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## Crowd Sourcing in Capital Formation: An Empirical Investigation

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# **Crowd Sourcing in Capital Formation: An Empirical Investigation**

## **Abstract**

Recently a new type of institution has emerged, crowd funders. These entities: 1) channel funds to create intellectual property; 2) gather information on project and entrepreneur quality; and 3) gauge demand information directly from individuals to improve the efficiency of capital allocation. Data from crowd funder Kickstarter allow new insight on capital formation and entrepreneurial venture contracting. This source includes all cases where entrepreneurs try yet fail to raise funds, a feature heretofore unavailable to researchers. This paper empirically examines determinants of capital raising success including the role played by entrepreneur reputation.

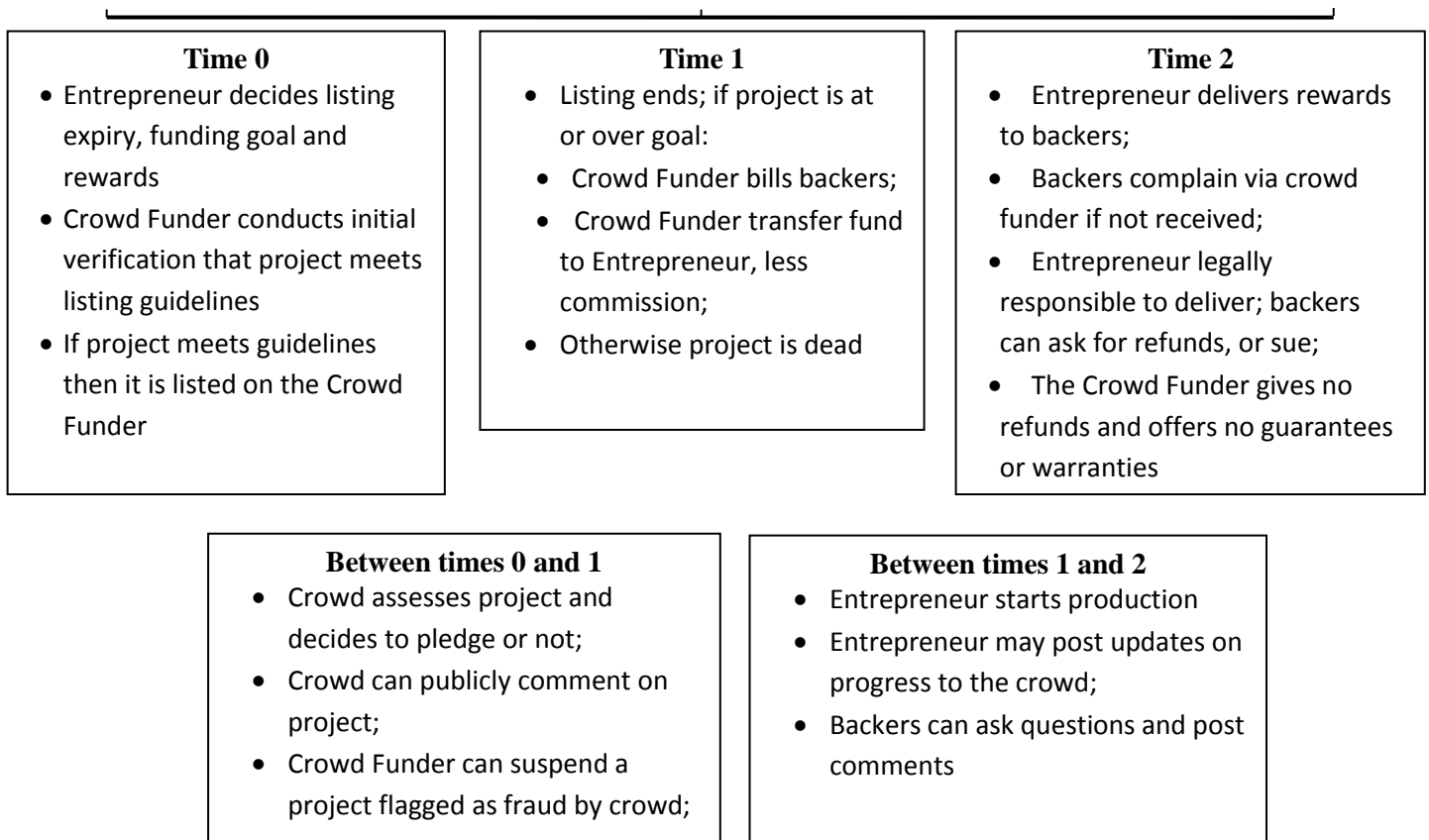
## Introduction

*"This spring, Kickstarter campaigns for a movie based on the Kristen Bell TV series 'Veronica Mars' soared to \$5.7 million and Zach Braff's proposed film 'Wish I was Here' hit \$3.1 million....."*

*----Wall Street Journal, 21 June 2013*

In the funding of capital projects, Kickstarter is a new type of institution called a crowd funder. **Figure 1** illustrates the process involved. Entrepreneurs set a funding goal, funding deadline, and estimated delivery time. Capital comes directly from individual backers who book a pledge of funds with Kickstarter. The result is all-or-nothing; projects must achieve their funding goals to bind backers' booked amounts and receive the remitted cash. Since 2009, 58,857 successful projects have received a total of \$980 million. While many projects are small, 60 projects raised over 1 million dollars and the biggest raised over 10 million dollars in 30 days in 2012 (**Table 1**). To date, 44% of proposed projects have reached their funding goals (**Table 2**).

**Figure 1: Timeline and Participants:**



From a financial perspective, it is important to ask why this new market exists; how it operates; and how the crowd funder fits in relative to alternative funding sources. The investigation begins by analyzing several important dimensions of this institutional framework: reputation and contracting, and startup creation of intangible assets.

Reputation can serve as an informal enforcement device in theoretical settings with incomplete contracts and informational asymmetries (as in Klein and Leffler (1981 ), Kreps and Wilson (1982 )). In financial institution settings, reputation formation and evolution over time matters, as in Diamond (1989 ).

Connecting theoretical settings to practice is much more complicated and less well understood, as pointed out in MacLeod (2007 ). We plan to empirically examine the effect of entrepreneurial reputation and reputation formation on capital raising process in this paper using a setting, Kickstarter, which overcomes some of the obstacles encountered with banks or venture capitalists. By recording a history of prior successes and failures for each entrepreneur as well as evidence on prior backers' satisfaction, Kickstarter allows a fairly direct approach to exploration of reputation formation.

In the Kickstarter setting, entrepreneurs are obligated to provide each promised reward; yet, since most rewards are small, such promises are somewhat impractical to enforce legally. Such limits on complete contracting point to a market where reputation formation should matter. Without a reputation-development incentive, it would be difficult for such contracts to exist because they would likely never be honored.

In addition to entrepreneur reputation, potential backers are also able to observe the level of support from other backers as well as the timing of funds pledged before making their own funding decision. The data thus potentially allow assessment of whether crowd funders can gather correlated signals and select better investments, similar to venture capitalists in Wilson (1968 ) or Sah and Stiglitz (1986).

We offer some of the first direct empirical evidence that entrepreneur reputation matters

in the capital formation process. On Kickstarter, formation of reputation affects capital formation outcomes favorably in terms of both degree and speed for serial entrepreneurs. **Figure 2 Panel (A)** illustrates that better information, in the form of previous backer satisfaction, has important effects in facilitating quicker project funding for serial Kickstarter entrepreneurs. Furthermore, for first-time entrepreneurs, prior reputation before listing on Kickstarter facilitates better funding outcomes and quicker project funding.

Understanding platforms like Kickstarter will also prove extremely important as on-line financial institutions evolve. Following the 2012 passage of the JOBS Act in the US, going forward it will be possible for crowd-sourced capital to be exchanged directly for equity securities. In this way, Kickstarter can be viewed as a halfway step toward transforming traditional venture capital a mass market business.

## **1. Institutional Features and Related Literature**

At least three perspectives are potentially important to analysis of the crowd funding platform: 1) reputation and contracting, 2) information production, and 3) startups and creation of intangible assets.

### *1.1 Reputation and Contracting*

The individual backers of a project receive a fixed specific reward when a project is in good status (successfully funded and reward delivered) and nothing when a project is in bad status. In terms of the lack of upside and the potential of default, this arrangement shares certain characteristics with a debt contract.

Further contractual details do reveal some differences from a debt contract as ordinarily modeled. While entrepreneurs are obligated to provide the promised reward, most rewards are small. Thus, such promises are somewhat impractical for individual backers to enforce legally. Project backers can demand a return of their capital from an entrepreneur if a reward

is not delivered, but in practice backers have limited ability to attach an entrepreneur's assets should no refund be made.<sup>1</sup> Without a reputation development incentive, contracts in this setting might well never be honored.

Reputation regularly serves as an informal enforcement device in theoretical settings with featuring incomplete contracts and informational asymmetries, (Klein and Leffler (1981 ), Kreps and Wilson (1982 )). In these buyer-seller models, reputational capital is defined as the present value of a stream of quasi-rents that a seller earns from delivering contracted quality. Theoretical work by Diamond (1989 ) shows how reputation formation can work in debt markets: incentive problems are most severe for borrowers with very short track records and become less severe for borrowers who manage to acquire a “good reputation” (p.828).

Empirically, evidence on the Diamond model is limited. Gorton (1996 ) uses private bank notes during the US American free banking era (1838-1860) and confirms that the notes of new banks are discounted more heavily than the notes of banks with established payment histories. Lummer and McConnell (1989 ) show that experienced corporate borrowers are rewarded for favorable loan revisions.

The evidence is not plentiful even when looking beyond simple debt contracts. Banerjee and Duflo (2000 ) examine the reputation effect using 230 contracts from the software industry in India and find that reputation matters in the selection of subcontractors. Atanasov, Ivanov and Litvak (2012 ) document that more reputable venture capitalists are less likely to be sued and find that litigants suffer declines in future business. Carter and Manaster (1990 ) show that prestigious underwriters are associated with initial public offerings suffering less underpricing. None of these studies provides direct evidence on the reputation of the capital-seeking entrepreneur.

The on-line setting encourages comparison to vending sites such as eBay; some research

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<sup>1</sup> Out of over 40,000 funded projects, only one formal legal enforcement has taken place regarding in the past 4 years. Neil Singh, a US lawyer and a backer of the project “Hanfree” sued Quest, an entrepreneur who raised \$35,000 for the project. (<https://www.kickstarter.com/projects/831303939/hanfree-ipad-accessory-use-the-ipad-hands-free>)

indicates that on eBay, seller reputation through buyer feedback can affect the selling price.<sup>2</sup> Despite some apparent parallels, Kickstarter is not a store and the backers are not bidding nor pledging to buy any existing product or service. Unlike eBay, Kickstarter itself provides no guarantees of performance.

This paper focuses on the crowd funding industry and reputational capital of entrepreneurs in advanced economies where the legal infrastructure is well established and examines two questions. First, we investigate the impact of entrepreneurial reputation formation on capital formation. Second, we quantitatively evaluate how the entrepreneur's previous existing reputation affects capital formation.

## *1.2 Information Production*

The crowd funding market serves as an information producer and the millions of backers play an important role in providing an initial level of due diligence towards reducing information asymmetry. Compared to the traditional funding process, the time from business idea to market validation is compressed under crowd funding. The crowd market reduces the uncertainty factored as part of the traditional intermediaries' risk calculation, at a minimum, which helps further reduce the cost of capital, as in Stiglitz and Weiss (1981 ).

In effect, the Kickstarter platform acts as would a best-efforts underwriter by effecting a preliminary filtering and book-building to generate, capture and record investor demand for all rewards levels. Benveniste and Spindt (1989 ) argue that book-building is a mechanism that allows the investment banker to extract information from investors which will be useful in pricing the issue accurately. From **Table 2(A)** we learn that most of the projects launched and funded on Kickstarter are for intellectual property or information goods. These ventures tend to have high fixed costs but low marginal costs. Accurate estimation of demand is more valuable in efficiently allocating capital as operating leverage increases.

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<sup>2</sup> See [Bajari and Hortacsu \(2003\)](#) for a survey, and also [Houser and Wooders \(2006\)](#) , and [Archak, Ghose and Ipeirotis \(2011\)](#) ). Limited negative feedback suggests that eBay's guarantees likely play the more important role. Indeed, eBay no longer allows negative feedback at all.

As the dynamic between reward-based crowd funding and traditional sources of funding evolves, it appears that Kickstarter (and by extension other players in crowd funding) is in the process of becoming a potential certifying and investment sourcing channel for venture capitalists, angel investors, and other primary market investors —especially if those projects that survive the de facto screening of the crowd-funding market are deemed the fittest from the investors' perspective.

### *1.3 Startups and the Creation of Intellectual Property*

Kickstarter only allows new creations to be listed, not existing products. Adverse selection may drive unwillingness of investors to fund entrepreneurial ventures. Chan (1983 ) develops a model where intermediaries (VC) play the role of zero-cost, informed agents reducing information asymmetry by screening projects and entrepreneurs.

Further, VC syndication improves the screening and quality of deal flows. First, by studying each other's opinion to invest in promising deals, VCs can gather correlated signals and thus select investments in situations of severe uncertainty about the feasibility and return potential of the investments (Wilson (1968 ), Sah and Stiglitz (1987 )). Second, where individual VCs tend to have expertise that is both sector and location specific, syndication helps diffuse information across sector boundaries and expands the radius of exchange, allowing VCs to diversify their portfolios (Sorenson and Stuart (2001 )).

Reward-based crowd funding parallels and exaggerates VC syndication in that entrepreneurs in this market typically rely on a large number of backers. In addition, potential backers are able to observe the level of support from other backers as well as the timing of funds pledged before making their own funding decision. Consequently, observational learning or cascades and influential backers may play an important role in deciding the outcome of a crowd-founded project. (Sorensen (2008 ))

Equity and debt claims in crowd funding being illegal prior to SEC implementation of



the JOBS Act of 2012, Kickstarter backers receive only non-financial tangible and intangible rewards, in contrast to traditional venture capital equity investors. The backer pool thus appears to comprise at least several types of participants: a) entrepreneur acquaintances who inherit information about the entrepreneur and the project at no cost and may even behave altruistically toward the entrepreneurs; b) potential consumers who want to be involved in a product's creation; and c) crowd funding veterans and potential larger investors who have developed market expertise and who desire to increase their own reputational capital as investors and acquire access to even more promising deals.<sup>3</sup>

## 2. Data and Proxy Measures

The main data for this study are derived from information web-scraped<sup>4</sup> from Kickstarter.

### 2.1 Projects, entrepreneurs, backers and Kickstarter

Kickstarter lists projects only in the following 13 categories: films, games (video or table), design, music, technology, publishing, art, food, comics, theater, fashion, photography and dance (see **Table 2**). Kickstarter defines the term project as “something with a clear end, like making an album, a film, or a new game. A project will eventually be completed, and something will be produced as a result.” Crucially, Kickstarter does not allow projects that simply raise money for causes, for charity, for self support (e.g., “send me to college”) or for reselling or marketing existing products.

An entrepreneur<sup>5</sup> creates a project proposal that includes: description; creator background and expertise; a fundraising deadline (max 60 days); available rewards<sup>6</sup> and estimated delivery times; and the funding goal. The complete history of projects launched by

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<sup>3</sup> Leadership giving to charities is related to this setting as well. See, e.g., Vesterlund, Lise, 2003, The informational value of sequential fundraising, *Journal of Public Economics* 87, 627-657. and Andreoni, James, 2006, Leadership giving in charitable fund - raising, *Journal of Public Economic Theory* 8, 1-22.

<sup>4</sup> Web-scraped: we use a web-crawling program to collect the data directly from the Kickstarter web site

<sup>5</sup> Individuals in the US (since 2009), the UK (since Nov 2012) and Canada (since Jun 2013) are eligible to launch a Kickstarter project if they meet these basic requirements: over 18 years-old with legal ID and bank account.

<sup>6</sup> Rewards are typically items produced by the project itself — a copy of a CD, a print from a show, a limited edition of a comic. Most projects also offer creative experiences: a visit to the set, naming a character after a backer, a personal phone call. ([https://www.kickstarter.com/help/faq/creator+questions?ref=faq\\_livesearch#faq\\_41831](https://www.kickstarter.com/help/faq/creator+questions?ref=faq_livesearch#faq_41831))

the same creator is also shown to the public. The history includes funding status as well as reward delivery information reported by prior backers.

Each reward requires a capital contribution, ranging from \$1 (usually a token souvenir) up to a maximum \$10,000 (often a personal experience, such as a walk-on role in a movie production); the entrepreneur can also offer limited-quantity rewards by stating the maximum number available at a given level. For instance, a movie director might not wish to offer unlimited walk-on roles. Any such limited-quantity rewards must be offered only on a first-come first-served basis.

Each potential investor (aka “backer” in Kickstarter) has access to all of the information discussed above as well as a project’s up-to-the-minute funding status. The current status data include: the funds raised since listing; the number of days remaining until the end of the funding period; other backers’ names and their other funding portfolios; and the distribution of available reward levels.

A particular innovation in the funding mechanism is its all-or-nothing outcome; projects must reach their listed funding goals by the deadline to bind the individual backers and receive any funds. Neither the goal nor the deadline can be changed once a project is listed. An entrepreneur can cancel the project listing before the end of funding period, but the project remains in Kickstarter’s publicly available history of that entrepreneur.

Once a project is successfully funded, Kickstarter charges the backers and delivers the funds to the entrepreneur, less a five percent share. The entrepreneur executes the project and fulfills all rewards. A backer whose reward cannot be fulfilled is entitled to a refund. Backers can post delivery and satisfaction information and commentary on Kickstarter.

## *2.2 Sample construction*

We extract data directly from the Kickstarter website on a daily basis for 2826 projects initiated from 3<sup>rd</sup> May 2013 to 23<sup>rd</sup> May 2013, including each project’s characteristics, the

project's daily updated funding information, and the backers' characteristics. (see **Appendix I: Variables**). Where necessary, we use reputation-related proxies, entrepreneur characteristics, project characteristics and reward characteristics from the first day of the funding period, therefore ensuring no look-ahead bias.

From this initial sample, we construct a subsample of 1403 projects with funding goals over the median (\$5,500) (**Table 3**): 36% of these projects were successfully funded. The average total pledged for non-funded projects is \$3,077 while the average total pledge for funded projects is \$43,926. The average amount pledged from each backer is \$73 for non-funded versus \$129 for funded projects. Most projects require near the sample average of 24 days to achieve their funding goal, but some projects only require a day or two to achieve the funding goal.

### *2.3 Reputation Proxies*

An important problem in empirically testing for the presence of reputation formation effects is that in existing theories, lenders learn by observing defaults or repayments, but these usually happen over relatively long periods of time for most firms. As noted in Gorton (1996), the longer this takes, the more likely the fundamentals of the new firm or entrepreneur and those of seasoned ones will diverge. Kickstarter offers two dimensions of prior performance that can be observed at shorter frequencies: funding performance and delivery performance.

#### *2.3.1 Reputation formation*

Previous funding performance information is disclosed explicitly by the Kickstarter through the entrepreneur's creator listing page and shows whether or not the entrepreneur has been successfully funded before, and to what degree. From 1403 sample projects listed by 1394 unique entrepreneurs from 3rd May to 23rd May, 177 projects had entrepreneurs with

prior listing experience of 274 projects over the period Apr 28th 2009 to May 3rd 2013. On average, these serial entrepreneurs had an average of 1.5 prior successes, and a maximum of 9 prior successes.

Previous delivery performance information is disclosed implicitly on Kickstarter through backers' public comments and entrepreneurs publicly posted updates. Backers post comments remarking on timeliness and satisfaction of entrepreneur delivery. We compute the fraction of positive comments<sup>7</sup> to total comments (about delivery) as a proxy for prior delivery performance. For the 274 prior-experience projects, we hand collect backer comments on delivery performance information by checking all the updates provided by the entrepreneur and comments provided by the backers.<sup>8</sup> If the entrepreneur provided a product release update and there is no comment or complaint from a backer that they did not get their reward, we count both negative comments and positive comments as zero. If there are negative and positive comments, we count the number of negative comments and positive comments in the last 50 comments for each project.

### *2.3.2 Prior Reputation/Renown*

Kickstarter is not the only source of publicity or reputation. To control for prior reputation and renown of entrepreneurs, we use listing presence on Wikipedia as a proxy. Wikipedia specifies standards for creating a listing that are actually quite stringent: "the content of a Wikipedia page must be verifiable and notable<sup>9</sup>, and users must not create pages about themselves, their company, their band or their friends, nor pages that advertise.<sup>10</sup> References to blogs, personal websites, Facebook and YouTube are unsuitable." Auditing this requirement requires transparency; to this end, Wikipedia also discloses the full history of the editing on every page, which provides the exact time of original page creation and all

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<sup>7</sup> Please refer to the Appendix III for examples of negative comments and positive comments.

<sup>8</sup> We only collected and read the last 50 comments if the total comments exceed 50.

<sup>9</sup> Articles that do not meet notability guidelines and do not cite reliable published sources are likely to be deleted. Please check the following link for detailed information: <http://en.wikipedia.org/wiki/Wikipedia:N>; <http://en.wikipedia.org/wiki/Wikipedia:RS>

<sup>10</sup> Please refer to the following link for more detailed policy: [http://en.wikipedia.org/wiki/Wikipedia:Your\\_first\\_article](http://en.wikipedia.org/wiki/Wikipedia:Your_first_article)

subsequent updates. Since September 2009, there have been 37,296 accepted submissions but over 57,000 declined proposals.

We define two proxies based on Wikipedia presence:  $wiki_1$ , a dummy variable that takes on a value of 1 (Entrepreneur has an independent wiki page), or 0 (otherwise); and  $wiki_2$ , a dummy variable takes on a value of 1 (Entrepreneur has an indirect mention on wiki page, usually through his/her previous work), or 0 (otherwise).<sup>11</sup> In our Kickstarter sample, fewer than 6% of the entrepreneurs have an independent Wikipedia page and fewer than 3% of the entrepreneurs are an indirectly mentioned on the Wikipedia page.

To maximize accuracy, we match the name of the entrepreneur, the location, the industry, and the picture (if any) on Kickstarter with information provided in Wikipedia before the launch date of each listed project. This procedure ensures that the Wikipedia information is not influenced by the current Kickstarter listing. If the creator is a company, we first match the company name, location, industry and previous work; if such a company does not exist, we search for any founder's information disclosed on the creator's page and search within Wikipedia. If nothing exists, we conclude the entrepreneur/startup does not have a wiki page.

### *2.3.3 Reputation or Skill?*

In the buyer-seller models of Klein and Leffler (1981 ) and Kreps and Wilson (1982 ), reputational capital is defined as the present value of a stream of quasi-rents that a seller earns from delivering contracted quality. In the Kickstarter setting, contracted quality can be thought of as the market-assessed joint probability that given entrepreneurs will both (a) be able to produce the contracted quality product or service, and (b) deliver it.

The probability that a given entrepreneur will be able to produce the contracted quality product or service depends on the entrepreneur's skills. The conditional probability of delivering the contracted product or service is a measure of an entrepreneur's effort and

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<sup>11</sup> Please refer to Appendix II for examples

trustworthiness. Gompers, Kovner, Lerner and Scharfstein (2010 ) explore this in examining performance persistence in entrepreneurship. In the end, Kickstarter backers are deciding levels of support based on their unobservable estimates of the joint probability and the two facets of reputation cannot be distinguished.

#### *2.4 Social Capital Proxies*

Another important related area concerns deal formation in entrepreneurial financing, an area with little existing literature. Lin, Prabhala and Viswanathan (2013 ), Duarte, Siegel and Young (2012 ), Bottazzi, Da Rin and Hellmann (2011), and Hochberg, Ljungqvist and Lu (2007 ) provide evidence that entrepreneurs' social capital plays a big role in the settings such as the peer-to-peer lending market and VC industry. A couple of studies document cultural differences and geographic bias in online peer-to-peer lending, Lin and Viswanathan (2013 ) and Burtch, Ghose and Wattal (2013 ). Agrawal, Catalini and Goldfarb (2011 ) examine the geographic dispersion of investors in small, early-stage projects on the Sellaband music site, and find that online platform seems to eliminate most distance-related economic frictions, not eliminate social frictions such as family and friends.

As a proxy for one dimension of social capital, we use each entrepreneur's existing number of Facebook friends on the first listing date.

#### *2.5 Demand Proxy*

Utility of rewards on Kickstarter could be very idiosyncratic due to variations in project appeal across people. To control for heterogeneity in demand, we record a project's number of Facebook likes at the end of the funding period as a proxy for overall demand information from the crowd. This measure is less dependent on intensity of tastes because anyone can click a "like" button without contributing capital to the project.

## 2.6 Other Variables

Mollick (2013 ) offers an initial description of the underlying dynamics of success and failure among reward-based crowd-funding. He suggests size of the funding goal, length of the funding period, and using video in the project description help determine the success of crowd-funding. Marom and Sade (2013 ) find that textual composition of project descriptions on Kickstarter affects the rate of success of the project.

We use project characteristics such as project funding goal, length of the funding period and also use the reward characteristic as another control group. E.g. the reward is limited or unlimited, the relative pricing in the category, and the number of words used to describe the rewards. Appendix I provides detailed descriptions of the variables. Table 3 provides summary statistics for 1403 projects whereas Table 4 reports correlation coefficients and p-values for selected variables.

## 3. Methodology and Results

Our basic methodology is a Probit analysis of the determinants of funding success. Because a basic Probit model cannot capture all time-series information and variance related to funded projects, each of which requires potentially a different number of days to reach their funding goals; thus, we extend the analysis by employing the Cox proportional hazard model. The hazard model assists in analyzing the probability of survival (i.e., in the not-funded state) over time under different treatment (e.g. High previous backer satisfaction vs. low previous backer satisfaction and High pre-existing reputation vs. no pre-existing reputation group) and covariates.

Following the literature on oversubscription in the IPO market, we also explore oversubscription in the Kickstarter setting. Funded projects on average raised twice as much as their funding goal (**Table 3 Panel A**), and some blockbuster projects raise more than 10 times or 20 times their funding goal.

### 3.1 Are reputation-related proxies important to the likelihood that a project is funded?

We explore the cross-sectional structure of Kickstarter data to investigate the relationship between the probability of a project being successfully funded and its entrepreneur's pre-existing reputation and reputation formation. An appropriate dependent measure to test these hypotheses is the Funding Indicator:  $Fund\ Ind_i$ , a binary variable where a value of one indicates that project  $i$  is successfully funded.

To examine question 3.1, we start with the following basic model:

$$\begin{aligned} &Probability(Fund\ Ind_i = 1) \\ &= G(\beta_0 + \beta_1 Wiki_{1i} + \beta_2 Wiki_{2i} + \beta_3 Pre\_Funded_i + \beta_4 Pre\_Failed_i + \beta_5 Pre\_Sat_i + \beta X_i) \quad (1) \end{aligned}$$

where  $Wiki_{1i}$  is a dummy variable takes on a value of 1 if the entrepreneur has an independent Wikipedia page,  $Wiki_{2i}$  is a dummy variable takes on a value of 1 if the entrepreneur has an indirect mention on a Wikipedia page,  $Pre\_Funded_i$  is the number of projects that the entrepreneur has successfully funded on Kickstarter, and  $Pre\_Sat_i$ , the fraction of positive/satisfied comments to total comments from prior projects.

The remaining control variables are the vector  $X_i$ , which captures the entrepreneur characteristics, the project characteristics and reward characteristics. The standard error is adjusted for clustering on 13 different project categories,<sup>12</sup> which are films, games (video or table), design, music, technology, publishing, art, food, comics, theater, fashion, photography and dance.

The results of the Probit estimation appear in Table 5.

#### 3.1.1 Prior Reputation

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<sup>12</sup> Please refer to Petersen, Mitchell A, 2009, Estimating standard errors in finance panel data sets: Comparing approaches, *Review of financial studies* 22, 435-480.



The prior reputation of an entrepreneur has important effects in facilitating better funding outcomes for the first time entrepreneur. The results in Table 5 reveal that pre-existing reputation is positively, significantly related to the funding probability across the different empirical specifications. Furthermore, the economic size of the effect appears to be significant and consistent across the specifications. We find that the entrepreneur is 47% more likely to get funded (**Table 5 Panel (A): specification 8**) if the entrepreneur has an independent Wikipedia page compared to those don't have an independent Wikipedia page, which increase his/her overall possibility to get funded from 36% to 54% all else equal. Overall the effect is strongest for the indirect mentions than for the direct page listings, and for first-time Kickstarter entrepreneurs.

### *3.1.2 Reputation Formation*

In addition, reputation formation on Kickstarter has a significant positive effect on the funding probability across the specifications (**Table 5 Panel (A)**). The entrepreneur is 20-27% more likely to get funded if he/she has at least one successful previous project. Previous failed projects can have significant negative impact on current success. The entrepreneur is 15%-20% less likely to get funded if he/she previously failed to reach the funding goal. This implies that prior losers are likely to be current losers, and prior winners likely to be current winners. A long Kickstarter history *per se* does not necessarily benefit a creator.

The previous backer satisfaction proxy, which is the ratio of positive comments to total comments, has significant positive impact on the funding outcome. It provides evidence that backers do pay attention to the previous comments from the delivery outcome and adjust their future backing behavior if we hold other factors constant. **Table 5 Panel (B)** reports that the marginal effect of previous backer satisfaction has a significant positive impact on the funding outcome. The entrepreneur's probability to get funded increases from 36% to almost 60% if he/she is able to get all positive comments from the previous backers. Thus, creator

entrepreneurs may have incentive not to create low quality product or service as long as the backers have access to give product/service feedback to the public.

**Table 5 Panel (B)** provides the results for the subsample of 177 projects launched by serial entrepreneurs only. The prior reputation proxies (Wikipedia variables) have no effect on the funding outcome, whereas the reputation formation information captured by previous funding outcome and satisfaction comments still has significant positive impact on the funding outcome. These results may suggest that backers rely on the prior reputation information if there is no history provided on Kickstarter, but once the entrepreneur has a history on the Kickstarter, the backers tend to rely more on the funding history and previous comments provided through the Kickstarter. (**Table 5 Panel (C)**)

#### *3.1.3 Social Network Effects*

The social networking effect has a statistically significant positive impact on the funding outcome; however the marginal effects are not economically significant in our specifications. Participation in other projects on Kickstarter does have significant impact on the funding outcome. If the entrepreneur has backed 10 other project in Kickstarter before launching the current project, he or she is 10%-14% more likely to get funded if we hold others constant. This evidence may imply some degree of reciprocity in the Kickstarter community.

#### *3.1.4 Project Size and Funding Period*

The funding goal has a significant effect on the funding outcome, which is consistent with Kickstarter disclosure in **Table 2** and Mollick (2013 ). The more asked for, the less likely the funding goal is reached, all else equal. The funding period is significantly negatively correlated with the funding outcome, which may imply more capable entrepreneurs are more likely to choose shorter funding periods.

### 3.2 Are reputation-related proxies important to the speed with which a project is funded?

While most projects require near the sample average of 24 days to achieve their funding goal, some projects only require a day or two to achieve their funding goal. We adopt the Cox proportional discrete-time hazard model to predict the probability of funded through the funding period under different treatments. (Duarte, Siegel and Young (2012)) To examine question 3.2, we start with the following basic model:

$$H_i(t) = h_{0i}(t)\exp(\beta_1 Wiki_{1i} + \beta_2 Wiki_{2i} + \beta_3 Pre\_Funded_i + \beta_4 Pre\_Failed_i + \beta_5 Pre\_Del_i + \beta X_i) \quad (2)$$

where  $Wiki_{1i}$  is a dummy variable takes on a value of 1 if the entrepreneur has an independent Wikipedia page,  $Wiki_{2i}$  is a dummy variable takes on a value of 1 if the entrepreneur has an indirect mention on a Wikipedia page,  $Pre\_Funded_i$  is the number of projects that the entrepreneur has successfully funded on Kickstar, and  $Pre\_Sat_i$ , the fraction of positive/satisfied comments to total comments from prior projects.

The remaining control variables are the vector  $X_i$ , which captures the entrepreneur characteristics, the project characteristics and reward characteristics. The standard error is adjusted for clustering on 13 different project categories, which are films, games (video or table), design, music, technology, publishing, art, food, comics, theater, fashion, photography and dance. The results of the hazard estimation appear in Table 6.

#### 3.2.1 Reputation and Funding Time

Whereas **Table 6 Panel (A)** presents the estimated model parameters for the funding model, (the standard error adjusted for clustering on 13 different categories) **Figure 2 (A)** provides direct insight into the economic significance of the results by presenting the survival probability (probability of achieve funding goal) as a function of the listing period for the positive reputation accumulated entrepreneurs and no positive reputation accumulated entrepreneurs. The graph indicates that a project launched by serial entrepreneurs with positive reputation accumulated ( $Pre\_Del=1$ ) has a probability of achieving funding

approximately 80% higher than a project launched by a no positive reputation accumulated entrepreneur across the funding period if we hold other factors constant. **Figure 2 (B)** indicates that a project launched by entrepreneurs for the first time with higher pre-existing reputation has a probability of not achieving funding approximately 40% lower than a project launched by a no pre-existing reputation entrepreneur if we hold other factors constant.

**Table 6 Panel (B)** provides the results in a subsample, 95 successfully funded projects launched by serial entrepreneurs only. Prior reputation has no more effect on the funding outcome, whereas the reputation formation information captured by the previous funding outcome and comments still has significant positive impact on the funding outcome.

### 3.3 Are reputation-related proxies important to oversubscription of a successful project?

The average subscription ratio (total backer-pledged funds divided by funding goal) for a non-funded project is 0.10, while the average subscription ratio for a funded project is 1.90. (**Table 3 Panel A**) To investigate this phenomenon we employ a Tobit model to further analyze the over-subscription funding outcome, in the presence of pre-existing reputation and positive reputation formation. To examine question 3.3, we start with the following model:

$$\begin{aligned} Over\ Subscr_i = & \beta_0 + \beta_1 Wiki_{1i} + \beta_2 Wiki_{2i} \\ & + \beta_3 Pre\_Funded_i + \beta_3 Pre\_Failed_i + \beta_3 Pre\_Del_i + \beta X_i + \varepsilon_i \end{aligned} \quad (3)$$

For left censoring at  $L=1$ , we observe the  $Over\ Subscr_i$  variable, where

$$Over\ Subscr_i = \begin{cases} Over\ Subscr_i^* & \text{if } Over\ Subscr_i^* \geq L \\ L & \text{if } Over\ Subscr_i^* < L \end{cases}$$

$Over\ Subscr_i$  is the total amount pledged by backers divided by the funding goal.  $L$  equals 1 which means the project just met the funding goal.

### *3.3.1 Determinants of Oversubscription*

Consistent with the funding results discussed earlier, the results in Table 7 indicate that for those projects that are fully funded, entrepreneurs with higher pre-existing reputation and previously successful project funding achieve funding far beyond their funding goal. Focusing on the marginal effect for truncated means in specifications 7 and 8, we find that pre-existing reputation has a both economically and statistically significant positive impact on the oversubscription level. While previous successes are relatively unimportant, previous failures remain strongly negatively connected to the level of oversubscription.

### *3.4 Imputed Demand Information*

In Table 8 we examine the effect of controlling for heterogeneity in demand. The control variable is the number of Facebook “likes” a project has at the end of the funding period. This measure is useful as a proxy for overall crowd demand for a project/product because anyone can visit the page and click “like” without making a funding commitment. We also control for backers’ experience using number of other projects backed before the current pledge as proxy.

The results remain very similar to Table 5. The marginal effect of the demand information captured by number of Facebook likes has positive significant impact on the funding outcome and R-squared in Table 8 does increase by 10% compared to Table 5.

## **4. Conclusion**

In this paper, we offer empirical evidence that entrepreneur reputation affects capital formation outcomes favorably in terms of both degree and speed. We find that entrepreneurs who have acquired positive reputation through previously successful funding history are 20% more likely to get funded and 90% more likely to get funded if entrepreneurs received all positive comments from previous funded projects on Kickstarter. However entrepreneurs who

have acquired negative reputation through previous failed funding history are 15% less likely to get funded. This finding provides empirical evidence of the size of the reputation formation effect in a financial transaction.

We also find that first-time entrepreneurs who have high pre-existing reputational capital are 50% more likely to get funded and are able to solicit 60% more funds compared to their funding goal than do entrepreneurs who have a lower pre-existing reputation. This finding provides empirical evidence of the size of the effect of an individual's reputational capital in a financial transaction.

This paper proposes that a new, rich and transparent data source provides an experiment for the analysis and examination of various capital formations and contracting theories; a crucial advantage is that Kickstarter reports all cases where entrepreneurs fail to acquire funds, a feature impossible to observe in almost all other data sources. While the view of the funding process is improved, unfortunately Kickstarter has no information on the ultimate success of its entrepreneurs' ventures post-funding. That will remain an important area for future research.

As more financial institutions rely on non-traditional social media data to make funding decisions, this paper may provide some empirical evidence with regards to the effect of one dimension of social media information on funding decisions.

Finally, this work is also relevant as the SEC develops regulations implanting the JOBS Act of 2012. The Act increases a business's access to capital by enabling them to sell securities to both accredited and non-accredited investors without registration processes accompanying most typical public offerings since 1934. This paper may provide a useful baseline for development of the crowd funding sector.

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**Table 1****Panel (A) Top 20 Most Funded Projects in Kickstarter History**

<b>Project Name</b>	<b>Sub Category</b>	<b>Funding Goal</b>	<b>Amount Pledged</b>	<b>Number of Backers</b>
1 Pebble: E-Paper Watch for iPhone and Android	Product Design	100,000	10,266,845	68,929
2 Ouya: A New Kind of Video Game Console	Video Games	950,000	8,596,474	63,416
3 Pono Music: Where Your Soul Rediscovers Music	Sound	80,000	6,225,354	18,220
4 The Veronica Mars movie	Movie	2,000,000	5,702,153	91,585
5 Torment: Tides of Numenera	Video Games	900,000	4,188,927	74,405
6 Project Eternity	Video Games	1,100,000	3,986,929	73,986
7 Mighty No.9	Video Games	900,000	3,845,170	67,226
8 Reaper Miniatures Bones: An Evolution Of Gaming Miniatures	Games	30,000	3,429,239	17,744
9 The Micro: The First Truly Consumer 3D Printer	3D Printing	50,000	3,401,361	11,855
10 The Dash: Wireless Smart In Ear Headphones	Product Design	260,000	3,390,551	15,998
11 Double Fine Adventure	Video Games	400,000	3,336,371	87,142
12 Reaper Miniatures BonesII: The Return of Mr. Bones	Video Games	30,000	3,169,610	14,964
13 Wish I Was Here	Narrative Film	2,000,000	3,105,473	46,520
14 FORM 1: An affordable, professional 3D printer	Technology	100,000	2,945,885	2,068
15 Wasteland 2	Video Games	900,000	2,933,252	61,290
16 Elite: Dangerous	Video Games	1,250,000	2,525,305	25,681
17 Homestuck Adventure Game	Video Games	700,000	2,485,506	24,346
18 Oculus Rift: Step Into the Game	Technology	250,000	2,437,429	9,522
19 3Doodler: The World's First 3D Printing Pen	Hardware	30,000	2,344,134	26,457
20 HEX MMO Trading Card Game	Video Games	300,000	2,278,255	17,765

Source for Table 1: <http://www.kickstarter.com/discover/most-funded?ref=footer>

*For these metrics, pledges not made in US dollars are converted using the exchange rate in effect when the project was live.*

*Last updated: Mon, Jun 2 2014 12:51 PM AEST*

## Panel (B) Top 20 Most Funded Projects in Sample

Project Name	Sub Category	Funding Goal	Amount Pledged	Number of Backers
1 HEX MMO Trading Card Game	Games	300,000	2,278,255	17,765
2 AGENT: the World's Smartest Watch	Product Design	100,000	1,012,742	5,685
3 Deluxe Exalted 3rd Edition	Tabletop Games	60,000	684,755	4,368
4 The Name of the Wind Playing Cards	Graphic Design	10,000	589,660	11,334
5 Neolucida- A Portable Camera Lucida for the 21st Century	Product Design	15,000	424,959	11,406
6 Girl Genius Volume 12 Pinting and Reprint Frenzy	Comics	55,000	389,079	4,441
7 HARBINGER DOWN: A Practical Creature FX Film	Narrative Film	350,000	384,181	3,066
8 Xia: Legends of a Drift System	Tabletop Games	100,000	346,772	3,293
9 KeySmart- Free Your Pocket	Product Design	6,000	329,862	8,900
10 TRAKLINE: a new kind of belt for men	Fashion	14,750	315,960	4,121
11 The Othermill: Custom Circuits at Your Fingertips	Hardware	50,000	311,657	652
12 Euphoria: Build a Better Dystopia	Tabletop Games	15,000	309,495	4,765
13 All Quiet on the Martian Front, Miniature Tank vs Tripods	Tabletop Games	50,000	304,720	1,003
14 Melon: A Headband and Mobile App to Measure Your Focus	Product Design	100,000	290,941	2,723
15 Anamanaguchi-make ENDLESS FANTASY more than an album	Electronic Music	50,000	277,399	7,253
16 PIXIES: A Visual History ( Exclusive Ltd. Ed. Hardcover)	Music	150,000	234,450	2,297
17 Monkey Light Pro-- Bicycle Wheel Display System	Hardware	180,000	220,293	626
18 Time of EVE: The Movie on Blue-ray	Animation	18,000	215,433	2,711
19 DELTA SIX: A new kind of game controller	Product Design	100,000	198,185	979
20 meta: The Most Advanced Augmented Reality Glasses	Technology	100,000	194,444	501

Table 1 (Panel A) presents top 20 most funded projects from April 2009 to Jun 2<sup>nd</sup> 2014. Panel B presents top 20 most funded projects in the sample from 3<sup>rd</sup> May to 23<sup>rd</sup> May 2013.

**Table 2****Kick-Starter Statistics: 2<sup>nd</sup> Jun 2014 from official website****Panel (A) Projects and Dollars**

Category	Number of Launched Projects	Total Dollars Pledged	Dollars Pledged to Funded Project	Dollars Pledged to Unfunded Project	Live Dollars Pledged	Number of Live Projects	Funded Rate
<b>All</b>	<b>149,203</b>	<b>\$1 B</b>	<b>\$980 M</b>	<b>\$134 M</b>	<b>\$31 M</b>	<b>4,484</b>	<b>43.46</b>
Games	10,142	\$246.46 M	\$217.70 M	\$24.95 M	\$3.81 M	427	35.67
Film & Video	36,086	\$218.92 M	\$181.45 M	\$33.75 M	\$3.72 M	818	40.3
Design	8,005	\$162.97 M	\$141.72 M	\$17.40 M	\$3.85 M	361	38.41
Technology	4,697	\$155.54 M	\$126.75 M	\$16.74 M	\$12.04 M	298	34.39
Music	29,785	\$113.04 M	\$102.31 M	\$9.41 M	\$1.32 M	656	55.2
Publishing	17,943	\$54.07 M	\$45.23 M	\$7.98 M	\$859.32 K	461	32.45
Food	6,298	\$44.49 M	\$35.16 M	\$6.98 M	\$2.34 M	304	39.76
Art	13,240	\$40.62 M	\$35.02 M	\$5.03 M	\$577.10 K	355	47.55
Fashion	6,234	\$35.20 M	\$29.94 M	\$4.32 M	\$946.57 K	282	29.42
Comics	4,090	\$28.64 M	\$26.05 M	\$2.17 M	\$419.26 K	116	49.9
Theater	6,205	\$24.75 M	\$21.55 M	\$2.80 M	\$397.06 K	203	64.23
Photography	4,548	\$13.55 M	\$11.19 M	\$2.00 M	\$365.91 K	145	36.23
Dance	1,930	\$6.52 M	\$5.97 M	\$435.93 K	\$113.08 K	58	70.41

Source for Table 2: <http://www.kickstarter.com/help/stats?ref=footer>:*For these metrics, pledges not made in US dollars are converted using the exchange rate in effect when the project was live.**Last updated: Mon, Jun 2 2014 12:51 PM AEST*

**Table 3**

	Funded=1			Not Funded=0		
	N	MEAN	STD	N	MEAN	STD
<b><i>Funding Performance</i></b>						
Amount Pledged	503	43,927	128,226	900	3,077	11,138
Subscription Ratio	503	1.95	4.18	900	0.11	0.16
Days Taken To Get Funded	503	24	13			
Number of Backers	503	515	1,341	900	37	114
Dollar Contributed Per Backer	503	129	142	900	74	141
<b><i>Prior Reputation</i></b>						
Pre-existing Reputation (Direct wiki Page)	503	0.15	0.35	900	0.01	0.13
Pre-existing Reputation (Indirect wiki page)	503	0.07	0.25	900	0.01	0.09
<b><i>Reputation Formation</i></b>						
Previous Funding Indicator (Funded )	503	0.28	0.86	900	0.04	0.23
Previous Funding Indicator (Failed)	503	0.06	0.26	900	0.16	0.50
Previous Positive Comments ratio	95	25%	0.39	82	3%	0.15
<b><i>Entrepreneur Characteristics</i></b>						
Experience (Previous Launched Projects)	503	0.34	1.00	900	0.21	0.57
Serial Entrepreneur Indicator	503	0.18	0.39	900	0.09	0.28
Social Networking (Facebook Friends)	503	678	1,000	900	453	786
Number of Project Backed on KS	503	6	14	900	2	5
Website Indicator	503	0.95	0.22	900	0.86	0.35
Country (US=1; UK=0)	503	0.95	0.22	900	0.91	0.29
<b><i>Project Characteristics</i></b>						
Funding Period	503	33	8	900	35	11
Funding Goal	503	21,484	28,417	900	71,426	381,055
Estimated Delivery Time	503	198	176	900	204	162
Video Indicator	503	1.00	0.00	900	1.00	0.00
<b><i>Reward Characteristics</i></b>						
Limit on Quantity	503	0.80	0.40	900	0.72	0.45
Average Length of Words used	503	40	20	900	37	25
Number of Different Rewards Level	503	11	5	900	9	4
<b><i>Ex-post Controls</i></b>						
Popularity (Facebook Likes)	503	1,229	2,270	900	201	477
Backer's Experience	503	13	13	817	36	68
Number of updates from Entrepreneur	503	7.50	8.16	900	2.16	3.74
Number of comments from Current Backers	503	163.86	1,232.48	900	10.01	195.51

Table 2 presents summary statistics for the two subsamples of funded projects and non-funded projects. For each variable we report the number of non-missing observation N, the mean, and the standard deviation. Table 2 reports the summary statistics of all 503 funded projects and 900 non-funded project with the funding goal above the median (\$5,500) we obtained from Kickstarter from 3<sup>rd</sup> May 2013 to 23<sup>rd</sup> May 2013

**Table 4**  
**Correlation**

	1	2	3	4	5	6	7
<i>Funding Performance</i>							
1 Funding Indicator	1						
2 Subscription Ratio	0.3329 0.000	1					
<i>Pre-existing Reputation</i>							
3 Independent Wiki Page (Wiki1)	0.2453 0.000	0.1079 0.0001	1				
4 Indirect mention on Wiki Page (Wiki2)	0.1666 0.000	0.0686 0.0102	-0.044 0.0991	1			
<i>Reputation Formation</i>							
5 Number of previously funded projects	0.217 0.000	0.2591 0.000	0.141 0.000	0.0897 0.0008	1		
6 Number of previous failed projects	-0.0537 0.044	-0.0258 0.335	-0.0133 0.619	-0.0178 0.5051	0.1008 0.000	1	
7 Previous Backer Satisfaction	0.1484 0.000	0.0501 0.0609	0.1151 0.000	0.0371 0.1647	0.5096 0.000	-0.2469 0.000	1

Table 4 presents pairwise correlation for our sample of 1403 projects between measures of pre-existing reputation, reputation formation within Kickstarter, entrepreneur and project characteristics, and the funding indicators and the overfunding indicators. We also report the corresponding p-value for the test that the correlations coefficient equal zero. See Appendix we for a detailed description of all variables.

**Table 5**  
**(A) Probit Analysis of Determining Funding Success (All)**

	1	2	3	4	5	6	7	8
<b><i>Pre-existing Reputation</i></b>								
WIKI Indicator (Direct)	0.505*** (10.94)			0.481*** (11.06)			0.460*** (11.91)	0.474*** (10.87)
WIKI Indicator (Indirect)	0.551*** (9.995)			0.538*** (7.297)			0.521*** (7.013)	0.534*** (7.129)
<b><i>Reputation Formation</i></b>								
Previous Funded Project		0.275*** (3.377)			0.263*** (3.282)		0.231*** (2.730)	
Previous Failed Project		-0.195*** (-3.662)			-0.179*** (-3.389)		-0.157*** (-2.932)	
Previous Backer satisfaction			0.946*** (9.179)			0.970*** (8.383)		0.912*** (8.505)
<b><i>Entrepreneur Characteristics</i></b>								
Kickstarter Experience	0.031 (1.207)		-0.0129 (-0.737)	0.0343 (1.474)		-0.00666 (-0.369)		-0.0161 (-0.717)
Social Networking	3.05e-05** (2.406)	5.67e-05*** (3.776)	6.46e-05*** (4.202)	1.84e-05 (1.537)	4.04e-05*** (2.732)	4.73e-05*** (3.033)	1.74e-05 (1.490)	2.43e-05** (1.963)
Number of Projects Backed	0.0132*** (4.804)	0.0156*** (3.481)	0.0141*** (4.082)	0.0110*** (5.137)	0.0130*** (3.579)	0.0116*** (4.210)	0.0114*** (3.810)	0.0106*** (4.393)
Country	0.0590 (1.254)	0.0434 (0.930)	0.0498 (1.061)	0.0649 (1.457)	0.0460 (1.030)	0.0509 (1.157)	0.0522 (1.230)	0.0557 (1.328)
<b><i>Project Characteristics</i></b>								
Funding Period	-0.00494*** (-3.611)	-0.00419** (-2.574)	-0.00494*** (-3.088)	-0.00431*** (-3.183)	-0.00362** (-2.193)	-0.00432*** (-2.678)	-0.00394*** (-2.747)	-0.00469*** (-3.338)
Log(Funding Goal)	-0.128*** (-6.164)	-0.106*** (-5.322)	-0.109*** (-5.586)	-0.136*** (-5.937)	-0.117*** (-5.491)	-0.122*** (-6.030)	-0.137*** (-6.240)	-0.143*** (-6.701)
Estimated Time To Delivery	1.36e-05 (0.112)	7.63e-06 (0.0694)	1.73e-05 (0.158)	-6.40e-05 (-0.582)	-7.33e-05 (-0.746)	-6.60e-05 (-0.670)	-6.57e-05 (-0.584)	-5.52e-05 (-0.498)
<b><i>Reward Characteristics</i></b>								
Strategic Pricing	NO	NO	NO	YES	YES	YES	YES	YES
Limit on Quantity	NO	NO	NO	YES	YES	YES	YES	YES
Average Length of Words used	NO	NO	NO	YES	YES	YES	YES	YES
Observations	1,403	1,403	1,403	1,403	1,403	1,403	1,403	1,403
Pseudo R2	0.154	0.121	0.110	0.174	0.144	0.135	0.192	0.187
Robust z-statistics in ()	*** p<0.01, ** p<0.05, * p<0.1							

Table 5 Panel (A) presents results from probit regressions of the funding indicator into measures of pre-existing reputation, previous funding indicator, previous delivery information as well as different control variables from entrepreneur and project characteristics. The estimation is performed using 1403 listings. We report estimated marginal effects, as well as the p-values associated with the test of whether marginal effect is equal to zero. See Appendix we for a detail definition of the variables.

**(B) Probit Analysis of Determining Funding Success (Serial Entrepreneurs Only)**

	1	2	3	4	5	6	7	8
<b><i>Pre-existing Reputation</i></b>								
WIKI Indicator (Direct)	0.391*** (3.225)			0.341*** (2.595)			0.174 (1.000)	0.255 (1.596)
WIKI Indicator (Indirect)	0.314 (1.583)			0.256 (1.371)			-0.0569 (-0.250)	0.166 (0.820)
<b><i>Reputation Formation</i></b>								
Previous Funded Project		0.180*** (3.834)			0.192*** (3.625)		0.187*** (3.821)	
Previous Failed Project		-0.318*** (-3.173)			-0.278** (-2.348)		-0.276** (-2.324)	
Previous Backer Satisfaction			0.822*** (13.58)			0.788*** (16.84)		0.729*** (8.487)
<b><i>Entrepreneur Characteristics</i></b>								
Kickstarter Experience	0.00234 (0.0751)		-0.0133 (-0.607)	0.0235 (0.940)		-0.00397 (-0.225)		-0.0184 (-1.290)
Social Networking	7.32e-05 (1.346)	8.92e-05 (1.631)	0.000166*** (3.211)	7.43e-05 (1.390)	7.26e-05 (1.542)	0.000145*** (3.115)	5.82e-05 (1.436)	0.000130** (2.557)
Number of Projects Backed	0.0126*** (4.117)	0.0166*** (4.531)	0.0100*** (4.416)	0.0103*** (2.872)	0.0150*** (3.182)	0.00854** (2.561)	0.0137*** (2.859)	0.00854** (2.408)
Country	0.315* (1.677)	0.0955 (0.520)	0.245 (1.202)	0.223 (1.187)	0.0142 (0.0847)	0.120 (0.603)	0.0138 (0.0826)	0.118 (0.611)
<b><i>Project Characteristics</i></b>								
Funding Period	-0.00537 (-1.458)	-0.00245 (-0.735)	-0.00656* (-1.915)	-0.00331 (-0.899)	-0.00114 (-0.316)	-0.00513 (-1.584)	-0.000635 (-0.181)	-0.00501 (-1.408)
Log(Funding Goal)	-0.101** (-2.113)	-0.0776** (-2.147)	-0.130*** (-3.022)	-0.110*** (-2.912)	-0.110** (-2.394)	-0.193*** (-4.847)	-0.114** (-2.367)	-0.198*** (-4.491)
Estimated Time To Delivery	-0.000489 (-1.408)	-0.000557 (-1.593)	-0.000510** (-2.209)	-0.000749*** (-2.679)	-0.000793*** (-2.614)	-0.000786*** (-4.156)	-0.000880*** (-2.581)	-0.000887*** (-2.906)
<b><i>Reward Characteristics</i></b>								
Strategic Pricing	NO	NO	NO	YES	YES	YES	YES	YES
Limit on Quantity	NO	NO	NO	YES	YES	YES	YES	YES
Average Length of Words used	NO	NO	NO	YES	YES	YES	YES	YES
Observations	177	177	177	177	177	177	177	177
Pseudo R2	0.208	0.382	0.313	0.273	0.422	0.373	0.427	0.387
Robust z-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1								

Table 5 Panel (B) presents results from probit regressions of the funding indicator into measures of pre-existing reputation, previous funding indicator, previous delivery information as well as different control variables from entrepreneur and project characteristics. The estimation is performed using 177 listings from entrepreneurs who launched more than 1 project on Kickstarter. We report estimated marginal effects, as well as the p-values associated with the test of whether marginal effect is equal to zero. See Appendix we for a detail definition of the variables.

### (C) Probit Analysis of Determining Funding Success (First-time Entrepreneurs Only)

	1	2	3	4	5	6
<b><i>Pre-existing Reputation</i></b>						
WIKI Indicator (Direct)	0.498*** (7.219)		0.518*** (7.301)	0.484*** (7.249)		0.505*** (7.442)
WIKI Indicator (Indirect)		0.557*** (5.632)	0.582*** (6.063)		0.549*** (5.145)	0.575*** (5.603)
<b><i>Reputation acquisition</i></b>						
Previous Funded Project						
Previous Failed Project						
Previous Backer Satisfaction						
<b><i>Entrepreneur Characteristics</i></b>						
Kickstarter Experience						
Social Networking	2.76e-05* (1.824)	5.11e-05*** (3.382)	2.50e-05* (1.751)	1.54e-05 (1.134)	3.68e-05** (2.290)	1.37e-05 (1.032)
Number of Projects Backed	0.0152*** (2.735)	0.0137*** (2.681)	0.0135*** (2.744)	0.0128*** (2.759)	0.0111*** (2.597)	0.0112*** (2.709)
Country	0.0314 (0.597)	0.0402 (0.806)	0.0375 (0.743)	0.0376 (0.728)	0.0445 (0.906)	0.0447 (0.898)
<b><i>Project Characteristics</i></b>						
Funding Period	-0.00406*** (-2.776)	-0.00526*** (-5.247)	-0.00489*** (-4.489)	-0.00359** (-2.441)	-0.00466*** (-4.362)	-0.00437*** (-3.901)
Log(Funding Goal)	-0.115*** (-5.750)	-0.108*** (-5.222)	-0.124*** (-5.940)	-0.124*** (-5.508)	-0.117*** (-5.561)	-0.131*** (-5.833)
Estimated Time To Delivery	6.77e-05 (0.577)	5.28e-05 (0.464)	6.44e-05 (0.532)	9.03e-07 (0.00864)	-1.78e-05 (-0.175)	1.54e-07 (0.00141)
<b><i>Reward Characteristics</i></b>						
Strategic Pricing	No	No	No	YES	YES	YES
Limit on Quantity	No	No	No	YES	YES	YES
Average Length of Words used	No	No	No	YES	YES	YES
Observations	1,226	1,226	1,226	1,226	1,226	1,226
Pseudo R2	0.106	0.0953	0.136	0.124	0.115	0.152

Robust z-statistics in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1



**Table 6**  
**(A) Cox Proportional Hazard Analysis of Determining Days Taken to Get Funded (All)**

	1	2	3	4	5	6	7	8
<b><i>Pre-existing Reputation</i></b>								
WIKI Indicator (Direct)	0.209** (1.986)			0.203* (1.903)			0.194* (1.860)	0.166 (1.385)
WIKI Indicator (Indirect)	0.297* (1.925)			0.315* (1.898)			0.310* (1.915)	0.292* (1.733)
<b><i>Reputation Formation</i></b>								
Previous Funded Project		0.214*** (2.708)			0.219*** (2.655)		0.211** (2.528)	
Previous Failed Project		0.0720 (0.480)			0.0600 (0.383)		0.0747 (0.511)	
Previous Backer Satisfaction			1.017*** (2.952)			1.065** (2.473)		1.033** (2.486)
<b><i>Entrepreneur Characteristics</i></b>								
Kickstarter Experience	0.190** (2.510)		0.0839 (0.810)	0.192** (2.431)		0.0785 (0.680)		0.0804 (0.712)
Social Networking	2.46e-05 (0.425)	3.24e-05 (0.520)	6.24e-05 (1.040)	2.65e-05 (0.483)	3.01e-05 (0.511)	7.31e-05 (1.189)	2.65e-05 (0.486)	6.93e-05 (1.248)
Number of Projects Backed	0.0127*** (2.623)	0.0126*** (2.633)	0.00964* (1.890)	0.0123** (2.403)	0.0120** (2.358)	0.00952* (1.743)	0.0119** (2.326)	0.00920* (1.716)
Country	-0.00528 (-0.0759)	0.000294 (0.00429)	-0.0185 (-0.278)	0.0130 (0.154)	0.0174 (0.209)	0.00224 (0.0292)	0.0157 (0.181)	0.00143 (0.0180)
<b><i>Project Characteristics</i></b>								
Funding Period	-0.157*** (-9.317)	-0.156*** (-9.380)	-0.160*** (-9.942)	-0.156*** (-9.102)	-0.155*** (-9.086)	-0.159*** (-9.839)	-0.155*** (-9.105)	-0.159*** (-9.850)
Log(Funding Goal)	0.0130 (0.110)	0.0435 (0.426)	0.0257 (0.249)	0.0235 (0.198)	0.0535 (0.520)	0.0412 (0.407)	0.0245 (0.211)	0.0141 (0.125)
Estimated Time To Delivery	-2.33e-06 (-0.0121)	-5.08e-05 (-0.304)	-6.42e-05 (-0.347)	-9.95e-07 (-0.00576)	-5.93e-05 (-0.408)	-4.28e-05 (-0.272)	-1.27e-05 (-0.0770)	-2.62e-08 (-0.000149)
<b><i>Reward Characteristics</i></b>								
Strategic Pricing	NO	NO	NO	YES	YES	YES	YES	YES
Limit on Quantity	NO	NO	NO	YES	YES	YES	YES	YES
Average Length of Words used	NO	NO	NO	YES	YES	YES	YES	YES
Observations	503	503	503	503	503	503	503	503
Robust z-statistics in ()	*** p<0.01, ** p<0.05, * p<0.1							

Table 6 Panel (A) presents results for a cox proportional hazard model of successful funded projects. The model is estimated using 1403 projects, of which 503 projects are not censored. We report coefficient estimates as well as p-values associated with the test of whether the coefficient is equal to zero. Standard errors are adjusted for the clustering effect within the category. See Appendix we for a detail definition of the variables.

**(B) Cox Proportional Hazard Analysis of Determining Days Taken to Get Funded (Serial Entrepreneurs Only)**

	1	2	3	4	5	6	7	8
<b><i>Pre-existing Reputation</i></b>								
WIKI Indicator (Direct)	0.0949 (0.322)			0.0458 (0.176)			-0.00171 (-0.00674)	0.0137 (0.0504)
WIKI Indicator (Indirect)	-0.0598 (-0.160)			-0.425 (-1.259)			-0.474 (-1.544)	-0.386 (-1.300)
<b><i>Reputation Formation</i></b>								
Previous Funded Project		0.192*** (2.758)			0.203*** (4.121)		0.215*** (3.841)	
Previous Failed Project		-0.0297 (-0.142)			-0.0127 (-0.0562)		-0.0214 (-0.0833)	
Previous Backer Satisfaction			0.955*** (3.667)			0.896** (1.974)		0.880* (1.934)
<b><i>Entrepreneur Characteristics</i></b>								
Kickstarter Experience	0.183** (2.536)		0.159** (2.546)	0.201*** (3.007)		0.163** (2.475)		0.175** (2.238)
Social Networking	-4.27e-05 (-0.533)	-4.62e-05 (-0.520)	5.10e-05 (0.715)	-7.24e-05 (-1.067)	-6.57e-05 (-0.869)	4.39e-05 (0.543)	-7.14e-05 (-1.015)	3.79e-05 (0.533)
Number of Projects Backed	0.00867* (1.699)	0.00800 (1.613)	0.00486 (1.177)	0.00846* (1.786)	0.00814* (1.834)	0.00585 (1.379)	0.00767* (1.664)	0.00550 (1.236)
Country	-0.507 (-1.267)	-0.649* (-1.879)	-0.875** (-2.542)	-0.745 (-1.639)	-0.912** (-2.286)	-1.020*** (-2.751)	-0.889** (-2.162)	-0.988** (-2.508)
<b><i>Project Characteristics</i></b>								
Funding Period	-0.0872*** (-3.259)	-0.0837*** (-3.253)	-0.0963*** (-3.693)	-0.0881*** (-2.880)	-0.0844*** (-2.913)	-0.0952*** (-3.580)	-0.0842*** (-2.670)	-0.0951*** (-3.292)
Log(Funding Goal)	0.132 (1.174)	0.120 (1.277)	0.00918 (0.0669)	0.221* (1.703)	0.169 (1.627)	0.0678 (0.481)	0.237* (1.906)	0.124 (0.794)
Estimated Time To Delivery	0.000488 (0.795)	0.000405 (0.697)	0.000269 (0.389)	0.000677 (1.170)	0.000621 (1.105)	0.000389 (0.621)	0.000577 (0.954)	0.000374 (0.553)
<b><i>Reward Characteristics</i></b>								
Strategic Pricing	NO	NO	NO	YES	YES	YES	YES	YES
Limit on Quantity	NO	NO	NO	YES	YES	YES	YES	YES
Average Length of Words used	NO	NO	NO	YES	YES	YES	YES	YES
Observations	95	95	95	95	95	95	95	95
Robust z-statistics in ()	*** p<0.01, ** p<0.05, * p<0.1							

Table 6 Panel (B) presents results for a cox proportional hazard model (right-censored) of successful funded projects. The model is estimated using 177 projects launched by serial entrepreneurs, of which 95 projects are not censored. We report coefficient estimates as well as p-values associated with the test of whether the coefficient is equal to zero. Standard errors are adjusted for the clustering effect within the category. See Appendix we for a detail definition of the variables.

**(C) Cox Proportional Hazard Analysis of Determining Days Taken to Get Funded  
(First-time Entrepreneur)**

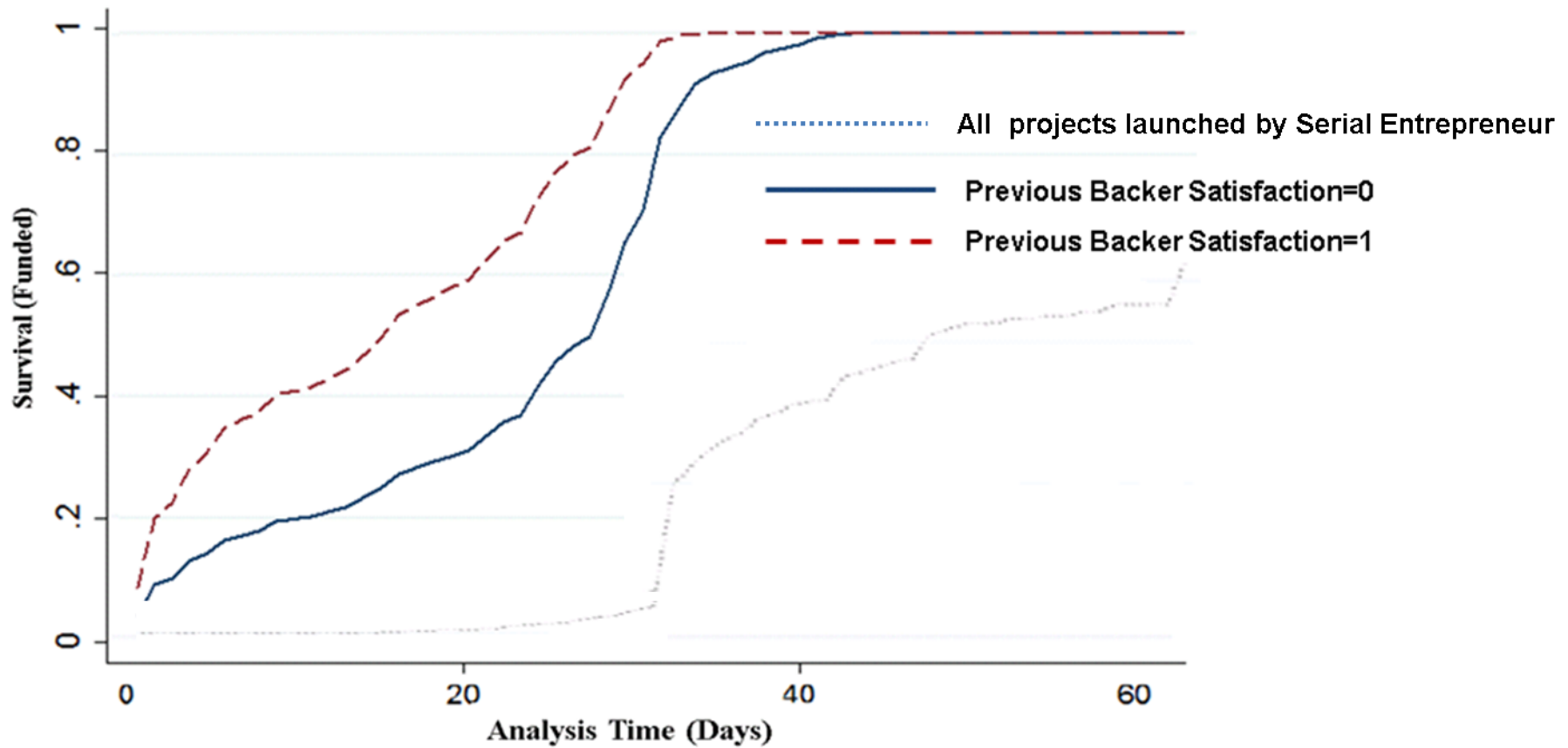
	1	2	3	4	5	6
<b><i>Pre-existing Reputation</i></b>						
WIKI Indicator (Direct)	0.158 (1.327)		0.185 (1.582)		0.154 (1.254)	0.179 (1.468)
WIKI Indicator (Indirect)		0.338** (2.121)	0.362** (2.217)	0.383** (2.060)		0.402** (2.151)
<b><i>Reputation acquisition</i></b>						
Previous Funded Project						
Previous Failed Project						
Previous Backer Satisfaction						
<b><i>Entrepreneur Characteristics</i></b>						
Kickstarter Experience						
Social Networking	8.26e-05 (1.250)	0.000108 (1.632)	9.26e-05 (1.342)	0.000129** (2.101)	0.000101* (1.648)	0.000113* (1.722)
Number of Projects Backed	0.0121* (1.802)	0.0120* (1.842)	0.0114* (1.695)	0.0115* (1.727)	0.0121* (1.759)	0.0111 (1.623)
Country	0.0228 (0.278)	0.0292 (0.363)	0.0270 (0.328)	0.0595 (0.649)	0.0488 (0.526)	0.0569 (0.613)
<b><i>Project Characteristics</i></b>						
Funding Period	-0.182*** (-12.02)	-0.184*** (-12.35)	-0.182*** (-11.92)	-0.184*** (-12.54)	-0.182*** (-12.11)	-0.182*** (-12.02)
Log(Funding Goal)	-0.00382 (-0.0401)	-0.00872 (-0.0794)	-0.0234 (-0.211)	-0.00715 (-0.0687)	-0.00208 (-0.0227)	-0.0214 (-0.202)
Estimated Time To Delivery	-9.05e-05 (-0.718)	-9.06e-05 (-0.684)	-7.54e-05 (-0.558)	-5.32e-05 (-0.461)	-5.08e-05 (-0.446)	-3.58e-05 (-0.304)
<b><i>Reward Characteristics</i></b>						
Strategic Pricing	No	No	No	YES	YES	YES
Limit on Quantity	No	No	No	YES	YES	YES
Average Length of Words used	No	No	No	YES	YES	YES
Observations	408	408	408	408	408	408

Robust z-statistics in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Figure 2**  
**Relative Project Survival by Type of Entrepreneurs over Funding Period**

**(A) Positive Reputation Formation VS. No Positive Reputation Formation (Serial-entrepreneur Only)**



**(B) High Pre-existing Reputation VS. No Pre-existing Reputation (First-time Entrepreneur Only)**

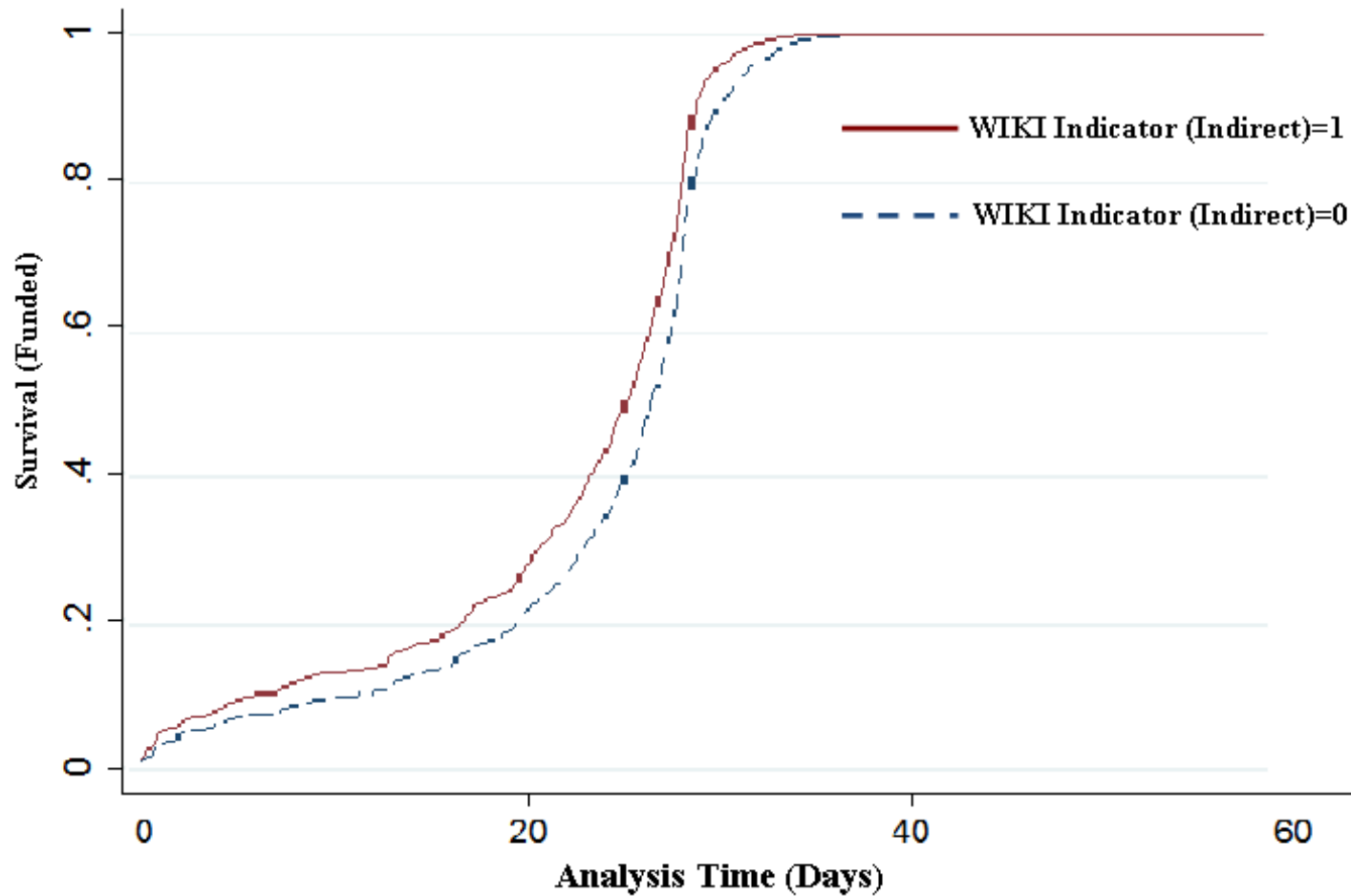


Figure 2 presents the predicted probability of a project not funded since its listing as a function of the funding period (the survival probability). (A) The survival probability is calculated for the entrepreneur with positive reputation formation (*Previous backer satisfaction*=1) and entrepreneur with no positive reputation formation (*Previous backer satisfaction*=0) using the coefficient estimates of the Days Taken to Funded Model reported in Table 6 Panel (B) (Specification 8). (B) The survival probability is calculated for the entrepreneur with high pre-existing reputation (*Wiki2*=1) and entrepreneur with no pre-existing reputation (*Wiki2*=0) using the coefficient estimates of the Days Taken to Funded Model reported in Table 6 Panel C (Specification 6).

**Table 7**  
**(A) Tobit Analysis of Determining Over-Subscription (All)**

	1	2	3	4	5	6	7	8
<b><i>Pre-existing Reputation</i></b>								
WIKI Indicator (Direct)	2.805** (2.544)			2.608** (2.540)			2.491*** (2.590)	2.512** (2.556)
WIKI Indicator (Indirect)	2.980*** (3.066)			2.834*** (2.924)			2.636*** (2.839)	2.782*** (2.890)
<b><i>Reputation acquisition</i></b>								
Previous Funded Project		0.896** (2.172)			0.751** (1.996)		0.582* (1.815)	
Previous Failed Project		-1.625** (-2.409)			-1.587** (-2.298)		-1.502** (-2.284)	
Previous Backer Satisfaction			3.223*** (2.965)			2.713** (2.573)		2.300** (2.045)
<b><i>Entrepreneur Characteristics</i></b>								
Kickstarter Experience	0.279* (1.920)		0.0484 (0.397)	0.175 (1.329)		-0.0121 (-0.101)		-0.0550 (-0.495)
Social Networking	2.30e-05 (0.167)	0.000197* (1.714)	0.000251** (2.222)	-7.66e-05 (-0.526)	6.88e-05 (0.574)	0.000116 (1.052)	-7.92e-05 (-0.518)	-3.76e-05 (-0.274)
Number of Projects Backed	0.148** (2.127)	0.145** (2.241)	0.142** (2.037)	0.139** (2.069)	0.136** (2.171)	0.134** (1.996)	0.135** (2.105)	0.133* (1.945)
Country	1.658** (2.083)	1.474* (1.954)	1.471* (1.917)	1.535** (2.042)	1.340* (1.866)	1.354* (1.860)	1.531** (2.098)	1.553** (2.069)
<b><i>Project Characteristics</i></b>								
Funding Period	-0.0169* (-1.773)	-0.0138 (-1.182)	-0.0205* (-1.655)	-0.0145 (-1.514)	-0.0110 (-0.933)	-0.0171 (-1.399)	-0.0103 (-1.022)	-0.0158 (-1.635)
Log(Funding Goal)	-0.366* (-1.828)	-0.297* (-1.686)	-0.294* (-1.650)	-0.507** (-2.156)	-0.459** (-2.097)	-0.453** (-2.053)	-0.482** (-2.175)	-0.475** (-2.125)
Estimated Time To Delivery	-0.000976 (-0.954)	-0.000927 (-1.053)	-0.000935 (-1.071)	-0.00149 (-1.308)	-0.00150 (-1.462)	-0.00151 (-1.461)	-0.00149 (-1.327)	-0.00148 (-1.320)
<b><i>Reward Characteristics</i></b>								
Strategic Pricing	NO	NO	NO	YES	YES	YES	YES	YES
Limit on Quantity	NO	NO	NO	YES	YES	YES	YES	YES
Average Length of Words used	NO	NO	NO	YES	YES	YES	YES	YES
Observations	1,403	1,403	1403	1,403	1,403	1403	1,403	1,403
Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1								

Table 7 Panel (A) presents results from Tobit regression of the Over-subscription Ratio for a given project onto measures of pre-existing reputation, reputation acquisition as well as different sets of control variables. The estimation is performed using 1403 listings with 498 uncensored funded projects with over-subscription ration larger or equal to 1. We report coefficient estimates on truncated mean, as well as p-value associated with the test of whether the coefficient estimate is equal to zero. See Appendix we for the detail definition of the variables. Standard errors are adjusted for the clustering effect within the category

**(B) Tobit Analysis of Determining Over-Subscription (Serial Entrepreneurs Only)**

	1	2	3	4	5	6	7	8
<b><i>Pre-existing Reputation</i></b>								
WIKI Indicator (Direct)	1.470** (2.051)			0.868 (1.270)			0.0976 (0.111)	0.444 (0.561)
WIKI Indicator (Indirect)	2.477 (1.453)			0.100 (0.0750)			-1.615 (-0.922)	-0.403 (-0.274)
<b><i>Reputation acquisition</i></b>								
Previous Funded Project		0.756 (1.433)			0.544 (1.325)		0.592 (1.224)	
Previous Failed Project		-2.493*** (-2.924)			-2.194*** (-2.739)		-2.221*** (-2.659)	
Previous Backer Satisfaction			4.296*** (2.908)			3.049** (2.373)		3.010** (2.271)
<b><i>Entrepreneur Characteristics</i></b>								
Kickstarter Experience	0.232 (0.653)		0.147 (0.465)	0.148 (0.497)		0.0622 (0.251)		0.0664 (0.251)
Social Networking	-0.000104 (-0.244)	-0.000198 (-0.408)	0.000244 (0.525)	-0.000448 (-1.168)	-0.000464 (-1.129)	-0.000142 (-0.370)	-0.000502 (-1.167)	-0.000185 (-0.442)
Number of Projects Backed	0.169** (2.027)	0.150* (1.830)	0.149* (1.748)	0.157** (2.088)	0.145* (1.919)	0.145* (1.860)	0.143* (1.932)	0.145* (1.888)
Country	3.629* (1.943)	1.997 (1.002)	3.059 (1.635)	2.207 (1.114)	1.257 (0.566)	2.291 (1.118)	0.920 (0.397)	2.176 (0.987)
<b><i>Project Characteristics</i></b>								
Funding Period	-0.0146 (-0.418)	0.0146 (0.452)	-0.0217 (-0.585)	-0.00382 (-0.0978)	0.0210 (0.565)	-0.0106 (-0.280)	0.0222 (0.586)	-0.0104 (-0.269)
Log(Funding Goal)	-0.549*** (-3.845)	-0.310* (-1.748)	-0.511*** (-3.812)	-0.635*** (-3.452)	-0.444* (-1.839)	-0.628*** (-3.480)	-0.409* (-1.715)	-0.615*** (-3.548)
Estimated Time To Delivery	-0.00456 (-1.050)	-0.00408 (-0.992)	-0.00506 (-1.201)	-0.00690 (-1.332)	-0.00609 (-1.255)	-0.00693 (-1.344)	-0.00630 (-1.332)	-0.00710 (-1.420)
<b><i>Reward Characteristics</i></b>								
Strategic Pricing	NO	NO	NO	YES	YES	YES	YES	YES
Limit on Quantity	NO	NO	NO	YES	YES	YES	YES	YES
Average Length of Words used	NO	NO	NO	YES	YES	YES	YES	YES
Observations	177	177	177	177	177	177	177	177
Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1								

Table 7 Panel (B) presents results from Tobit regression of the Over-subscription Ratio for a given project onto measures of pre-existing reputation, reputation acquisition as well as different sets of control variables. The estimation is performed using 177 listings with 95 uncensored funded projects with over-subscription ratio larger than 1. We report coefficient estimates on truncated mean, as well as p-value associated with the test of whether the coefficient estimate is equal to zero. See Appendix we for the detail definition of the variables. Standard errors are adjusted for the clustering effect within the category.

### (C) Tobit Analysis of Determining Over-Subscription (First-time Entrepreneur Only)

	1	2	3	4	5	6
<b><i>Pre-existing Reputation</i></b>						
WIKI Indicator (Direct)	3.095** (2.071)		3.245** (2.118)	3.001** (2.080)		3.162** (2.127)
WIKI Indicator (Indirect)		2.773** (2.153)	3.031** (2.230)		2.778** (2.173)	3.045** (2.256)
<b><i>Reputation acquisition</i></b>						
Previous Funded Project						
Previous Failed Project						
Previous Backer Satisfaction						
<b><i>Entrepreneur Characteristics</i></b>						
Kickstarter Experience						
Social Networking	4.87e-05 (0.457)	0.000270** (2.012)	4.15e-05 (0.397)	-6.54e-06 (-0.0591)	0.000194 (1.542)	-6.11e-06 (-0.0564)
Number of Projects Backed	0.132*** (3.458)	0.127*** (3.356)	0.120*** (3.153)	0.118*** (3.233)	0.111*** (3.091)	0.106*** (2.917)
Country	1.442 (1.630)	1.449 (1.589)	1.564* (1.695)	1.362 (1.582)	1.358 (1.562)	1.481* (1.663)
<b><i>Project Characteristics</i></b>						
Funding Period	-0.0132 (-1.364)	-0.0230*** (-3.077)	-0.0168** (-2.402)	-0.0116 (-1.254)	-0.0211*** (-3.000)	-0.0155** (-2.369)
Log(Funding Goal)	-0.300 (-1.541)	-0.269 (-1.446)	-0.309 (-1.567)	-0.434* (-1.792)	-0.413* (-1.723)	-0.439* (-1.803)
Estimated Time To Delivery	-0.000487 (-0.650)	-0.000492 (-0.704)	-0.000493 (-0.619)	-0.000773 (-1.018)	-0.000853 (-1.151)	-0.000763 (-0.950)
<b><i>Reward Characteristics</i></b>						
Strategic Pricing	No	No	No	YES	YES	YES
Limit on Quantity	No	No	No	YES	YES	YES
Average Length of Words used	No	No	No	YES	YES	YES
Observations	1,226	1,226	1,226	1,226	1,226	1,226
Robust t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1						

Table 7 Panel (C) presents results from Tobit regression of the Over-subscription Ratio for a given project onto measures of pre-existing reputation, reputation acquisition as well as different sets of control variables. The estimation is performed using 1226 listings with 408 uncensored funded projects with over-subscription ratio larger than 1. We report coefficient estimates on truncated mean, as well as p-value associated with the test of whether the coefficient estimate is equal to zero. See Appendix we for the detail definition of the variables. Standard errors are adjusted for the clustering effect within the category



**Table 8: Probit Analysis of Determining Funding Success with Additional Controls**

	Full Sample		Serial Entrepreneur Only			First-Time Only
	1	2	3	4	5	6
<b><i>Pre-existing Reputation</i></b>						
WIKI Indicator (Direct)	0.291*** (3.383)	0.267*** (3.407)	0.0412 (0.320)	-0.0871 (-0.489)	0.00972 (0.0684)	0.320*** (4.008)
WIKI Indicator (Indirect)	0.444*** (4.647)	0.419*** (4.160)	0.0993 (0.482)	-0.275 (-1.283)	0.0927 (0.446)	0.502*** (4.335)
<b><i>Reputation acquisition</i></b>						
Previous Funded Project		0.212*** (3.083)		0.189*** (6.380)		
Previous Failed Project		-0.106** (-2.028)		-0.185** (-2.116)		
Previous delivery Comments	0.631*** (3.893)		0.713*** (8.745)		0.857*** (8.615)	
<b><i>Entrepreneur Characteristics</i></b>						
Kickstarter Experience	0.00570 (0.309)		0.0285 (1.545)		0.0435*** (2.939)	
Social Networking	1.85e-06 (0.0695)	-1.43e-05 (-0.573)	8.46e-05*** (2.585)	2.36e-05 (0.879)	9.50e-05*** (2.903)	-2.09e-05 (-0.737)
Number of Projects Backed	0.00753*** (3.830)	0.0108*** (4.083)	0.00648*** (2.600)	0.0141*** (4.050)	0.00822** (2.424)	0.00953*** (3.043)
Country	0.0471 (0.568)	0.0222 (0.261)	-0.0964 (-0.668)	-0.172 (-1.390)	-0.134 (-0.856)	0.0291 (0.375)
<b><i>Ex-post controls</i></b>						
Demand (Facebooklikes)	YES	YES	YES	YES	YES	YES
Backer's Average Experience	NO	YES	NO	YES	YES	YES
<b><i>Project Characteristics</i></b>	YES	YES	YES	YES	YES	YES
<b><i>Reward Characteristics</i></b>	YES	YES	YES	YES	YES	YES
Observations	1,403	1,403	177	177	177	1,226
Pseudo R2	0.343	0.365	0.485	0.530	0.522	0.343
Robust z-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1						

Table 8 column 1 and 2 present results from probit regressions of the funding indicator into measures of pre-existing reputation, previous funding indicator, previous delivery information as well as different control variables from ex-ante entrepreneur, project and reward characteristics and additional ex-post controls. The estimation is performed using 1403 listings. Column 3, 4 and 5 present results using 177 listings launched by serial entrepreneurs only. Column 6 presents results using 1226 listings launched by first-time entrepreneurs. We report estimated marginal effects, as well as the p-values associated with the test of whether marginal effect is equal to zero. See Appendix we for a detail definition of the variables. More specifications are available upon request.

## Appendix I: Variables

### *Funding Performance*

1. **Funding Indicator:** a dummy variable of 0 (not funded) or 1. (funded)
2. **Days to reach the funding goal:** the number of days for the project to get funded
3. **Total pledged amount:** This is the total fund raised through the funding process regardless of funding result.
4. **Over-Subscription Ratio= Total pledged amount/Goal:** This is the ratio of the total pledged amount to the funding goal set by entrepreneurs.
5. **Dollar Per Backer = Total pledged amount/Total Backers**

### *Pre-existing Reputation and Reputation formation:*

6. **Entrepreneur's reputation:** Wikipedia page as proxies for the prior reputation of the creator entrepreneur:  $wiki_1$ , a dummy variable takes on a value of 0 (Entrepreneur doesn't have a independent wiki page), or 1 (Entrepreneur has an independent Wikipedia page);  $wiki_2$ , a dummy variable takes on a value of 0 ((Entrepreneur doesn't have any mention on any wiki page) or 1 (Entrepreneur has an indirect mention on wiki page, usually through his/her previous work)
7. **Number of previous funded projects:** This is number of project entrepreneur previously launched and reached their funding goal before they launch the current project.
8. **Number of previous failed project:** This is number of project entrepreneur previously launched and failed to reach their funding goal before they launch the current project.
9. **Previous Backer Satisfaction:** total positive comments from all previous funded projects as a fraction of the total comments about the delivery as a proxy to measure the delivery performance. Please refer to **Appendix III** for the details.

### *Project characteristic*

10. **Goal:** The dollar amount entrepreneur wants to be raised from the crowd for this project

11. **Category:** The projects launched by the entrepreneur are categorized into 13 different categories: Art, Comics, Dance, Design, Fashion, Film & Video, Food, Game, Music, Publishing, Photography, Technology, and Theatre.
12. **Funding Period:** The fund raising time from the start to the end. The maximum funding period is 60 days under Kickstarter policy.
13. **Demand Information:** we measure the demand information by using the number of votes of "like it" through the Facebook link according to each category.
14. **Country:** a dummy variable which measures the place where individual or startup launches the project. (US=1 and UK=0) The current data doesn't include any project launched from Canada.

#### *Entrepreneur characteristic*

15. **Social network:** This is the number of people listed on an entrepreneur's Facebook account if he/she linked their Facebook account with this platform on the first day of the listing period.
16. **Entrepreneur's participation in other projects:** This is the number of projects the entrepreneur backed previously up to the point when he launched his own project.
17. **Serial Entrepreneur:** This is the dummy variable of 0 (no past experience on Kickstater) and 1. (have at least one project launched before the current venture)
18. **Experience:** This is the number of projects an entrepreneur launched on Kickstarter before the current project.

#### *Reward Characteristic*

19. **Strategic pricing:** the dollar amount of the average reward level set by entrepreneur adjusted by the sub-category average.
20. **Limited on number of backers:** This is the dummy variable of 0 (no limit of the quantity of the reward) and 1. (limit of the quantity of the reward exists)
21. **Number of reward level:** the total number of reward level set by the creator

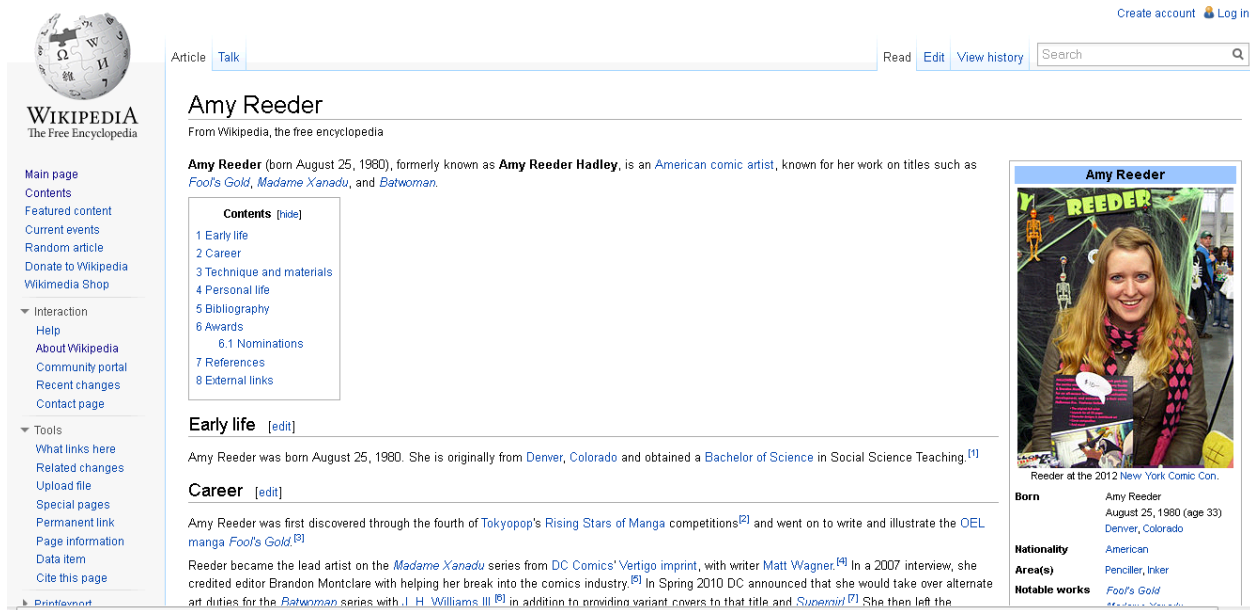
- 22. **Average number of words in the description of each reward level:** the average number of words creator used to describe each reward
- 23. **Estimated Delivery time:** the estimated delivery time of each reward level

***Backers Characteristic***

- 24. **Backers:** Total number of people who pledged to this project.
- 25. **Number of projects backed:** This is the total number of projects backed by the same individual before the current “investment”

## Appendix II: Wikipedia page examples:

### 1. Amy Reeder has an independent Wikipedia page (Wiki<sub>1</sub>=1)



The screenshot shows the Wikipedia page for Amy Reeder. The page is titled "Amy Reeder" and includes a summary, a table of contents, and a detailed biography. The biography mentions her birth date (August 25, 1980), her education (Bachelor of Science in Social Science Teaching), and her career as a comic artist, including her work on "Fool's Gold," "Madame Xanadu," and "Batwoman." A sidebar on the right contains a photo of her at a comic convention and a table with her personal details.

**Contents** [hide]

- 1 Early life
- 2 Career
- 3 Technique and materials
- 4 Personal life
- 5 Bibliography
- 6 Awards
- 6.1 Nominations
- 7 References
- 8 External links

**Early life** [edit]

Amy Reeder was born August 25, 1980. She is originally from [Denver, Colorado](#) and obtained a [Bachelor of Science](#) in Social Science Teaching.<sup>[1]</sup>

**Career** [edit]

Amy Reeder was first discovered through the fourth of [Tokyopop's Rising Stars of Manga](#) competitions<sup>[2]</sup> and went on to write and illustrate the [OEL](#) manga *Fool's Gold*.<sup>[3]</sup>

Reeder became the lead artist on the *Madame Xanadu* series from [DC Comics' Vertigo](#) imprint, with writer [Matt Wagner](#).<sup>[4]</sup> In a 2007 interview, she credited editor [Brandon Montclare](#) with helping her break into the comics industry.<sup>[5]</sup> In Spring 2010 DC announced that she would take over alternate art duties for the *Batwoman* series with [J. H. Williams III](#) <sup>[6]</sup> in addition to providing variant covers to that title and *Sunbeam*.<sup>[7]</sup> She then left the

**Amy Reeder**

Reeder at the 2012 New York Comic Con.

<b>Born</b>	<div>Amy Reeder</div> <div>August 25, 1980 (age 33)</div> <div>Denver, Colorado</div>
<b>Nationality</b>	<div>American</div>
<b>Area(s)</b>	<div>Penciller, Inker</div>
<b>Notable works</b>	<div><i>Fool's Gold</i></div> <div><i>Madame Xanadu</i></div>

### 2. Jason Cohn has an indirect mention on a Wikipedia page (Wiki<sub>2</sub>=1)



The screenshot shows the Wikipedia page for the documentary film "Eames: The Architect and the Painter". The page is titled "Eames: The Architect and the Painter" and includes a summary, a table of contents, and a detailed biography. The biography mentions the film's director (Jason Cohn), its production (Bill Jersey), and its subject matter (the Eames Office). A sidebar on the right contains a photo of the film's poster and a table with its production details.

**Contents** [hide]

- 1 Reception
- 2 Awards
- 3 Home media
- 4 References
- 5 External links

**Reception** [edit]

*The New York Times* reviewer [A. O. Scott](#) called it "a lively new documentary" and "appropriately busy and abundant: full of objects, information, stories and people, organized with hectic elegance."<sup>[1]</sup> He praised it for showing, "in marvelous detail, how their work was an extension of themselves and how their distinct personalities melded into a unique and protean force."<sup>[1]</sup>

Tom Keogh of the *Seattle Times* wrote that "Much like the creations of its subjects, 'Eames' is itself a dazzling, sensory adventure" and that "the film is an extraordinary and enjoyable history of how two people influenced so much of our thinking and surroundings today."<sup>[2]</sup>

*Los Angeles Times* critic [Kenneth Turan](#) described the film as "a thorough and vibrant examination of the master Modernists."<sup>[3]</sup>

**Awards** [edit]

**Eames: The Architect and the Painter**

Directed by [Jason Cohn](#)

Produced by [Jason Cohn](#)  
[Bill Jersey](#)

Written by [Jason Cohn](#)

Narrated by [James Franco](#)

Studio [Quest Productions](#)  
[Bread & Butter Films](#)

### **Appendix III: Examples of Different Comments:**

We read the last 50 comments on the project's comments page, and use the common sense to divide each comments into negative, positive and chat. We only include negative and positive comments.

Following are the examples:

#### **Real Example of Negative Comments:**

I really would like for this investment to pay out, but as time goes by, the more we read into the previous updates, the worse it gets.

No update in 4 months, almost a year and a half down the line and absolutely nothing more than "we'll let you know soon" type answers. A second project already shipped. Come on folks, we think if you can't give a definitive date/answer by now then you should maybe be a bit more honest. Not cool.

It's a bugger that this was the first project I've backed...it's put me off backing others...not sure how you can chase money for other projects before delivering on this...

I'm wondering if we can reclaim the cost from my credit card company as this project is beginning to feel like a scam. I'm well aware of the risks involved in funding projects, but nearly 12 months for a phone case is ridiculous.

#### **Real Example of Positive Comments:**

Woooooooooo hooooooooooo!!! Got mine today in IL!!! Opened the shipping box and was like, "What is this?!" The box sleeve is SOOOOOOOOOO awesome!!! we LOVE it!! Ripped the plastic off and pulled everything out so we could see the meeples! SO excited to play!!! You're the BEST Jamey!!!

Mine arrived today and we just love that new board game smell. I'm going to post some pictures on Facebook later we think to show it off to my friends. we really love the quality that was put into this. such an outstanding job. Jamey I'm really glad we backed your project and will continue to recommend your future ones. Keep up the great work.

Just got my copy. we had to double check on how much we paid for the game. What a great deal. Top notch production value.

#### **Real Example of Chat:**

Everything still on schedule?

Thanks a lot for this info. :) we just wanted to know because we will be on a sales tour for some days ;)

Hey guys, just a simple question. we just moved to a new flat, so my address has changed since we backed this project. Once it is going to be sent, do you need my new address, or will you contact me for it anyway? Thanks,