The Value of Completing Crowdfunding Projects

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Abstract

Crowdfunding systems are social media websites that allow people to donate small amounts of money that add up to fund valuable larger projects. These websites are structured around *projects*: finite campaigns with well-defined goals, end dates, and completion criteria. We use a dataset from an existing crowdfunding website — the school charity Donors Choose — to understand the value of completing projects. We find that completing a project is an important act that leads to larger donations (over twice as large), greater likelihood of returning to donate again, and few projects that expire close but not complete. A conservative estimate suggests that this completion bias led to over $15 million in increased donations to Donors Choose, representing approximately 16% of the total donations for the period under study. This bias suggests that structuring many types of collaborative work as a series of projects might increase contribution significantly.

Many social media creators find it rather difficult to motivate users to actively participate and contribute their time, energy, or money to make a site valuable to others. The value in social media largely derives from interactions between and among people who are working together to achieve common goals. To encourage people to participate and contribute, social media creators regularly look for different ways of structuring participation. Some use a blog-type format, such as Facebook, Twitter, or Tumblr. Some use a collaborative document format like Wikipedia. And some use a project-based format.

A project is a well-defined set of tasks that needs to be accomplished. Projects usually have a well-defined end goal — something that needs to be accomplished for the project to be considered a success — and an end date — a day by which the project needs to be completed. Much work in society is structured around projects; for example, Hollywood makes movies by organizing each movie's production as a project, hiring a new crew for each movie. Construction companies organize their work as a sequence of projects. And projects are common in knowledge-work based businesses (Hemphill 2009).

Another important place we see project-based organization is in crowdfunding websites. Crowdfunding is a relatively new phenomenon that merges modern social web technologies with project-based fundraising. It is a new form of social media that publicizes projects that need money, and allows *the crowd* to each make a small contribution toward the larger project. By aggregating many small donations, crowdfunding websites can fund large and interesting projects of all kinds. Kickstarter, IndieGoGo, Spot.Us, and Donors Choose are examples of crowdfunding websites targeted at specific types of projects (creative, entrepreneurial, journalism, and classroom projects respectively).

Crowdfunding is becoming an increasingly popular tool for enabling project-based work. Kickstarter, for example, has raised over $400 million for over 35,000 creative projects, and Donors Choose has raised over $90 million for over 200,000 classroom projects. Additionally, crowdfunding websites represent potential new business models for a number of industries, including some struggling to find viable revenue streams: Sellaband has proven successful in helping musicians fund the creation and distribution of their music; and Spot.Us enables journalists to fund and publish investigative news.

In this paper, I seek to understand why crowdfunding systems that are organized around projects are successful. Using a dataset from Donors Choose, a crowdfunding charity that funds classroom projects for K–12 school teachers, I find that *completing* a project is a powerful motivator that helps projects succeed in the presence of a crowd: donations that complete a project are over twice as large as normal donations. People who make these donations are more likely to return and donate in the future, and their future donations are larger. And few projects get close to completion but fail. Together, these results suggest that completing the funding for a project is an important act for the crowd, and structuring the fundraising around completable projects helps enable success. This also has implications for other types of collaborative technologies.

Background and Related Ideas

Crowdfunding

Crowdfunding is the act of soliciting, via an open call, resources from a wide variety of contributors in order to re-

alize a new idea. Crowdfunding can be done in many ways – via an open call on one's webpage, through posting a notice in a public place, or through an organized online marketplace called a crowdfunding website. It is these online marketplaces that I am concerned with in this article.

A crowdfunding website is an online marketplace where users – who we call project creators – can post ideas for projects (art projects, businesses, bands, classroom exercises, etc.) and other users – donors – can contribute small amounts of money toward funding those projects. By aggregating large numbers of small-amount contributions, these sites enable project creators to raise funding for a wide variety of projects.

Crowdfunding websites are a relatively new phenomenon; Modern Internet technologies enable crowdfunding because they permit low-cost, centralized advertising of project ideas, secure and trustworthy contribution to those projects, and simultaneous solicitation by a large number of projects. Recent years have seen the rise of a wide variety of crowdfunding websites (Greenberg and Gerber 2012), including Kickstarter (which funds creative projects), IndieGoGo (which funds a wide variety of ideas and new businesses), Spot.Us (which funds investigative journalism), Sellaband (which funds musicians) and Donors Choose (which funds K–12 classroom projects).

Project creators sometimes solicit purely altruistic donations, but often creators offer something in exchange for donation. These exchanges to fall into three categories: rewards, product pre-orders, and equity. Rewards are usually small tokens of appreciation that are attached to different levels of contribution, such as an acknowledgement at the end of a crowdfunded movie, or thank you letters from students who used crowdfunded supplies in their classroom. Product pre-orders are contributions that effectively "preorder" a product, to be delivered at a later date. Product pre-orders are an effective way to raise initial capital to create a new product. Equity is currently relatively rare as a crowdfunding exchange in the US, though the recent JOBS act (H.R. 3606, 2012) explicitly legalized using crowdfunding for equity exchanges. The various crowdfunding websites have differing levels of support for each of the types of exchange.

In addition to the explicit exchange, crowdfunding almost always includes some benefit to the public. For product pre-orders, the public good is the ability to purchase a product on the open market, as usually the product won't exist without startup capital. In more altruistic marketplaces like Donors Choose or Spot.Us, the public good is a more traditional public good such as news or education. Indeed, Belleflamme et al. (2012) argues that in the absence of any public good aspect, crowdfunding theoretically "yields exactly the same outcome as seeking money from a bank or equity investor." In other words, the primary reason that someone would prefer crowdfunding as a method of raising capital is because of the public good aspects of what is being produced.

Project creators choose to use crowdfunding websites to raise capital for a number of reasons. Gerber et al. (2012) identifies six reasons beyond the obvious reason of needing capital: expanding awareness of one's work, maintaining creative control over the outcome, measuring supporter interest in the project, making longer-term connections with customers, gaining approval and confidence in the project, and to learn more about business and fundraising. Belleflamme et al. (2012) finds that, at least when offering product pre-orders via crowdfunding, it is the high-value customers that are most likely to contribute to a crowdfunding project, thus suggesting that the connections made with customers through crowdfunding are likely to be high-value.

Projects posted on crowdfunding websites have a surprisingly high likelihood of being funded. 43–47% of projects on Kickstarter are fully funded (Mollick 2012; Kickstarter 2013) and 43.5% of projects on Spot.us are fully funded (Jian and Usher 2013). Mollick (2012) uses data from Kickstarter to find that projects are more likely to be successful if they ask for smaller amounts of money, they are created by someone with a large social network, are higher quality projects to start with (as indicated by the presence of a video), and fit in with the culture of the city the creator lives in (such as music projects in Nashville, TN or film projects in Los Angeles, CA).

People donate to crowdfunding projects irrespective of geography (Agrawal, Catalini, and Goldfarb 2011), though friends and family are often the initial donors that provide the first contributions (Shin and Jian 2012). Using qualitative interviews, Gerber et al. (2012) find five motivations for people who contribute to crowdfunding projects: collecting rewards, helping others achieve their goals, supporting like-minded people, being part of a community, and supporting a cause. Confirming this with empirical data, Shin and Jian (2012) find that people who find contributing fun, or who like contributing to friends and family contribute the most money to crowdfunded projects.

Goals and Completion

Projects on crowdfunding websites frequently have to specify a concrete, numeric fundraising goal. There has been substantial work in the field of Psychology about the influence that setting goals has on motivation. Locke and Lantham (2002) summarize much of this literature. In particular, they make a number of points relevant to crowdfunding goals, though they are mostly talking about contributions of time and effort:

- People contribute more when assigned goals that are challenging
- People contribute more when assigned specific, numeric goals
- People contribute more when assigned individual goals rather than group goals

There is some disagreement about the effect of how challenging a goal is. Locke and Lanthan (1990) found that more challenging goals are always better, up until the goal reached the limits of ability (Erez and Zidon 1984). Atkinson (1958) suggests that there is a curvilinear relationship, and that motivation wanes if the goal is too difficult. This suggests that moderate, attainable goals produce the most contribution.

On a crowdfunding website (or other collaboration technology), the goals are usually group-level goals. Raising

enough money to do a project requires multiple people's contribution. Both psychology and economics have found that these type of group-level goals lead to reduced contribution.

Social psychologists have identified the problem as one of *social loafing*, which is the reduction in motivation when individuals work collectively (Karau and Williams 1993). Specifically, psychologists see the problem when people work together on a group outcome, and not when individuals work co-actively on separate individual outcomes. This difference is one of perception; an individual only social loafs when he or she perceives a group outcome rather than his or her own individual outcome.

A meta-analysis (Karau and Williams 1993) of the social loafing literature proposed a useful model that integrates the results of many experiments into a coherent theory. The basic logic of the theory states that "social loafing occurs because there is usually a stronger perceived contingency between individual effort and valued outcomes when working individually." Basically, people are less motivated to work toward group goals because they can't see as strong of a connection between their effort and the final outcome that they value as they can for individual work. Therefore, social loafing can be reduced by increasing the perceived value and importance of the individual contributions, and the salience of their connection to the final outcome.

Economists identify this problem as the problem of *voluntary provision of public goods*. A public good is anything whose benefits to the public can't be limited to those who assisted in its creation. Specifically, a public good is non-rivaled — one person using it doesn't prevent others from using it — and non-exclusive — it is impossible to prevent people from using the good once it has been created.

Samuelson (1954) established that when public goods are voluntarily provided, most people contribute very little and instead prefer to free-ride on the contributions of others. More recently, a number of researchers have found examples of free-riding in social media: Adar and Huberman(2000) found that almost 70% of users of a popular peer-to-peer system contribute nothing at all. Of those who contribute to Wikipedia, 50% do not return after their first day of contribution (Jian and MacKie-Mason 2008).

This basic finding is fairly extreme; for many public goods it predicts that no one will contribute any amount at all! The problem is that in the Samuelson model, all contributions are equivalent. Each person would prefer that others contribute so that he can save his budget for personal use. However, many people prefer that the contributions come from themselves. An improved theory includes the idea that some people receive a *warm glow* from contributing to a public good (Andreoni 2006). Warm glow, as a motive for contribution, is slightly different than altruism. Andreoni (2006) uses a great metaphor to illustrate the distinction:

> Just like hunger tells a person it is *time* to eat but taste buds tells the person what they *want* to eat, it is altruism that should tell you what to give, but warm-glow tells you how much to give.

Crowdfunding projects that have a concrete, well-defined numeric goal are likely to motivate people to work hard to achieve that goal. However, because it requires multiple people to achieve the goal, it is possible that people will social loaf or free ride, hoping that others will work toward achieving the goal.

Basic Facts about Donors Choose

Donors Choose is a US-based charity that focuses on helping school teachers improve their teaching by funding classroom projects, but allowing donors to explicitly choose which project their donation goes to. K–12 school teachers post project requests on the Donors Choose website. These requests include a total amount of money needed to do the project, and a detailed list of resources that the teacher would buy with the money.

Donors Choose has a detailed vetting process for projects. They verify the teacher, the school, and the project by calling the principal of the school. Unlike many other crowdfunding websites, Donors Choose doesn't give money directly to the project creator; rather, they purchase the equipment, books, supplies, and other resources and send them directly to the school. They have numerous relationships with vendors and use these relationships to procure resources at good prices. They also manage a "thank you" program where school kids who are funded by Donors Choose send thank you notes to the donors who funded the project.

Unlike most charities, donors are able to choose exactly which project their money will go to. Donors Choose uses an *all-or-nothing* rule: if a project doesn't receive the total requested amount by the specified deadline (usually 6 months after project posting), then donations are refunded. Refunded money is placed in an account on Donors Choose such that the donor can repurpose the funds for other projects, or the donor can choose to allow the original target teacher to repurpose the money on their behalf.

Donors Choose began accepting projects across all 50 US states in September of 2007. While my dataset includes data from before this event, I've limited my sample to only projects posted on or after this date. This was done to limit confounds due to regional specificity and the limited structure that Donors Choose had before going national. The dataset includes all projects and donations before February 17, 2012.

There were 344,196 projects posted on Donors Choose between 9/1/2007 and 2/17/2012. 224,262 were successfully funded; 23,154 are still active, and 96,780 were not funded, for a funding rate of 69.85%. Funded projects raised a total of $92 million over approximately five years, raising an average of $410.68 per funded project.

These projects received 1,679,950 donations from 818,184 donors. However, some of these donations were corporate "matches" through matching donation programs that Donors Choose runs. There were 1,580,065 non-match donations from 818,159 donors, and there were 99,885 matches from 333 donors. (Note: some donors donated both directly and via matches). In the rest of the paper, original donations were preserved but automatically applied matching donations were removed from the analysis. The average

donation was over the five year period was $58.11, though this average has been steadily decreasing over time — in 2007, the average donation was $101.99, while so far in 2012, the average donation is $34.63.

Donors Contribute More to Complete a Project

One of the most important questions around crowdfunding is why donors contribute. Or, rather, what influences whether a donor is willing to contribute, and what influences how much they contribute. Shin and Jian (2012) previously found that friends and family of the project creator are major contributors. Agrawal, Catalini, and Goldfarb (2011) found that people who are ideologically similar are (in aggregate) more likely to donate and fund projects. Gerber et al (2012) identified five motivations for donating. However, few people have looked at donation sizes; what influences how much money people are willing to donate?

Gerber et al (2012) and Mollick (2012) suggest that donors to Kickstarter primarily choose their donation size based on the rewards associated with different size donations. However, on Donors Choose, there are no amount-based rewards or other signals of donation size.

On Donors Choose, this flexibility to choose donation sizes means that donations run from very small ($1) to very large ($10,000 or more). However, I found one particularly interesting pattern: people choose to make significantly larger donations in order to completely fund a project. Looking just at funded projects, non completion donations average $36.54. However, a donation that completes the project averages $207.08, which is over five times larger!

To try to pull this difference apart, I conducted a mixed-model linear regression to try to identify factors that influence the amount that a person chooses to donate. I treated repeat donations from the same donor as repeated observations and clustered them. Model 1 in Table 1 shows the results of this regression model.

After controlling for the whether the project was fully funded (funded projects receive donations that are on average $10 larger than non-funded projects), the amount requested by the project (larger projects frequently get larger donations), and the amount already donated to the project (more donations mean both a more popular project and less need), I was still able to identify a very large increase in donation size. Donations that complete projects average $93 larger than other donations. This *completion bias* is robust, and present across projects of different sizes.

It is not straightforward to estimate the size of the *completion bias*: how much more money does a person donate when they complete a project? Table 1 shows three mixed model regressions that try to estimate this effect size. Model 1 controls for basic project properties. Model 2 includes controls for a donor's first contributions on the site; initial interactions can strongly influence future behavior (Burke, Marlow, and Lento 2009). Model 3 controls for whether a donor has ever completed a project before. All three models control for the fact that some people simply donate more by using donor-level random effects. All three models suggest that completion donations are $74–$93 larger than non-completion donations, which makes them over twice as large as the site wide average donation of $58.

This analysis excludes "matching" donations: pools of money donated mostly by corporations that are used to offer extra incentives in the form of "Double Your Impact" matched donations. Therefore, these matches do not inflate the estimation of the additional effect of completion.

Donations that complete a project frequently come after a significantly longer wait than donations that don't complete a project. Normally, the average is 3.79 days between donations; completion donations however average 5.25 days after the prior donation.

Donations that complete a project are much more likely to come from a donor who has donated before. Approximately 44% of non-completion donation were from a donor who had donated previously; but 79% of completion donations came from a donor who had previously donated to another project on the site.

Completion Bias Discussion

On a crowdfunding website, donations are risky. If a project doesn't receive enough donations from other users, then the donation isn't accomplishing its goal. The donation can be repurposed for other uses, though those second choices are not as desirable (or they would have been first choices). The money in those donations is tied up, unused, for a period of time while we wait to see if the project is completed. And there is an emotional letdown when the donation doesn't achieve its goal.

Therefore, it makes sense that donations that complete projects are larger. While all donations run the risk of the project failing, these donations don't have the risk associated with the project not receiving sufficient funding; if you complete a project with your donation you know it is directly going to the intended project.

There are three possible explanation of why completion donations are larger: 1) It could be that individuals that naturally make larger contributions are more willing to contribute if they can complete a project. 2) It could be that large donors delay their donation until they are sure the project will be fully funded. Or 3) it could be that individuals who have already chosen to donate increase the size of their donation in order to complete a project. The first explanation is a selection effect of who contributes, the second explanation is a timing effect, and the third explanation indicates a change in decision by a single individual.

With the data I have, I cannot definitely distinguish between the three explanations. However, I suspect that the selection effect and the timing effect is minor because completion donations take longer, rather than shorter, to find the donor that will make the donation. The selection effect would predict shorter wait after the 2nd-last donation, since the possibility of completing a project would increase the pool of potential donors. The timing effect would also predict shorter waits, as people who were waiting are now able to complete the project.

It is possible that once a project receives most of its goal, then potential donors' interpretation of the goal might

	Model 1	Model 2	Model 3
(Intercept)	8.81 ***	7.90 ***	4.60 ***
Completed	93.08 ***	73.97 ***	86.62 ***
Project Funded?	9.96 ***	10.96 ***	10.35 ***
Dollars Requested by Project	0.024 ***	0.024 ***	0.024 ***
Dollars Already Donated	-0.023 ***	-0.024 ***	-0.024 ***
Donor's First Project Funded		-2.29 ***	
Donor Completed First Project		42.88 ***	
Previous Completion			25.71 ***
σ^2 for groups	27.73	27.16	26.68
N	1,580,065	1,580,065	1,580,065

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Table 1: Mixed-model Linear Regressions for the amount donated in each contribution. Individual donors formed the groups to control for donor-level effects. *Completed* is an indicator of whether this donation completed the project (brought the total to or above 100%). *Project Funded* is an indicator of whether the project eventually received funding.

change. If the amount being requested is far beyond a donor's willingness to pay, then he or she might see the project goal as a group goal, but once it gets within what that donor can afford, he or she might start to see the project goal as an individual goal. This may influence him or her to contribute more to the project since they will be completing the project.

The default way to browse Donors Choose includes projects that are 'almost funded' – that have most, but not all, of the funds they need. This may affect the likelihood of any individual donor contributing the final donation; however, it isn't clear how presence on this almost funded list would cause the donor to contribute a larger donation once they've decided to donate.

Donors Learn over Time

On Donors Choose, 21% of donors have donated to multiple different projects. This means a total of 178,544 donors have returned to the site to donate a second time or more. Are these subsequent donations different? Do donors learn from past experience with the site and behave differently than first-time donors?

Donors appear to learn about donating over time, and that learning leads to them donating larger amounts to a project. For donors who donate multiple times, their first donation averages \$43; subsequent donations average \$70. That is, as a person donates to more projects, the donations get larger. Figure 1 illustrates the average donation size for the Xth donation by a given donor. Notice that the donation amount continues to increase for approximately the first 20 donations and then starts to level off, though it continues to increase slowly beyond that.

The results of the first project that a donor contribute to have a large influence on subsequent donations. The likelihood of being a repeat donor drops from 29% for people whose first donated-to project isn't funded, to 20% for people whose first project is funded. This could be because, when a project isn't funded, one option is for the system to "return" their donation in the form of a credit that can be applied to other projects. Donors are likely then to make a
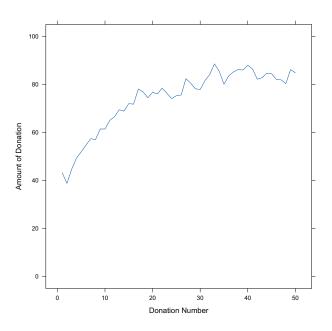

Figure 1: Average amount of donation for X=1st, 2nd, etc. donation from a donor, for the donors who have contributed multiple times.

second donation with their credit if the project they first donated to isn't funded. Given that, it is surprising that only 29% of people whose project isn't funded actually return to donate again.

On the other hand, if a person's first donation completes a project, the likelihood of returning and donating again is dramatically higher. The likelihood of being a repeat donor increases from 20% for people whose first donation doesn't complete a project to 55% for people whose first donation does complete a project. This means that not only do people donate more money to complete a project, but they also are much more likely to return and donate again.

Donors who have success in their first project subse-

quently make larger donations than donors whose first project isn't funded. Considering only repeat donors, the average donation size is $9 larger for people whose first donation goes to a project that eventually gets funded: $33 vs $42. And if a person's first donation actually completes a project, then their subsequent donations are substantially larger. Considering only repeat donors, the average donation size is $69 larger for people whose first donation completes a project.

However, these effects might be biased by the fact that people who complete one project are more likely to complete future projects also. So I ran another mixed-effects model (Model 2 in Table 1) that separates out the effects of funding a project or completing a project. Even controlling for the increase in donation size associated with completing a project, if a person's first donation completes a project, then subsequent donations are approximately $42 larger than donations from people whose first donation doesn't complete a project. This is a substantial increase in donation size that comes from a person completing the first project they donate to.

Donor Learning Discussion

Crowdfunding is one type of social media. Previously, Burke et al (2009) found that receiving a positive response to initial contributions increases the likelihood that a newcomer will continue to share on Facebook. If this result held on crowdfunding websites, then we would expect to see that having success on initial contributions would increase the likelihood that a person returns to donate further. However, we found mixed results; simply donating to a project that eventually is fully funded isn't enough to get people to return more, but being the donor that completes the project does induce more repeat donations.

Sharing on Facebook requires contributing time and ideas, but not money. Money can be returned to the donor if it isn't needed, but time and ideas — i.e. Facebook posts — cannot be returned to be reused. This return actually seems to create a counter-effect for initial contributions. By returning monetary contributions when a project doesn't receive enough donations, Donors Choose has motivated the user to return and donate again, thus counteracting any discouragement that the user might feel when their chosen project isn't funded.

These results also increase our understanding of the completion bias. In the previous section, we found that users donate significantly larger amounts in order to complete projects. In this section, we found that when that happens, users are more likely to return and donate again, and when they return, they make substantially larger donations even if they aren't completing a project. This suggests that the people who complete projects add a lot of value (and money) to the crowdfunding system, above and beyond simply being another donation.

It isn't clear, however, whether this is a selection bias or whether this is a motivational effect. It is possible that there is a certain kind of person who likes to contribute large amounts, but they primarily contribute when they know they will complete a project. This would be a selection
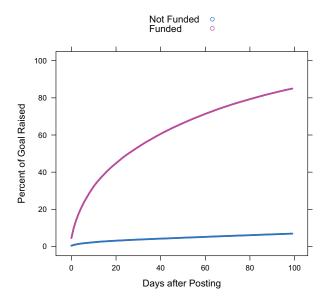

Figure 2: The average percentage of a project's goal that is raised increases over time. Funded project grow much more quickly.

bias in who donates. It is also possible that completing a project provides additional motivation to contribute, and to donate more money in the future. If the latter is true (motivation effect), then encouraging first-time donors to complete projects might be a valuable way to increase donations in the future. However, if it is selection, then finding low-risk ways for these people to contribute might be a better strategy to encourage contributions.

Projects Clearly Fail or Succeed

Projects that end up fully funded tend to grow very quickly after being posted to the site. However, projects that don't end up fully funded grow much more slowly, right from the start. Figure 2 illustrates this pattern. While fully funded projects receive at least 100% of what they request, the average non-funded project only received 18% of its request. In fact, only 4.1% of non-funded projects receive more than 50% of what they request (Figure 3, and half of all unfunded projects don't receive any donations.

While it is possible that a funded project can receive more money than it asked for, 97.48% of funded projects received *exactly* what they requested, and not a penny more. Funded projects achieve full funding an average of 49 days after being posted (Figure 4).

This suggests that it may be possible to determine, ahead of time, how likely a project is be funded. To test this, I created a heat map (Figure 5) that shows the probability of funding if a project has raised $Y\%$ of their money after X days. Projects that start quickly have a much higher probability of funding than projects that start slowly. For example, after one week, if you've raised 50% or more of your funds, then you have at least an 85% chance of completing your project.
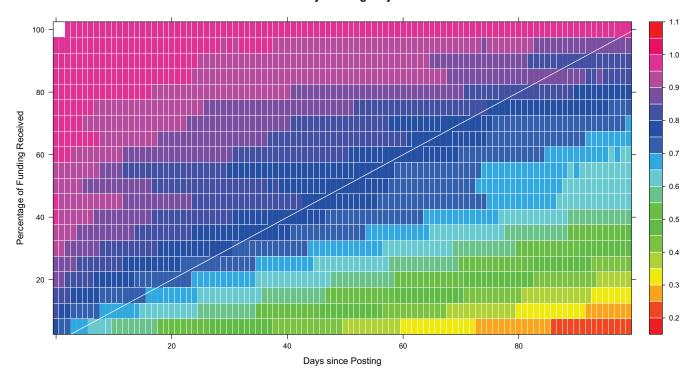
Probability of being fully funded

Figure 5: A Heatmap of the probability of a project being funded, conditional on having raised at least Y percentage of its goal after X days. The white line represents a project that raises approximately 1% of its goal per day.
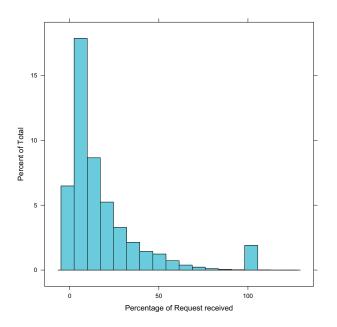

Figure 3: Percentage of funding received for unfunded projects that received donations. The 100% projects are projects where the original creator asked to have the money reallocated.
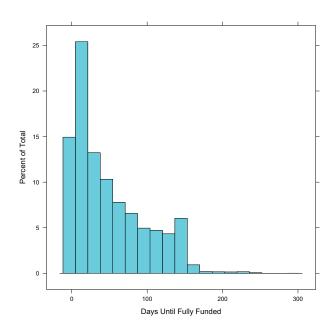

Figure 4: Distribution of Length of Time till Funding for fully funded projects

The white line in Figure 5 is the 45 degree line, which corresponds to a project gaining 1% of its goal per day. Gaining 1% per day allows a project to maintain the baseline probability of funding of approximately 70%. On Donors Choose, if a project gains funding faster than 1% per day, then their likelihood of being funded increases. Projects that receive donations slower than 1% per day are less likely to receive funding. However, funded projects only receive a average of 6.68 donations (and unfunded projects receive less than half that), so while 1% per day is a reasonable goal, real donations are very coarse-grained.

Project Success Discussion

Funded projects obviously receive a larger percentage of the funds they need than unfunded projects. However, the difference between funded and unfunded projects is surprising. It isn't the case that many projects get close to being funded, with some making it and other not. Rather, if a project gets close to being funded, it is highly likely that it will receive the remaining contributions needed to complete the project. This finding echoes a similar finding by Mollick (2012) on Kickstarter, and adds further support to the idea that *completing* a project is valued above and beyond individual donations.

One possible explanation for this difference is the website highlighting "almost funded" projects. Many crowdfunding websites like Spot.Us and DonorsChoose include this list on the front page of the website. If a project can get close, then it will be highlighted by the platform, which will give it the boost needed to finish. However, Figure 5 suggests that an almost funded list isn't the reason for the stark difference between funded and unfunded projects; there is no level of funding that jumps a project to high likelihood of success. Also, Kickstarter doesn't have such a list of almost funded projects; therefore, the difference that Mollick found on Kickstarter cannot be due to an almost funded list.

Projects that have received most of their goal in donations are at a very low risk of not being funded. However, people make larger donations in this circumstance, not smaller donations, contrary to the predictions of social loafing theory and public goods theory. This suggests that people may not realize that almost funded projects are highly likely to be completed even if they didn't increase their donation size. These theories might need to be adjusted to better understand why people seem to contribute more to complete a project.

Conclusions

Crowdfunding websites are a new form of social media that facilitate transfers of money to enable larger projects to find the funding they need. Donors Choose has built a charity around this model, allowing school teachers to propose classroom projects, and interested donors to contribute financially to specific projects.

There is a clear *completion bias* on Donors Choose: donations that complete a project by raising its total up to its goal are significantly larger than normal donations. Completing a project appears to have special appeal. This completion

bias also leads to donors being more likely to return and donate again in the future, and to larger future donations. Also, It is possible to identify the probability of raising the full amount requested fairly early in the project's fundraising period. This is because most projects either receive all of their money, or fail to receive much at all.

Implications for Crowdfunding

Crowdfunding websites have chosen to structure their fundraising as a series of *projects*: well-defined tasks that have a clear, predefined amount of money needed and an end date by which the money is needed. Structuring the fundraising as a project means that these project can be *completed*, and people who place a high value on completing projects are more likely to donate.

Donors Choose, in particular, is a charity that has raised over $92 million in the last 5 years. By structuring these requests as a series of small projects, they have been able to take advantage of the fact that *completing* a project is highly valuable. This led to more and larger donations than if they had tried to raise the money directly through traditional donations. The most conservative estimate presented in this paper for the size of the completion bias is that each donation was increased $74 on average when it would complete a project (not counting increases in future donations from the same person). If we assume that donors contributed $74 more to complete a project than they otherwise would have, and there were more than 200,000 completion donations in the last five years, then this conservative estimate means that structuring their fundraising as small projects increased donations by more than $15 million.

Implications for Social Media

Crowdfunding website are not the only form of voluntary, collaborative technology that is structured around projects. Wikipedia has a series of Wikiprojects: well-defined projects that encourage editors to improve specific portions of Wikipedia. Open Source software development is often structured around well-defined releases or versions. Many multiplayer games are structured around missions or goals.

All of these forms of collaborative technology don't need to be structured into projects; most of them could exist without well-defined end states. However, adding support for projects into collaborative technologies has the potential to tap into people's motivations to complete projects, and therefore yield greater contributions and potentially overcome social loafing and free riding problems inherent in group work.

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