lending Teams as being more effective than Open Lending Teams up to a membership of 20 after which the competitive advantage of having a Closed homogeneous group erodes.*

PER LOAN LENDING COMPARISON

Figure 24

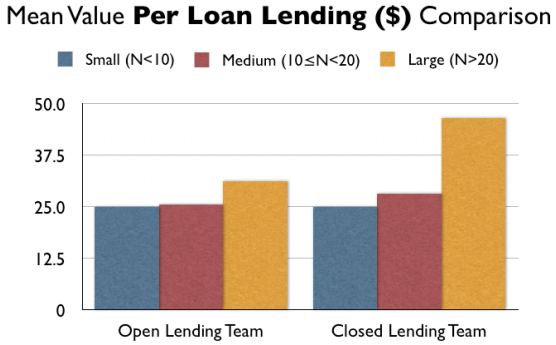
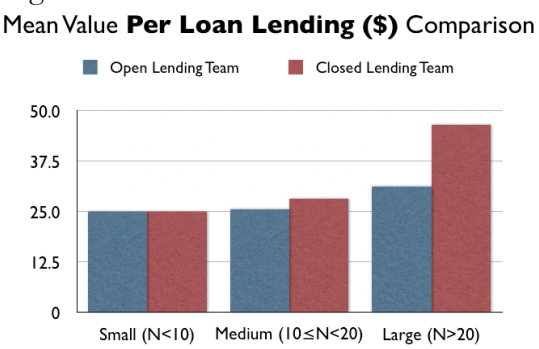


Figure 25



Looking at Bottom Open and Closed Lending Team per loan lending, or the amount of money each loan provides to the entrepreneur borrowing, one sees that there is no disparity between Bottom Small or Medium Open and Closed Lending Teams. Within Bottom Large Lending Teams, however, Closed Lending Teams again have a significantly higher per loan lending average. The only category in which Closed Lending Teams appear to retain a significant advantage beyond a membership of 20 is in the per-loan lending amount. Large Closed Lending Teams tend to lend more per loan.

MESSAGE BOARD POSTING COMPARISON

Figure 26

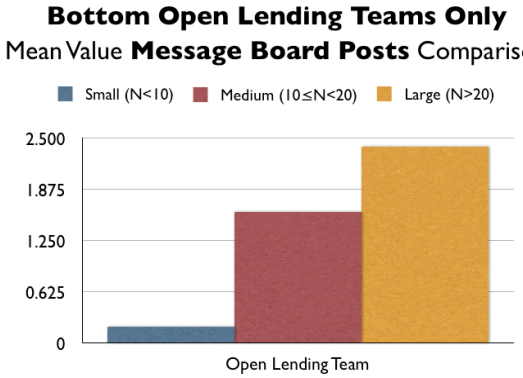
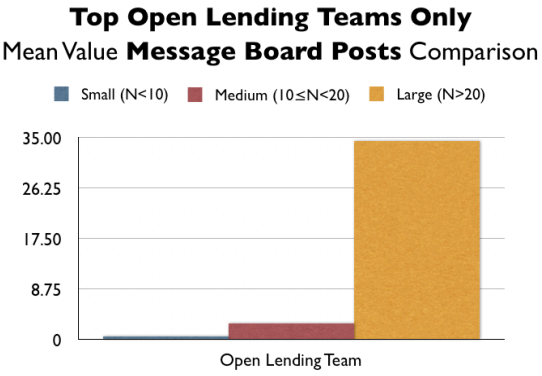


Figure 27



While message board posts are only observable in Open Lending Teams, within Bottom Open Small, Medium, and Large Lending Teams, the number of posts is remarkably small. While Bottom Small Open Lending Teams essentially did not use the message board, even within Bottom Medium and Bottom Large Open Lending Groups the number of posts was, on average, under three per team. *When compared with the Top Small, Medium, and Large Open Lending Groups (below) one might surmise that –among other factors– collaboration on the Kiva.org message board had an impact on lending.*

BOTTOM PERFORMERS
SMALL LENDING TEAM ANALYSIS

Name	N	L#	L$	L$/N	Ave. L$	Posts
Mean (0<N≤10)	6.9	1	$25	$3.69	$25.00	0.20
Mean (10<N≤20)	13.5	3.1	$80	$6.04	$25.63	1.60
Mean (N>20)	90.4	22.9	$832.5	$12.12	$31.18	2.40
OVERALL OPEN Mean	37	9	$312.5	$7. 33	$27.27	1.40

Qualitative Analysis

As would be expected with the worst performing Small (N<10) Kiva Lending Teams, in order for the per-capita lending to be at its minimum, teams would provide the minimum loan amount ($25), and team size would approach the maximum possible within the constraints. As the maximum number of members for "Small" lending teams has been designated at N<10, it makes sense that the medium team size is 7 members, with the maximum being 9 members. This brings the per-capita lending to a median of $3.57.

Qualitative observation of the worst performing small Kiva Lending Teams yields fairly uninteresting results, with minimal or non-existent on-site lender interactions.

BOTTOM PERFORMERS
MEDIUM LENDING TEAM ANALYSIS

Name	N	L#	L$	L$/N	Ave. L$	Posts
Small (0<N≤10)	6.9	1	$25	$3.69	$25.00	0.20
Medium (10<N≤20)	13.5	3.1	$80	$6.04	$25.63	1.60
Large (N>20)	90.4	22.9	$832.5	$12.12	$31.18	2.40
OVERALL OPEN Mean	37	9	$312.5	$7. 33	$27.27	1.40

Qualitative Analysis

Broadly, the medium size (10<N≤20) worst-performing Kiva Lending Teams did not fully accord with expectations. Namely, for Kiva Lending Teams to have the lowest per-capita lending, membership should tend toward the maximum size of 20. Instead, median membership size was 13 members, though the worst performing team, "Friends of Women for Women International," did have the largest membership with 16 people. Unlike the worst performing small Kiva Lending Teams, the medium teams frequently lent more than one time. For example, the median amount loaned per team was $87.50 versus $25.00 for small teams. Critical mass in Lending Team size did therefore seem to contribute somewhat to aggregate loan amount provided, if not substantially to the per capita amount loaned. Only one team, the "Friends of Julia K." averaged more than the minimum of $25 provided in each loan, with a marginal difference of $6.25.

One noteworthy bottom-performing medium lending team was Supporters of Women for Women International. Despite being the worst performing per-capita lending for Lending Teams with between 10 and 20 members, this team offered an effective and vibrant web community for global support at http://womenforwomen.org/. Many times poor performing Kiva Lending Teams are not those that are disorganized, but those in which members have conflicting associations, or in which the organizational purview is broader than Kiva. In the case of Women for Women, the breadth of the organizational mission

likely detracts from the extent to which membership and support is applied to Kiva alone. On-site coordination deals with manifold ecumenical challenges for women.

Another noteworthy lending team within this cluster of worst-performing teams was, "Friends of Julia K.," the team for a Kiva Fellow marketing the work to which she's dedicated. Within the category, this team was among the best of the worst. Noteworthy, was the fact that her Lending Team, consisting of 15 members, was the only one to, on average, lend more than the minimum amount of $25.

BOTTOM PERFORMERS
LARGE LENDING TEAM ANALYSIS

Name	N	L#	L$	L$/N	Ave. L$	Posts
Small (0<N≤10)	6.9	1	$25	$3.69	$25.00	0.20
Medium (10<N≤20)	13.5	3.1	$80	$6.04	$25.63	1.60
Large (N>20)	90.4	22.9	$832.5	$12.12	$31.18	2.40
OVERALL OPEN Mean	37	9	$312.5	$7. 33	$27.27	1.40

Perhaps the most interesting of all Kiva.org Lending Teams observed would be the largest, lowest per-capita lending teams. These Lending Teams have more than 20 members, and in some cases, have over 300 members, yet provide very few loans. The short analysis below highlights a few of the more interesting Lending Teams, with observation that tenuously connected individuals under "Common Interest" or "School" categorized teams tended to do worse within these large team constraints, perhaps because identity with the organization was diffuse, or associations weaker. Within the largest worst performing Kiva Lending teams, there are two notable outliers.

Hi5 Community on Kiva! (Common Interest)

Membership: 342
Loans: 33
Amount Loaned: $825
Amount Loaned Per Capita: $2.41
Average Loan Amount: $25

Headquartered in San Francisco, Hi5 may be one of the world's largest and fastest growing social networks and mobile web networks, but on Kiva it is more notorious than famous. On a per-capita basis, Hi5 Community is the worst performing large (N>20) Kiva.org Lending Team, with 342 members and only 33 loans provided. The aggregate amount loaned amounts to $825, double the median value for this group, but the per-capita lending is $2.41, and average amount lent is the minimum amount allowed, or $25. Despite high numbers of opt-in participants and Lending Team members, it appears that almost no one ascribes loans made to the Hi5 Community. In other words, it is not as though members never lend money, but rather that members never lend money and attribute it to Hi5 Community. Each loan may only be ascribed to one team, and almost no one's first thought is to ascribe his or her loan to Hi5 Community. This is a case where perhaps tenuous associations, diffuse involvement due to large size, and minimal interaction on Kiva and Hi5 may all contribute to a less engaged membership base. As Hi5 Community is classified as a "Common Interest," it is likely a collection of individuals who have recognized the brand or who use the service, but not necessarily employees wedded to an internal initiative for Kiva

loans. The result may be less involved lenders who, if they do lend, don't attribute it to Hi5 Community.

DownloadHelper Users (Common Interest)

Membership: 256
Loans: 58
Amount Loaned: $3,525
Amount Loaned Per Capita: $13.77
Average Loan Amount: $60.78

Similar to Hi5 Community, DownloadHelper Users Kiva Lending Team is classified as a "Common Interest" group, and has 256 members to Hi5's 342. Due to its low loan contribution rate and its large size, it has a very low per-capita lending amount of $13.77. Large membership, however, does allow it to have a high aggregate amount loaned. Whereas for large bottom performing Kiva Lending Teams the median amount loaned is $412.5, DownloadHelper Users has loaned $3,525, roughly 900 percent more. While large membership therefore detracts from the relative effectiveness of lenders, in aggregate large even terribly low performing teams can have substantial lending impact.

Similar to Hi5 Community, DownloadHelper Users also links to a website (http://www.downloadhelper.net/) which shows the Firefox Extension product. While it is possible that the 256 members of this group work for or have involvement with Firefox or DownloadHelper, apropos of the name, they are more likely purely "Users." Again, this loose association with the product may have impelled them to initially join the group, but minimal ties to the organization limit the extent to which they are likely to contribute infrequently-made loans to DownloadHelper Users when they likely belong to other lending teams to which they are more substantially tied.

Aside from Hi5 and DownloadHelper Users, the largest other worst performers on a per capita lending basis were Mrs. Steward's Classes, classified as a "Schools" lending team, Vanderbilt University, classified as a "College/University" lending team, and Williamsville East High School, also in the "Schools" category.

In the case of Mrs. Steward's five sections of World Literature, it is likely that as an assignment these students were enrolled in Kiva.org and assigned to the Lending Team. In team cases in which coercion may or may not be involved, members are not very likely to attribute loans to that lending team. Again, while Mrs. Steward's students are making loans (for example, Chelsea in San Francisco has made 44), they are not assigning these loans to this Lending Team, giving credit to Mrs. Steward's Class.

Similarly, Vanderbilt and Williamsville East High School have 46 and 70 members respectively. Despite their size, however, few individuals are ascribing their loans to these specific lending teams, bringing down the per-capita lending average. In the case where Lending Teams appear less opt-in, and perhaps more coerced, lending –though it continues to happen amongst members– is rarely ascribed to such teams.

TOP & BOTTOM PERFORMANCE EXTREMES
SMALL OPEN ACCESS LENDING TEAM COMPARISON

Top 10 Performing Open Access Lending Teams, Membership 0<N≤10

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Pablo y Amigos Microloans	Friends	Mexico	1	257	6825	6,825	27
Team GNSA	Businesses	Portland, OR	1	106	6350	6,350	60
Stock Traders	Common Interest	Ontario, Canada	1	250	6325	6,325	25
Fuji Film Sericol	Businesses	Worldwide	2	92	12225	6,113	133
Global Agents for Change	Common Interest	Earth	7	186	42450	6,064	228
Infusionsoft	Alumni Groups	USA	4	211	23300	5,825	110
RedeParede	Common Interest	Central & SA	1	170	4375	4,375	26
MicroCredit Program	College/University	Houston, TX	1	74	3550	3,550	48
PGGM KLTO	Businesses	Zeist, Netherlands	1	11	3450	3,450	314
Druppel	Friends	Holland	1	17	3375	3,375	199
Mean			2	137	$11,222	$5,225	$117
Median			1	138	$6,337	$5,982	$83

Bottom 10 Performing Open Access Lending Teams, Membership 0<N≤10

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
University of Richmond	Colleges/Universities	Richmond, VA	9	1	$25	$2.78	$25
Connecticut	Local Area	Connecticut	8	1	$25	$3.13	$25
Team Angstylvania	Local Area	Angstylvania	7	1	$25	$3.57	$25
DINARI (Dian Bhuana Lestari)	Common Interest		7	1	$25	$3.57	$25
Frustone	Common Interest	Worldwide	7	1	$25	$3.57	$25
West Seattle	Local Area	Seattle, WA	7	1	$25	$3.57	$25
My Intersection	Alumni Groups	All over	6	1	$25	$4.17	$25
Team ET 251	Friends	Washington, DC	6	1	$25	$4.17	$25
Friends of ASHI Philippines	Common Interest	Philippines 6	1	$25	$4.17	$25	
Friendly Planet Travel Friends		Pennsylvania, USA	6	1	$25	$4.17	$25
Mean			6.9	1	$25	$3.69	$25
Median			7	1	$25	$3.57	$25

In evaluating Small (N<10) Open Kiva Lending Teams it is interesting to note that all of the highest per-capita teams had a median of one member while the lowest per-capita lending teams had a median of 7 members. As would perhaps be expected, the lowest per-capita non-zero lenders had one minimum-value loan and 6-9 members. Across Lending teams with Membership (N) less than 10, the median number of loans provided within the top-10 per-capita lenders was 138, while the median for the bottom-10 was one loan. For the top-10, median aggregate lending was $6,337 ($25 for the bottom-10); per-capita lending median was $5,982 ($3.57 for the bottom-10); average loan size for the top-10 was $83 ($25, the minimum, for the bottom-10).

TOP & BOTTOM PERFORMANCE EXTREMES
MEDIUM OPEN ACCESS LENDING TEAM COMPARISON

Top 10 Performing Open Access Lending Teams, Membership 10<N<20

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Cooper Union	College/University	New York, NY	11	1691	43850	3,986	26
Traders	Businesses	Wall Street 11	228	33700	3,064	148	
Philanthro Productions	Clubs	Los Angeles, CA	12	47	27625	2,302	588
Greta Galeazzi	Other		13	1104	28825	2,217	26
Share Partage	Common Interest	World	19	1098	28125	1,480	26
Beach Money	Businesses	Chicago, IL	10	205	12025	1,203	59
Cambridge Community Fellowship Church (CCFC)	Religious	Cambridge, MA	11	176	11725	1,066	67
Fairbanks & Friends	Local Area	Fairbanks, AK	10	207	8100	810	39
Kiva Guernsey	Local Area		10	270	7775	778	29
Kansas State University	Colleges/University	Manhattan, Kansas	12	169	8625	719	51
Mean			12	519	$21,037	$1,762	$106
Median			11	217	$19,825	$1,341	$45

Bottom 10 Performing Open Access Teams, Membership 10<N≤20

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Friends of Women for Women, International	Common Interest	Bosnia and Herzegovina	16	1	$25	$1.56	$25
UHALL	Colleges/Universities	University Hall	15	2	$50	$3.33	$25
Dalton	Schools	New York, NY	13	2	$50	$3.85	$25
Tikkun Project	Youth Groups	Cardiff, CA	11	2	$50	$4.55	$25
Decorah Lutheran Church	Religious	Decorah, IA	14	3	$75	$5.36	$25
Team Benevolent	Common Interest	Everywhere	13	4	$100	$7.69	$25
Friends of Julia Kastner	Friends		15	4	$125	$8.33	$31.25
The Community of Davis	Local Area	Davis, California	12	4	$100	$8.33	$25
McKelvey	Memorials	Nationwide	15	5	$125	$8.33	$25
Team Kenya	Local Area	Edmond - Oklahoma	11	4	$100	$9.09	$25
Mean			13.5	3.1	$80	$6.04	$25.63
Median			13.5	3.5	$87.5	$6.53	$25

Within Medium-size (10≤N<20) Open Kiva Lending Teams, median size for top-10 per-capita lenders was 11 members, compared with 13.5 for bottom-10 lenders. Surprisingly, even amongst bottom-ten per-capita lenders team membership did not climb above 16 members within the "Medium-size" Lending Team categorization. Top teams lent a median of 217 times (3.5 for bottom teams); Top teams lent an aggregate loan median of $19,825 ($87.5 for bottom teams); Top teams had per-capita lending of $1,341 ($6.53 for bottom teams); Median for top teams per loan averages was $45 ($25 for bottom teams).

TOP & BOTTOM PERFORMANCE EXTREMES
LARGE OPEN ACCESS LENDING TEAM COMPARISON

Top 10 Performing Open Lending Teams with Membership N>20

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Ned.com	Common Interest		90	4775	150650	1,674	32
Belgium	Local Area	Belgium	161	6440	241800	1,502	38
Purex Changes Lives	Businesses		34	105	50400	1,482	480
Kiva Baha'is	Religious	World	78	853	105475	1,352	124
Beer Goggles Never Lie	Common Interest		32	1256	34025	1,063	27
Wonga.com	Businesses	London	38	1355	38075	1,002	28
Quebec	Local Area	Quebec	100	3435	90300	903	26
Let's Lend $20,000	Common Interest	Worldwide	23	766	20250	880	26
Kiva Shopping Club	Clubs	Everywhere	81	2130	54450	672	26
Rice University	College/University	Houston, TX	37	920	24400	659	27
Mean			67	2,203	$80,982	$1,119	$83
Median			58	1,305	$52,425	$1,032	$27

Bottom 10 Performing Open Lending Teams with Membership N>20

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Hi5 Community on Kiva!	Common Interest	Everywhere	342	33	$825	$2.41	$25.00
Vanderbilt University	Colleges/Universities	Nashville, TN	46	13	$375	$8.15	$28.85
Williamsville East High School	Schools	East Amherst, NY	70	32	$800	$11.43	$25.00
ACCION USA	Field Partner Fans	USA	28	13	$350	$12.50	$26.92
McCallie Investment Society	Schools	Chattanooga, TN	25	11	$325	$13.00	$29.55
Gillian Anderson Fans Common Interest	Worldwide	22	12	$300	$13.64	$25.00	
DownloadHelper Users	Common Interest	Worldwide	256	58	$3,525	$13.77	$60.78
Team Google Certified Teachers	Common Interest	Worldwide	21	11	$300	$14.29	$27.27
Georgetown University	Colleges/Universities	Washington, D.C.	29	18	$450	$15.52	$25.00
Mrs. Steward's Classes Schools	Bristol, PA 65	28	$1,075	$16.54	$38.39		
Mean			90.4	22.9	$832.5	$12.12	$31.18
Median			37.5	15.5	$412.5	$13.32	$27.10

Within large-size Kiva Lending Teams, there is marked difference between the top and bottom performers. While size is fairly comparable, membership within the top-performing teams was greater, with a median membership of 58 to 37. While the median membership for the worst performing teams was lower than the best performers, the mean was not. Two very high membership outliers (Hi5 Community with 342 and DownloadHelper Users with 256) pulled the bottom performer mean to 90 members. Despite a greater number of members, however, number of loans provided, aggregate amount loaned, and per capita lending among the worst performers was roughly 100 times lower across all three categories. Only the average loan size was comparable across this dichotomy of lending activity, as both the best and worst large lending teams loaned roughly the minimum each time with mean values of $27.

RELATIONSHIP
MEMBERSHIP AND NUMBER OF LOANS

Whereas, except for two Open Lending Team outliers with high membership and very low loans, general trends in the Open Lending Teams data point to a stronger relationship between membership and number of loans, Closed Lending Teams exhibit remarkably low relationship between membership size and number of loans provided. *What this likely means is that for Open Lending Teams, group membership size as an input explains more of the variance in the number of loans as an output.*

One hypothesis is that Open Lending Teams consist of interested members who have, exclusively, opted-in to the team. Closed Lending Teams, by contrast are often organizationally homogonous. As noted in the histogram of the worst performing Closed Lending Teams, a majority of them were self-categorized as "Schools." *While In-Group solidarity may be high, hangers-on who increase membership size, but who were perhaps co-opted into the group without vested interest in its long-term success, do not choose to lend and therefore undermine the strong relationship seen between membership and loan number in Open Lending Teams.*

RELATIONSHIP
MEMBERSHIP AND AGGREGATE LOAN AMOUNT

Similar to the comparison between Membership and Loan Number, Kiva Open Lending Teams exhibit what appears to be a strong relationship between size and total loan amount whereas Kiva Closed Lending Teams have marked variety between size and aggregate amount of loans provided to borrowers. Again, more of the variance in total amount of money loaned could likely be explained by membership as a Kiva Open Lending Team input, something that would have significant explanatory power.

RELATIONSHIP
MEMBERSHIP AND PER CAPITA LENDING

Within Open Lending Teams, Per Capita Lending is likely most strongly related to size when membership is below 10 members. However, for Large Lending Teams, Per Capita Lending appears to have a positive relationship with Membership until Membership reaches 100 members. Beyond this threshold, per capita lending falls.

Within Closed Lending Teams, there appears to be almost no overall relationship between Membership and Per Capita Lending. The relationship appears strongest when Closed Lending Team membership is fewer than 10 members, though in caveat, the minimal number of observations makes such conclusion tentative without further study.

RELATIONSHIP
MEMBERSHIP AND AVERAGE LOAN SIZE

Across all sizes of Kiva Open Lending Teams, there appears to be very little relationship between Membership and Average Loan Size, though relationship appears strongest within small teams with fewer than 10 members. *Based on this observation, one might conclude that for Lending Teams with fewer than 20 members membership size had relatively little effect on the average amount of each loan provided.*

Across both Open and Closed Kiva Lending Teams there appears to be minimal relationship between Membership size and Average Loan Amount. For both Open and Closed teams, the strongest relationship between Membership and Average Loan Size appears to remain when Lending Teams have fewer than 10 members.

RELATIONSHIP
MEMBERSHIP AND MESSAGE BOARD POSTS

Comparing Membership with the number of Message Board Posts across all top- and bottom-performing Kiva Lending Teams appears to yield –with one or two possible outliers– a strong relationship trending up and to the right. The Hi5 and DownloadHelper Users Lending Teams were the two worst large-membership teams, and their on-site coordination with the message board was non-existent. In both cases, member affiliations largely cohered around presumed but apparently tenuous "Common Interest." While lenders belonging to such teams did provide loans, they almost uniformly did not attribute them to those two lending teams. *Within actively managed Open Access Kiva Lending Teams, membership size as an input appears to explain a significant amount of the variance in the number of message board posts the Lending Team produces on-site.*

CONCLUSION

Reviewing Kiva.org Lending Teams within categories of "Top Performers" across Open and Closed groups, "Top Performers" across three size thresholds, "Bottom Performers" across Open and Closed groups, "Bottom Performers" across three size thresholds, and "Top and Bottom Performance Extreme" comparisons across three size thresholds, I was able to draw comparison across over a dozen permutations of data from the 120 teams.

Limitations of the Study

While this study offers an illustrative look at Kiva.org Lending Teams across openness, size, and category from a more quantitative perspective than has been achieved before, much quantitative analysis and qualitative observation remains undone. By grounding the study in In-group Solidarity, Psychology of Lending, Microfinance, and Peer-to-Peer Lending literature, this study was devised to build upon existing benchmarks. For example, membership thresholds were determined based on putative microfinance debate surrounding the effectiveness repayment within borrower groups. While the study included quantitative observation and comparison across various Lending Team identities, much data could be probed to a deeper level, using econometrics to distinguish particular causality in the effectiveness of openness, membership, and category in determining the impact of Internet-based international group peer-to-peer lending.

This study observed 120 Lending Teams across 12 group classifications, however it did not observe these Lending Teams longitudinally beyond the two-month observation. By observing teams over longer periods one could ascertain growth patterns and trajectories of Lending Teams. This could additionally help identify those inflection growth points, adding additional guidance for Lending Team managers based on knowledge that beyond certain thresholds Open or Closed status could aid or inhibit geometric growth.

Additionally, this study did not provide any participation comparison between those Kiva lenders who are members of Lending Teams and those Kiva lenders who are autonomous. This comparison is important in understanding the baseline from which to argue if Kiva Lending Teams do, in fact, foster greater participation, and if crowd-sourced microfinance done in solidarity is an improvement over the status quo ante. This observation would help build upon the case that solidarity and group cooperative behavior impacts participation by lenders and, ultimately, their per-capita lending.

Finally, this study is illustrative, but is limited in scope and depth by its small sample size. Though the study qualitative and quantitatively studied 120 observation teams over the course of a few months, broad statements about Lending Teams writ large ought to be further corroborated through more comprehensive study of Kiva's 7,000 Lending Teams.

Lessons Learned

Taxonomy of Top Performers

- Top Open Lending Teams have less variance in self-categorization
- Top Large Closed Lending Teams have, on average, more members
- Top Large Open Lending Teams provide over three times as many loans
- Top Large Open Lending Teams loan over three times as much money
- Top Small Closed Lending Teams have greater per-capita lending
- Beyond 10 members, Top Open Lending Teams have greater per-capita lending
- For all membership sizes Top Open Lending Teams lend more money per loan
- Beyond 10 members, Top Open Lending Teams loan significantly more per loan

The salient points enumerated above highlight significant differences between Open and Closed dynamics for top-performing Kiva Lending Teams. *Until a membership size of 10 members, Closed Lending Teams had a greater per-capita lending average. Beyond a membership of 10 members however, Open Lending Teams were much more effective.* Despite fewer members (i.e. Large Closed Lending Teams are actually bigger on average), Medium and Large Open Lending Teams tended to provide three times as many loans, to loan three times as much money, loan a greater amount per loan, and therefore have greater per-capita lending.

Lending Team founders wishing to administer a top performing team ought to keep the Lending Team classified as "Closed" until facilitating a membership of 10 individuals, and then open it up more broadly. By building critical mass through homogeneous co-opting, founders could bypass a critical threshold in cooperative development and open up a team with the potential for growth.

Taxonomy of Bottom Performers

- Open Lending Teams have less variance in self-categorization
- Closed Lending Teams are predominately classified as "Schools"
- Large Open Lending Teams have, on average, slightly bigger membership
- Closed Lending Teams with greater than 10 members provide more loans
- Closed Lending Teams with 10-20 members provide many more loans
- Closed Lending Teams with 10-20 members lend much more money
- Closed Lending Teams with 10-20 members have almost four times greater per-capita lending than Open Lending Teams of Medium size
- Closed Lending Teams with greater than 10 members lend more money per loan

The points outlined above illustrate features of Open and Closed group dynamics for bottom performing Kiva Lending Teams. Noteworthy is the observation that *amongst bottom-performing teams, Closed Lending teams were often more effective than Open Lending Teams. When greater than 10 members, and significantly when Closed Lending Teams were of a medium size (between 10 and 20 members), Closed teams provided more loans, lent more money in aggregate, and had per capita lending nearly four times greater than Open Lending Teams of comparable size.* It appears from this data and my observations that Open and Closed group choice can drive group behavior changes.

Managing Lending Teams to Minimize Attrition

The Lending Team manager's decision to make a group "Open" or "Closed" access can significantly alter group dynamics. If a Lending Team is not performing well, as a defense mechanism, "Taking the Lending Team Closed" could be an effective strategy for rebuilding in-group solidarity.

At the bottom of lending effectiveness, Closed Lending Teams preserve participation to a greater extent than Open Lending Teams. Taking a team "Closed" could be a stopgap measure to stem lending attrition.

Managing Lending Teams to Maximize Participation

Within the taxonomy of Top Performers, "Taking a Lending Team Open" appears to effectively foster team growth and lending participation when membership is greater than 10 members. From observation, those Open Lending Teams that reached a critical mass of 20 began to have significantly higher message board coordination, and on-site cooperation that in turn appeared to improve team solidarity.

Thus for top performing Kiva.org lending teams, fostering an open environment after reaching the critical mass of 10 participants appears to contribute to improved lender-base growth and interaction.

Lending Team orientation can both limit downside lender attrition, and maximize lender participation. *Lending Team managers could best manage groups by maintaining closed access until membership reaches 10 individuals after which they can more effectively build solidarity.*

Beyond 10 members, Medium-size Closed Lending Teams are more effective at limiting downside participation loss, but Medium-size Open Lending Teams are more effective at maximizing upside participation gain.

Depending on the level of administrative optimism as to the extent to which the form of cohered identity could foster greater crowd-sourced microfinance, the manager ought to choose to remain closed access or alter to open access at the 10-member threshold.

A Lending Team manager must therefore assess the scope and engagement of the group during the critical growth period of membership between 10 and 20 members. Once the Lending Team reaches 20 members in size, open membership fosters greater engagement, participation, on-site coordination, and increases lending.

Impact on Kiva.org and Beyond

Perhaps with insights contained within this study Kiva and other burgeoning Internet-based peer-to-peer lending institutions can construct policy and rules frameworks within which lenders –cohering around various forms of solidarity– can achieve the best results.

Design levers can help Lending Team founders guide the growth and development of a cooperative group. At varying stages of development, it is the employment of design levers that will enable Lending Team managers to either limit participation attrition or expand participatory involvement. As illustrated in this study, the use of dynamic "Open" and "Closed" group status can effectively help guide in-group solidarity, team growth, and continued participation to maximize crowd-sourced lending within identity paradigms. With the ultimate intention of expanding lender participation, Kiva.org might facilitate effective Lending Team management by providing dynamic Lending Team analytics, feedback, or explicit training. These analytics would visually –like Google Analytics, Google Insights for Search or Google Finance– illustrate to group members participation rates over time. Periods of inactivity could be punctuated by an email alert, or a graphical representation of waning group spirit. After this protracted period of inactivity, Kiva might alert the founder

of eroding solidarity, and provide guidance such as "Utilize the message board to foster greater in-group solidarity." Based on participation trending and membership size, Kiva.org might further suggest that a group be "Taken Closed" or "Taken Open" to maximize Lending Team effectiveness.

By transparently explaining the value and effectiveness of their on-site design levers, Kiva.org could help facilitate Lending Team growth and engagement. It remains to be seen whether design levers that improve online solidarity and coordinated on-site cohesion can markedly improve the extent to which individuals cooperate. The advent of crowd-sourced microfinance has enabled many-to-many philanthropic models to thrive, but coordination improvements abound. This study is one such attempt to explore how insights into online human interaction can guide the design of the platforms of tomorrow.

In the case of Internet-based, peer-to-peer microfinance, the ultimate beneficiaries are those developing market entrepreneurs who can only grow their business with the participation of lenders, and our understanding of our own ability to cooperate.

APPENDIX

KIVA.ORG COOPERATIVE ONLINE ECOSYSTEM

This section provides, brief insight into 36 off-Kiva.org websites contributing to online Kiva lending coordination and collaboration. Sites provide information, evaluations of social lending, Kiva networking, provide alerts, updates, friend connections, blogs, Tweets, Diggs, sell Kiva merchandise, and allow users to shop for Kiva affiliates. This dynamic off-Kiva.org Internet ecosystem underscores the cache that could likely contribute to brand loyalty and on-site cooperation toward greater altruistic lending.

INFORMATION SITES:

Kiva.org

http://www.kiva.org/

Despite the prominence of Kiva as a peer-to-peer micro lending platform, its website is relatively flat, with only five tabs for "Lending," "About," "Community," "Journals," and "My Portfolio." Interaction on the site is passive. Users have the ability to observe loans being made to entrepreneurs, to observe the profiles of lenders, and the biographies of borrowers, but aside from Lending Team message boards, there is minimal coordination.

Kiva Friends

http://www.kivafriends.org/

Kiva Friends is perhaps the most comprehensive off-Kiva website for coordination. Touted as "A community for lenders, by lenders," its look and feel is similar to Kiva.org. On the homepage daily statistics are displayed which show the total value of loans made, number of Kiva lenders, number of countries represented, number of entrepreneurs who have received loans, percentage of loans made to women, number of Kiva Field Partners, and number of countries hosting Field Partners. Additionally, KivaFriends.org provides links to over two-dozen other off-Kiva coordination sites. KivaFriends is the most prominent platform for understanding extant online options on lending cooperation.

KivaFriends provides manifold online community message boards, some of which are extremely highly trafficked. For example, "The Lounge," has over 16,600 message board posts covering 441 topics. Overall, there are over 64,763 message board posts on KivaFriends made by over 5,000 members, and covering 2,428 topics. On August 10, 2009 there were 692 members online at the same time, and on April 4, 2008 traffic peaked on the site with 1,980 visitors on the same day.

Kivapedia

http://www.kivapedia.org/index.php/Main_Page

KivaPedia is an off-Kiva.org website providing background on prominent Kiva members, concepts, microfinance institutes (MFIs) and Lending Teams. It features section on "About Kiva," "Selected Articles," "Selected Biographies" on top-Kiva personalities and founders, "Selected Pictures," "In The News," "Did you Know" Kiva facts, "Categories," "Things you

Can Do," "Article Cloud," and "Selected Quotes." The site also features a detailed Timeline fit with Kiva milestones in lending amounts, number of lenders, number of loans provided, and organizational changes. With details and graphical illustrations and charts, it provides a detailed analysis of Kiva's lending rise.

Kiva Alerts

http://www.kivaalerts.com/

KivaAlerts allows users to input their email, choose from a drop down menu the type and criteria of loans to track, and KivaAlerts will provide news about the loans users are interested in tracking. With an additional iPhone application, KivaTweets alert for Twitter, and KivaLovers alert for Facebook, KivaAlerts keeps lenders aware of who's in need so that they can choose how to allocate their loans with ease.

Kivuntu

http://www.kivuntu.com/

Kivuntu provides information on finding "high impact" loans. Through their own innovative formula they highlight loans that could be of particular lender interest according to their social impact formula. Their formula takes into account the loan amount, number of borrowers, GDP per capita at purchasing power parity (PPP) of the borrower's country, as well as the scheduled duration of the loan. By introducing country GDP at PPP, Kivuntu attempts to equalize loan amounts according to their relative impact in the local market to help assess the social impact of targeted lending. Along with a Google Friend Connect bar, and Twitter channel, they're frequently mentioned in Kiva.org message board posts when someone debates the social value of their loan.

Kiva @ MIX Market

http://www.mixmarket.org/en/supply/supply.show.profile.asp?ett=1926

Kiva @ GuideStar

http://www2.guidestar.org/ReportNonProfit.aspx?ein=71-0992446&Mode=GxLite&lid=100777165&dl=True

GuideStar provides basic business information on Kiva.org such as location, involvement, board of directors, and leadership contact information. It also includes general information on the mission, financials, documentation, programs, people, and news. Additionally, it allows users to review the company. With six current reviews, coverage on Kiva is overwhelmingly positive on GuideStar.

Kiva @ Wikipedia

http://en.wikipedia.org/wiki/Kiva_(organization)

The Kiva.org Wikipedia site is fairly comprehensive, with overviews on the lending process, history, publicity, interest rates, statistics, criticism, references, and external links. Additionally, there is a high level of user interaction. For example, in the month of July 2009 there were over 30 revisions to the Wikipedia text.

NETWORKING SITES:

Kiva Cup 2009 – Paris, France Soccer Tournament

http://kivanews.blogspot.com/2009/07/paris-kiva-cup-2009.html

Off-line, there are also many forms of Kiva coordination, such as the Kiva Cup 2009. On June 27, 2009 over 200 people came out to play soccer for Kiva in Paris, France. With volunteers from Kiva Friends, and the Kiva France Lending Team, the tournament was successfully implemented. The tournament also provided a branding opportunity for Kiva by providing T-shirts and stickers to players and fans. Next year the Cup is set to continue, and will likely involve the three largest Paris Business Schools as well.

Global Agents for Change (Global AFC)

http://www.globalafc.org/

Global Agents for Change is an independent website promoting the use of Kiva to provide loans to international entrepreneurs. Providing links to projects, events, media, and a blog, there is significant online coordination for off-line events to bring lenders together. For example, Global AFC sponsored a distance bicycle ride for Kiva, one from Tijuana, Mexico to Vancouver, Canada, and another from Amsterdam to Istanbul. This event was called "Riding to Break the Cycle," and made a statement against poverty.

MySpace

http://www.myspace.com/kivaloans
551 comments
9,378 friends

The MySpace Kiva page features descriptions, recent lending, embedded videos about lending through Kiva, and even an embedded "Ticker" showing live loan distribution to entrepreneurs around the world.

Change.org

http://www.change.org/kiva
1,147 supporters

The Kiva profile on Change.org shows the support of over 1,000 individuals, fundraising, supporter biographies, blogs, embedded videos, recent news, and job postings.

Facebook

http://www.facebook.com/group.php?gid=2220851494
7 past events
18,590 friends
58 discussion topics
346 wall posts

The Facebook Kiva group is a vocal platform for off-Kiva support. With over 18,000 "friends" on Facebook, Kiva is able to popularize coordination sites, shape debate on topics related to no-interest lending, and their recent move to provide capital in the U.S.

Second Life

http://www.netsquared.org/blog/kanter/kiva-second-life-interview-official-sl-volunteers
On Second Life (SL) website, volunteers for Kiva create virtual marketing campaigns for Kiva by manning booths and distributing knowledge on the ability of micro-lending to enable entrepreneurs. Through the use of volunteer time Kiva has created geographically diverse information booths in second life to promote Kiva and disseminate information.

Friendster

http://profiles.friendster.com/kivaloans
372 fans
Innumerable postings of pornographic material seems quite unrelated to Kiva.org.

LinkedIn

http://www.linkedin.com/static?key=groups_giving_kiva
1,894 members
The site uses specific LinkedIn Badges to brand Kiva, and allows members to display support. The LinkedIn page also allows users to "Make a Donation" directly to Kiva.

Twitter – Kiva

http://twitter.com/Kiva
10,790 followers
Following 3,245
302 updates

While Twitter appears to be one means of distribution for Kiva, a majority of their Twitter posts are Re-Tweets (RT) of information original to another Tweeter.

Twitter – Kiva Fellows

http://twitter.com/kivafellows
764 followers
Following 15
43 updates

The Twitter Kiva Fellows channel is not nearly as highly trafficked as the original Kiva Twitter, but nonetheless it allows for geographically diverse Kiva Fellows to contribute to discussion on what's happening with Kiva.org as a group.

Multiply

http://kivaloans.multiply.com/
0 friends

Multiply provides a business background and series of information on Kiva.org, how it works, where money provided goes, and how small loans can make a big difference. It popularizes stories such as Nicholas Kristof's New York Times "D.I.Y. Foreign Aid," where he visits his Kabul borrower found through Kiva.org.

Yuwie
http://www.yuwie.com/profile/?id=8607
3 friends

Yuwie provides almost the identical information and format as Multiply.

Yahoo Groups
http://groups.yahoo.com/group/kivaloans/
Members: 625

The Yahoo Group for Kiva Loans has 625 members, and features a message board, calendar, and geographic list of Lending Teams people can join based on location.

BLOGGING SITES:

Inside Kiva
http://www.kiva.org/about/inside

The Kiva Blog is an official part of the Kiva.org website, under the "About" tab, and featured on the left-side navigation bar. A very active blog, it features roughly three posts each day, with current loans, Kiva activities, and policy changes forthcoming.

Kiva Blogs from the Field
http://fellowsblog.kiva.org/

The Kiva Fellows Blog is another official part of Kiva.org, featuring the aggregated posts from scores of Kiva Fellows from all the groups since KF2, or the "Kiva Fellows 2nd Class." Today Kiva is on its ninth class of fellows, and collectively they have provided over 636 posts from around the globe on the activities of local MFIs in which they work.

Kiva Chronicles
http://www.socialedge.org/blogs/kiva-chronicles

Kiva Chronicles is an independent blog highlighting the changes Kiva founder Matt Flannery is having on the world by providing loans. Featuring a dozen bloggers and aggregated opinions, it provides discussion on microfinance and peer-to-peer lending.

Ramon's Kiva Blog
http://kivaramon.blogspot.com/

Ramon's Kiva blog is one of many in which individual investors or lenders chronicle their own family loans to entrepreneurs around the world, explaining to the world how their small

capital allocation made a difference to business owners in developing nations. Ramon blogs infrequently, but provides deep insight into what is and is not working with his loans. Additionally, he provides helpful links to Kiva and off-Kiva services.

How I Changed The World Today
http://bjancy.blogspot.com/

Similar to Ramon's Kiva Blog, "How I Changed the World Today" is the private blog of Julia, a Kiva Lender who chronicles the impact of her loans as well. On her site she links to Global Giving, and has an embedded button or HTML frame for specific Kiva loans that are deficient in funding. These syndicated windows to Kiva provide direct links to Kiva.org and show visually how much money the borrower or entrepreneur needs.

Kendall Mau's Microfinance Travels
http://microfinancetravels.typepad.com/

Another independent microfinance blog, Dr. Kendall Mau's often highlights Kiva.org.

SHOPPING SITES:

Kiva Store
http://www.kivastore.org/

KivaStore.org is not officially hosted on Kiva.org but it is an official part of the company. Featuring sales of wristbands, lanyards, water bottles, piggy banks, and calendars, it provides Kiva green branding for Kiva lovers, and capital toward operation costs.

Kiva Shopping Club
http://www.kivashoppingclub.com/

Founded in 2007, the Kiva Shopping Club (KSC) uses vendor kickbacks to provide money to Kiva. When shoppers use KSC I-Give links, a portion of the money involved in the purchase of a good or service goes to Kiva. In 2007 KSC raised over $1,000; In 2008 KSC raised over $1,800, and in total to date it has raised over $3,000 for Kiva.org.

Amazon.com Affliate
http://www.amazon.com/?&tag=kivafrie-20

By making Amazon.com purchases through the Kiva.org affiliate, a portion of the purchase price goes toward the operation costs of running Kiva.org.

Kiva's Amazon.com Wishlist
https://www.amazon.com/gp/registry/wishlist/322QSU5675SPA/ref=wl_web/

Amazon.com Wishlist enables users to highlight items on Amazon.com that they desire, and should an individual purchase them, a portion of the revenue would be forwarded to Kiva.org to address some of the operational expenses of running the business.

DOWNLOADS:

Kiva Toolbar

http://kiva.ourtoolbar.com/

The Kiva Toolbar, which works with Microsoft Internet Explorer, Firefox or with Apple Safari web browsers, provides quick links to Kiva blogs, social networks, tools, RSS, new loan listings, discussions, Kiva news alerts, press coverage, web search, privacy tools. Developed by KivaFriends, this toolbar provides users with the best of Kiva.org, hand picked links, RSS reader, integrated Google Search, and desktop alerts.

Marketing Materials

http://www.kivafriends.org/index.php/board,16.0.html

MULTIMEDIA SITES:

KivaTube

http://www.kivafriends.org/index.php/board,18.0.html

KivaTube is not an independent website, but rather individual Kiva lenders posting videos to YouTube to market Kiva, and disseminate information about the practices. A YouTube Video search on the term "Kiva" yields 7,800 results; however an independent look at the term "Kiva" on Google search results, and related keyword terms points to context having a large impact on whether use of the term "Kiva" refers to micro-lending.

Kiva Podcast

http://www.kivapodcast.com/

Kiva TV

http://www.kivatv.org/

In some cases, Kiva appears to be used as a method of altruistic "Domain Squatting." At KivaTV.org, for example, the URL yields only an embedded advertisement of Saibou Touré, one particular entrepreneur in Mali who is in need of $1,100.

Talkathon

http://www.talkshoe.com/talkshoe/web/talkCast.jsp?masterId=22062&talkCastId=22062

Talkathon allows users to download or stream 12 conversations on Kiva, peer-to-peer lending, and how one can get involved with the process.

TOP PERFORMING OPEN ACCESS: SMALL MEMBERSHIP
QUANTITATIVE NOTES

Kiva Top 10 Open Lenders with Membership 0<N<10

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Pablo y Amigos Microloans	Friends	Mexico	1	257	6825	6,825	27
Team GNSA	Businesses	Portland, OR	1	106	6350	6,350	60
Stock Traders	Common Interest	Ontario, Canada	1	250	6325	6,325	25
Fuji Film Sericol	Businesses	Worldwide	2	92	12225	6,113	133
Global Agents for Change	Common Interest	Earth	7	186	42450	6,064	228
Infusionsoft	Alumni Groups	USA	4	211	23300	5,825	110
RedeParede	Common Interest	Central & SA	1	170	4375	4,375	26
MicroCredit Program	College/University	Houston, TX	1	74	3550	3,550	48
PGGM KLTO	Businesses	Zeist, Netherlands	1	11	3450	3,450	314
Druppel	Friends	Holland	1	17	3375	3,375	199
Mean			2	137	$11,222	$5,225	$117
Median			1	138	$6,337	$5,982	$83

TOP PERFORMING OPEN ACCESS: SMALL MEMBERSHIP
QUALITATIVE NOTES

Within the Top 10 Kiva Lending Teams according to greatest per-member lending, only three Lending Teams had greater than one member. Having pulled data from the Kiva Application Programming Interface (API) without initial restrictions on membership number, we found that top lending teams were overwhelmingly single-person "groups." We therefore decided to focus our research by not only looking at top open and closed group Lending Teams according to dollar amount of loan per member, but also according to membership thresholds. Based on borrower-focused literature, predominately in microfinance, group coordination and cooperation differed according to group size. Microfinance literature suggested that groups smaller than 10, and often smaller than 20 could cohere and foster solidarity and compliance facilitating greater cooperation. Groups over 20, and undoubtedly over 100 members, lost cohesion and cooperation suffered. To test these borrower thresholds for group cooperative behavior we divided Lending Team groupings according to membership of size less than 10 (0<N<10), between 10 and 20 (10<N<20), and greater than 20 members (N>20).

To understand in-group cooperation, and those methods of Kiva coordination, I joined each of the three Top 10 Open Kiva Lending Teams with greater than one member.

FujiFilm Sericol (Business)
Membership: 2
Loans: 92
Amount Loaned: $12,225
Amount Loaned Per Capita: $6,113
Average Loan Amount: $133

Despite FujiFilm Sericol's categorization as "Business," and its link to the FujiFilm homepage, it consists of only one active member. Keith, the Lending Team's founder, is based in Kansas City, Kansas, has provided 93 loans and belongs to only two other Lending

Teams, namely "Scuba Divers," and "Team Kansas City." Keith's motivation comes from his fortunate position as a computer programmer, and he desires to help pass on his "success to like-minded individuals."

The second member of his Lending Team, Kenneth, is based in San Bernadino, California. Unlike Keith, Kenneth belongs to 45 Lending Teams which seem to accord with any, and all of his interests, from "Jewish Donors and Friends" to "Burning Man," from "Freemasons" to "Mission Dental," from "Girl Guides of Girl Scouts" to "KC-135 Tanker Group USAF," from "Stanford University" to "UC Berkeley Campus Kiva," and from "Traders" to "Philanthro Productions." His motivation for lending discusses at length his desire to address "Parental Alienation Syndrome," and his website links to a MySpace page for Fathers Lost and Found.

Though within Lending Teams there are features that facilitate cooperation, within the FujiFilm Sericol Lending Team, the message board has never been used. For the purpose of the study, FujiFilm Sericol Lending Team is essentially another single-member Team.

Infusionsoft (Alumni Group)

Membership: 7
Loans: 223
Amount Loaned: $23,600
Amount Loaned Per Capita: $5,900
Average Loan Amount: $106

The Infusionsoft Kiva Lending Team is classified as an "Alumni Group," and caters to employees, clients, or friends of the company Infusionsoft. Based in Gilbert, Arizona, the institution of "Infusionsoft" is itself a Lending Team member. Despite geographically diverse hangers on, such as David, an author from Kenya, and Namayanja, a teacher from Uganda, Infusionsoft as a "lender" has provided all 223 loans for the Infusionsoft Lending Team. In this case, offline coordination outside of the Kiva message board, and likely within Infusionsoft –either in individual or collaborative group effort– has yielded 223 loans to borrowers around the globe.

Global Agents for Change (Common Interest)

Membership: 7
Loans: 186
Amount Loaned: $42,450
Amount Loaned Per Capita: $6,064
Average Loan Amount: $228

While FujiFilm Sericol has two members, only one member has contributed loans to the Lending Team. Therefore, Global Agents for Change (Global AFC) has the highest per capita lending amount of any Kiva Lending Team with greater than one member. Global AFC has a membership of seven individuals from diverse parts of the globe. Together they have provided 186 loans for a combined $42,450 provided to worldwide borrowers. On a per capita basis, each member of Global AFC has lent $6,064 with an average loan amount

of $228. As Kiva's minimum loan amount is $25, Global AFC's lending differs from the minimum, and the putative norm in lending by a factor of nine.

Although on-Kiva.org cooperation through the message board has not been utilized, Global AFC has a professional website (www.globalafc.org) and organizes events. For example, in June 2009 Global AFC and Kiva had a "Social Mixer" in San Francisco:

Global Agents for Change is Riding to Break the Cycle Again! Join 20 young cyclists as they reach San Francisco on their 2000 mile journey from Vancouver to the Tijuana border. The riders will be joined by Kiva, as they celebrate this third annual tour in support of microcredit initiatives globally, and the ongoing work of Kiva to connect lenders with deserving developing world entrepreneurs.

Your $5 suggested donation will be going to support loans for developing world entrepreneurs fighting to pull themselves out of poverty.

It's a happy hour with a cause, what's not to love?

Events organized between Global AFC and Kiva.org are but one form of interaction. Linked from the Global AFC website are over two-dozen online independent platforms for informational exchange on Kiva lending, borrowers in need, or microfinance goals.

TOP PERFORMING OPEN ACCESS: MEDIUM MEMBERSHIP
QUANTITATIVE NOTES

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Cooper Union	College/University	New York, NY	11	1691	43850	3,986	26
Traders	Businesses	Wall Street 11	228	33700	3,064	148	
Philanthro Productions	Clubs	Los Angeles, CA	12	47	27625	2,302	588
Greta Galeazzi	Other		13	1104	28825	2,217	26
Share Partage	Common Interest	World	19	1098	28125	1,480	26
Beach Money	Businesses	Chicago, IL	10	205	12025	1,203	59
Cambridge Community Fellowship Church (CCFC)	Religious	Cambridge, MA	11	176	11725	1,066	67
Fairbanks & Friends	Local Area	Fairbanks, AK	10	207	8100	810	39
Kiva Guernsey	Local Area		10	270	7775	778	29
Kansas State University	Colleges/University	Manhattan, Kansas	12	169	8625	719	51
Mean			12	$519	$21,037	$1,762	$106
Median			11	$217	$19,825	$1,341	$45

TOP PERFORMING OPEN ACCESS: MEDIUM MEMBERSHIP
QUALITATIVE NOTES

Cooper Union (College/University)
Membership: 11
Loans: 1,691
Amount Loaned: $43,850
Amount Loaned Per Capita: $3,986
Average Loan Amount: $26

Unlike other Lending Teams, the Cooper Union team, categorized as a "College / University," has used the internal Kiva.org discussion board within their lending team. Two recent posts leverage outside-Kiva platforms for cooperation and greater impact. For example, one post refers team members to a Think.MTV.com promotion for a $25 Kiva credit. By supporting the Kiva Profile on Think.MTV.com, the user would receive a $25 certificate to lend to an entrepreneur. A more recent post offered teammates a potential browser start-page (www.smallthingschallenge.com) to help indirectly support Kiva. The user additionally suggested the site www.kivuntu.com as a good place to start when lending through Kiva, and suggested that members voice their disapproval surrounding Kiva's move to provide loans to "one world countries," by joining the Lending Team "The Unhappy Kiva Lenders Team."

Within the Cooper Union lending team, the discussion platform has been used to coordinate additional lending, to raise money for Kiva, to share learning about the lending process, and to voice concerns over Kiva's recent alteration in lending scope.

Traders (Business)
Membership: 11
Loans: 228
Amount Loaned: $33,700
Amount Loaned Per Capita: $3,064
Average Loan Amount: $148

The "Traders" lending team, while classified as a "Business," appears to be more "Common Interest." Members are geographically diverse, and on-site coordination appears low. For example, there is no discussion board use. However, the average amount lent per loan is significantly higher than the minimum of $25. While many other lending teams average roughly the minimum on a per-loan basis, "Traders" averages $148 per loan, nearly 500 percent more.

Philanthro Productions (Clubs)

Membership: 12
Loans: 47
Amount Loaned: $27,625
Amount Loaned Per Capita: $2,302
Average Loan Amount: $588

Philanthro Productions is a 501(c)(3) organization based in Los Angeles seeking to get more young adults more involved in charity. While there is no on-site cooperation, Philanthro Productions offers a website (http://www.philanthroproductions.org) that enables coordination in four American cities (San Francisco, Los Angeles, San Diego, and Washington DC). In each city Philanthro Productions displays a timeline of recent engagements with charitable organizations, the story, and photo gallery. They feature supported organizations, such as Kiva, and suggest means of involvement. For coordination, they offer parties, guest lists for events, an on-site community, as well as a Wiki, MySpace and Facebook page.

Greta Galeazzi (Other)

Membership: 13
Loans: 1,104
Amount Loaned: $28,825
Amount Loaned Per Capita: $2,217
Average Loan Amount: $26

While the "Greta Galeazzi" lending team does have minor on-site discussion participation, upon closer look it is posts by the same users as on other lending teams. Discussion platforms are therefore means of disseminating public information across Kiva, but are hardly being used to enhance in-group cooperation. For example, majority of Kiva.org lending team posts refer to the recent announcement that Kiva will provide loans to first world countries, such as the United States. This announcement has prompted significant outcry –at least in on-site discussion board posting– on how to countermand this policy change at Kiva. One post suggests the following:

What YOU can do if you want to stop loans on Kiva to Developed Countries like the USA:
1. Join The Unhappy Team www.kiva.org/community/viewMessages?team_id=7326
2. Vote on charleneanderson.typepad.com/unravelings/2009/06/do-you-support-kivas-decision-to-allow-loan-requests-from-the-us.html
3. Stop recruiting friends
4. Stop Donating

5. Don't lend to the USA
6. Stop lending at least until after the Kiva board meeting the 23 july
7. Tell about the team www.kiva.org/community/viewMessages?team_id=7326 on twitter.com/ and your Facebookpage and www.facebook.com/group.php?gid=2207279842&ref=ts
8. Join the conference on july the 15

_____

Update: Special July Community Call
Jul 8, 2009
On June 10th, the first loans to entrepreneurs in the United States were listed on Kiva. This has sparked an active discussion within the lender community about whether or not Kiva should facilitate loans to entrepreneurs in the U.S. This month's community conference call will focus on community feedback to the this issue.

When: The call is scheduled for Wednesday, July 15th at 2 pm US Pacific time.
Dial in US: 866-740-1260 Access Code: 6415483
Dial in (Outside US): +1 303-248-0285 Access Code: 6415483

We'll be giving a short presentation before listening to your feedback on the Kiva US Pilot. The presentation will be made online, so you'll need to log in to our web conference to watch the presentation.

1 - Go tohttp://www.readytalk.com
2 - In the "Join a Meeting" section enter the access code 6415483
3 - You will then be able to view our online presentation

We hope to hear you on the line!

Members of the Greta Galeazzi lending team are geographically very diverse, with representation from Italy, Norway, Australia, India, Nigeria, Tunisia, and Kenya. Additionally, the team suspiciously has three "Anonymous" user profiles.

Share - Partage (Common Interest)

Membership: 19
Loans: 1,098
Amount Loaned: $28,125
Amount Loaned Per Capita: $1,480
Average Loan Amount: $26

The "Common Interest" lending team for Share – Partage is the first team that has conversationally used the on-site Kiva.org discussion board. Aside from the ubiquitous anti first-world loan post by user Sverre (a Norwegian jurist, active since March 2009, and particularly opinionated about first-world loans), Share – Partage has used the discussion board to communicate both about Kiva loans, and more broadly. With regard to the former, Team Captain Martin has posted, in French and English, the following:

We, as a team, are closing in on 20,000$ of micro-loans total. Thanks to all of you for them. Remember that you can invite friends, family, co-workers to join the team.

Bonjour,
Nous, en tant qu'équipe, approchons dangereusement d'un total de 20,000$ de petits prêts. Merci à vous tous et toutes de leur part. Souvenez-vous que vous pouvez inviter vos amis(es), vos parents et vos compagnons et compagnes de travail à se joindre à l'équipe.

Martin
un capitaine

With regard to the latter, there are three additional posts from diverse members of the group discussing and sharing personal interests and issues in the public-public forum. Members hail from Montreal, the United States, New Zealand, Netherlands, Hungary, and India, and discussion similarly spanned geographic borders.

Despite greater on-site coordination and communication from Montreal-based captain Martin, average per loan lending amount has been $26, the minimum. Whereas the less cohesive "Traders" lending team had $148 in average per loan lending, Share – Partage's greater on-site cooperation does not seem to impact propensity to lend greater amounts.

Beach Money (Businesses)

Membership: 10
Loans: 205
Amount Loaned: $12,025
Amount Loaned Per Capita: $1,203
Average Loan Amount: $59

The Beach Money lending team coheres around support of the website www.beachmoney.com, a group that strives to create passive income streams through network affiliate marketing. This lending team has no on-site coordination but lends double the minimum, with an average per loan lending amount of $59. Members are predominately American, based in Illinois or Arizona.

Cambridge Community Fellowship Church (Religious Congregations)

Membership: 11
Loans: 176
Amount Loaned: $11,725
Amount Loaned Per Capita: $1,066
Average Loan Amount: $67

The Cambridge Community Fellowship Church (CCFC) lending team, categorized as a "religious congregation," is the first team that is regionally homogenous. All members of this lending team reside in Boston or Cambridge, Massachusetts. While there is no on-site coordination, the Kiva lending team links to a central website for the church (http://ccfconline.org), and presumably all members interact in person, off-line.

Fairbanks & Friends (Local Area)
Membership: 10
Loans: 207
Amount Loaned: $8,100
Amount Loaned Per Capita: $810
Average Loan Amount: $39

The local area Fairbanks & Friends lending team consists of 10 members based in Alaska and members use the message board to communicate about Kiva. Eleven posts span members, encourage activity, and express in-group empathy. Similar to the Cambridge Community Fellowship Church, this group is regionally homogonous. Unlike the CCFC, which offers significant in-person interaction at church, this local area group generates greater on-site interaction, as it is a means of coordination easier than the alternative.

Kiva Guernsey (Local Area)
Membership: 10
Loans: 270
Amount Loaned: $7,775
Amount Loaned Per Capita: $778
Average Loan Amount: $29

While a majority of members of Kiva Guernsey, a local area-categorized team, hail from the English Channel isle, others have joined because of family heritage. On-site coordination is minimal, with only two posts to the discussion board about identities rather than cooperative lending. Average lending amount is the minimum, $29.

Kansas State University (College/University)
Membership: 12
Loans: 169
Amount Loaned: $8,625
Amount Loaned Per Capita: $719
Average Loan Amount: $51

The Kansas State University lending team minimally uses on-site coordination. Only one post to the discussion board has been made, and is inspiration in nature:

I think so far we are kicking all the other local universities' asses. I checked Nebraska, Missouri, Colorado and Oklahoma public universities and we have loaned more by far! (Not that it's a competition...)

Go State!

Despite this supportive post Lending Teams in the "Schools" and "College/University" categories appear to have less on-Kiva.org coordination, perhaps due to the prevalence of Facebook groups, or offline forums, billboards, classes, or local leaders.

TOP PERFORMING OPEN ACCESS: LARGE MEMBERSHIP
QUANTITATIVE NOTES

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Ned.com	Common Interest		90	4775	150650	1,674	32
Belgium	Local Area	Belgium	161	6440	241800	1,502	38
Purex Changes Lives	Businesses		34	105	50400	1,482	480
Kiva Baha'is	Religious	World	78	853	105475	1,352	124
Beer Goggles Never Lie	Common Interest		32	1256	34025	1,063	27
Wonga.com	Businesses	London	38	1355	38075	1,002	28
Quebec	Local Area	Quebec	100	3435	90300	903	26
Let's Lend $20,000	Common Interest	Worldwide	23	766	20250	880	26
Kiva Shopping Club	Clubs	Everywhere	81	2130	54450	672	26
Rice University	College/University	Houston, TX	37	920	24400	659	27
Mean			67	$2,203	$80,982	$1,119	$83
Median			58	$1,305	$52,425	$1,032	$27

TOP PERFORMING OPEN ACCESS: LARGE MEMBERSHIP
QUALITATIVE NOTES

Ned.com (Common Interest)
Membership: 90
Loans: 4,475
Amount Loaned: $150,650
Amount Loaned Per Capita: $1,674
Average Loan Amount: $32

Ned.com describes itself as "a global, all-volunteer, member-governed, online social network (in combination with real-world locations) that is made up of social entrepreneurs, activists, artists, social purpose enterprises, grassroots nonprofit, non-governmental, and community-based organizations, and is collaborating and taking action locally, nationally & globally, in order to make the world a better place. Ned community members make good things happen each and every day, from microfinance to media including videos and photos. Please join today and help make good things happen...c'mon, you know you want to."

There are 35 member discussion board posts on Kiva.org, however on Ned.com there are 1,659 users, 57 groups, 724 discussion topics, 13,937 comments, and 825 workspace pages. Kiva.org is but one initiative for Ned.com, and nearly all coordination appears to happen on their high-traffic website.

Belgium (Local Area)
Membership: 161
Loans: 6,440
Amount Loaned: $241,800
Amount Loaned Per Capita: $1,502
Average Loan Amount: $38

Within the Belgian lending team, there are a total of 113 posted on-site discussion board messages. Discussion is supportive and wide in scope, but recent focus has been on the

Kiva policy change to support US borrowers. Much discussion is on the external website www.Kivuntu.com and how lending social impact is calculated. One Kiva lender states that despite Kiva's move to supporting American borrowers, the Kiva "social impact scores" associated reveal that the money provided creates less impact. Whereas some of the highest ranked loans from today show a social impact score of greater than 3.5, the US loan rated had a score of 0.144, markedly lower.

Purex Changes Lives (Business)

Membership: 34
Loans: 105
Amount Loaned: $50,400
Amount Loaned Per Capita: $1,482
Average Loan Amount: $480

Within the Purex lending team, there was only one online member discussion board post and no apparent on-site cooperation. Similar to Rice University, when centralized coordination seems to take place off-site, on-Kiva collaboration is minimal. Purex, despite this lack of on-site coordination, had by far the highest average loan amount at $480, nearly 20 times greater than the minimum allowed. Whereas nearly all other N>20 teams averaged loans in the minimum denomination –roughly $25– Purex, Kiva Baha'is, and Belgium's lending team averaged significantly higher amounts.

Kiva Baha'is (Religious Congregations)

Membership: 78
Loans: 853
Amount Loaned: $105,475
Amount Loaned Per Capita: $1,352
Average Loan Amount: $124

Within the Kiva Baha'i Lending Team, there are a total of 51 message board posts, most recently debating the divisive topic of evaluating developed and undeveloped loans. More than other teams, the tone of messaging within this team is effusively warm. There is support for lending regardless of birth or need. One lender additionally points to an external site (http://ebbf.org/social_entrepreneurship.html) for the European Baha'i Business Forum (EBBF), a social entrepreneurship forum inspired by ideals of the faith.

Beer Goggles Never Lie... Much (Common Interest)

Membership: 32
Loans: 1,256
Amount Loaned: $34,025
Amount Loaned Per Capita: $1,063
Average Loan Amount: $27

Within the Beer Goggles Never Lie… Much Lending Team, there are 48 message board posts, nearly all of which relate to beer. Posts center on each lender's affinity for beer, but interestingly tie this interest to lending. For example, one lender, Jason, states:

"If ever I am in Maputo Mozambique, I will have to stop by Ermelinda Goncalo's pub. I already know she serves my kind of beer....Heineken! Product placement is a powerful tool eh?"

Another lender, Kenneth, states:

"Here below is a worthy course to make a loan to. Picture yourself visiting this pub next time you passes through Ulan Bator, for a cold beer: Hongorzul HalzanPub, Mongolia.

I think it must be this teams task to spread the gospel of beer around the globe. I will do my best by supporting Hongorzul while I consume a cold Carlsberg"

Over the course of two months tracking Top and Bottom-performing Open Kiva.org Lending Teams, "Beer Goggles Never Lie… Much," proved to be not only the most entertaining, but also one of the most engaged and productive groups of Kiva lenders. For example, daily digest message board strings included the following conversations:

-- 1 of 3 --
From: Jason
Date: Tue, Aug 11, 2009 at 9:08 PM

Hey Numbnut and fellow Beer Gogglers,
I am currently imbibing on a Guinness Extra Stout and am quite pleased with the product. Good choice Numbnut! My first was in Las Vegas this weekend. It made losing my money more enjoyable!!
It sounds like I have a few (hundred?) more to sample to catch up to Cardinal and Kenneth.

-- 2 of 3 --
From: Cardinal
Date: Tue, Aug 11, 2009 at 12:55 PM

Depending on where you go in Norway... But stay clear of the big breweries. Good Norwegian breweries where i can recommend most of the brew´s is Nøgne Ø, Haandbryggeriet, Ægir (Aegir/Egir). Also Berentsen´s "Sorte Får" is ok Stout, and Lervig has an ok Wit called White Dog. In lager much is all the same as in all of Europa, pasteurized, filtered and quite boring. Aass, Mack and Hansa might please you.
If i knew what town you came to, i could perhaps tip you of some good pubs...
When you are hungry for beer in Hungary anything goes. Tell med how thy are...

-- 3 of 3 --
From: Kenneth
Date: Tue, Aug 11, 2009 at 12:29 PM

Hello Cardinal
I am really impressed. 40 grand makes a lot of difference for a lot of people.
I am going to Norway next week, any suggestions for a god beer?
Tonight I am in Hungary and have to decide between Soproni or Dreber I think I will try?

With over 30 members, over 1,200 loans made totaling over $34,000, the "Beer Goggles Never Lie… Much" team, while averaging near the minimal loan amount of $25, had lending per-capita of $1,063, the fifth highest for Large Open teams on Kiva.org Whereas membership categorized as "Schools," "Colleges/Universities," and "Business – Internal" may have involved some element of membership coercion Beer Goggles seems to have two things going for it: 1) it's obviously entirely opt-in, and; 2) with a provocative title and lending purview, it perhaps has marketability as a unique Lending Team to which individuals are more likely to ascribe their Kiva.org loans.

Wonga.com (Business)

Membership: 38
Loans: 1,355
Amount Loaned: $38,075
Amount Loaned Per Capita: $1,002
Average Loan Amount: $28

While there are 3 message board posts, none are exclusive to Wonga's lending team. All three posts are mass postings related to promotions or opinion on Kiva's one-world lending. Wonga (https://www.wonga.com/) is a website that provides innovative short-term cash advance service to consumers. Additionally, for every loan taken out on Wonga.com, Wonga donates 1 GBP interest-free to an entrepreneur in the developing world via Kiva.org.

Quebec (Local Area)

Membership: 100
Loans: 3,435
Amount Loaned: $90,300
Amount Loaned Per Capita: $903
Average Loan Amount: $26

The Quebec local area Kiva lending team has 29 message board posts. Postings are in both French and English, and largely debate Kiva's recent move to provide loans to American small businesses. Additionally, one lender briefs the group on the recent announcement that specific microfinance institutes (MFI) will share currency risk with the initial lender, exposing them to foreign exchange volatility previously absorbed by the MFI. He warns of new labeling for "Currency Exchange Loss: Possible," from previously "Covered" loans.

Let's Lend $20,000 (Common Interest)

Membership: 23
Loans: 766
Amount Loaned: $20,250
Amount Loaned Per Capita: $880
Average Loan Amount: $26

The lending team "Let's Lend $20,000," was recently renamed "Let's Lend $40,000."
Team description:

"This is a group of total strangers who all want to help out OTHER total strangers. Many of us have been there from the beginning, when our total loans were around $5000. It is amazing and wonderful how fast we've been able to grow. Every one of our transactions connects people around the world who want what we all want from life -to have the dignity that comes from honest labor, to put food on the table, to see our children grow up healthy and strong, and help the next generation have more opportunities than we ourselves had. Our first goal was $10,000. When we reached that we set our sights on $20,000. Now that we have hit $20,000, we are going for $40,000 in loans."

Within the lending team, there are 29 message board posts, many centering around the decision to double the team goal from $20,000 to $40,000. Team leader Kimberly writes:

As of June 27, 2009 we are at the $19,375 mark!

We have 22 members and 731 loans, with an average of 33 loans per member. Our members are living in Hungary, Mongolia, Belgium, Canada, Germany, Italy, India, and the USA. What do you want to do when we hit that mark? Do you want to double up again to $40,000? Or set the goal at $30,000? I'd love to hear from all 21 of you!

Kiva Shopping Club (Clubs)

Membership: 81
Loans: 2,130
Amount Loaned: $54,450
Amount Loaned Per Capita: $672
Average Loan Amount: $26

The Kiva Shopping Club lending team, supporting the website http://www.kivashoppingclub.com/, has used the on-site discussion board 33 times. Similar to all other N>20 lending teams except Belgium, Kiva Baha'is, and Purex, Kiva Shopping Club –despite its alleged ties to Kiva.org– loaned on average only the minimum amount per loan: $26.

Rice University (College/University)

Membership: 37
Loans: 920
Amount Loaned: $24,400
Amount Loaned Per Capita: $659
Average Loan Amount: $27

Rice University's lending team demonstrates that for large lending teams with significant off-line solidarity, online coordination may prove less useful. While Rice University has posted 920 loans for over $24,000, they have not used on-site discussion boards at all. The only post listed is an out-group spam post on the debates of first world lending.

TOP PERFORMING OPEN & CLOSED ACCESS
QUANTITATIVE COMPARISON

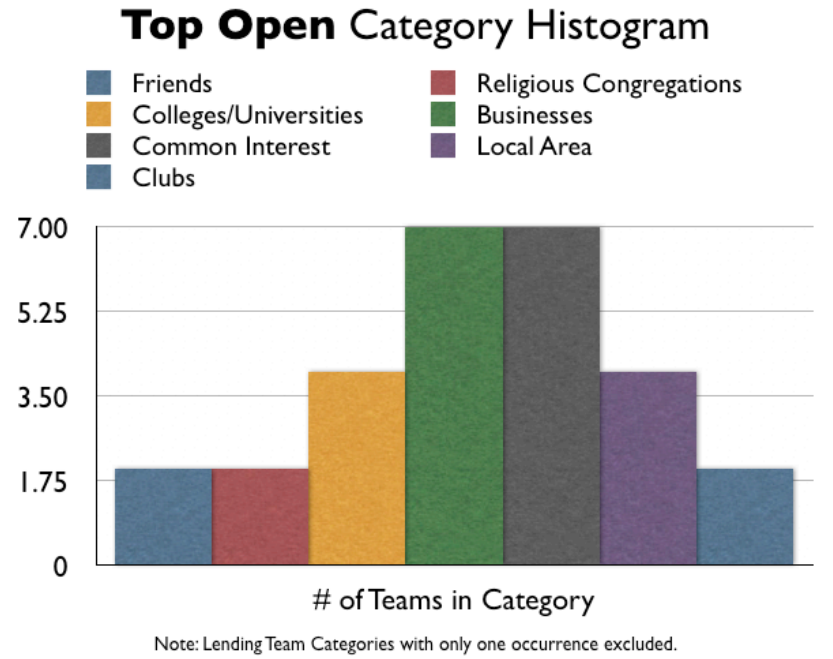
Mean Comparisons Across Open Access Top Performing Lending Teams

Name	Type	N	L#	L$	L$/N	Ave. L$	Posts
Mean (0<N≤10)	Open	2	137	$11,222	$5,225	$117	0
Mean (10<N≤20)	Open	12	519	$21,037	$1,762	$106	2.8
Mean (N>20)	Open	67	2,203	$80,982	$1,119	$83	34
OPEN OVERALL Mean	Open	27	954	$37,757	$2,705	$102	12

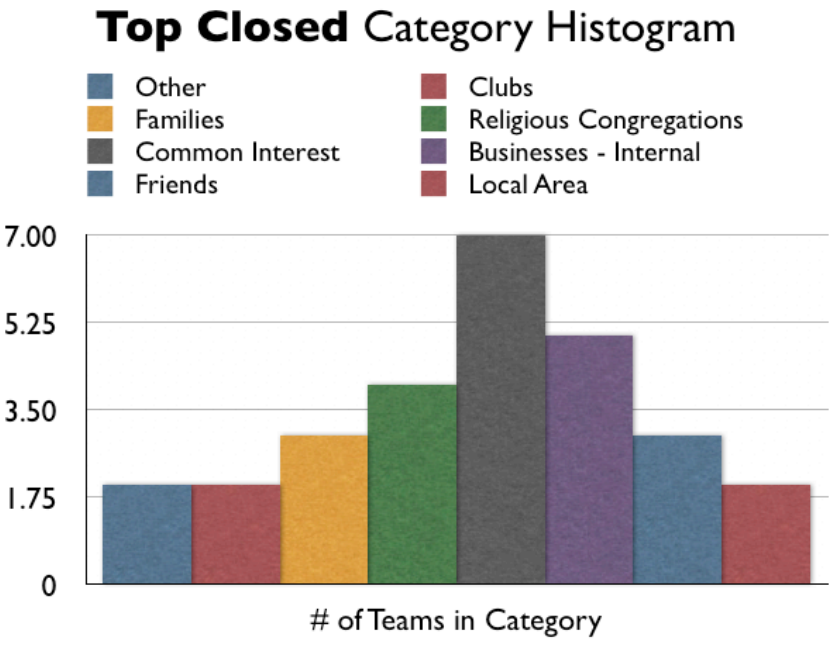
Mean Comparisons Across Open & Closed Access Top Performing Teams

SMALL SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
Mean (0<N≤10)	Open	2	137	$11,222	$5,225	$117	0
Mean (0<N≤10)	Closed	2.2	218	$10,285	$6,370	$93	N/A
MEDIUM SIZE LENDING TEAMS	**Type**	**N**	**L#**	**L$**	**L$/N**	**Ave. L$**	**Posts**
Mean (10<N≤20)	Open	12	519	$21,037	$1,762	$106	2.8
Mean (10<N≤20)	Closed	12.5	169	$5,215	$423	$33	N/A
LARGE SIZE LENDING TEAMS	**Type**	**N**	**L#**	**L$**	**L$/N**	**Ave. L$**	**Posts**
Mean (N>20)	Open	67	2,203	$80,982	$1,119	$83	34.4
Mean (N>20)	Closed	81	753	$23,227	$376	$31	N/A
Overall Open Mean	Open	27	954	$37,757	$2,705	$102	12
Overall Closed Mean	Closed	31.9	380	$12,909	$2,390	$52.3	N/A

TOP PERFORMING OPEN & CLOSED ACCESS CATEGORY COMPARISON



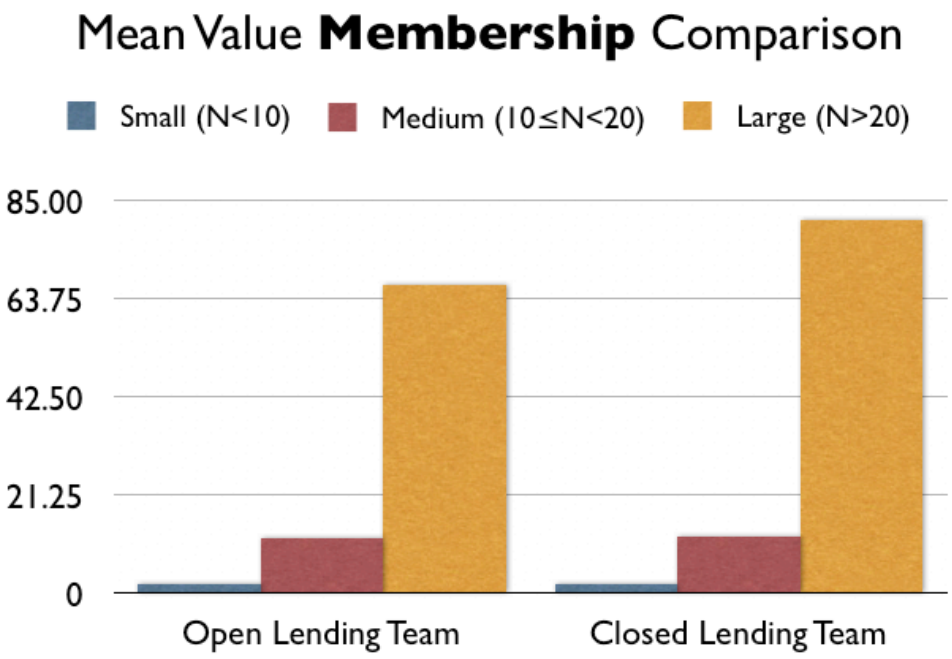
Note: Lending Team Categories with only one occurrence excluded.

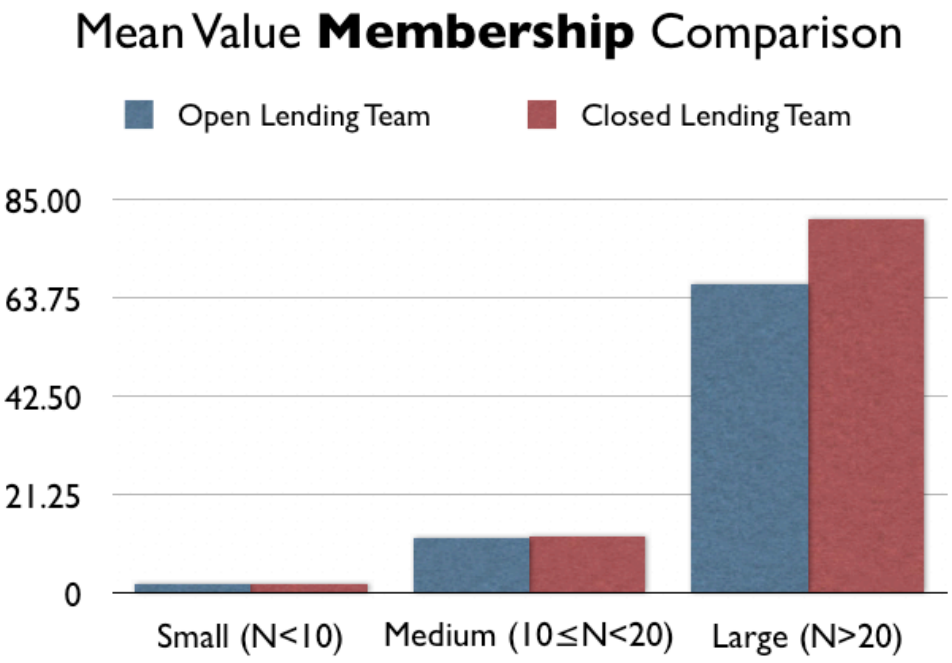


Note: Lending Team Categories with only one occurrence excluded.

Looking across Open and Closed top performing Kiva Lending Teams, top performing Open Lending teams are most often associations based on "Common Interest," "Businesses," "Colleges/Universities," and "Local Area." Top performing Closed Lending Teams are most commonly "Common Interest," followed by "Businesses – Internal," and "Religious Congregations."

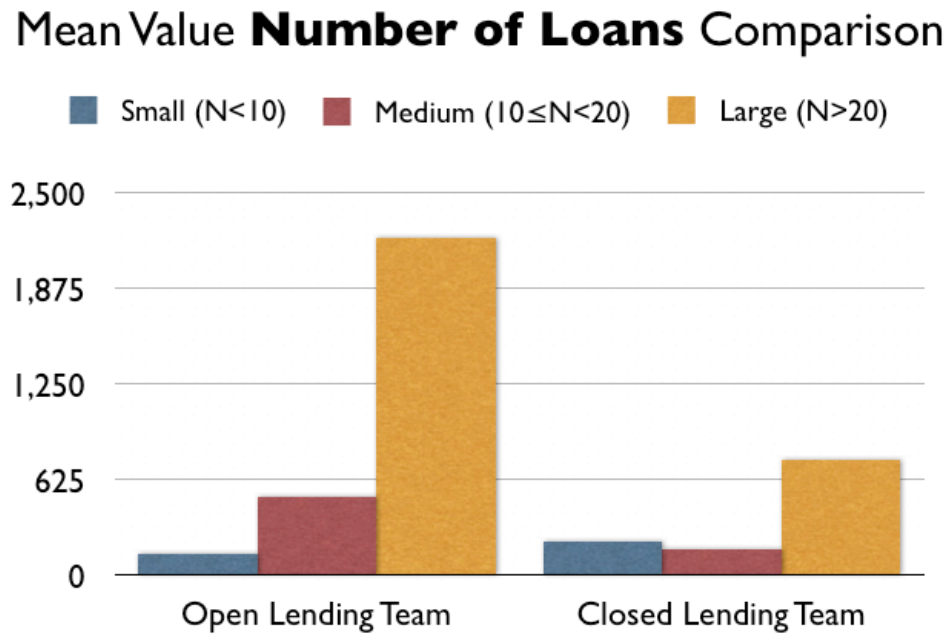
TOP PERFORMING OPEN & CLOSED ACCESS MEMBERSHIP COMPARISON

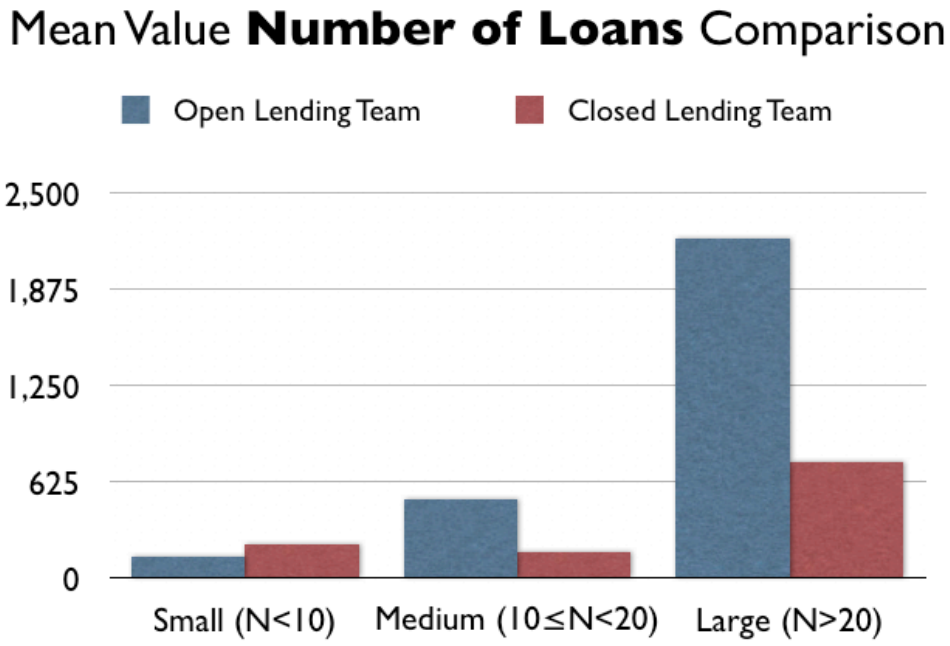




Looking at the mean membership sizes across the Top Open and Top Closed Kiva Lending Teams, one can observe that across Top-10 Per Capita Lending Teams, membership size does not vary except once Teams are greater than 20 members. Without an upper-bound size threshold, Top Closed Lending Teams are, on average, larger than Top Open Lending Teams by a substantial margin.

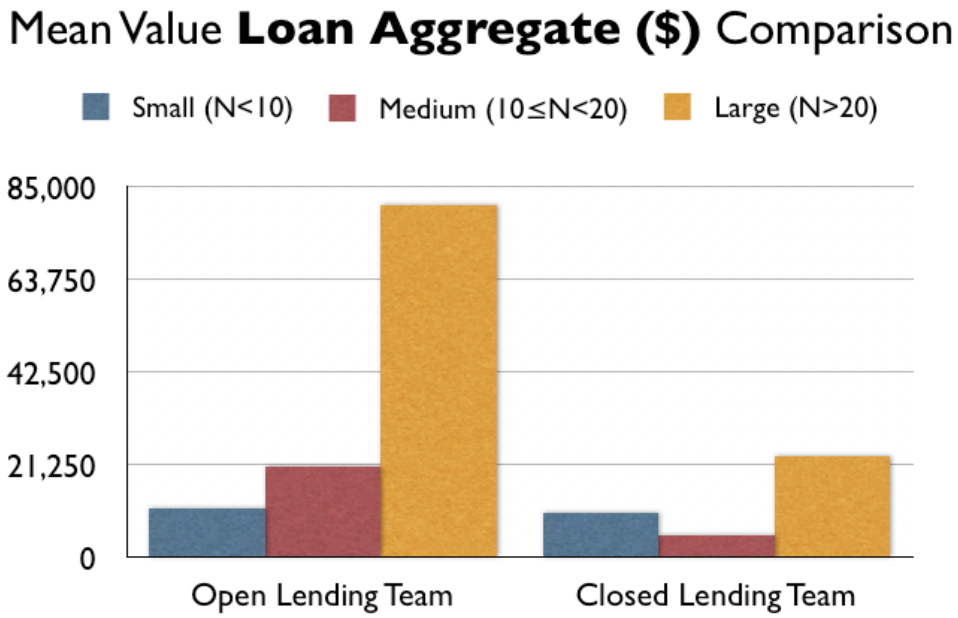
TOP PERFORMING OPEN & CLOSED ACCESS
NUMBER OF LOANS COMPARISON

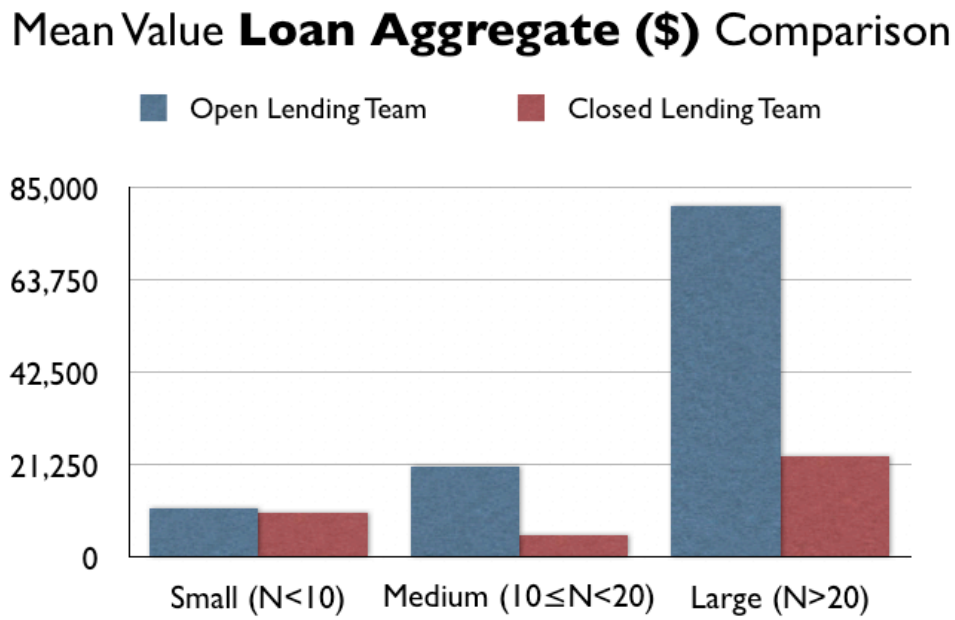




Despite the observation that Closed Lending Teams tend to have greater membership, Open Lending Teams make substantially more loans to borrowers. As observed in the graph above, Top Large Open Lending Teams make over twice as many loans as Top Large Closed Lending Teams.

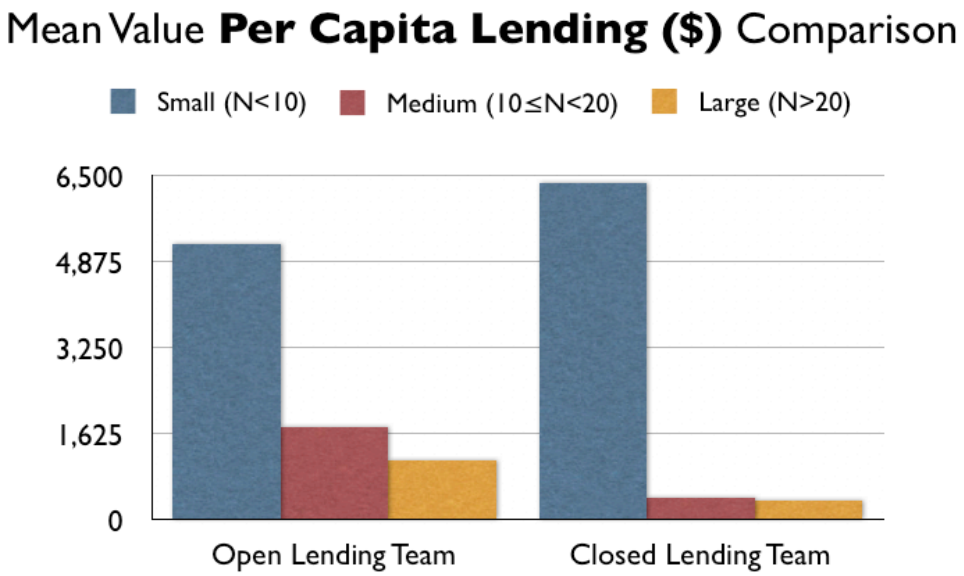
TOP PERFORMING OPEN & CLOSED ACCESS
LOAN AGGREGATE COMPARISON

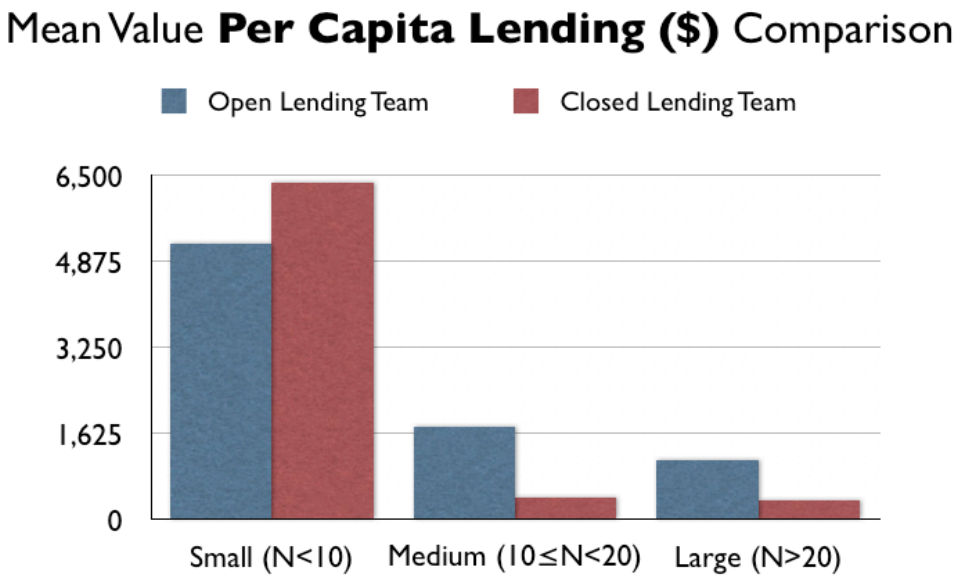




Again, despite the fact that, on average, Top Large Closed Lending Teams have more members than Top Large Open Lending Teams, the latter loans substantially more as a dollar amount. As observed in the graph above, Top Large Open Lending Teams loan over three times as much money as Top Large Closed Lending Teams.

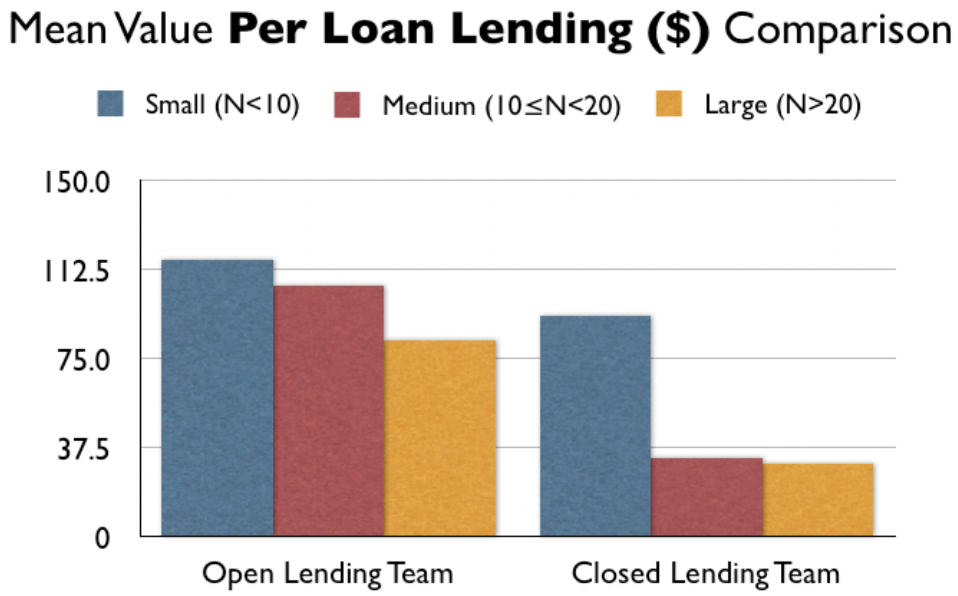
TOP PERFORMING OPEN & CLOSED ACCESS
PER CAPITA LENDING COMPARISON

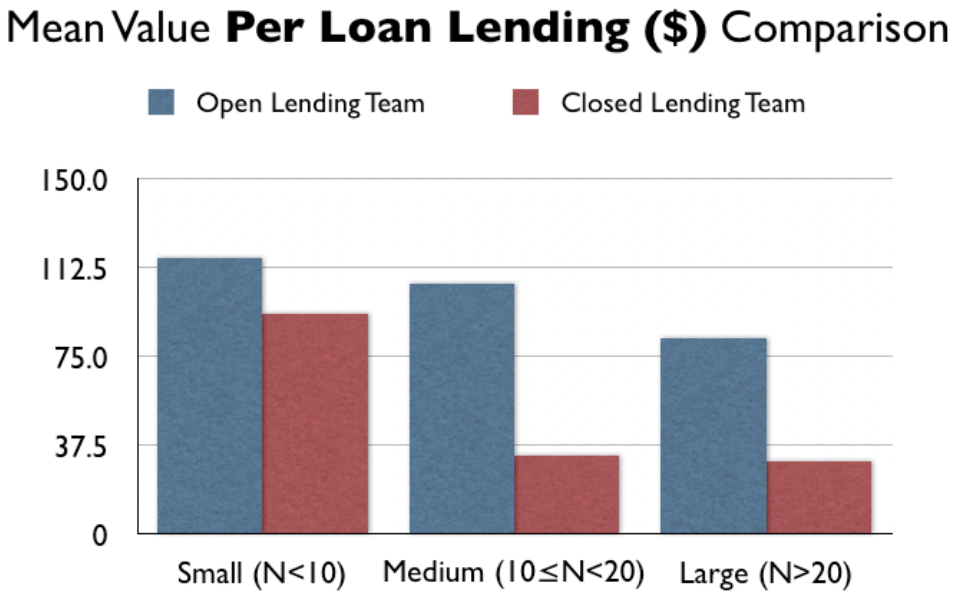




As shown above, Top Large Open Lending Teams provide a larger number of loans and a greater aggregate amount of money to borrowers than Top Large Closed Lending Teams. On a per capita lending basis, however, Top Small Closed Lending Teams loan the most amount per team member. While Top Small Lending Teams provide the most, on a per-capita basis among the Top Open Lending Teams, Top Small Closed Lending Teams loan the most money on a per member basis. Beyond ten member teams, however, Top Medium Open Lending Teams provide more than Top Medium Closed Teams, and Top Large Open Lending Teams loan more on a per capita basis than Top Large Closed Teams. Beyond ten members, on a per capita basis, Top Open Lending Teams engender greater lending to Kiva borrowers.

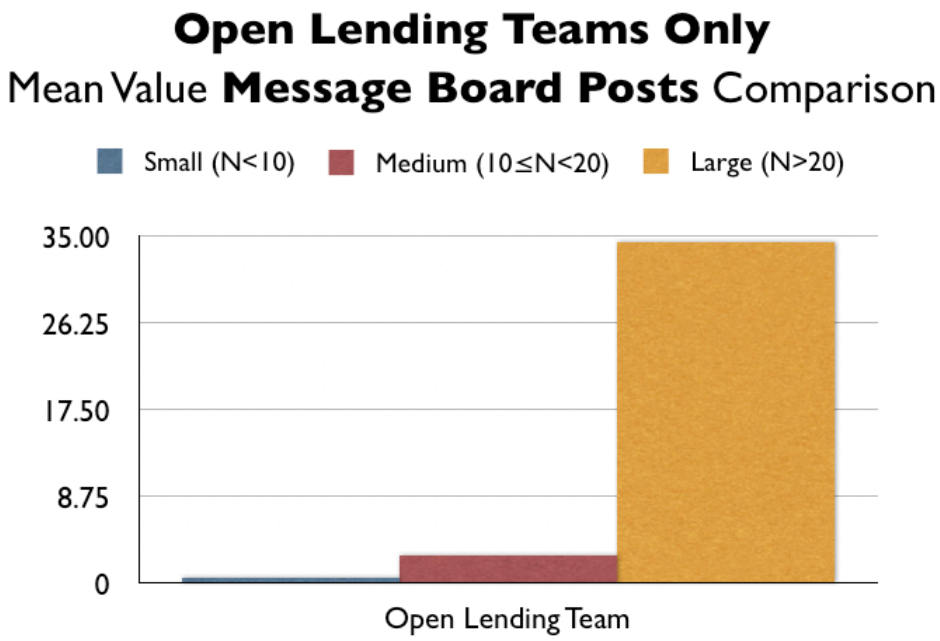
TOP PERFORMING OPEN & CLOSED ACCESS
PER LOAN LENDING COMPARISON





In all cases, for Small, Medium, and Large team sizes, Top Open Lending Teams provide loans with a greater mean value. While Top Small Closed Lending Team per loan lending nearly matches that of Top Small Open Lending Team per loan lending, for Medium and Large memberships Top Open Teams provide significantly higher dollar amounts per loan.

TOP PERFORMING OPEN & CLOSED ACCESS
MESSAGE BOARD POSTING COMPARISON



While data on message board posting is only available for Top Open Lending Teams, message board posting significantly increases after membership is greater than 20. The number of message board posts on Kiva.org increases by roughly 10 fold beyond 20-member teams.

BOTTOM PERFORMING OPEN ACCESS: SMALL MEMBERSHIP
QUANTITATIVE NOTES

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
University of Richmond	Colleges/Universities	Richmond, VA	9	1	$25	$2.78	$25
Connecticut	Local Area	Connecticut	8	1	$25	$3.13	$25
Team Angstylvania	Local Area	Angstylvania	7	1	$25	$3.57	$25
DINARI (Dian Bhuana Lestari)	Common Interest		7	1	$25	$3.57	$25
Frustone	Common Interest	Worldwide	7	1	$25	$3.57	$25
West Seattle	Local Area	Seattle, WA	7	1	$25	$3.57	$25
My Intersection	Alumni Groups	All over	6	1	$25	$4.17	$25
Team ET 251	Friends	Washington, DC	6	1	$25	$4.17	$25
Friends of ASHI Philippines	Common Interest	Philippines 6	1	$25	$4.17	$25	
Friendly Planet Travel Friends		Pennsylvania, USA	6	1	$25	$4.17	$25
Mean			6.9	1	$25	$3.69	$25
Median			7	1	$25	$3.57	$25

BOTTOM PERFORMING OPEN ACCESS: SMALL MEMBERSHIP
QUALITATIVE NOTES

As would be expected with the worst performing Small (N<10) Kiva Lending Teams, in order for the per-capita lending to be at its minimum, teams would provide the minimum loan amount ($25), and team size would approach the maximum possible within the constraints. As the maximum number of members for "Small" lending teams has been designated at N<10, it makes sense that the medium team size is 7 members, with the maximum being 9 members. This brings the per-capita lending to a median of $3.57.

Qualitative observation of the worst performing small Kiva Lending Teams yields fairly uninteresting results, with minimal or non-existent on-site lender interactions.

BOTTOM PERFORMING OPEN ACCESS: MEDIUM MEMBERSHIP
QUANTITATIVE NOTES

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Friends of Women for Women, International	Common Interest	Bosnia and Herzegovina	16	1	$25	$1.56	$25
UHALL	Colleges/Universities	University Hall	15	2	$50	$3.33	$25
Dalton	Schools	New York, NY	13	2	$50	$3.85	$25
Tikkun Project	Youth Groups	Cardiff, CA	11	2	$50	$4.55	$25
Decorah Lutheran Church	Religious	Decorah, IA	14	3	$75	$5.36	$25
Team Benevolent	Common Interest	Everywhere	13	4	$100	$7.69	$25
Friends of Julia Kastner	Friends		15	4	$125	$8.33	$31.25
The Community of Davis	Local Area	Davis, California	12	4	$100	$8.33	$25
McKelvey	Memorials	Nationwide	15	5	$125	$8.33	$25
Team Kenya	Local Area	Edmond - Oklahoma	11	4	$100	$9.09	$25
Mean			13.5	3.1	$80	$6.04	$25.63
Median			13.5	3.5	$87.5	$6.53	$25

BOTTOM PERFORMING OPEN ACCESS: MEDIUM MEMBERSHIP
QUALITATIVE NOTES

Broadly, the medium size ($10<N\leq20$) worst-performing Kiva Lending Teams did not fully accord with expectations. Namely, for Kiva Lending Teams to have the lowest per-capita lending, membership should tend toward the maximum size of 20. Instead, median membership size was 13 members, though the worst performing team, "Friends of Women for Women International," did have the largest membership with 16 people. Unlike the worst performing small Kiva Lending Teams, the medium teams frequently lent more than one time. For example, the median amount loaned per team was $87.50 versus $25.00 for small teams. Critical mass in Lending Team size did therefore seem to contribute somewhat to aggregate loan amount provided, if not substantially to the per capita amount loaned. Only one team, the "Friends of Julia Kastner" averaged more than the minimum of $25 provided in each loan, with a marginal difference of $6.25.

Supporters of Women for Women International (Common Interest)

Membership: 16
Loans: 1
Amount Loaned: $25
Amount Loaned Per Capita: $1.56
Average Loan Amount: $25

Supporters of Women for Women International, despite its worst performing per-capita lending for Lending Teams with between 10 and 20 members, offers an effective and vibrant web community for global support at http://womenforwomen.org/. Many times poor performing Kiva Lending Teams are not those that are disorganized, but those in which members have conflicting associations, or in which the organizational purview is broader than Kiva. In the case of Women for Women, the breadth of the organizational mission likely detracts from the extent to which membership and support is applied to Kiva alone. On-site coordination deals with manifold ecumenical challenges for women.

BOTTOM PERFORMING OPEN ACCESS: LARGE MEMBERSHIP
QUANTITATIVE NOTES

Name	Category	Location	N	L#	L$	L$/N	Ave. L$
Hi5 Community on Kiva!	Common Interest	Everywhere	342	33	$825	$2.41	$25.00
Vanderbilt University	Colleges/Universities	Nashville, TN	46	13	$375	$8.15	$28.85
Williamsville East High School	Schools	East Amherst, NY	70	32	$800	$11.43	$25.00
ACCION USA	Field Partner Fans	USA	28	13	$350	$12.50	$26.92
McCallie Investment Society	Schools	Chattanooga, TN	25	11	$325	$13.00	$29.55
Gillian Anderson Fans Common Interest	Worldwide	22	12	$300	$13.64	$25.00	
DownloadHelper Users	Common Interest	Worldwide	256	58	$3,525	$13.77	$60.78
Team Google Certified Teachers	Common Interest	Worldwide	21	11	$300	$14.29	$27.27
Georgetown University	Colleges/Universities	Washington, D.C.	29	18	$450	$15.52	$25.00
Mrs. Steward's Classes Schools	Bristol, PA 65	28	$1,075	$16.54	$38.39		
Mean			90.4	22.9	$832.5	$12.12	$31.18
Median			37.5	15.5	$412.5	$13.32	$27.10

BOTTOM PERFORMING OPEN ACCESS: LARGE MEMBERSHIP
QUALITATIVE NOTES

Perhaps the most interesting of all Kiva.org Lending Teams observed would be the largest, lowest per-capita lending teams. These Lending Teams have more than 20 members, and in some cases, have over 300 members, yet provide very few loans. The short analysis below highlights a few of the more interesting Lending Teams, with observation that tenuously connected individuals under "Common Interest" or "School" categorized teams tended to do worse within these large team constraints, perhaps because identity with the organization was diffuse, or associations weaker.

Hi5 Community on Kiva! (Common Interest)

Membership: 342
Loans: 33
Amount Loaned: $825
Amount Loaned Per Capita: $2.41
Average Loan Amount: $25

Hi5 describes itself in the following way: "Headquartered in San Francisco, hi5 is one of the world's largest and fastest growing social networks and mobile web networks. Our focus is to empower our users to build and maintain connections between friends and family online. With over 56 million unique visitors every month, hi5 is a top 20 website globally and the number one social network in 31 countries across Latin America, Europe, Asia and Africa. The service is available in 37 languages, delivering localized content and applications to users worldwide."

On a per-capita basis, Hi5 Community is the worst performing large (N>20) Kiva.org Lending Team, with 342 members and only 33 loans provided. The aggregate amount loaned amounts to $825, double the median value for this group, but the per-capita lending is $2.41, and average amount lent is the minimum amount allowed, or $25. Despite high numbers of opt-in participants and Lending Team members, it appears that almost no one ascribes loans made to the Hi5 Community. In other words, it is not as though members never lend money, but rather that members never lend money and attribute it to Hi5

Community. Each loan may only be ascribed to one team, and almost no one's first thought is to ascribe his or her loan to Hi5 Community. This is a case where perhaps tenuous associations, diffuse involvement due to large size, and minimal interaction on Kiva and Hi5 may all contribute to a less engaged membership base. As Hi5 Community is classified as a "Common Interest," it is likely a collection of individuals who have recognized the brand or who use the service, but not necessarily employees wedded to an internal initiative for Kiva loans. The result may be less involved lenders who, if they do lend, don't attribute it to Hi5 Community.

DownloadHelper Users (Common Interest)

Membership: 256
Loans: 58
Amount Loaned: $3,525
Amount Loaned Per Capita: $13.77
Average Loan Amount: $60.78

Similar to Hi5 Community, DownloadHelper Users Kiva Lending Team is classified as a "Common Interest" group, and has 256 members to Hi5's 342. Due to its low loan contribution rate and its large size, it has a very low per-capita lending amount of $13.77. Large membership, however, does allow it to have a high aggregate amount loaned. Whereas for large bottom performing Kiva Lending Teams the median amount loaned is $412.5, DownloadHelper Users has loaned $3,525, roughly 900 percent more. While large membership therefore detracts from the relative effectiveness of lenders, in aggregate, large, low performing teams can have substantial lending impact.

Similar to Hi5 Community, DownloadHelper Users also links to a website (http://www.downloadhelper.net/) which shows the Firefox Extension product. While it is possible that the 256 members of this group work for or have involvement with Firefox or DownloadHelper, apropos of the name, they are more likely purely "Users." Again, this loose association with the product may have impelled them to initially join the group, but minimal ties to the organization limit the extent to which they are likely to contribute infrequently-made loans to DownloadHelper Users when they likely belong to other lending teams to which they are more substantially tied.

Mrs. Steward's Classes (Schools)

Membership: 65
Loans: 28
Amount Loaned: $1,075
Amount Loaned Per Capita: $16.54
Average Loan Amount: $38.39

In the case of Mrs. Steward's five sections of World Literature, it is likely that as an assignment these students were enrolled in Kiva.org and assigned to the Lending Team. In team cases in which coercion may or may not be involved, members are not very likely to attribute loans to that lending team. Again, while Mrs. Steward's students are making loans (for example, Chelsea in San Francisco has made 44), they are not assigning these loans to the Lending Team give credit to Mrs. Steward's Class.

Other lowest performing large Lending Teams included College/University and School categorized teams Vanderbilt University and Williamsville East High School:

Vanderbilt University (Colleges / Universities)

Membership: 46
Loans: 13
Amount Loaned: $375
Amount Loaned Per Capita: $8.15
Average Loan Amount: $28.85

Williamsville East High School (Schools)

Membership: 70
Loans: 32
Amount Loaned: $800
Amount Loaned Per Capita: $11.43
Average Loan Amount: $25

BOTTOM PERFORMING OPEN & CLOSED ACCESS
QUANTITATIVE COMPARISON

Mean Comparisons, Open Access Bottom Performing Teams

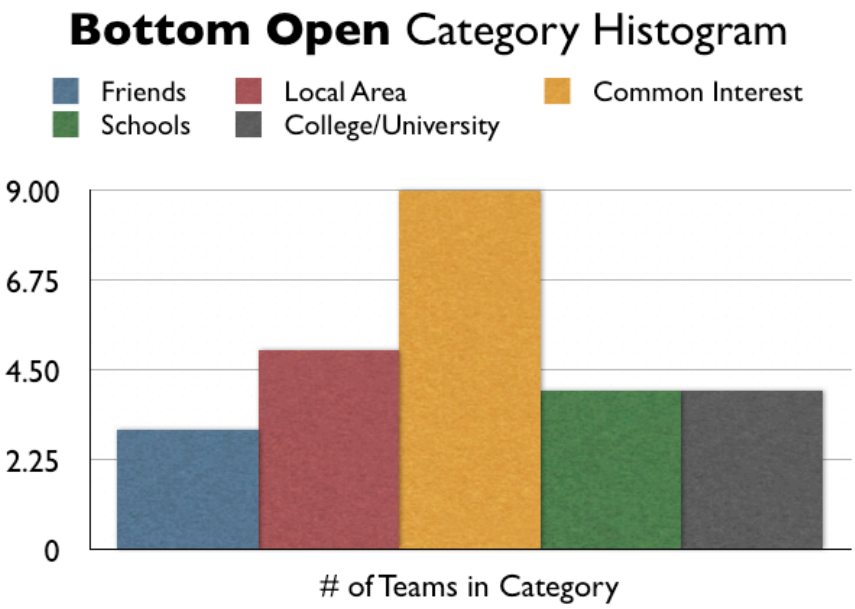
Name	Type	N	L#	L$	L$/N	Ave. L$	Posts
Mean (0<N≤10)	Open	6.9	1	$25	$3.69	$25.00	0.20
Mean (10<N≤20)	Open	13.5	3.1	$80	$6.04	$25.63	1.60
Mean (N>20)	Open	90.4	22.9	$832.5	$12.12	$31.18	2.40
OVERALL OPEN Mean	Open	37	9	$312.5	$7. 33	$27.27	1.40

Mean Comparisons, Open & Closed Access Bottom Performing Teams

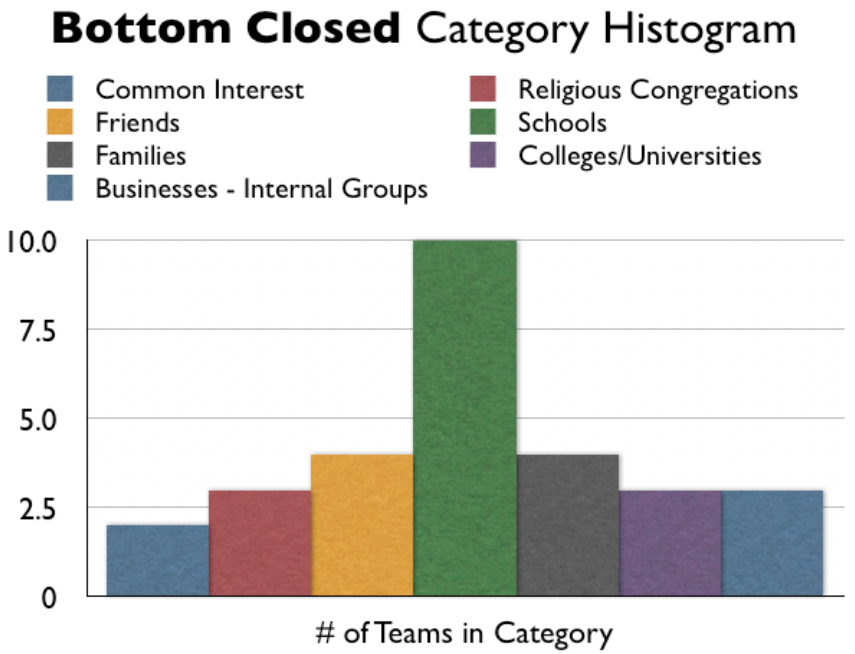
SMALL SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
OPEN Mean (0<N≤10)	Open	6.9	1	$25	$3.69	$25.00	0.20
CLOSED Mean (0<N≤10)	Closed	6.2	1	$25	$4.05	$25.00	N/A
MEDIUM SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
OPEN Mean (10<N≤20)	Open	13.5	3.1	$80	$6.04	$25.63	1.60
CLOSED Mean (10<N≤20)	Closed	14.2	12.1	$322.5	$23.21	$28.16	N/A
LARGE SIZE LENDING TEAMS	Type	N	L#	L$	L$/N	Ave. L$	Posts
OPEN Mean (N>20)	Open	90.4	22.9	$832.5	$12.12	$31.18	2.40
CLOSED Mean (N>20)	Closed	77.4	26	$802.5	$16.19	$46.57	N/A
Overall Open Mean	Open	37	9	$312.5	$7. 33	$27.27	1.40
Overall Closed Mean	Closed	32.6	13	$383.3	$14.48	$33.24	N/A

The following graphical representations analyze the six variables aggregated across both Open and Closed Access lending teams for all the worst-performers.

BOTTOM PERFORMING OPEN & CLOSED ACCESS CATEGORY COMPARISON



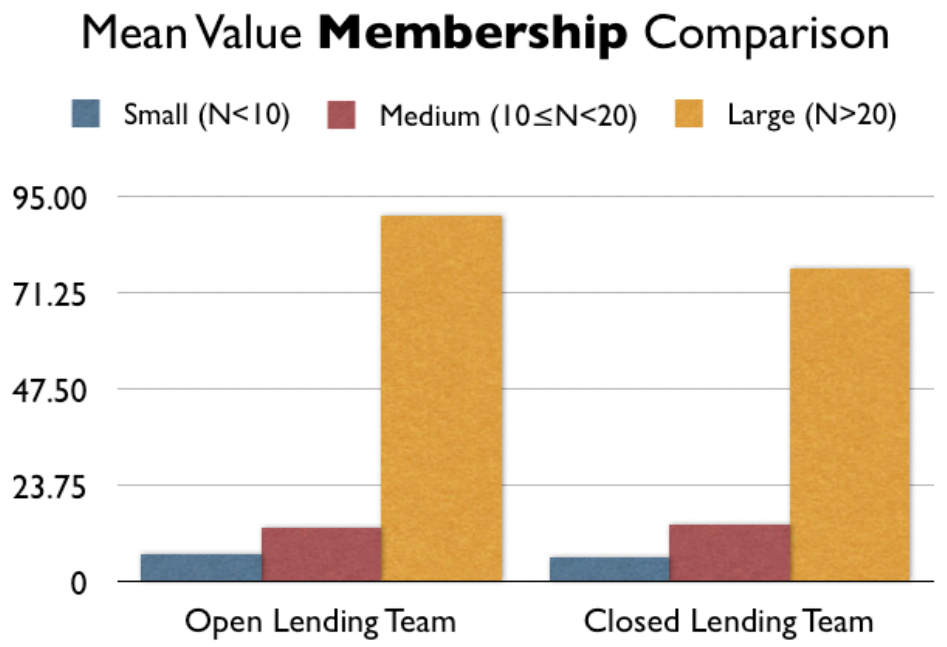
Note: Lending Team Categories with only one occurrence excluded.

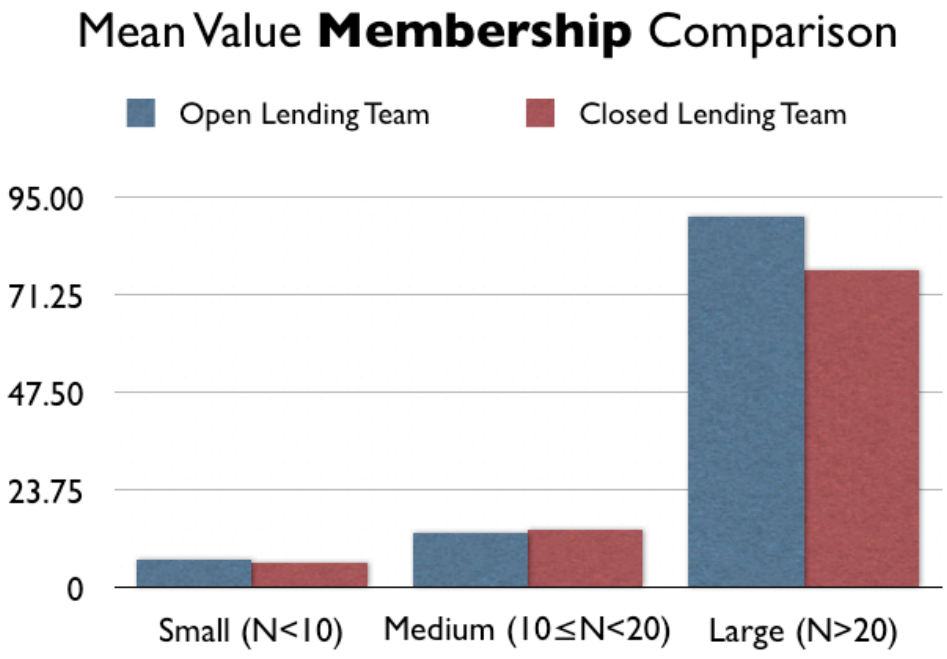


Note: Lending Team Categories with only one occurrence excluded.

Comparing Lending Team categorization across Bottom Open and Closed groups, there were fewer repeat categorizations among Open teams. Among the worst performing Open Lending Teams, "Common Interest," "Local Area," "Schools," and "Colleges/Universities" were the most common classifications. Among the worst performing Closed Lending Teams, "Schools" was by far the most common, followed by" Friends," and "Families" as sources of group classification.

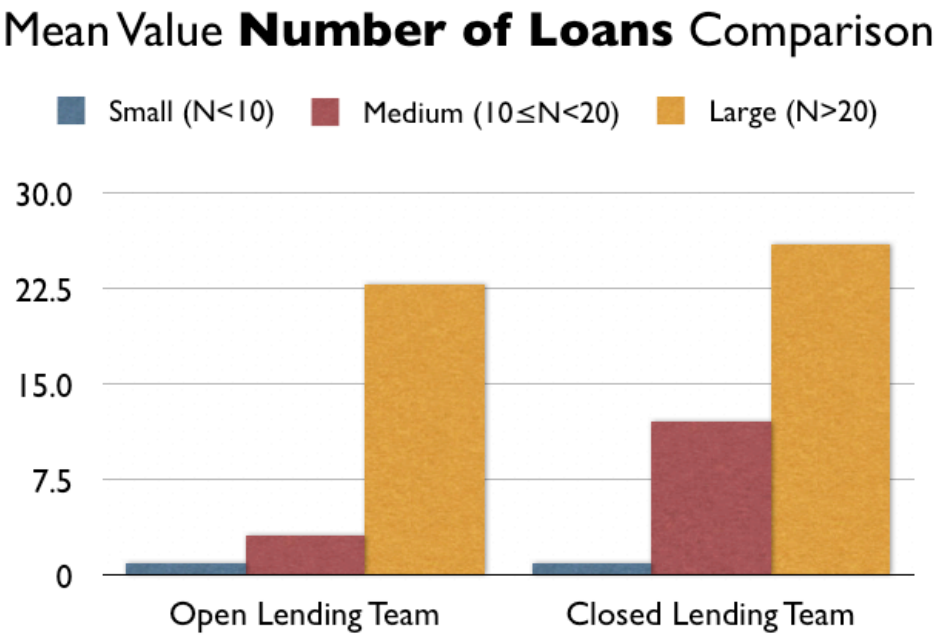
BOTTOM PERFORMING OPEN & CLOSED ACCESS MEMBERSHIP COMPARISON

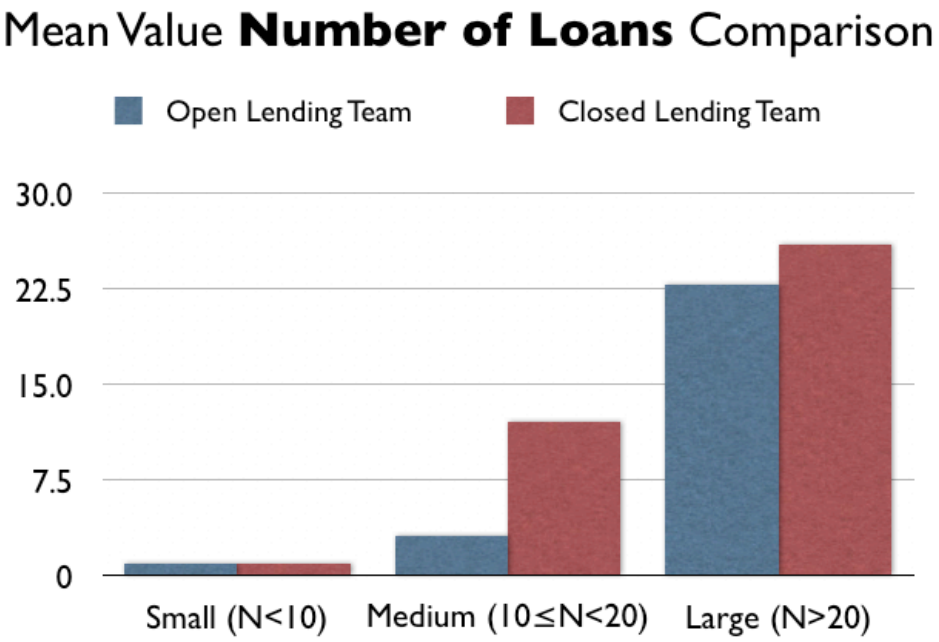




Across the Bottom Ten Lowest Per Capita Lending Teams, membership size is nearly identical except among large teams. Amongst Large (N>20) teams Bottom Open Lending Teams are significantly bigger than Bottom Closed Lending Teams.

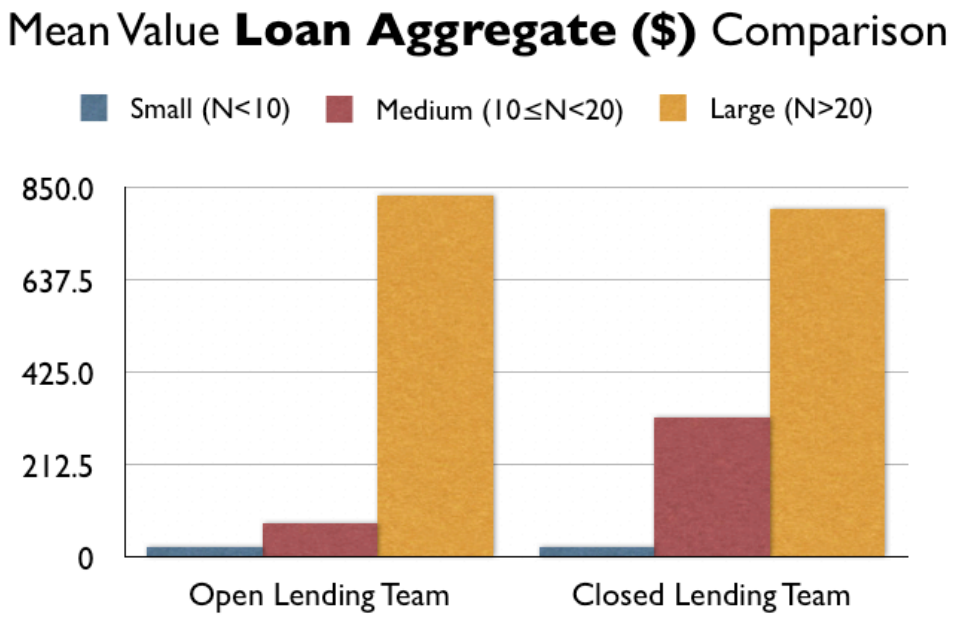
BOTTOM PERFORMING OPEN & CLOSED ACCESS
NUMBER OF LOANS COMPARISON

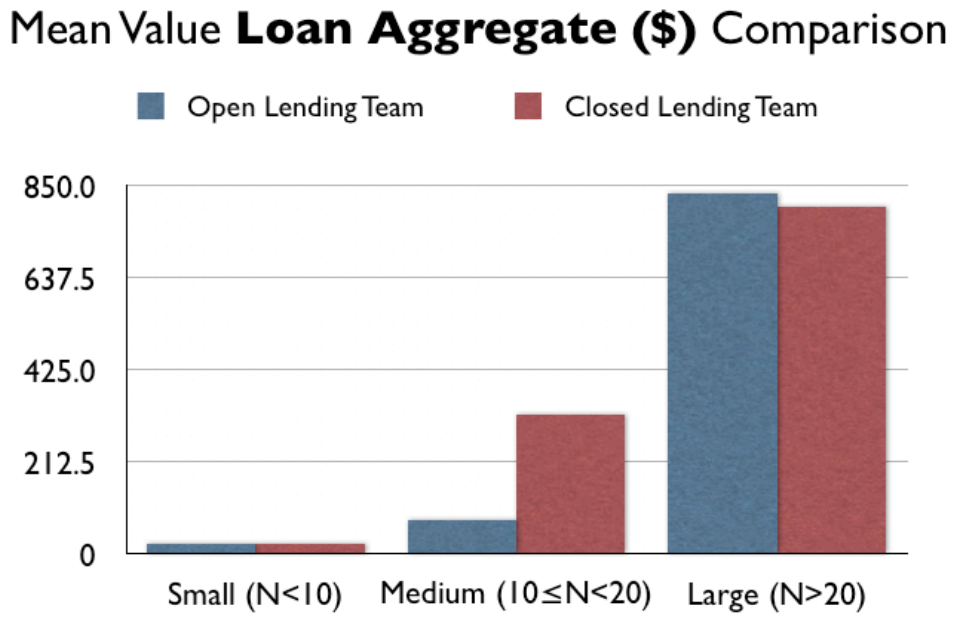




Looking across Bottom Open and Closed Lending Teams, the Number of Loans provided has the largest discrepancy when teams have between 10 and 20 members. Within medium size teams, Bottom Medium Closed Lending Teams provide roughly three times as many loans as Bottom Medium Open Lending Teams. Additionally, for Bottom Large Lending Teams, Closed Teams again provide a slightly greater number of loans.

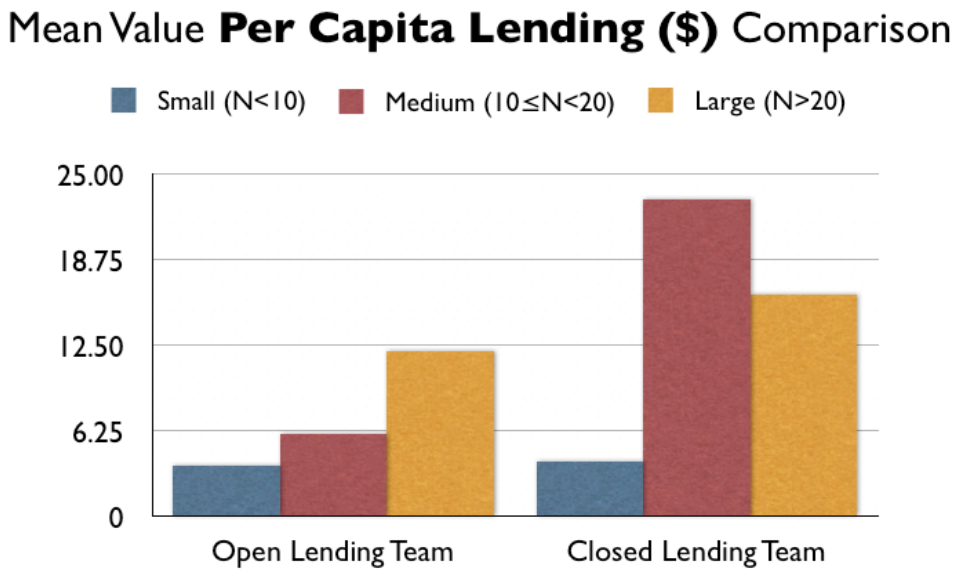
BOTTOM PERFORMING OPEN & CLOSED ACCESS
LOAN AGGREGATE COMPARISON

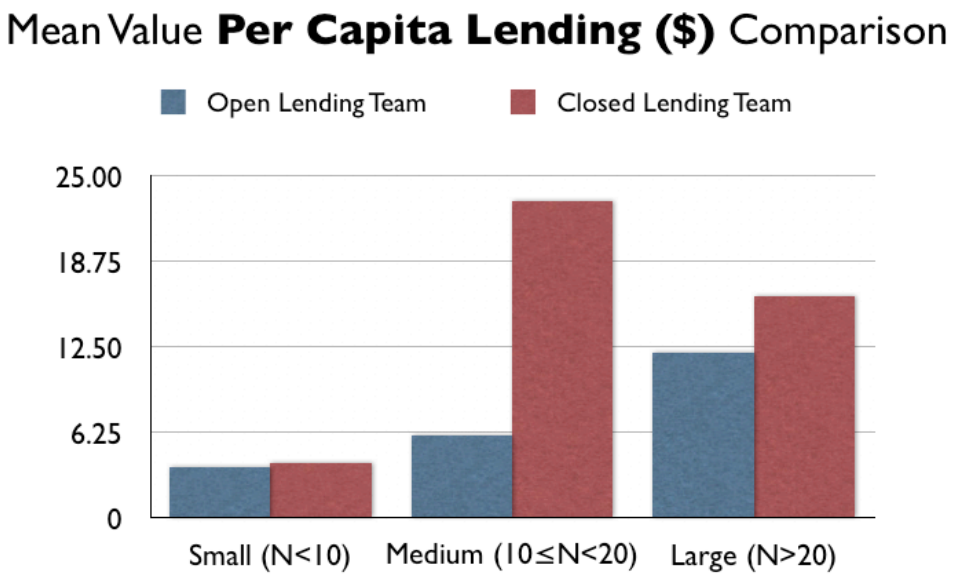




Looking at Bottom Open and Closed Lending Teams total loan amount provided, or loan aggregate, Bottom Medium Closed Lending Teams again lend substantially more money than their Bottom Medium Open Lending Team counterparts.

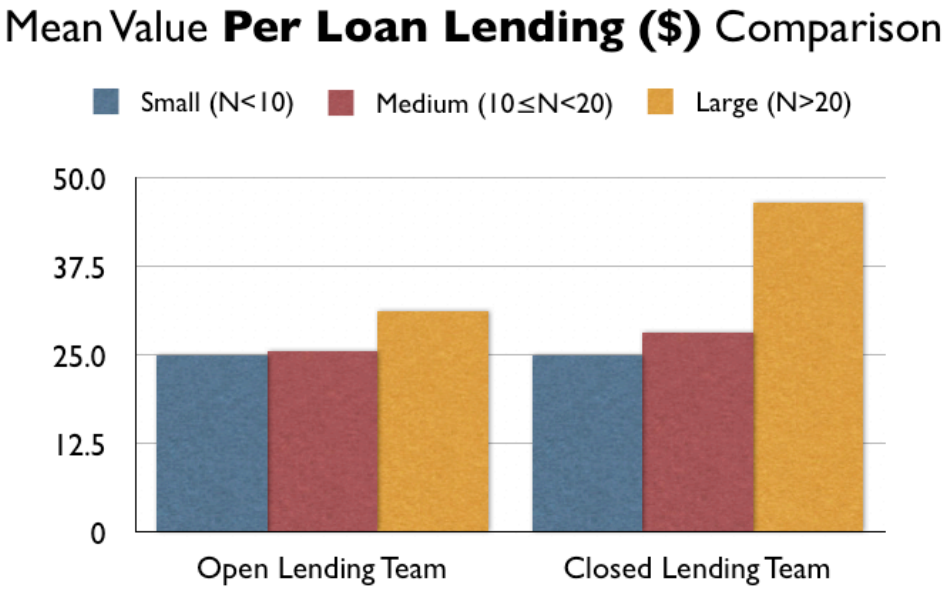
BOTTOM PERFORMING OPEN & CLOSED ACCESS
PER CAPITA LENDING COMPARISON

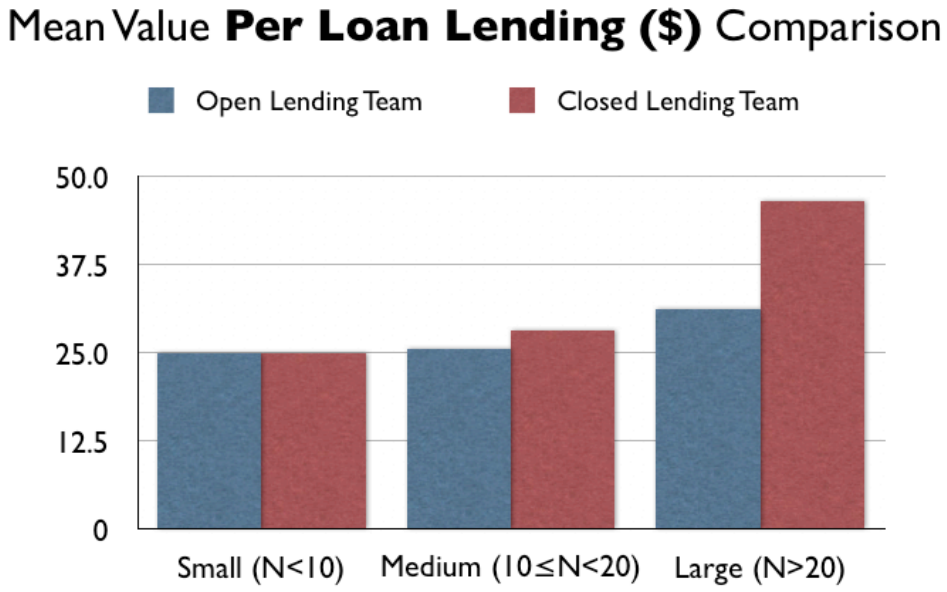




Looking at Bottom Open and Closed Lending Team per capita lending one again sees that while there is little difference between Bottom Small Open and Closed Lending Teams (with membership less than 10) there is significantly greater per capita lending for Bottom Medium Closed Lending Teams. In fact, members of Bottom Medium Closed Lending Teams lend four-times as much money as do members on Bottom Medium Open Lending Teams.

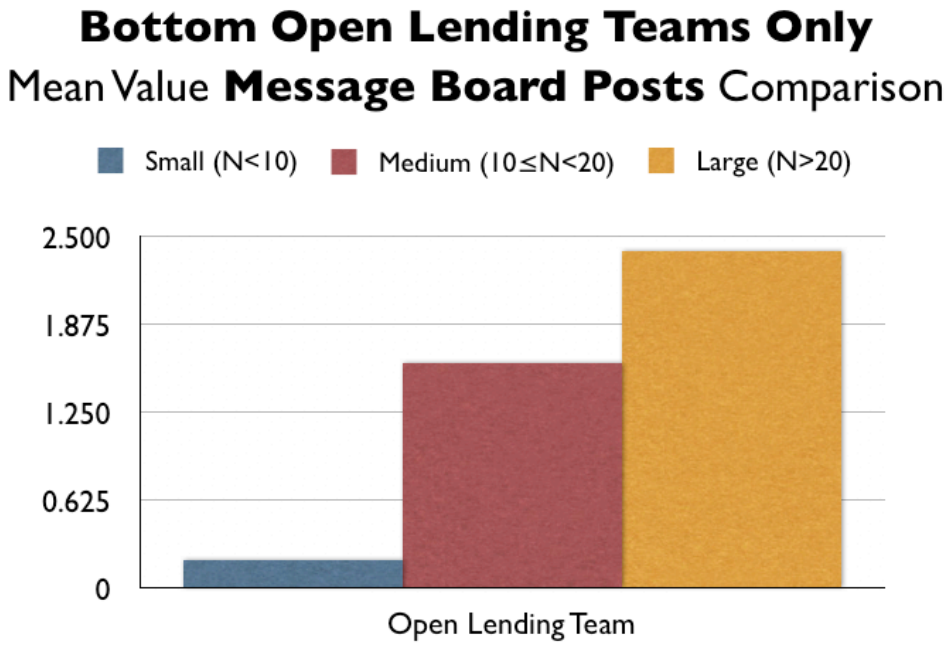
BOTTOM PERFORMING OPEN & CLOSED ACCESS
PER LOAN LENDING COMPARISON





Looking at Bottom Open and Closed Lending Team per loan lending, or the amount of money each loan provides to the entrepreneur borrowing, one sees that there is no disparity between Bottom Small or Medium Open and Closed Lending Teams. Within Bottom Large Lending Teams, however, Closed Lending Teams again have a significantly higher per loan lending average.

TOP/BOTTOM PERFORMING OPEN ACCESS
MESSAGE BOARD POSTING COMPARISON



While message board posts are only observable in Open Lending Teams, within Bottom Open Small, Medium, and Large Lending Teams, the number of posts is remarkably small. While Bottom Small Open Lending Teams essentially did not use the message board, even within Bottom Medium and Bottom Large Open Lending Groups the number of posts was, on average, under three per team. When compared with the Top Small, Medium, and Large Open Lending Groups (below) one might surmise that –among other factors– collaboration on the Kiva.org message board had an impact on effective lending.