"I finished your book last night, and it continued to be juicy and very thought provoking right to the end. Thanks."
—Michael Sauvante, Commonwealth Group

"Kevin Lawton and Dan Marom have done a great job at getting really deep into the field of crowdfunding. The book reads like they have had the opportunity to take a look into the future to see the potential of crowdfunding. The book contains an excellent explanation about the concept of crowdfunding and the rules of the game and is a must read for everybody entering the field of crowdfunding!"
—Gijsbert Koren, Douw&Koren
Crowdfunding Consultancy Agency

"This book is a comprehensive introduction to the concept of crowdfunding. The examples (which span across the past, present, and the future!) spice it up well. A must read for anyone interested in the early-stage funding process."
—Mandar Kulkarni, plugged.in
Chapter 5

THE RISE OF CROWDFUNDING

Even countries with few resources and incompetent governments did reasonably well if they had strong, well-developed Social Technologies.
—Eric Beinhocker

On October 1, 2010, the Blender Foundation\textsuperscript{1} released Sintel\textsuperscript{2}, an independently produced, animated science-fiction fantasy short film. Sintel follows Blender’s other short animation film projects: Elephant’s Dream \textsuperscript{(2005)}, Big Buck Bunny \textsuperscript{(2007)}, and Yo Frankie! \textsuperscript{(2008)}. In the days of outsized budget movies, Sintel was quite a monumental achievement, and not just because of its stunning animation created using the Blender 3D open source content pipeline. It was released as open source, downloadable for free in a number of formats, with separately downloadable subtitles in English, Spanish, French, and five other languages. The total budget for Sintel? About $550,000, its production involving a team of up to 14 people working full time.\textsuperscript{3} And it was partially crowdfunded.
If you enjoyed the spoof *Star Wreck*, then you may also be following the latest project, *Iron Sky*, by the same independent filmmakers. It’s a dark sci-fi comedy, with plenty of computer graphics imagery (CGI), and had a budget of about 6.9 million euros. The *Iron Sky* project pushed the envelope of indie filmmaking, utilizing a hybrid financing model that combines traditional film funding channels and crowdfunding (fans buy “war bonds”; conflict is part of the film’s theme) and engages the fans throughout the process. And these are people who know how to engage—their previous Internet hit *Star Wreck* has reached over 8 million viewers. Building on that success, *Iron Sky* was as an international coproduction with bigger name actors and targeted a worldwide theatrical release in 2012.

But then came the technology start-ups. Eric Migicovsky was a 25-year-old Silicon Valley transplant from Vancouver. Like many entrepreneurs, Migicovsky had a product idea inspired from his own life. Being a cyclist, he wanted a smartwatch that would intelligently connect to his smartphone and provide information such as who is calling, GPS location, or messages from friends. This, as it would become clear, was a product idea that resonated with many people, for many uses above and beyond cycling. And it was one that his company translated into the design for the “Pebble” watch. But as is often the case for products with potential, his attempts to raise venture funding for the manufacturing phase failed. So Migicovsky turned to crowdfunding, and he started his Kickstarter campaign (“Pebble: E-Paper Watch for iPhone and Android”) on April 11, 2012, with a stated funding goal of $100,000.

Before critics had time to spell-check their hit pieces, dispelling the “myth” of technology crowdfunding, funding for the Pebble passed its funding goal in two hours! A veritable funding rocket, Pebble passed $1 million within a day, and it continued on to breach $10 million within about a month, when on May 13 it was decided to declare the Pebble “sold out.” At that point, approximately 69,000 backers had essentially preordered 85,000 Pebble smartwatches. And in classic “fast-follow” fashion, the VCs then began chasing Migicovsky.

How crowdfunding has changed since its first known citation by Michael Sullivan, on August 12, 2006. Crowdfunding is growing up quickly, and in some areas, it is integrating and hybridizing with more conventional financing methods. That’s not to diminish the role of crowdfunding in offering complete financing for less expensive indie operations. But what it does highlight is the importance crowdfunding offers to bigger investors as a market validation mechanism. For agile investors, crowdfunding isn’t their problem. It’s a solution for identifying viable opportunities that are fan and market validated. The operative word is “agile.”

If one were to interpolate the cost of *Sintel* to a full-length production, it would be similar to that of *Iron Sky*, on the order of $10 million. By contrast, while Hollywood producers are contemplating how they can sync intellectual property strings to keep their financing complex alive and asking how they “could keep making $200 million movies like *King Kong* without super strong copyright regulations?,” a whole ecosystem of agile players is quickly evolving, with an associated and implicit message: that was the wrong question to ask. What’s as telling is that from attending and networking at a recent Kickstarter meetup, there was quite a growing excitement over the potentials of crowdfunding’s allowing projects to get “recognized by bigger players.” Even for lower-budget projects seeking all of their initial funding goals through crowdfunding, the thought of a bigger future is on a lot of people’s minds! Note to Hollywood types: keep a crowdfunding dashboard active on your desktop at all times.

The *Sintel* and *Iron Sky* cases above share a common theme that is echoed throughout the entire crowdfunding ecosystem, at least by those who have invested time and energy in it. Success in a crowdfunded project is built over longer periods of time, and it is
the subject of continuous hard work and genuine engagement with the fan base. Many have argued that crowdfunding requires even more of these elements. The Blender Foundation, for example, was officially founded in 2002, and it has built an amazing community around its open source 3D content creation flow, and as we mentioned earlier, it has released a number of short films to demonstrate and evolve its functionality. The Iron Sky creators worked on various forms of Star Wreck beginning in the 1990s. Or as its visual effects man, Samuli Torssonen, put it:

Fan/community funding is not an easy way out. We didn’t come out of nowhere. We’ve been building our Internet community and visibility since 1999, with Star Wreck. You have to invest a lot of time and energy to win the trust of the Internet audience. The only way to do that is to deliver good quality. Mediocre stuff just won’t cut it.10

While there will likely always be a few outlier cases of rapid funding without much history, from our survey, the reality for most projects is well characterized by Torssonen’s statement. And in case you thought the Pebble watch “came out of nowhere,” note that the team had been working on smartwatches for about four years prior and it included an industrial designer who, as the CEO said in an interview, “really killed it,”11 which of course is the highest of compliments in familiar-speak. A “killer” design and years of technology prototyping went into what would become the Kickstarter pitch, as did the idea of making the “World’s best watch.” Repeatedly, this trend can be seen, when looking behind the scenes into what appears to the press as “overnight sensations” but that are really cases of real value offered to and recognized by a massive amount of people. In business, this is called “pent-up demand,” but sometimes the press (apparently when short on time for research) calls it a “fad.”

Movies and technology are only two hot categories within crowdfunding. Food was the third most popular category on Kickstarter, and it had a much higher funding success rate (56 percent) than the average of all projects (47 percent) according to a report.12 We are infatuated with food and beverage. Food is social, it can be creative and imaginative, and it often comes with a rich story. What’s more, there are often a lot of underserved special-needs food categories. So it’s not so surprising to see food-oriented projects use crowdfunding for their designs to create almost anything including camel cheese, microbrew beer, a bicycle that chugs butter, gluten-free ice cream sandwiches, cupcakes, sustainably raised prosciutto, an online cooking show, a local organic block party, organic dog biscuits, urban agriculture “farm-boxes,” a community olive press, city biocentric composting equipment, an urban farm, and a wood-fired bakery.

One of the more community-focused efforts in the food space was the Farm Lot 59 project, which received its funding goal of $10,000 on Kickstarter to develop an urban one-acre biodynamic and organic minifarm. It’s a nonprofit organization of people characterized by “We are an accumulation of people living and working in the city of Long Beach, California. We are farmers, gardeners, tree-huggers, chefs, writers, parents, teachers, artists, bakers, and community leaders.”13 Farm Lot 59’s goal is to also serve as an educational resource for the Long Beach community, a place where children and their parents can come and learn about urban farming and the Earth’s ecosystem, and to create some local green jobs. It’s hard to argue that these activities represent anything other than people who want to offer something, funded by people who want those things. And in many cases, a sense of community, involvement, and employment come welcome attached.

While some folks are busy crowdfunding indie movies and sustainably raised prosciutto, fashion designers are crowdfunding their fashion lines through Catwalk Genius. Race car drivers
and golf stars are crowdfunding their “personality securitization” on ThrillCapital. Bands are crowdfunding their next album on Indiegogo and RocketHub. The Japanese firm Music Securities is securitizing media plays using crowdfunding. And wine making is being crowdfunded on Crushpad. New start-ups are being crowd-funded on WealthForge in the United States, WiSEED in France, CrowdAboutNow and Symbid in the Netherlands, and Crowdcube in the United Kingdom. Existing revenue companies are crowdfunding non-dilutive debt on Cofundit in Switzerland. Real estate buyers are crowdfunding “shared equity ownership” on PRIMARQ. People in the United Kingdom are crowdfunding loans on Zopa. And the list goes on. In the social ventures dimension, there’s 33needs, which has the goal of crowdfunding ventures that solve the world’s biggest needs. Hyperlocal crowdfunding is provided by LuckyAnt, Smallknot, and ioby (“in our back yard”).

There’s even now a crowdfunding diligence company: CrowdCheck. And while many Western countries are cutting their research budgets, the Open Genius Project, located in Italy, has promised to crowdfund research projects, as does SciFund and PetriDish. Asia opened its first crowdfunding site: ToGather.Asia. The Greek platform StartersFund was created among the smoldering ashes of a country previously known as the “cradle of democracy.” Adding a whole new exciting dimension in crowdfunding, the SoKap platform offers a way to crowdfund such that funders get rights to media distribution within a particular geographic territory. If there’s a crowd need, it seems there’s a way to crowdfund it.

The year 2012 became a pivotal year for crowdfunding. Just after an acquisition of SpotUs, which had provided crowdfunding for freelance journalists for three years prior, 2012 was ushered in by Tom Foremski’s post, “Are VCs Abandoning Seed Funding? Report Shows Massive 48 Percent Dive in One Year.” That did nothing but seemingly spur on crowdfunding, which made MIT’s Technology Review’s top 10 emerging technologies list. A quick look at Google Trends for “crowdfunding” supports MIT’s trend analysis. When Howard Leonhardt announced his campaign for governor of California 2014, he came out in huge favor of crowdfunding. In April 2012, President Obama signed the Jumpstart Our Business Startups (JOBS) Act, which had among other things, language to legalize crowdfunding. And crowdfunding conferences started to sprout up everywhere. Kickstarter announced in February 2012 that it expected to provide more funding to the arts than the National Endowment for the Arts. And of course, like many popularized technologies such as hard drive storage, network bandwidth, and 3D video, crowdfunding entered the adult content realm, with the introduction of offbeatr and GoGoFantasy.

At the Edge of Chaos
To an outside observer or someone first entering the crowdfunding domain, it probably looks a bit like the “Wild West,” an expression we have here in the United States to describe the western part of the country in its nineteenth-century, relatively untamed history. It’s not that the observer would be completely wrong; modern crowdfunding is in a very early and noticeably dynamic state. And quite honestly, some of the crowdfunding sites could use some work. But there’s a critical point and distinction to make here, and it relates to what is referred to in various math, science, economic, biology, and social fields, called “the edge of chaos.” Simply put, the edge of chaos is the notion of a region near the threshold between order and chaos. There’s an intuitive way to explain the value near the edge of chaos. If a system is too structured, its very structure prevents it from being very innovative. If a system is too chaotic, its chaos prevents it from being productive. The “sweet spot” of innovation is right at the threshold, and that’s the edge of chaos. And that’s also thought to be where nature is at its most adaptable place. To achieve the optimum, one must push right up to the edge, and
by the way, that’s way beyond where big corporations generally live today. Rather, many live in the zone that is over the edge of the cliff of usefulness, where they have recently come to be known as “too big to fail.”

Although many issues still need to be shaken out in crowdfunding, there’s something far more important to recognize. By enabling the collective wisdom to express itself, we are allowing a return back to the optimal place where the system best thrives—right at the edge. Regulation, of course, will attempt to hold it back to being overly structured, and thus it will be less innovative.

In the book The Future of Work, Thomas Malone describes a pattern that plays out repeatedly in the history of human civilization. People organize themselves into small bands of decentralized autonomy, which then go on to become larger, more hierarchical groups governed by centralized forces. These groups then finally become larger groups in place but with decision making becoming more decentralized. The book is really a relevant work in its entirety, but it’s especially interesting to note how Malone characterizes decentralization in layman’s terms: “the participation of people in making the decisions that matter to them.” It may seem like the Wild West, but what is occurring is a very natural cycle, and we shouldn’t endeavor to truly tame this frontier!

Do It With Others (DIWO)
Since the 1950s, the expression “do it yourself” (DIY) has been all the rage. The gist of the DIY movement is to be able to build, repair, or modify things without experts or professionals. The DIY mindset is one of the key spirits in true enthusiasts, and it is certainly key in the “maker” crowd. For a number of tasks, doing it yourself yields the self-satisfaction of accomplishing things, and that’s really all that’s needed. But for many others, if you think about it, it’s kind of a bummer doing something completely on your own. Fortunately, with the advent of the Internet came the ability to be more easily connect with others who enjoy the DIY spirit for whatever one likes doing.

Whether you’re building a contraption to prevent pesky ground squirrels from meddling with your garden, tricking out your camera body with a new attachment, or installing a mod chip in your hot rod, why not find someone else interested in the same? And thus the DIWO movement was born.

Crowdfunding is very much a kindred spirit of DIWO. People in the crowd tend to invest in projects to which they have an emotional and social attraction. Some people make fantasy investments; others want to feel the proximity to a cause they respect. And some investors are friends and family, and they invest because they know the entrepreneur well and want to support him or her. In fact, this latter group is of utmost importance to many crowdfunding initiatives. According to Brian Meece of RocketHub, typically 95 percent of contributions in the creative space come from first- and second-level friends’ circles. It’s this group that establishes a “trust signal” to the next wave of investors. Without this signal, few get much further.

Ultimately, only a few projects get sufficient momentum to “go viral,” and in those cases, 70 to 80 percent or more of the contributions come from strangers. Generally, artists leverage their past works and their existing trust circle “base” to get funding for their projects. As Danae Ringelmann of Indiegogo explains: “No community generally equals no funding.” To secure funding, one needs to come to the table with a decent “anchor audience” and do some “moving and shaking” thereafter. An irony here is that while many outsiders fret over fraud in crowdfunding, many insiders fret over just how hard it is to get strangers to contribute money!

And while passion and affinity are major drivers, let’s not forget the rewards. For those crowdfunding platforms and projects that return monetary rewards, that speaks for itself. But many current
crowdfunding projects offer only perks (especially due to regulatory issues discussed further herein). Because it has often lacked the ability to return financial rewards, creative project crowdfunding became creative with offering rewards. Besides the obvious of receiving the finished goods under funding (CDs, DVDs, books, and so on), funding fans get things like mentions in the credits, appearances in movies, signed posters, discounts, limited edition goodies, funder-only updates, studio visits, and so on. In crowdfunding, those who fund are VIPS. And it’s well accepted and quite common that those who fund even more, get even more VIP treatment, via tiered levels of perks (remember, it worked for the Statue of Liberty?). But perks aren’t just a gratuity. Those who fund are VIPS also because they’re part of a project’s marketing department, sending out blasts to their Facebook friends and Twitter followers. These VIPS are possibly the catalysts to getting to the next tier of funders. Perhaps they answer questions, invest their time, or even do some design work. And, they are a project’s most loyal consumers. The DIWO movement is also an important new business mentality.

Of course, as with any social dynamic, there are always a few who don’t hold up their end of the bargain. We’re only at the beginning of the modern-day crowdfunding movement, so it will be interesting to see what mechanisms develop to punish those that don’t produce. It’s human nature to demand as such, so one can easily anticipate that we’ll see mechanisms arise as soon as there are enough problems to make it socially worthwhile. PirateMyFilm, very much a pioneering platform for crowdfunding media, warns its citizens: “Any producer who fails to live up to their dividend paying responsibility can be voted out of the community and forced to ‘walk the plank.’” It’s not surprising to see this admonition come first from PirateMyFilm because it’s a product of Max Keiser, one of the industry’s most visionary people in crowdfunding and the former CEO and co-founder of the Hollywood Stock Exchange, inventor of the Virtual Specialist technology, and the host of the hugely popular Keiser Report. At any rate, this presages what is to come in the social norms that underlie crowdfunding.

Critical Mass
While new crowdfunding sites were emerging across the globe, it was hard not to notice an abundance of them in the Netherlands. This stirred up a little fascination, as the discovery of the factors involved might provide insights into what could be done to further ignite crowdfunding as a socioeconomic driver. This is a subject that we fully encourage others to advance because it has no small impact on the future competitiveness of any country or region, vis-à-vis others that have a deeper adoption of crowdfunding. But the following are some salient observations that we can offer.

On the obvious side, crowdfunding is a form of Internet-based social networking, and so it would follow that having a highly connected population with a culturally endemic Internet habit would be a key ingredient. Certainly, the Netherlands would fit this description. According to the Internet World Stats website, an older report showed that “the Netherlands has a small but advanced telecom market. In March 2005, Internet, broadband, and mobile penetration were all far ahead of the EU average.” And equally as impressive: “The Dutch have adopted mobile phones enthusiastically. Mobile penetration breached 100 percent in 2005, and annual growth remains at a respectable 16 percent.”

If nothing else, the Netherlands received a nice head start in network connectivity, which would then help explain its citizens’ cultural proclivity for social networking—they have, relatively speaking, the largest number of LinkedIn users worldwide and Twitter users in Europe, and Dutch topics are quite often trending topics on Twitter, according to Gisbert Koren of the Dutch crowdfunding site CrowdAboutNow. But according to Internet penetration data from the World Bank, also high on the connectivity list
are Denmark, Finland, Iceland, Norway, and Sweden. Incidentally, Finland was home to Linus Torvalds, the key protagonist of Linux. And Linux and the greater open source movement that it helped enable, have been perhaps the biggest and most involved crowd-sourcing efforts of the human race.

While connectivity and social networking habits look to be major ingredients, the recipe is likely more complex. And it’s not the case that the Dutch regulatory environment is much more amenable—crowdfunding doesn’t fit into current regulation there either. In talking with people involved in crowdfunding, we were able to divine other important parts of the recipe, listed in a condensed format below. Special thanks go to Gijsbert Koren for his excellent synthesis and insights:

1. There is high Internet penetration and usage.
2. “Higher income per-capita results in financial opportunities for the adoption of new technologies.” It helps to have “people who could miss some of their money; who just put their money into something for fun.” This point shouldn’t serve to dissuade those in countries with lower per-capita incomes. For the cases in which investors are allowed to be foreign or for those in which investors are local and using crowdfunding to prebuy what they need to buy anyway, crowdfunding can have a monumental impact. Any resulting marginal improvement in the local economy would then feed further growth of crowdfunding. So one could think of crowdfunding in low per-capita regions as having even more relative importance.
3. Lack of capital from investors and banks creates the need for another funding avenue.
4. “Stimulating entrepreneurship by education, business games, and incubators has been a trend in the Netherlands since five to six years. Crowdfunding is a possible add-on to this trend.”

5. “The uncertainty avoidance (Geert Hofstede’s cultural dimensions) in the Netherlands is quite low, which suggests we accept new innovations. Other countries with a low uncertainty avoidance: United Kingdom, Scandinavia, United States, Singapore, Hong Kong, Malaysia, China, India, and African countries.”

If those factors constitute the fuel, then all one would need for a fire is the spark. And that spark in the Netherlands seems to have come from SellaBand, launched in August 2006. SellaBand allows musical artists to crowdfund from their fans and from the entire SellaBand community, in order to record a professional album. It also allows the recording industry to crowdfund projects for their own artists. In Koren’s words, “SellaBand started in the Netherlands and is an important inspiration and quite well known amongst young people in the Netherlands. When I’m talking to founders of other crowdfunding platforms in the Netherlands, they were all (without any exception) inspired by SellaBand.”

The New Ritual, the New Status
If you’re over at an acquaintance’s place, you may find that he or she has some magazines strategically fanned out on the coffee table and handpicked books prominently displayed at eye level on the bookshelf. Socially, we tend to convey our rituals, like our reading proclivities, to others as a form of status. And well, some people just like to convey status for vanity’s sake. Crowdfunding, explains Brian Meeke of crowdfunding for creatives site RocketHub, is a “new ritual.” It takes time for people to adjust to it, as a new part of their daily lives, but it then becomes part of their identity. Recognizing this, RocketHub and other sites provide “badges” that can be used on various social networking sites to convey this identity, much the way people do with the magazines that they (allegedly) read.
As crowdfunding's popularity rises, it will become increasingly more popular to view people's funding affinities, along with all the other tidbits of their lives (both offline and online) to assess their personal character—and of course, to find like-minded people. It’s worth keeping in mind that many people originally thought Twitter would never get any traction. It’s good that not only the crowdfunding ecosystem recognizes a new ritual but that the whole social networking scene also recognizes it. It may be the case, soon enough, that people won’t have much luck on dating sites unless their profile includes some crowdfunding of causes interesting to the suitor.

**Rivers Without Cascades**

Let's say you're on vacation, looking for a nice place to dine, and you find a nice little cluster of restaurants. In the absence of any particular recommendations, perhaps as a first screening, you cruise the menu listed outside of each restaurant. And then after finding one that suits your fancy, if you're like many people, you have a look inside to see if anybody's eating there already (or maybe you do this first). Let's say there are just enough diners inside to give you confidence about your experience. You have become part of an information cascade. The next people with similar circumstances are even slightly more likely to make the same choice—after all, you just added to the apparent business of the restaurant, increasing the confidence signal to the next wave.

This phenomenon goes far to explain why restaurants tend to seat the first wave of diners closer to the street windows, presenting a more busy appearance to casual prospects. Using information from earlier sources in the cascade wouldn’t be such a bad thing to do if, in the restaurant example, you knew the people inside were mostly locals. But how do you know they're not all tourists? How do you know they're not kitchen staff holding down some tables until the “pump is primed”? Perhaps they are people who were enticed by the attractive hostess offering “free dessert” with their meal.

Many people, when first introduced to the concept of crowdfunding, have an almost visceral response to the concerns of information cascades and other forms of groupthink maladies that can result from mass forms of social imitation. And yet a number of them find a very comforting solution to the above dilemma, which is to whip out their smartphones and look up the restaurant's rating in real time on Yelp. They are implicitly trusting the power of larger virtual crowds, over the small physical crowd they can see with their own eyes. So important have the review sites become that various new restaurants and bars have special “soft opens” when the key reviewers are invited, to make sure that everything is “just right” before the real “hard open.” And a number of passionate reviewers have called out bogus reviews, created by the restaurants themselves. Never underestimate the power of passion in affinity groups.

Another form of groupthink phenomena, often called the “Keynesian beauty contest,” is driven more by each new participant’s desire to anticipate what the others will do and then to act accordingly. A classic example of this is embodied in investment strategies. While investors may well look at the fundamentals of a given public company and macroindicators to see where the economic direction is heading, ultimately investing is largely a game of understanding what the others will do next. In short, this occurs when participants are expressing their anticipation of others, not their own passion and beliefs.

And of course, it's quite possible to have the scenario where people are bidding with their passion and beliefs and those beliefs are well placed, but there is a serious oversubscription of such participants, in which case it looks to others as a form of malinvestment driven by herding. This in reality is nothing but a transient in natural supply-versus-demand mechanics.
There was a cartoon in a 1972 issue of the New Yorker showing a bench of Supreme Court justices, with the justice on the end saying, “Well, heck! If all you smart cookies agree, who am I to dissent?” This illustrates one of the most pernicious forms of group-think, stemming from deference to the opinion of others, even in light of one’s own contrary conclusions. In his book The Legal Analyst, Ward Farnsworth, a law professor, explores many legal aspects of information cascades. To mitigate this form of group-think, he discusses how in various military courts, officers vote in reverse rank order. By having the lowest-ranking officers vote first, they are prevented from the temptation to vote in sympathy with more senior officers.

There is a very small and simple rule set that mitigates a lot of group-think problems. It may seem like an oversimplification to claim that there exists such a simple rule set, but consider the following: in order for large groups to synchronously do anything without requiring a centralized and orchestrating element, the rules for group behavior have to be simple. Otherwise, order would break down, chaos would ensue, and there would be no synchronized group dynamic. Thus, rules to mitigate problematic group-think are symmetrically also simple. This is why information cascades, while powerful, are also said to be “fragile” and vulnerable to a quick demise. And why, thus far, anything with a whiff of fraud tends to get eaten alive in hours or days on crowdfunding sites.

James Surowiecki, author of The Wisdom of Crowds and presenter of “Independent Individuals and Wise Crowds, or Is It Possible to Be Too Connected?” asserts that when crowds are absent from proper decision-making environments, the decision makers can lose the benefits of collective wisdom, which can mean that their decisions will be narrowed down to the judgments of a few. To prevent this, Surowiecki presents a few mitigating recommendations:

1. Diversity of opinion: People should rely on their own interpretation of the facts.
2. Independence: Opinions should not be determined by the opinions of those around them.
3. Decentralization: People should draw on their own local knowledge.
4. Aggregation: People need a means to convert private judgments into a collective decision.

One area not addressed in these recommendations, and something essential to crowd dynamics in the connected world, is to empower affinity groups. The connected crowd isn’t represented by a structureless graph, with random interconnectivities. Rather, micro-structures arise, and for good reason. A combination of decentralization and specialization is what makes large organizations function well and yet allow tolerance for bad inputs, similar to the structure of our brain. Thus, we would be inclined to add the following:

5. Affinity groups: People need a means to identify, empower, and quickly assess the abilities of affinity groups, including their capacity to hold relevant local knowledge.

Valuations

Public valuations have been crowdsourced since mankind has traded goods, and certainly in capital markets. Except for some current-day aberrations (for example, high-frequency trading, extreme leverage, or derivatives), the price discovery of the “invisible hand” of the market has reigned. We’re so used to being part of the supply-versus-demand pricing equation, whether buying goods at the store or equities on the stock exchanges, that we forget we’re part of it. Ironically, except for in crowdfunding, when it comes to financing start-ups, we’ve traditionally thrown all of that out the window,
and we’ve let a few parties with special interests set the prices. So it’s always a source of amusement when people ask how a crowd of people would be any good at valuating start-ups. How can the market set a market price? Maybe a better question would be, “How can a very limited number of individual investors set the price?”

Fortunately, a number of modern efforts are proving that markets of people can indeed provide valid pricing for start-ups in the same way they provide pricing for nearly everything else. SharesPost, SecondMarket, and Private Equity Exchange all either specialize on or include the trading of private company shares. A number of heavy-hitter investors are said to be loading up on their favorite private company stocks using these sites. Although it wasn’t planned as such, there’s an incidental by-product of these sites: they validate the ability for markets to adequately price private stocks for crowdfunding. If one were to combine the concept of a rolling close in funding with an open market price discovery mechanism, then crowdfunding promises to be a more natural market system that can handle projects from start to finish (or at least to the IPO).

**Long Tails and Shrinking Heads**

The *long tail* is jargon for a frequency distribution that essentially shows the popularity of items as plotted across all of the items. It’s usually drawn as a *power-law graph*, showing the few ultrapopular items with high Y values on the left, and the curve ever asymptotically approaching the X axis as it progresses rightward, toward the least popular items. Why the long tail gets so much buzz is because while any one item on the right side (that is, the *tail*) of the curve has low popularity, the aggregate area of the tail is very considerable—simply put, there is a huge number of less popular items in the tail, and they add up significantly.

Online e-tailing is a classic example of that, showing that there is a healthy aggregate market for smaller volumes of niche goods, markets that conventional retailers have not well served, often because they are each individual markets that “won’t move the needle.” Crowdfunding is, in many ways, such a *long tail proposition*; there are so many early-stage projects that don’t receive the attention of bigger investors, yet the aggregate amount of potential projects is unfathomably high.

But there are some important macroaspects of crowdfunding’s future to consider, and these indicate a reshaping of the associated power-law curve to come. First, it’s thought that existing funding mechanisms handle only a small percentage of funding demands—there’s hardly a “head” to begin with. And as crowdfunding presents opportunities for the bigger money to join, in kind of a hybrid fashion, we’ll have more of an integrative funding scenario. Extending the metaphor to the observations of Malone in *The Future of Work*, the body will stay large, but the head will decentralize (into the tail). When we’re seeing high-quality films being produced for $10 million or $20 million instead of $200 million, the head has to shrink, or at least there will be a lot more films in the tail. Get ready for fatter tails and shrinking heads.

**Gender Equalization**

It’s no secret that VC and angel investing are “clubby” activities, dominated mostly by middle-aged men. A quick survey of the partner biography pages at many popular VC firms reveals this stark gender inequity.

According to a 2007 study of angel investors in North America, 86 percent were male with an average age of 57. Women didn’t fare any better in a similar U.K. study, where 93 percent of investors were male. Unfortunately, a similar trend also exists on the entrepreneur side: only 8 percent of companies that receive venture capital funding are run by women.
While the VC community seems stuck in an old boys' network mentality, crowdfunding is radically reshaping business investment and neutralizing gender bias, for both investors and entrepreneurs. Now, if there were a natural gender bias in both venture investing and venture creation, then Venture Capital would have a "leg to stand on." But according to Danae Ringelmann, cofounder of crowdfunding site Indiegogo, 42 percent of successful funding campaigns are led by women. That's nearly identical to the 41 percent of small businesses in the United States that are run by women! It seems the "glass ceiling," which has been in place for millennia, is finally shattering.