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# A LOOK AT CROWDFUNDING – AN EMERGING TREND THAT THREATENS TO DISPLACE TRADITIONAL FINANCIAL INTERMEDIARIES

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ABSTRACT

# A LOOK AT CROWDFUNDING – AN EMERGING TREND THAT THREATENS TO DISPLACE TRADITIONAL FINANCIAL INTERMEDIARIES

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Financial intermediaries, as allocators of capital between savers and borrowers, perform a critical function in the economy by determining which companies, projects, and entrepreneurs are given funding to execute their ideas. Crowdfunding, a new financial platform evolved from the success of crowdsourcing, seeks to empower the crowd to make the same decisions without the intermediation. Through a descriptive analysis of existing crowdfunding sites, the study finds that the trend has already proven its viability through a number of different funding models with a focus on not-for-profits and the arts. In order to project to what extent of the banking market crowdfunding may conquer, traditional financial intermediaries and their roles, both mechanically and conceptually, are analyzed. This finds that there are several critical functions that investors demand, namely liquidity and a delegated monitor, that crowdfunding cannot yet provide. However, the study also looks at the origin and motivation of the crowd and concludes that the technological features that crowdfunding offers, namely social networking and recommendation algorithms, give reason to view this platform as a sign of the industry's future direction.

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# Chapter I: Introduction to the Crowd

Recent economic events have questioned the size, scope, and sheer necessity of entire industries, with banks being pushed into the spotlight. Financial institutions have dynamically changed over the course of history and currently operate in a unique environment – one that emphasizes the alignment of incentives between all parties in a financial transaction. The industry today leaves a financing gap for early-stage ventures, especially those in the arts and not-for-profit sectors that were most affected by the recession. A prospective solution is crowdfunding, an open-sourced platform that connects borrowers and lenders through the Internet. While still in its early stages, the model developed to date could serve as an indication of the industry's direction into the future.

## Definition of Crowdfunding

Crowdfunding describes the collaboration between projects that require financing and people that are willing to provide financial support. Similar to the public equity markets, crowdfunding utilizes the collective wisdom of the crowd and allows the masses to choose which projects get funded to completion. The difference is threefold: crowdfunding minimizes the middleman influence of the broker by directly connecting the investors with entrepreneurs; facilitates funding predominantly for specific entrepreneurial projects or startups that choose various methods to rewards investors; and shares information through online platforms that operate as communities. It is, in a sense, a localized stock market with a redefined system of returns. The trend has gained popularity on the heels of social networking, as the growth of the online community creates an increasingly participative environment of users. Whether to solicit donations for a cause, develop an involved fan base for a band, or pre-sell a product to its future consumers, a variety of businesses have implemented different forms of crowdfunding to achieve their funding goals.

Though technology has widened its practice, crowdfunding has historical origins. In 1865, French sculptor Frederic-Auguste Bartholdi became inspired to construct a giant statue of a woman, entitled “Liberty Enlightening the World”, to celebrate the first centennial of the United States. It was decided that the French would pay for the statue, and the Americans would fund the pedestal. Unfortunately for the American side, both the U.S. Congress and the State of New York refused to pay for the pedestal.

The problem took a new turn in 1883, when Joseph Pulitzer, publisher of the widely circulated *New York World*, became frustrated at the lack of progress and launched a campaign to solicit donations from his reader base. Funds flowed in, as the frequency of donations made up for the small quantities, though the total was still insufficient. The *American Committee*, leading the construction of the pedestal, noticed Pulitzer’s success and launched a campaign that included a reward system: a $1 donation gave a 6” statuette replica, and a $5 donation gave a 12” replica. Uncovered by author Antti Hannula in his article “The Statue of Liberty was Crowdfunded,”[1] the advertisements appealed, “Every American citizen should feel proud to donate to the *Pedestal Fund* and own a model in token of their subscription and proof of title to ownership of this great work.” The campaign’s success led to the completion of what we now know as the Statue of Liberty.

[1] Hannula, Antti. "The Statue of Libery Was Crowdfunded." *Insider's View to Entrepreneurship*. Gasellit, 13 Oct. 2010. Web. Spring 2011.

Regardless of whether the investors in the project contributed out of patriotism, charity, or genuine desire for the replica statue, this story illustrates the financial power of a dedicated community, which is the basic idea on which crowdfunding thrives. This paper seeks to explore this model and identify whether it will become a viable alternative to fundraising not just for charity and non-profits, but for all ventures that today are either overlooked or funded through traditional financial intermediaries.

**Crowdfunding vs. Microfinance**

The example above demonstrates how crowdfunding often relies on small donations in large quantities. This characteristic leads to a natural comparison between crowdfunding and microfinance, another emerging field in the realm of finance, which focuses on providing financial services to low-income people. Advocates believe that by empowering the poor with access to loans, they will be able to achieve positive returns and improve their standard of living. Traditional banks do not find profitability in microfinance because the loan amounts are not large enough to outweigh the overhead costs incurred by underwriting the loan. To fill this gap, microfinance institutions have sprouted across the world and have built the infrastructure to offer microloans to previously inaccessible areas. Though the services may not command the same profit margins to which traditional banks are accustomed, many have proven to be profitable.

Microfinance is an example of an innovative trend in finance that did not make sense for traditional banks to adopt. This led to an independent movement that sidestepped the traditional institutions and developed into a substantial industry. The most poignant example of a microfinance success is Kiva, an online peer-to-peer lending service that allows ordinary web users to invest small increments to impoverished entrepreneurs via microfinance institutions. By pooling together simple $25 zero-interest investments, Kiva has managed to activate over 500,000 lenders and raise over $200 million in loans with a 99% repayment rate.[2] Though the mechanics of microfinance and crowdfunding can be different, both seek to explore the power of what can be done with a large number of people investing a small amount each. They also share a similar stage in that both are cutting edge, though still somewhat unproven, fields of finance, and both have not yet been widely adopted by traditional banks.

**Origins from Crowdsourcing**

The origins of crowdfunding, both practically and etymologically, come from a greater trend called crowdsourcing, which has spawned from the greater connectivity that the spread of the Internet has enabled. Coined by Jeff Howe's 2006 *Wired* article, the term "crowdsourcing" explains a new business model – one that uses an open call format to harness the collective intelligence and creativity of the crowd. It is similar to the process of outsourcing, but the task is opened to a large, undefined group of people that are referred to as the crowd.[3]

Companies and entrepreneurs have taken advantage of crowdsourcing in a variety of ways, and it has manifested itself across industries and platforms. Perhaps the most notable example is Wikipedia, which sources the writing and editing of its articles to

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[2] "Kiva - Facts and History." *Kiva*. 28 Mar. 2011. Web. 28 Mar. 2011. <http://www.kiva.org/about>.

[3] Howe, Jeff. "The Rise of Crowdsourcing." *Wired*. June 2006. Web. Spring 2011. <http://www.wired.com/wired/archive/14.06/crowds.html>.

volunteers that have collaborated to create the largest online encyclopedia. Wikipedia demonstrates the sheer scale that crowdsourcing can attract, as the site boasts about 3 million active contributors and a database of 18 million articles. Many have used crowdsourcing as a means to further their marketing and advertising efforts. 99designs and namethis, for example, respectively turn logo designs and brand naming into a contest for the crowd. Larger corporations have also used the crowd to outsource operations ranging from advertisement generation to simple brainstorming. Most consumer-oriented online businesses today also implicitly feature crowdfunding to some extent, exemplified by Amazon's customer review system to which its success is largely attributed. All of these examples serve as evidence to the common acceptance of the crowd as a means of advancing business models today.

### Deriving the Power of the Crowd

Because both crowdsourcing and crowdfunding stem from the innate assumption that the crowd has a real value, it is important to identify the trends that have contributed to its rise to date. The most apparent is the advance in technology, without which there would not be even the ability to host a network accessible to the crowd. In regards to technology, Erin Beinhocker, author of *The Origin of Wealth*, makes a distinction between physical and social technologies. Physical technologies transform matter, energy, and information into a more desired state, whereas the social technologies reorganize people. Beinhocker writes, "Once the evolution of social technologies reached the stage at which large numbers of people could form cooperative networks and had the means for communicating and storing significant amounts of data, […] organizations of people have the ability to process information and solve complex problems that individuals cannot process of solve on their own."[4] He emphasizes the point that the crowd pools together collective intelligence, creating a being that supersedes the computing and creative limitations of the individual.

Social technology enables the network of the crowd, but it is the community that leads to the embracement. Robert Putman, author of *Bowling Alone: The Collapse and Revival of American Community*, argues that our social capital has fallen, and we are "increasingly disconnected from family, friends, neighbors, and our democratic structures."[5] This social commentary continues to describe a growing quest for connectivity and the potential for technology to satisfy it. Balancing the massive quantity of information generated by the crowd and the demand for a filtered output is an issue. Yochai Benkler, author of *The Wealth of Networks,* argued that targeted affinity groups regulate this. Studies of social networks have found that connections tend to cluster in nodes that represent similarities in interests. Benkler explains, "Intense interest and engagement by small groups that share common concerns, rather than lowest-common denominator interest in wide groups that are largely alienated from each other, is what draws attention to statements and makes them more visible."[6] The community segmentation of the crowd both fulfills a gap in people's social lives and creates a system to funnel information to its targeted audience.

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[4] Beinhocker, Eric D. . *The Origin of Wealth*. London: Random House Business, 2007. Print.

[5] Putnam, Robert D. *Bowling Alone: the Collapse and Revival of American Community*. New York: Simon & Schuster, 2000. Print.

[6] Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale UP, 2006. Print.

The importance of these affinity groups underscores the potential for the social features of crowdfunding that differentiate it from traditional financial intermediation.

**Motivations of the Crowd**

Successful crowd networks are fueled and uniquely identified by their strong participation. It is involvement that requires the greatest marginal cost for users in the form of time. In order to theorize how far crowdfunding can extend its reach, it is necessary to study the motivations of the crowd behind the platforms. Understanding crowdsourcing is a useful step to understanding crowdfunding – because the former is more established and commonly recognized, some research has already been done in the field. Many researchers in the field attempt to answer the question of why there are so many willing participants in crowdsourced projects. Crowdsourcing and all of its derivatives, including crowdfunding, rely on the active participation of the crowd, so it is a topic of interest to identify the demographics of those most involved. The study of what motivates participants is also valuable in thinking about how to best mobilize and incentivize the crowd.

In a 2008 study titled "Moving the Crowd at iStockphoto"[7], Daren Brabham surveys over 650 individuals active in the community at iStockphoto, one of the earliest widespread crowdsourcing sites. iStockphoto operates as a royalty-free photography agency for stock images and animations. Users can upload their personal creations for stock media, and clients may browse through the collection and download what best suits their needs. Individual photographers and the site are paid a small fee for each download by

[7] Brabham, Daren C. "Moving the Crowd at IStockphoto: The Composition of the Crowd and Motivations for Participation in a Crowdsourcing Application." *First Monday* 13.6 (2008). Print.

the client, though the open call system of attracting stock photographs makes it a minimal cost compared to personalized service.

Demographic data from the survey results show that the typical iStocker is "a white, married, middle– to upper–class, higher educated, 30–something, working in a so–called 'white-collar' job with a high–speed Internet connection in the home." More than two-thirds of respondents indicate their financial status as "able to pay bills with extra to save." Over three-quarters of the respondents had completed at least a U.S. associate's degree, with the most common occupations being self-employed, professional or technician, and educator or student. Nearly all had access to high-speed Internet, over half spend more than 22 hours on the Internet per week, and about half maintain a blog on the Internet. This demographic information gives an indication as to what stage crowdsourcing participation has reached. Clearly, the results here show that the "crowd" is a relatively homogenous group, leaving significant room for proliferation among different socioeconomic classes that have access to the Internet. Alternatively, the data may also suggest that only white-collar professionals with spare time have the inclination to contribute to the crowd. Such a conclusion applied to crowdsourcing can also translate to the potential participant group in crowdfunding as well.

Brabham hypothesized that the peer community of the site and the opportunity to develop personal skills would rank highest in the iStockers' motivations for participating in the site. While these two reasons did prove to be important motivators, the opportunity to make money ranked as most significant. Over 80% of survey respondents found their work to be at least somewhat profitable, with 20% finding it very profitable. The financial focus emphasized in the responses presents crowdsourcing in a different light than traditionally cast prior to this study. This demonstrates that crowdsourcing communities, while somewhat driven by social networking and the development of hobbies, offer a “hybrid hobby/work space where real money can be made,” as Brabham puts it. The overwhelming importance of making money is a surprising but fair assessment of the true motivation for active participation.

A more recent study also conducted by Brabham in 2010, titled “Moving the Crowd at Threadless”[8], looks at the motivations of users at Threadless.com. This crowdsourcing site asks users to submit their own t-shirt designs, puts them up to a public vote, and selects the top-rated shirts for production and sales. Designers that win the ongoing contest and get their t-shirt designs printed are rewarded with $2,000 in cash and $500 in Threadless gift certificates.

Brabham conducted this study by interviewing 17 active Threadless users, generating a set of qualitative data to accompany the quantitative survey results of his previous studies at iStockphoto. Though his interviews, Brabham noted five key themes that were resonant in the conversations: “1) the opportunity to make money; 2) the opportunity to improve one’s creative skills; 3) the opportunity for eventual freelance design work; 4) the love of community; and 5) addiction to the Threadless community”. These finds were largely in line with his previous study, as well as the few other publications in the field, and emphasize the dual purpose for users to both financially gain

[8] Brabham, Daren C. "Moving the Crowd at Threadless: Motivations for Participation in a Crowdsourcing Application." *Information, Communication & Society* (2010). Web.

and personally develop their skillset in their participation. The qualitative interviews did guide new insights into the potential strength of communities, to the point of addiction. One of the interviewees writes, “If you go on vacation, you can go through ‘withdrawals’ […]. I’m on the blogs almost every night, commenting or posting my own blogs.” Threadless.com’s ability to turn a crowdsourcing site into an addiction for users explains how it has uniquely been able to maintain a high level of creative participation – this serves as an educational lesson for any site that seeks to harness the crowd.

# Chapter II: Crowdfunding Models

There are hundreds of different crowdfunding sites that have surfaced on the Web in recent years. These platforms range in size of investment, industry themes, duration of projects, fee structures – evidence that the trend of crowdfunding has manifested itself into a variety of different business models. Though there are some dominant players already, the industry is young and still identifying its boundaries. All the sites operate under the same underlying structure of pooling several smaller investments from a crowd in order to fund a project that requires a larger investment. The key difference today is in the payout structure, as the market is still determining exactly what kind of financial asset to treat a crowdfunded investment.

The size and scope of crowdfunding sites have expanded quickly in a short period of time, driven by the heightened participation of both project creators and supporters. Crowdfunding has become a way to help fund any type of venture, whether the next great technology innovation, a touching non-profit organization, or even a request for personal use. The industries that participate are predominantly media-related, such as film, music, and the arts, though food and fashion are also popular, and technology and design have made their marks as well. Naturally, with this much diversity in projects and platform types, it is easy to get lost in the large pool of sites and opportunities. In the section below, different crowdfunding business models are identified, profiled, and analyzed in order to descriptively outline, in an organized manner, the current state of the crowdfunding industry.

These profiles were created as an illustration of the crowdfunding space via notable players that serve as representative examples. The accounts describe what the sites offer to start-ups, outline the mechanics of the platform, explain how they choose to reward investors, identify how the sites themselves generate profits, and use any publicly available statistics or examples to support the findings. Each site exhibits a unique feature or lesson to underline the range and direction of the industry.

**Rewards-based: KickStarter**

KickStarter is the exemplar of crowdfunding sites today. As of February 2011, it is estimated that the site has raised about $35 million for over 12,000 successful projects.[9] This is thought to be the largest of all sites in existence today, but more importantly, KickStarter is the best representation of the current model because it uses the reward-based model that has enabled crowdfunding to become a mainstream source of funding.

The KickStarter process must begin with an artist that has an idea and submits it to the site. If the KickStarter team approves the idea, the artist can develop a project page,

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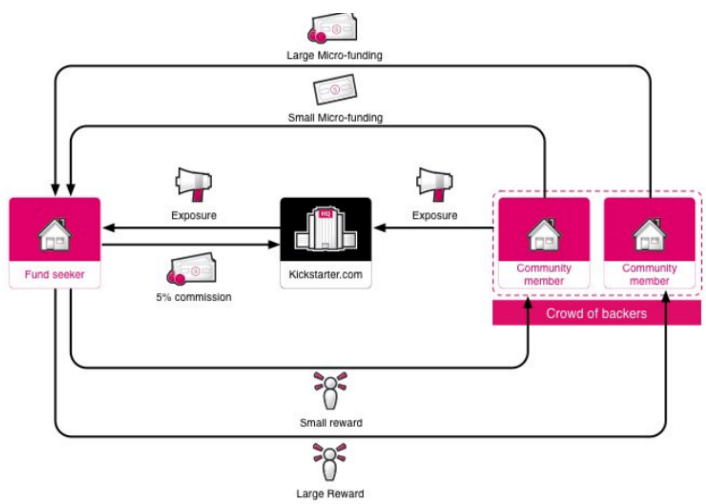
[9] Holm, Elisabeth. "The Kickstarter Blog." *Kickstarter*. 21 Mar. 2011. Web. 03 Apr. 2011. <http://www.kickstarter.com/>.

which will be categorized into one of the many genres that the site exhibits: Art, Comics, Dance, Design, Fashion, Film & Video, Food, Games, Music, Photography, Technology, Theater, or Writing & Publishing. On the project page, the artist can showcase a video and include a description of the project they are trying to accomplish and why. The project owner is then required to set a goal amount and a deadline for achieving the goal. If they receive enough pledges to meet the goal, then they keep the money. If the goal is not met, however, the pledgers are reimbursed. This is called a threshold pledge system, and ensures that projects do not receive partial funding. This allows the pledgers to more safely know that their money will not be touched unless the project owner has enough capital to actually realize his intended goals.[10] The Board of Innovation, which rated KickStarter as the number one "business model that rocked 2010", put together the visual below depicting the model with even more clarity:[11]




Source: Board of Innovation

[10] Wortham, Jenna. "Using Kickstarter to Fund a Small Business - NYTimes.com."*Technology - Bits Blog*. NYTimes.com, 25 Aug. 2009. Web. 03 Apr. 2011.

[11] Wauters, Robin. "10 Business Models That Rocked 2010." *Board of Innovation*. TechCrunch, 7 Jan. 2011. Web. 12 Apr. 2011

The above process applies to most crowdfunding sites in existence. KickStarter and other rewards-based models differentiate themselves when it comes to creating incentives for the pledgers. KickStarter allows artists to prepare a tiered rewards system. This means that pledgers will receive a reward for their funding, though different levels will yield different rewards to encourage higher investments amounts. The crowd will then decide whether the project meets its funding goal, based on the number of pledges the project receives. Though starting a project page is free, and the project owner does retain complete ownership over the business, there are some fees involved. If and only if a project becomes successful, KickStarter will apply a 5% fee to the funds raised, and Amazon Payments, the outsourced method of assured money transfer, will also charge between 3 to 5%.

To better illustrate the process of a rewards-based model, Scott Wilson and his project serve as a prime example to demonstrate the potential of the site. His project, titled TikTok+LuntaTik Multi-Touch Watch Kits, involved different designs that would seamlessly transform an iPod nano into a high-quality wristwatch. TikTok, the cheaper model, allows for the Nano to simply be snapped into and out of the dock of the watch. The LunaTik is a premium model that is constructed with more expensive material and securely fastens the Nano as a permanent watch piece. This project holds the record for largest amount raised on the site, having collected $941,718 from 13,512 different backers, significantly overshadowing his original funding goal of $15,000. To understand how Scott was able to achieve such a funding amount from a simple posting on an Internet site, it is necessary to observe the tiered reward system he offered:

| Amount | Backers | Reward |
| --- | --- | --- |
| Pledge $1 or more | 128 | Every dollar counts. If your dollar helps make this a reality you will be able to buy the TikTok or LunaTik online or hopefully someday, if successful, at an Apple Store near you. Be a part of making a cool product that no one else would take the risk on and enabling a design firm to produce its own undiluted product. |
| Pledge $25 or more | 2,432 | For $25 pledge you are pre-ordering and will receive the TiKTok Multi-Touch Watch Kit which will sell for $34.95 at retail. Includes shipping within the USA. |
| Pledge $50 or more | 5,013 | For a $50 pledge you are pre-ordering and will receive the LunaTik Multitouch Watch Conversion Kit. The Lunatik is hot-stamped and CNC'd out of aerospace grade aluminum at one of Apple's suppliers. The LunaTik will sell for $69.95 online and at retail. Includes shipping within the USA. |
| Pledge $70 or more | 4,390 | The Collection pre-order gets you both the TikTok and LunaTik. Includes shipping within the USA. |
| Pledge $150 or more | 1,398 | A serialized, red-anodized LunaTik Kickstarter Backer Edition signed via laser by the designer, Scott Wilson. While you wait for your custom color we will also send you a TikTok to boot. Includes shipping within the USA. |
| Pledge $500 or more | 100 (out of only 100 possible) | Spread the Love Party Pack. You will get a serialized red-anodized LunaTik Kickstarter Backer Edition (with 8GB iPod Nano included) signed via laser by the designer, Scott Wilson. We will also send you 5 silver anodized LunaTiks and 5 TikToks to give to your friends and family to replace their current old school timeware. |

Source: KickStarter

A clear conclusion from Scott’s tiered reward system is that the pledges are certainly not donations. Scott notes that the TikTok will retail for $34.95 and the LunaTik will retail for $69.95. For pledges less than either of these respective prices, the backer can essentially pre-order the items for a discount. This is attractive for the buyer because such a customer that found the page would likely be one that is attracted to the product and may even be willing to pay a premium. Scott Wilson also benefits from the arrangement by eliminating his need for a traditional financial intermediary. The funds from his pre-orders act as the required funds for his inventory and therefore his early investors, though they may be receiving a discount, give him the opportunity and seed capital to get the business off the ground so that it can sustainably run off its own profits thereafter. In such a transaction, KickStarter, the operating site, will receive slightly under $50,000 in fees.

It is not a surprise that the rewards-based system has gained popularity especially in the United States. For one, because the site simply acts as an exchange of goods rather than of securities, the U.S. Securities and Exchange Commission does not have a reason to be involved. Beyond escaping regulation, however, rewards manage to capture the creative element unique to crowdfunding. The site seeks to align investors and producers that theoretically share similar interests, especially in the projects and their missions, and therefore do not require the medium of money to agree to a fair transaction. Unfortunately, a disadvantage of this system is that it can be expensive on a time basis for a pledger to sift through the multiple tiers of rewards offered by the various projects that may draw him. Rewards-based models sacrifice certain efficiencies for a tiered and personalized system that can be successful – sometimes even to the tune of nearly $1 million – if the project has a product attractive to the consumers, and rewards that appeal to the consumers' desires in a fair trade with their pledge amount.

**Revenue-share: Catwalk Genius**

Catwalk Genius is an innovative new site based in the U.K. that employs the revenue-share model with the hopeful intention of revolutionizing the fashion industry. The site integrates an online designer fashion store with an investing program with the option to "Back a Designer." This serves as an outlet for designers to gain financing and expose their brand, and as a medium for those interested in fashion to enter and follow the industry as an investor. The New York Times comments that the site allows consumers to "put your money where your style is."[12]

If a project becomes fully funded, the designer has six to nine months to design and commission their production of a new collection. Target goals range from £5,000 to £50,000. Once achieved, the designers have full creative control over the design but must maintain the budget as originally outlined during the funding process. Revenues from the new collection sales are split equally between the owner, Catwalk Genius, and the backing community. Catwalk Genius additionally charges a 10% administration fee for all electronic payments on the site. For the backing community, investments are made in the form of shares. Each share costs £10, and represents a percentage of revenue the funder will be entitled to receive. Purchasing five shares will also give the backer access to a 10% discount on all current merchandise available by the designer for a period of 6 months.[13]

For artists that choose to sell their designs on Catwalk Genius, the community of the site creates a unique opportunity for them to attract a fan base. The site also claims that the sellers can "make better margins than selling wholesale, with no minimum volume." Many designers are attracted to the revenue-share model and list themselves on the site to raise money for their production costs. Backing a designer certainly holds the risk that the new collection does not sell and the investment fails to produce a return, but there is also

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[12] Cheshire, Tom. "The Creative Crowd's Greatest Hits." *Future Technology News and Reviews*. Wired UK, 7 Apr. 2010. Web. 03 Apr. 2011.

[13] "Frequently Asked Questions." *Catwalk Genius*. Web. 03 Apr. 2011.

the opportunity for financial rewards and the intangible value of access into the fashion industry.

**Equity-based: CrowdCube**

Until recently, the line between crowdfunding and traditional public market investment was relatively clear. Crowdcube, however, hopes to change that by acting as the world's first equity-based crowdfunding platform. The site currently only operates in the United Kingdom due to conflicting international regulations. Relying on the idea that many people investing modest sums can lead to grand investments, Crowdcube markets to both budding businesses that need capital as well as interested investors that seek to diversify their portfolios. Co-founder Luke Lang notes, "The web can challenge conventional business models."[14]

Entrepreneurs interested in participating in the service must first pass an initial review from the site itself. Once this screening is passed, it is the job of the investors in the crowd to appropriately value and fund the project. A discussion forum is included on each project page to encourage communication between the investors and entrepreneurs so that the most informed decisions can be made. Each project owner can decide how much equity they are offering for the total funding target requested. For example, White Van Ads is an outdoor vehicle advertising business that wants to more efficiently use car real estate to carry advertisements. Founder Dave Robinson explains, "We self funded the initial set up of White Van Ads, but to speed up growth we need to find more money. After looking at

[14] Lang, Luke. "Crowdfunding Equity – the New Age of Co-created Finance | Social Enterprise Network | Guardian.co.uk." The Guardian, 8 Mar. 2011. Web. 03 Apr. 2011.

all of the finance options available to a small business, Crowdcube stuck out like a shining beacon in a sea of mediocrity." The company is offering 20% equity ownership and requesting £50,000 in funding.[15]

Crowdcube takes a 5% fee for projects that successfully receive funding. They also plan to charge a £250 listing fee for prospective pitches, though that is temporarily being waived to promote participation. Finally, legal fees of £1,750 for equity registration are passed down to the entrepreneurs in the event that their funding was successful. Ordinary investors from the crowd can achieve a return on their equity investment if the company is sold, bought out, or floated on the stock exchange. As of now, it is questionable how liquid these shares are and there has not yet been a precedent produced by the site to demonstrate.

**Debt-based: Prosper**

Prosper is, by many respects, more than a crowdfunding site. It employs a microfinance structure similar to Kiva but also includes a financial return and options for diversification. As a peer-to-peer lending marketplace, the site simply connects prospective investors with prospective borrowers. Since its launch in 2006, Prosper has gathered over 1 million members and facilitated an impressive $225 million in funded loans. Borrowers specify a loan amount between $2,000 and $25,000, explain their purpose, and file basic application information. Investors can set their criteria, invest in loans either manually or through automated plans, and receive financial returns that have averaged at a net annualized rate of 10.1% since 2009.

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[15] Horscroft, Teresa. "Crowdcube Goes Live to the Nation." *The Crowdcube Blog*. Crowdcube, 15 Feb. 2011. Web. 03 Apr. 2011.

Prosper serves as an interesting case study on how a scaled online lending network can function. The site originally gained notoriety in the wake of the subprime mortgage crisis, when Wall Street's collapse led to difficult conditions for borrowers to get ordinary loans. Though investments through Prosper are not FDIC-protected, the returns, at over 10%, were attractive for many investors. Co-founder Renaud Laplanche describes how this is possible: "By creating a platform where investors can make loans directly to prime consumers, we eliminate the intermediary […]. They collect money in CDs and savings and give you a half percent, then turn around and lend it out at 16% or 18% as unsecured credit. The spread goes not so much for profit as to pay for branches and other infrastructure costs."[16] Because Prosper does not have the same infrastructure costs, Laplanche argues it is able to offer a better risk-adjusted return.

The site has had to make some revisions to its original model, however, as they noticed varying degrees of usage on the site. When the company began, Prosper let lenders bid in a seven-day auction to determine interest rates on the loans that were being considered. In December 2010, the company decided to switch this model due to the lack of interest in the auction system. Co-founder and CEO Chris Larsen comments, "It made the process for borrowers and lenders too complicated."[17] When the issue was recognized, Prosper decided to include a pre-set interest rate generated by its in-house experts that modeled out the default risk of the borrowers. They noticed that the vast majority of

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[16] Farnham, Alan. "LendingClub and Prosper: Online Peer-to-Peer Loans Benefit Borrowers and Lenders." *ABC News*. 6 Jan. 2011. Web. 03 Apr. 2011.

[17] Gonsalves, Anton. "Social Lender Prosper.Com Drops Auction Model." *InformationWeek*. 20 Dec. 2010. Web.

Prosper users selected the pre-set rate and therefore the company decided to make it the standard option. This solution presents a valuable lesson in the types of services intermediaries can add value by providing, and the importance of streamlining the investment process for a large number of active users.

**Social network: ChipIn**

ChipIn is a simple platform, but represents a core user base in the realm of crowdfunding. ChipIn's goal is to make it easier for ordinary people and groups to collect money. The site enables users to organize fundraisers in a quick, easy, and secure way. The founders of ChipIn wanted to target a different user base than many of the other crowdfunding sites. They emphasize that anyone can use the site to collect money for a personal cause or fundraiser. Additionally, they target bloggers looking to raise money through their sites and non-profit organizations seeking to engage their network of supporters. Regardless of who the fundraising originator is, the common denominator is that each person or organization leverages personal social networks to link to ChipIn, which only serves as the platform by which fundraising is spread.

In order to better achieve this mission of helping people help themselves, ChipIn has developed the most advanced widget capabilities of crowdfunding sites today. The site has made it a point to draw partnerships with social networks since its origination, and has had an arrangement with Facebook since 2007. These widgets allow the user to integrate a noticeable and catchy button on their Facebook, Twitter, or blog to better advertise their cause on ChipIn.[18]

The interesting concept that this site introduces is the financial power of social networks. Ultimately, the site provides a simple platform with the right tools, but it is the user's responsibility to market the project. The development of social networks has created an online community that allows for the sharing of news, causes, and now apparently even pleas for fundraising. ChipIn demonstrates a means of utilizing this access to a social network for a financial purpose. It also introduces a valuable conclusion that there is value in people with stronger social networks, as they can be rewarded for the relationships that they have built.

**Venture Capital (Grow VC):**

While crowdfunding in general should be seen as a threat to the existing venture capital industry, Grow VC, as its namesake suggests, is especially on the cutting edge. Grow VC markets itself as the first global crowdfunding platform for seed funding startups in the technology sector. Many crowdfunding companies focus on attracting artists but this site has an ambitious goal of becoming a preferred funding source for technology entrepreneurs. The site has over 7,000 registered users and has raised over $20 million in capital for 73 active startups.[19]

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[18] Riley, Duncan. "ChipIn Empowers Micropayments On Facebook." *TechCrunch*. 22 June 2007. Web. 03 Apr. 2011.

[19] Loikkanen, Valto. "Grow VC Model in Full Detail." *Grow VC Blog*. Grow Venture Community, 9 Aug. 2010. Web. 03 Apr. 2011.

Grow VC's business model is more complex than most because it involves a greater number of players. Like an existing venture capital firm, the site wants to harness the power of expertise in addition to funds in order to best service a growing start-up. There are three types of users: startups, which are the entrepreneurs seeking financing for their business; funders, which are private investors playing the same role as traditional angel investors; and experts, which provide services to the startups to add credibility. Funders must qualify themselves before being allowed into the community, either through experience as an entrepreneur or early stage start-up investor, or through recommendations by two pre-existing funders. This selective model is designed to ensure a minimum level of prudent investor judgment.

Every user must pay a subscription fee, which varies dependent on their role and level of investment. See below for the table:

For entrepreneurs and funders:

| | ANNUAL plan | QUARTER plan | MONTH plan |
|---|---|---|---|
| unlimited budget | $ 1,200 per year | $ 375 per quarter | $ 140 per month |
| up to $150,000 budget | $ 950 per year | $ 300 per quarter | $ 110 per month |
| up to $100,000 budget | $ 750 per year | $ 235 per quarter | $ 85 per month |
| up to $50,000 budget | $ 400 per year | $ 125 per quarter | $ 45 per month |
| up to $10,000 budget | $ 250 per year | $ 80 per quarter | $ 30 per month |
| up to $5,000 budget | $ 150 per year | $ 50 per quarter | $ 20 per month |

Source: GrowVC

For experts:

| | ANNUAL plan | QUARTER plan | MONTH plan |
|---|---|---|---|
| unlimited service offers | $ 800 per year | $ 250 per quarter | $ 90 per month |

Source: GrowVC

GrowVC collects 25% of these fees to fund the costs of running the service, and the remaining 75% serves as the user's initial investment into the community fund, which they can allocate to the multitude of different startups. Subscribed members then have the task of deciding which startups get funded for the community fund and are able to review and lobby for the startups that appeal to them most. In addition to the community fund, the site allows for direct investment, which can come from an individual member and managed through one of Grow VC's certified partners. Users that are registered as experts can also invest in startups through "sweat equity", where they can invest their time to better develop the business model and bring attention to the startup in order to increase likelihood of success.

If a startup wins a funding round, GrowVC's certified partners and lawyers officially close the transaction. Some start-ups in the community fund will inevitably fail, and the losses will come out of the overall balance. If a start-up manages to produce a return on investment, however, GrowVC takes 25% of the returns and the remaining 75% are divided by a rating system. The "top-ranked members" that either made the first investments or allocated the greatest portion of their community fund towards the successful startups gain a greater reward.[20] This motivates funders to seek out attractive startups, conduct thorough diligence screenings, and publicize their investment to draw others into the company.

GrowVC's unique structure enables and expands the most basic functions of crowdfunding. The selectivity of entering the community serves as a barrier to entry but also as a standard that inspires trust to invest in the community fund. The site also encourages an active user base by incentivizing funders to find and invest in startups before others. Finally, it is the integration of crowdfunding and crowdsourcing that make the service especially attractive to both desperate startups and curious experts. The alignment of interests via the site's platform can lead to not only the meeting of financial goals, but also that of business aspirations as well.

**Industry (Music): Sellaband**

Many crowdfunding sites choose to focus on a particular theme, as Dutch-based firm Sellaband does with music artists. The site launched in August 2006, and has since facilitated over $3 million invested in independent bands.[21] Users can browse through the music of independent artists on the site and support their favorite artists by contributing towards their funding goals. Music artists have a choice of employing a rewards-based system or a revenue-share system, and some use a mix of both to delineate the different tiers of funders. The site seeks to create a community of music fans that enjoy discovering

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[20] Butcher, Mike. "Grow VC Launches, Aiming to Become the Kiva for Tech Startups."*TechCrunch Europe*. 15 Feb. 2010. Web. 03 Apr. 2011.

[21] "How It Works." *Sellaband*. Web. 04 Apr. 2011.

future talent. Sellaband provides a way for the fans to participate in and profit off a band's development.

**Industry (Sports): MyFootballClub**

MyFootballClub, a company based in the U.K., tells an interesting story of crowdfunding being applied to a popular pastime such as sport. With no real precedent, former football journalist Will Brooks started the site that sought to recruit thousands of football fans to purchase an English league football team, with most decisions being made through a democratic vote over the Internet. The site launched in August 2007 and surpassed its goal of 50,000 members in just a few months. By January 2008, the site's members voted to purchase Conference National club Ebbsfleet United for £635,000.[22]

However, soon after the club purchase, the bubble seem to have burst for the site as membership renewals quickly declined. On the first anniversary of the takeover, 23,000 of the remaining 32,000 members had not renewed for a second year of membership. The site tried to involve the "owners" by investing in real-time game feeds on the site but there was little interest. The participation in voting went from a strong 18,000 members when deciding on which team to purchase to a dwindling 500 members when deciding whether owners should be allowed to decide team selection. PitchInvasion journalist Tom Dunmore points out, "The fact that thousands of people who have invested only $70 in the team aren't spending hours pouring over game video and information isn't exactly a surprise, and it seems to have finally dawned on those running the show that these decisions by

[22] Dunmore, Tom. "MyFootballClub Is NOT a Good Model of Customer Relationship Management." *Pitch Invasion*. 18 Feb. 2010. Web. 04 Apr. 2011.

distant, disconnected “owners” will actually impact upon real people’s careers and may not be best for the club on the playing field.”[23] The example demonstrates a lesson as to the disadvantages of micro-investments when it comes to motivation, and questions whether ownership is an appropriate responsibility for such a stake.

# Chapter III: Role of Financial Intermediaries

Given the diversity in crowdfunding models to date and the speed with which they are being created, it is important to question what the future will be for them. As the name implies, crowdfunding has become a real form of financing. It has thus far only spread to a certain segment of the startup population but has revealed itself as a functioning model. Based on observations from the examples, crowdfunding has become a major player in early-stage media projects as well as non-profits. The debate to examine is whether crowdfunding is a new product that has discovered a previously untapped market of interested businesses and investors; or if it is an improved service that will replace what traditional financial intermediaries are providing today.

**Difficulty in New Venture Financing**

The financing industry supports the economy by productively allocating capital that is used by businesses to develop a product or service and generate an economic return. Entrepreneurs have historically had difficulty acquiring capital for their new ventures. Most prospective businesses require some form of seed capital to begin operations in their

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[23] Dunmore, Tom. "MyFootballClub FC — Has the Bubble Burst?" *Pitch Invasion*. 31 Mar. 2008. Web. 04 Apr. 2011

respective marketplace. Several employ a method called financial bootstrapping, which involves the entrepreneur leveraging his personal network of family and friends to receive donations or loans. Some will also sacrifice a significant portion of equity and find a business partner to help share the initial cost. According to a study titled “The Impact of Planning on the Acquisition of Start-up Capital”, poor capitalization has been cited as a leading cause of failure for new ventures.[24]

Those with capital in the financial markets are usually incentivized to allocate their capital in the enterprises with the highest risk-adjusted return, so there is some justification as to why entrepreneurs face issues when seeking financing. The first revolves around the personal characteristics of the entrepreneur. Many are not trained, knowledgeable, or experienced in core business functions or the management of a firm, and can be hesitant in yielding control of the company’s operations or long-term vision to any outside influences. The second justification is associated with the actual business plan. Investors will dismiss new ventures for several reasons, including “higher agency costs, truncation costs, and poor information.” The industries that several new ventures seek to penetrate often exhibit a lack or high cost of information, which will increase the uncertainty of the proposed idea, thus reducing the investor’s expected risk-adjusted return. Thus, the key problem that prevents a fair capitalization of entrepreneurial startups is not the entrepreneurs or projects themselves, though they may be flawed in some instances, but rather it is the model that leads to such an information barrier. This is the previously untapped market that crowdfunding has only just entered but has potential to succeed because of the platform’s

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[24] Van Auken, Howard. "Impact of Planning on the Acquisition of Start-up Capital."*Entrepreneurship and Regional Development* (1996).

transparent information sharing and connecting to identify investors most interested in the particular idea.

## Declining Venture Capital Industry

The venture capital industry, which has traditionally performed the role of providing financing to early-phase startups, has witnessed a downward slide in both its current returns and future opportunities. The business model has remained virtually unchanged since it became popular in the 1970s, with the same unwavering focus on young, high-potential, high-risk, growth startup companies. The industry is known for its dependency on “home runs”, the few ideas that successfully revolutionize their industry and subsequently soar in valuation. These make up for the large number of unsuccessful investments that venture capital firms inevitably make. In a 2007 study by the Ewing Marion Koffman Foundation, over 3,000 early-stage investments were analyzed for performance metrics. The findings were that 52% of investments resulted in a negative return, though 7% of investments yielded greater than a 10x return. Such is the nature of the industry.[25] Many of the negative returns have been linked to their late entrance into the startups and poor pricing in the term sheets. Most firms have abandoned the original focus on early-stage startups and instead wait to see which companies survive to the next step before making an investment.

There has been a change in the landscape of the industry in the last decade. Attracted by the nascent Internet market, there was a venture capital boom in the late 1990s

[25] Garg, Rishi. "Most Venture Capital Funds Lose Money." *Fortune Finance*. CNN Money, 16 Feb. 2011. Web. 12 Apr. 2011.

that multiplied the number of firms and capital dedicated to the space. In 2006, the Wall Street Journal's Rebecca Buckman characterized the industry as having "too many firms, too much money, and a lack of home run deals."[26] Even industry leader Paul Ferri commented, "I thought by now investors would have figured out that our industry is not an economically viable business model." As of Q3 2010, the U.S. Venture Capital Index 10-year returns were a negative 4.6%, underperforming the S&P 500 over the same period by over 4%. Though the chosen time period has been unusually volatile, this is a common tenure to judge long-term returns. The difference is striking when considering the higher risk premium assumed on venture capital returns. The poor returns have not gone unnoticed by investors, and several endowments have cut their funding towards venture capital, leading a nationwide 40% decline in funding in 2010.

The reason for venture capital's decline can mostly be attributed to the industry's poor management of an increasingly changing economic landscape. Technology today turns over at a quicker pace than technology from several decades past. Markets that lasted 20 years will now last only 3 years. Venture capital firms have always had the luxury of waiting for markets to become established before making their investments. With a compressed market time due to the increasing rate of change, the venture capital firm has a shorter window to make its investment, since losing a year in a market of only 3 years can have a drastic effect on returns. Therefore it is necessary for venture capitalists to move quicker and earlier, though the existing infrastructure makes this adaptation difficult. A 2009 Deloitte research study notes, "We're seeing reduced investment levels as firms

[26] Buckman, Rebecca. "Silicon Valley's Backers Grapple with Era of Diminished Returns." *Wall Street Journal* 3 Aug. 2006. Print.

invest in fewer and much later-staged companies. The middle ground has been largely vacated."[27] The industry is concentrated on only a few major players, and therein it is dependent on the expertise of a relatively small number of individuals. The rigidity of this structure is not supportive of the new task at hand for venture capitalists, which is to sift through the exponentially increasing number of ideas at the earliest stage, and identify the most promising ones. An online platform as provided by crowdfunding is better equipped with the tools to achieve this mission.

**Theory Behind Financial Intermediaries**

To appropriately judge the role of crowdfunding in the greater financial intermediary space, it is necessary to identify the role, both conceptually and mechanically, that financial intermediaries currently provide for our economy. Banks act as intermediaries when they mobilize savings from surplus units, the lenders of the world, to shortage units, the borrowers of the world, in order to finance productive activities. They take deposits from those that have excess funds and transfer them in the form of loans to those that have creative uses and demand for those funds. This process is crucial to promote efficient resource allocation and to encourage productive growth for the economy, which serves as the defining goals used in judging the effectiveness of these institutions. The value of connecting savers and borrowers through financial markets is well-established, but the specific use of financial intermediaries to accomplish this task merits closer attention.

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[27] "Crisis in Venture Capital." *Crowdfunding*. Trampoline Systems, 2009. Web. 13 Apr. 2011.

As with any complex, high-pressure, or meaningful decision, a strong following of people prefer not to personally expend their time and resources with financial responsibility and choose to outsource their wealth management to financial institutions. Others, alternately, have taken advantage of online resources today to take more direct ownership in stocks. The trends in this space have had a tumultuous ride over the last decade. In 1950, the household sector held over 90% of corporate equity holdings in the United States. By 1995, this figure dropped to under 25%, largely attributed to the growth in assets allocated to pension funds and mutual funds.[28] The late 1990s, however, witnessed a diffusion of the stock marketplace as households participated through online brokerage accounts such as Scottrade and Ameritrade. After the crash of the technology bubble, risk tolerance plummeted and ownership rates fell once again. Only the wealthier socio-economic classes maintained the same levels of personal stock ownership, finds Kremp's study "From Main Street to Wall Street."[29]

Indicative data has not yet been revealed to understand the movement after the housing crisis, though if the technology bubble can serve any type of precedent, it can be speculated that there is less faith in the public equity markets and stock ownership rates are even lower. Less faith in traditional investment managers would serve as a positive catalyst for the reception of crowdfunding to the average investor, though an overall reduction in risk tolerance would curb some of this excitement.

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[28] Allen, F., and A. Santomero. "What Do Financial Intermediaries Do?" *Journal of Banking & Finance* 25.2 (2001). Print.

[29] Kemp, Pierre-Antoine. "From Main Street to Wall Street? The Determinants of Stock-Market Participation." *American Sociological Association* (2008). Print.

Financial intermediaries in the form of banks provide an important role to investors by acting as a delegated monitor to oversee investments. Without a monitoring system, there is more uncertainty in the investment for the lender and would thus require a higher yield from the borrower. This makes the lender willing to pay a fixed fee in order to outsource the monitoring of the investment to a reputable source. The mechanics of this exchange are outlined by Douglas Diamond in his 1984 paper “Financial Intermediation as Delegated Monitoring”, as banks pre-commit a fixed return to its depositors which results in an aligned incentive for the bank to do an effective job of monitoring[30]. Boot and Thakor’s 1997 paper “Financial System Architecture” elaborates on the bank’s role as an information bridge, reasoning that individual investors would not have access to the same information as banks would which would result in greater uncertainty about the riskiness of the investment.[31] To some extent, crowdfunding platforms serve as a monitor by screening the proposed projects, though not nearly to the level of existing banks. Crowdfunding sites place greater responsibility on the investor by abandoning the active role of a delegated monitor, though the platform does seek to provide the information bridge just as banks do.

While the delegated monitoring is a convenient way for investors to defer a potentially time-consuming responsibility, there are inefficient weaknesses that arise as a result of this approach, summarized by the basic principal-agent relationship. A key conceptual value of the financial markets is to unite people with similar views to join in

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[30] Diamond, Douglas. "Financial Intermediation as Delegated Monitoring." *Journal of Banking & Finance* (1984). Print.

[31] Thakor, A. "Issues in Financial Contracting and Financial System Architecture." *Journal of Financial Intermediation* 17.1 (2008). Print.

financing a creative project. The fact that a significant amount of assets are consolidated in a few managers, and that the agents may not share the same views as the actual investors limits the diversity of opinions present in the marketplace. Allen and Gale argue that more open market-based systems will lead to more innovation than bank-based systems. This conclusion supports the ability for crowdfunding platforms to empower the investment decisions of individuals and cater them towards their interests and opinions.

The fact of the matter, however, is that individual investors do not always have the financial capacity and risk tolerance to efficiently manage their own investments. Financial intermediaries play another significant role through their economies of scale by allowing for greater diversification and risk-sharing with investments. Major developments in academic theory have praised modern portfolio theory and the necessity of diversification to maximize the risk-adjusted return of a portfolio. The scale of their deposits also serves as a point of liquidity, allowing the depositor to stay financially flexible and have the option to retrieve his funds at any moment.

**Where Does Crowdfunding Fit?**

Though it is an industry that has only just begun to develop, crowdfunding as it is now cannot entirely replace the roles that traditional financial intermediaries perform today. Those that participate as investors in crowdfunded projects are offered little investor protection compared to those that invest capital in the equity markets. None of the crowdfunding models have proposed a clear plan in regards to liquidity issues, and it seems that an active secondary market would be necessary for investors to be interested in higher volumes of crowdfunded investments.

It is important to note that the motivations for crowdfunding investors seem to transcend simple financial reward. In the first published academic paper exploring crowdfunding, titled “Crowdfunding – Tapping the Right Crowd”, authors Lambert and Schwienbacher gather a hand-collected data set of nearly 70 attempted crowdfunding projects and analyzed their success rates based on different characteristics.[32] The study also conducted surveys of both investors and entrepreneurs to understand some qualitative rationale. Of the sample set, it was found that pure donation accounted for 22% of crowdfunding projects, active investment 32%, and passive investment 60%, with some projects exhibiting elements of multiple types. Raising money was naturally listed as a strong motivator for all, though getting public attention was also listed as relevant for over 85% of respondents, and obtaining feedback on their product or service was relevant for 60%.

The primary conclusion that the study makes is that not-for-profit organizations are more successful in achieving their funding objectives than any other organizational form, including company, specific project, and individual. Not-for-profit organizations not only raised the highest average funding amount but also achieved the highest success rate of proposed projects. This finding serves as a useful indication of both the current state of crowdfunding as well as the likely path it may take in the future. As a model, it clearly differentiates itself from traditional financing by allowing for auxiliary benefits besides financial reward. The prospect of investors being compensated by social reputation or other private benefits can be an attractive avenue for certain types of projects to leverage.

[32] Lambert, Thomas, and Armin Schwienbacher. "Crowdfunding -- Tapping the Right Crowd."*Dipartimento Di Scienze Economiche*. University of Bologna, 13 Feb. 2011. Web.

# Chapter IV: Challenges and Implications

There are several barriers to the successful proliferation of crowdfunding – some of them issued by the Securities and Exchange Commission and some natural complications as a result of the model. Many of these challenges are hurdles that crowdfunding must overcome if it is to provide the same services as traditional financial intermediaries. Some of these also appear to be obstacles in the present moment, but when taking the long-term approach, which is an appropriate view given the early stage of the crowdfunding industry, the challenges begin to look more like opportunities. All the solutions for crowdfunding are not clear, however, and the uncertainty of some solutions will undoubtedly hinder its rate of growth in the coming years.

**Regulation**

Crowdfunding, like any financial innovation, tests the boundaries of existing governmental regulation. No regulatory act explicitly mentions crowdfunding, but there are several historic pieces of legislation that broadly address the role of financial intermediaries and the areas that require compliance. Among them is the Securities Act of 1933, a set of rules that was codified in the aftermath of the Great Depression but has recently been discussed as it pertains to the regulation of hedge funds. The act mandates that any offering of a security to investors is subject to regulation and must be joined with the submission of registration documents to the Securities and Exchange Commission.[33] The definition of a security is conducted through the Howey Test, which deems a transaction an "investment

[33] "Laws That Govern the Securities Industry." *U.S. Securities and Exchange Commission*. 29 Jan. 2010. Web. 13 Apr. 2011.

contract" if there is: 1) an exchange of money; 2) with an expectation of profits arising; 3) from a common enterprise; 4) which depends solely on the efforts of a promoter or third party. Notice how the rewards-based models manage to avoid any conflict with the regulation because rather than exchanging money, the transaction is simply a purchase of the gift or product. Any equity-based or revenue-share model, however, would certainly be under question. The solution that GrowVC and ProFounder, two of the few American-based sites that employ these frameworks, is through the exception provided by Rule 304 in Regulation D of the same Securities Act of 1933. This allows accredited investors to have the right to make the investments, given some restrictions on the size and frequency, and explains why these sites have a selective process to even be considered a potential investor.

Though many of the regulations enacted by the Securities and Exchange Commission may be viewed as archaic in today's economy, the concept of regulating a crowdfunding site to prevent fraudulent activity is an important thought. The possibility of a decoy entrepreneur receiving the cash and not fulfilling the project is very real, and if prevalent, could be a deterrent to the popularization of crowdfunding. In addition, the threat that crowdfunding can take advantage of unsophisticated investors can be seen as both unethical and in violation of the Securities and Exchange Commission's codes against solicitation. Kevin Lawton, in his commentary *The Crowdfunding Revolution*, affirms that these would not be destructive issues because in the spirit of the crowd, the sites would regulate themselves.[34] A simple way to do so would be to publicly disclose the fraudulent

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[34] Lawton, Kevin, and Dan Marom. *The Crowdfunding Revolution: Social Networking Meets Venture Financing*. United States: Self-Published, 2010. Print.

rates of each site, which would not only inform investors so that they can make a knowledgeable investment decision, but also self-monitor for poorly managed crowdfunding sites. Every site has some sort of application process for projects to be featured, and the disclosure of a fraudulent rate can be a public way to highlight some sites that may do an especially effective job of avoiding such projects. Ultimately, it is the responsibility of the investor and not the site's management to assume the risk of fraud, so having the information available allows both sides to benefit and operate in a self-regulating environment.

**Intellectual Property**

Many critics of crowdfunding have commented on the poor management of intellectual property. The platforms of these sites ask the project managers to give helpful details of their business project in order to attract investors. Naturally, the next patent-pending invention that may be in need of funding would be hesitant to use crowdfunding and spread their trade secrets to the open web. Skeptics believe that such a system will make it impossible for crowdfunding to gain traction in important industries that often rely on patents. This can already be evidenced by the relative lack of technology, health care, or industrial projects that have been successfully crowdfunded.

The intellectual property issue is one that startups must deal with even when approaching venture capitalists or angel investors for necessary seed funding. Crowdfunding platforms have the potential to replicate the same process in a virtual world. For example, the entrepreneurs could publicize only a brief description to give a broad idea without revealing any potentially destructible details of their plan. They could then filter the types of investors to which they would like to market themselves, be it by age, line of business, occupation, past experiences, available capital, or any other characteristic they desire. From that point, the potential investor may need to personally contact the entrepreneurs, and if a certain level of trust is secured, then the details of the plan can be revealed. This appears to be quite a drawn-out process compared to the typical crowdfunding mechanism, but in reality it is a more efficient demonstration of what entrepreneurs must deal with in the venture capital industry. The idea here is that a crowdfunding platform can harness all of its data in an orderly manner to best connect the seemingly most compatible investors and entrepreneurs.

Granted, the crowdfunding solution to this problem may still present itself as too time-consuming and risky to attract a greater number of entrepreneurs that have concerns related to intellectual property. In response to this, Eric Beinhocker, author of *The Origin of Wealth*, points out that intellectual property troubles will essentially become less of an issue. This statement seems more sensible when viewing the concept historically. King Henry IV in 1449 issued the first 20-year English patent to a stained glass manufacturer. The technological duration of the types of economies at that time was of such greater magnitude that patents did function well to spark interest in such capital-intensive pursuits. It has already been discussed that the market duration has been compressed today, and that the opportunity cost of waiting is only expanding. As supported by a 2008 book titled "Patent Failure" by James Bessen and Michael Meurer, they conclude that the cost, both of time and money, to secure a patent is becoming increasingly less attractive.[35] They find that the risk of patent litigation serves as a net disincentive to research and development, and argues that the system urgently needs to be changed. The result of the analysis is that there is a greater frequency of intersecting ideas and inventions among engineers and entrepreneurs, and the most efficient path would be one towards an open-sourced framework that better rewards swift execution rather than spending resources on the authorization of idea ownership. This landscape would be especially compatible with crowdfunding platforms, both for their promptness of securing available funding and their connectivity with like-minded individuals.

By collaborating more openly on published projects, there is further potential for crowdfunding to reach an intersection with crowdsourcing. Entrepreneurs could use the platform as a means of connecting with professionals that may be interested in the same ideas, and investors may use the platform to find interesting companies in which they would be interested in participating. The connection between these two parties can not only lead to greater chances of successful idea execution, but also important business and personal relationships.

**Information Overload**

While the creation of new ways to store investor and project information is part of the attraction of crowdfunding, the overload of information can in contrast be seen as a

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[35] Bessen, James, and Michael James. Meurer. *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk*. Princeton: Princeton UP, 2008. Print.

challenge. The market today requests a significant investment of time on the user's behalf to scroll through and identify projects that may interest them. Crowdfunding will likely face the same problem that venture capital does today – with so many early-stage ideas of varying quality, how do you best manage and display this information to interested investors? As discussed in the section dissecting financial intermediaries, most people would rather outsource the time-consuming and often mentally draining task of researching and investing in start-up companies.

Though the multiples of choice and inefficient means of matching a suitable project may be a hindrance to the number of participants in crowdfunding today, the online nature of the platforms and the correlation with social networking make this a unique opportunity. It is important to remember what worked for crowdsourcing in managing the same problem. As Robert Putnam researched, affinity groups and the usage of social networks is a proven effective means of filtering large amounts of information. Social networks themselves have already become quite developed so an integration of crowdfunding with these networks would be a great way for users to share their investing experiences with their peer group, which leverages the social reputation factor that is found to be so significant with such investments. This social atmosphere will encourage cross-funding between social groups and generate interest in the projects supported by peers.

Crowdfunding sites should also be able to offer unique ways of filtering the investment set based on personal interests. It would begin with a detailed profile for each prospective investor, which would analyze both interests and portfolio diversification. A similar data screening would be done for each potential project, and in a manner conceptually identical to the way that eHarmony and other match-making sites function, the platform can use its superior infrastructure for data collection to pair the investor with an entrepreneur that most fits his investment interest, according to the values that the investor himself specifies. Recommendation engines have contributed to the widespread adoption of several online consumer platforms, most notably with Netflix for movies, Pandora for music, Goodreads for books, and Amazon for general merchandise. These systems approach the problem of content discovery both empirically, through tracking which projects tend to follow a particular user's interest, and deductively, through proprietary computer algorithms that dissect the product's characteristics and find similarities. This use of programmable intelligence is reminiscent of some of the financial engineering that takes place at hedge funds today for public market investments. The crowdfunding platform makes this intelligence available to any prospective investor investing in a startup entrepreneur.

Finally, if these options still demand too great of a time investment on the investor's part, there would inevitably be services that will find projects for paying customers. The concept of this is essentially no different than keeping savings invested in a mutual fund, where the fund manager acts as the intermediary and makes portfolio allocation decisions on the investor's behalf based on his understanding of the investor's goals. The differences are that these would be early-stage ventures and ideally have a positive social or personal connection to the investor.

**Liquidity**

When looking at what traditional financial intermediaries have to offer and comparing it to the current crowdfunding package, one of the most glaring differences is liquidity. This issue is the least addressed by existing crowdfunding sites and commentaries about the topic, leading to the assumption that its fulfillment is the most uncertain. If investors cannot easily exit from their shares then the value of equity in these companies dramatically falls. Some secondary market sites for private company shares have gained notoriety, such as SecondMarket, which boasts over 50,000 individuals and institutions.[36] The fact that the Securities and Exchange Commission has not yet terminated the arena hints that even the regulatory bodies see the value in making liquidity out of illiquid shares.

The problem with crowdfunding is that the platform focuses on early-stage ventures that do not command the same attention as the private companies listed on these secondary sites, such as Facebook and Groupon. The funding requests for these projects are relatively small, though because it is crowdfunded there are a large number of participants. This gives hope that the number of active users may be large enough to create a liquid secondary market, though it remains to be seen. If crowdfunding sites truly want to attract investors whose capital is more safely stowed in liquid public markets, the platforms themselves would have to act as a clearinghouse and guarantee that secondary market. This, however, places adverse portfolio risk on the crowdfunding platforms and would increase the volatility of the sites themselves, potentially driving some to failure. The liquidity issue may be the defining subject that prevents crowdfunding, especially equity-based crowdfunding, from taking a greater share of the investment marketplace.

[36] "About Us." *SecondMarket*. 13 Apr. 2011. Web. 13 Apr. 2011.

# Chapter V: Conclusion

The crowdfunding industry, still in its early strides, has proven worthy of its analysis for both its current purpose in the market and its indicative signs of where the greater financing industry may move towards in the future. The diversity of the platforms today underline that there is not yet a de facto best practice that has emerged from the field. Additionally, the multiple platforms demonstrate that crowdfunding can fulfill a number of goals for a prospective investor that usually transcends simple financial returns. The models today were found to function especially well for not-for-profits, the arts, and consumer-centric industries. Many of these were among the worst affected by the financial crisis so crowdfunding has served as a new method of financing, replacing what used to be venture capital and endowment funding.

From analyzing crowdsourcing, it is not a surprise that crowdfunding especially thrives on products and ideas that have an underlying social value, whether they are supporting a young band, a new fashion design, or a film idea. For entrepreneurs that have a product or service that is directly consumable or involves a fan base, crowdfunding naturally makes sense as a more direct means of reaching that follower base, eliminating the need for a financial intermediary that may not share the same values as the consumers. From this perspective, crowdfunding truly represents an intersection of social networking and venture financing. The model serves to reward entrepreneurs or artists that have a dedicated fan base, and allows for investors to build social capital and reputation through their investments in addition to offering a financial return. The potential for crowdfunding to intersect with crowdsourcing bolsters the social value to an even greater level, as projects and ideas can be shared along with roles and responsibilities for anyone that is willing to contribute money, time, or other resources.

In providing the auxiliary social benefits, crowdfunding does sacrifice some of the typical features that are seen as advantages for traditional financial intermediaries. For the crowdfunding model to function best, it asks the most out of investors, both in terms of time and information. Financial intermediaries, on the other hand, serve as hired middlemen for investors that wish to outsource the stress of financial decision-making, a preference that most households today share. As part of the decision-making process, financial institutions serve as a delegated monitor and conduct the necessary functions of financial analysis and due diligence to ensure that fraud is minimized and the risk-adjusted return is maximized. In crowdfunding, these roles are passed down directly to the investors, which may save them a commission they would otherwise pay to the financial institution, but adds a significant responsibility and pose a danger and threat, both financially and ethically, when dealing with unsophisticated investors. In addition to safety, traditional financial intermediaries offer financial flexibility to their client base through the liquidity generated by their economies of scale, a critical feature that crowdfunding cannot yet provide.

In many ways, crowdfunding is not a revolutionary financial service, but rather an evolution of existing banking practices. The model of the future will undoubtedly feature elements of both what is uniquely available in crowdfunding today and what is best practiced by traditional financial intermediaries today. By leveraging the data available through an online infrastructure, the potential for recommendation algorithms and investment matchmaking will be an important technological achievement that all facets of banking could use. Utilizing social networks provides a special opportunity for businesses to not only raise funds more efficiently, but also become better connected with their customer base. The likely path will be for traditional financial intermediaries to move farther into the online space and open up services for earlier-stage startups, and also for crowdfunding platforms to increase in scale and focus on providing optional services such as diligence, liquidity, and investment management. The embracement of technology as a means of adding new features and evolving traditional services is a recipe for improving the existing financial intermediary structure. Crowdfunding, through its development to date, has proven its viability as a model and potential for adaptation to fulfill more markets, investors, entrepreneurs, and ideas.

# Bibliography

"About Us." *SecondMarket*. 13 Apr. 2011. Web. 13 Apr. 2011. <http://www.secondmarket.com/about-us>.

Allen, F., and A. Santomero. "What Do Financial Intermediaries Do?" *Journal of Banking & Finance* 25.2 (2001). Print.

Beinhocker, Eric D. . *The Origin of Wealth*. London: Random House Business, 2007. Print.

Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale UP, 2006. Print.

Bessen, James, and Michael James. Meurer. *Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk*. Princeton: Princeton UP, 2008. Print.

Brabham, Daren C. "Moving the Crowd at IStockphoto: The Composition of the Crowd and Motivations for Participation in a Crowdsourcing Application." *First Monday* 13.6 (2008). Print.

Brabham, Daren C. "Moving the Crowd at Threadless: Motivations for Participation in a Crowdsourcing Application." *Information, Communication & Society* (2010). Web.

Buckman, Rebecca. "Silicon Valley's Backers Grapple with Era of Diminished Returns." *Wall Street Journal* 3 Aug. 2006. Print.

Butcher, Mike. "Grow VC Launches, Aiming to Become the Kiva for Tech Startups." *TechCrunch Europe*. 15 Feb. 2010. Web. 03 Apr. 2011.

Cheshire, Tom. "The Creative Crowd's Greatest Hits." *Future Technology News and Reviews*. Wired UK, 7 Apr. 2010. Web. 03 Apr. 2011. <http://www.wired.co.uk/magazine/archive/2010/05/play/the-creative-crowds-greatest-hits>.

"Crisis in Venture Capital." *Crowdfunding*. Trampoline Systems, 2009. Web. 13 Apr. 2011. <http://crowdfunding.trampolinesystems.com/>.

Diamond, Douglas. "Financial Intermediation as Delegated Monitoring." *Journal of Banking & Finance* (1984). Print.

Dunmore, Tom. "MyFootballClub FC — Has the Bubble Burst?" *Pitch Invasion*. 31 Mar. 2008. Web. 04 Apr. 2011. <http://pitchinvasion.net/blog/2008/03/31/myfootballclub-fc-has-the-bubble-burst/>.

Dunmore, Tom. "MyFootballClub Is NOT a Good Model of Customer Relationship Management." *Pitch Invasion*. 18 Feb. 2010. Web. 04 Apr. 2011. <http://pitchinvasion.net/blog/2010/02/18/myfootballclub-is-not-a-good-model-of-customer-relationship-management/>.

Farnham, Alan. "LendingClub and Prosper: Online Peer-to-Peer Loans Benefit Borrowers and Lenders." *ABC News*. 6 Jan. 2011. Web. 03 Apr. 2011. <http://abcnews.go.com/Business/online-peer-peer-loans-benefit-borrowers-lenders/story?id=12547398&page=1>.

"Frequently Asked Questions." *Catwalk Genius*. Web. 03 Apr. 2011. <http://www.catwalkgenius.com/support/faqs_buying.asp>.

Garg, Rishi. "Most Venture Capital Funds Lose Money." *Fortune Finance*. CNN Money, 16 Feb. 2011. Web. 12 Apr. 2011.

Gonsalves, Anton. "Social Lender Prosper.Com Drops Auction Model." *InformationWeek*. 20 Dec. 2010. Web.

Hannula, Antti. "The Statue of Libery Was Crowdfunded." *Insider's View to Entrepreneurship*. Gasellit, 13 Oct. 2010. Web. Spring 2011.

Holm, Elisabeth. "The Kickstarter Blog." *Kickstarter*. 21 Mar. 2011. Web. 03 Apr. 2011. <http://www.kickstarter.com/>.

Horscroft, Teresa. "Crowdcube Goes Live to the Nation." *The Crowdcube Blog*. Crowdcube, 15 Feb. 2011. Web. 03 Apr. 2011. <http://www.crowdcube.com/blog/2011/02/15/crowdcube-goes-live-to-the-nation/>.

Howe, Jeff. "The Rise of Crowdsourcing." *Wired*. June 2006. Web. Spring 2011. <http://www.wired.com/wired/archive/14.06/crowds.html>.

"How It Works." *Sellaband*. Web. 04 Apr. 2011.

Kemp, Pierre-Antoine. "From Main Street to Wall Street? The Determinants of Stock-Market Participation." *American Sociological Association* (2008). Print.

"Kiva - Facts and History." *Kiva*. 28 Mar. 2011. Web. 28 Mar. 2011. <http://www.kiva.org/about>.

Lambert, Thomas, and Armin Schwienbacher. "Crowdfunding -- Tapping the Right Crowd." *Dipartimento Di Scienze Economiche*. University of Bologna, 13 Feb. 2011. Web.

Lang, Luke. "Crowdfunding Equity – the New Age of Co-created Finance | Social Enterprise Network | Guardian.co.uk." The Guardian, 8 Mar. 2011. Web. 03 Apr. 2011. <http://www.guardian.co.uk/social-enterprise-network/2011/mar/08/crowdfunding-equity-new-age-finance>.

"Laws That Govern the Securities Industry." *U.S. Securities and Exchange Commission*. 29 Jan. 2010. Web. 13 Apr. 2011. <http://www.sec.gov/about/laws.shtml>.

Lawton, Kevin, and Dan Marom. *The Crowdfunding Revolution: Social Networking Meets Venture Financing*. United States: Self-Published, 2010. Print.

Loikkanen, Valto. "Grow VC Model in Full Detail." *Grow VC Blog*. Grow Venture Community, 9 Aug. 2010. Web. 03 Apr. 2011.

Putnam, Robert D. *Bowling Alone: the Collapse and Revival of American Community*. New York: Simon & Schuster, 2000. Print.

Riley, Duncan. "ChipIn Empowers Micropayments On Facebook." *TechCrunch*. 22 June 2007. Web. 03 Apr. 2011.

Thakor, A. "Issues in Financial Contracting and Financial System Architecture." *Journal of Financial Intermediation* 17.1 (2008). Print.

Wauters, Robin. "10 Business Models That Rocked 2010." *Board of Innovation*. TechCrunch, 7 Jan. 2011. Web. 12 Apr. 2011. <http://techcrunch.com/2011/01/07/10-business-models-that-rocked-2010/>.

Wortham, Jenna. "Using Kickstarter to Fund a Small Business - NYTimes.com." *Technology - Bits Blog*. NYTimes.com, 25 Aug. 2009. Web. 03 Apr. 2011. <http://bits.blogs.nytimes.com/2009/08/25/using-kickstarter-to-fund-a-small-business/>.

Van Auken, Howard. "Impact of Planning on the Acquisition of Start-up Capital." *Entrepreneurship and Regional Development* (1996). Print.

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