

CROWDSOURCING

Why the Power of the Crowd is Driving the Future of Business

JEFF HOWE

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The Web site for this book is at www.crowdsourcing.com.

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MAIN IDEA

“Crowdsourcing” is the act of taking a task traditionally performed by a designated agent (such as an employee or a contractor) and outsourcing it by making an open call to an undefined but large group of people. Crowdsourcing allows the power of the crowd to accomplish tasks that were once the province of just a specialized few. Or to put it another way, crowdsourcing is to take the principles which have worked for open source software projects and apply them right across the entire spectrum of the business world.

“Crowdsourcing has the potential to correct a long-standing human conundrum. The amount of knowledge and talent dispersed among the numerous members of our species has always vastly outstripped our capacity to harness those invaluable quantities. Instead, it withers on the vine for want of an outlet. Crowdsourcing is the mechanism by which such talent and knowledge is matched to those in need of it. It poses a tantalizing question: What if the solutions to our greatest problems weren’t waiting to be conceived, but already existed somewhere, just waiting to be found, in the warp and weave of this vibrant human network?”

– Jeff Howe



The Past

How did we get to where we now are with the concept of crowdsourcing?

Four fundamental developments have created an environment where crowdsourcing is not only feasible but inevitable.

Those four developments are:

1

A renaissance of amateurism

2

The emergence of the open source software movement

3

The increasing availability of the tools of production

4

The rise of vibrant self-organized communities focused around people’s shared interests

When combined together, these four developments provide the fuel for the crowdsourcing engine and have created a true meritocracy.

The Present

Where are we now and what is crowdsourcing achieving today?

At the current time, crowdsourcing is manifesting itself in at least four very different commercial settings:

1

The use and application of collective intelligence

2

The production of mass creative works

3

The filtering and organizing of vast information stores

4

The use of the crowd’s collective pocketbook

When viewed from this perspective, it becomes clear the term crowdsourcing is itself just a rubric for what is a wide range of activities. It is crowdsourcing’s very adaptability and flexibility which makes it so strong. It is highly adaptive and therefore certain to crop up in many applications.

The Future

Where is crowdsourcing heading and what are the most likely developments?

It’s almost certain crowdsourcing will dramatically change the nature of work and creativity in the future. As crowdsourcing continues to make previously scarce resources become much more abundant, what customers are willing to pay for will change and evolve dramatically. This will likely have very far reaching implications.

To navigate this new terrain, a different set of rules are needed:

- Pick the right model
- Pick the right crowd
- Offer the right incentives
- Keep employing people
- Find benevolent dictators
- Keep things simple
- Be prepared for fluff
- Look for diamonds in rough
- The community’s right
- Give the crowd something

Crowdsourcing is not a silver bullet for commerce. It’s not a magic pill which will make all commercial challenges fade into oblivion. Rather, crowdsourcing harnesses the power of today’s communication technologies to liberate the potential which exists in large pools of people. It will shift the way work gets done.



The Past
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- ▶ 2 The emergence of the open source software movement
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▶ 1 A renaissance of amateurism

Once upon a time, being a professional photographer was highly lucrative. The equipment required to produce high-quality images was expensive and therefore whoever made that kind of investment in the tools of their trade had to be reasonably serious. Digital cameras which can produce high-resolution images and the availability of companies like iStockphoto have completely changed that dynamic.

iStockphoto markets and sells images over the Internet. It offers for sale the images produced by more than 50,000 photographers, almost all of them amateurs. Whereas traditional photo agencies charged high fees for images, many of iStock's images sell for around \$1 each. The company has crowdsourced its stock, dramatically undercut its competitors and in the process made a killing for itself.

Similar examples of amateurs who can and do work to what were previously considered professional standards is actually quite common today. A new breed of amateurs has arisen – people who are knowledgeable, educated, committed and networked. Crowdsourcing directly attracts this new breed of amateurs who typically have two shared attributes:

1. These are people who are not primarily motivated by money directly, although they're happy to make a few extra bucks if the chance arises.
2. These are also the kind of people who are working on their own dime and who dedicate their leisure time to something they feel passionate about, something they love to do rather than have to do.

This is at least part of the reason why YouTube has more than 80 million videos and why even a Web site like HarryPotterFanFiction.com can boast more than 45,000 stories written by Harry Potter fans. It's also the reason why Etsy.com

generated more than \$27 million in revenue in 2008 by helping people buy and sell homemade items.

Internet-enabled mass participation in other highly specialized fields is also becoming more widespread all the time. To take just a few examples:

- InnoCentive is a Web-based network of more than 140,000 scientists from more than 170 countries. Companies like DuPont, Procter & Gamble and BASF post problems their own in-house research teams cannot solve on InnoCentive offering rewards that range from \$10,000 to \$100,000. InnoCentive is growing rapidly on the strength of garnering a solid track record of success in solving what were considered to be intractable challenges.
- The field of ornithology – bird-watching – may seem rather obscure but by 2006, more than fifty million Americans are engaged in some form of wildlife watching. When the Cornell Lab of Ornithology did its first bird count in 1996, eleven thousand people participated. When it repeated the exercise in 2007, more than eighty thousand people volunteered to get involved, fundamentally changing the amount of data which was collected for researchers. For the first time ever, scientists have accurate information about the distribution and migratory patterns of a wide range of bird species. In many cases, the data gathered by amateurs has far surpassed that collected by the professionals over decades.

Crowdsourcing works for two very fundamental reasons:

1. Crowdsourcing draws from a global pool of talent, much of which has never before been tapped effectively.
2. Crowdsourcing allows genuine meritocracies to emerge – where people are acknowledged for the quality of their ideas rather than for their formal academic qualifications. All that matters is the final product, not the backgrounds of those who contributed to it.

"Crowdsourcing is outsourcing on steroids".
– Jeff Howe

"One revealing MIT study into InnoCentive revealed that solvers were more successful when they had less experience in the relevant discipline. In other words, chemists were better suited to solving life biology problems, and vice versa. This is less surprising than it seems at first blush. If a P&G chemist could have solved a stubborn predicament in his own field, it would have never wound up posted to InnoCentive's website. This is a powerful mojo: The untrained are also untainted. Their greatest asset is a fresh set of eyes, which is simply a restatement of the truism that with many eyes, all flaws become evident, and easily corrected."

– Jeff Howe

▶ 2 The emergence of the open source software movement

All computer software is made up using what is termed "source code" – the commands which when translated into zeros and ones tells the computer what to do. Many software companies keep their source code a secret so only they can develop new versions of their software or make tweaks and enhancements. Open source code, as the name suggests, is completely open for anyone to see, copy or modify as they see fit. The idea that software could be open source and valuable at the same time was highly revolutionary when it was first conceived.

In 1983, MIT computer scientist Richard Stallman became frustrated with the software industry. He founded the GNU Project, an effort to create computer operating system software that would be completely open with anyone and everyone could steal, copy, modify and add their own contribution for others to use. The GNU Project gathered steam and in 1985, Stallman formed the nonprofit Free Software Foundation to promote the effort. By 1991, the Unix operating system was almost complete when Linus Torvalds, a Finnish computer scientists, posted a message to a message board that he was also writing his own free operating system and would welcome ideas on what features should be included. This was the genesis of what would become the Linux operating system, the world's most successful piece of open source software. Today, Linux is used in personal computers, cell phones, digital devices and supercomputers.

The other poster child for open source collaboration in the development of useful material is Wikipedia, the online encyclopedia. Founded by Larry Sanger, a former philosophy professor and Jimmy Wales, a wealthy entrepreneur, Wikipedia first started as an attempt to develop a free encyclopedia which would be available on the Internet. At first, they planned on having expert contributors put together the articles for their encyclopedia but they became frustrated by how long that would take. As an alternative, they hit upon the idea of using a simple piece of software – called a “wiki” which was derived from the Hawaiian word for “quick” – to allow other people to participate in the contribution, editing and review processes which are part and parcel of writing an encyclopedia. In January 2001, Wikipedia opened up for anyone and everyone to contribute. Within three weeks, seventeen articles had been created by contributors. A month later, one hundred and fifty new articles appeared, and by the end of 2001, Wikipedia had fifteen thousand articles. Today, Wikipedia has 2.2 million articles – roughly about twenty-three times the number of entries in the *Encyclopedia Britannica*.

Mirroring the success of Linux and Wikipedia have been a number of other open source projects. NASA recently posted its database of Mars images generated from the Viking missions online and invited interested people to do the rote work of identifying and measuring all the various land forms shown in those images. NASA found these volunteers were able to complete in a month what would normally have taken a professional planetary geologist about two years to do to a comparable degree of accuracy. NASA is now using interested volunteers to carefully analyze the thousands of high resolution images which have been generated by the cameras currently circling Mars.

The U.S. Patent Office also announced in January 2007 the creation of its “Peer-to-Patent Project”. This project launched in pilot stage in June 2007 allows the public to comment on patent applications before the patent is issued. By spring 2008, more than 33,000 people have reviewed twenty-two patent applications to find 192 instances of prior art which should be taken into account when considering whether to issue the patent or not. It is believed expanding this kind of public review of pre-issue patents could ultimately end up saving the Patent Office not only millions of taxpayer dollars but also make considerable inroads into the office's backlog of more than one million patent applications which are still waiting to be processed.

These and other examples, inspired by the success of open source software, demonstrate the power of the crowd can work in a wide variety of applications.

▶ 3

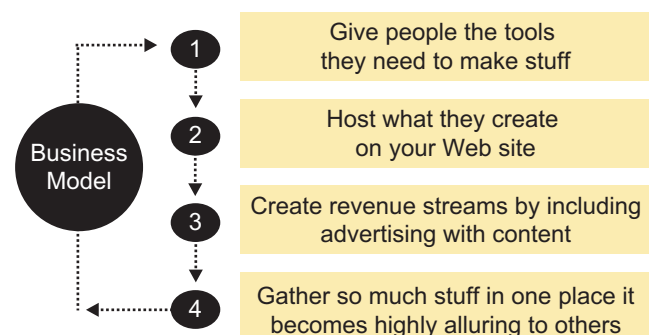
The increasing availability of the tools of production

“Amateurs provide the crowdsourcing engine with fuel, and the open source software movement provided it with a blueprint. But it's the widespread availability of the means of production that empower the crowd to take part in a process long dominated by companies. As a result, the 'consumer', as traditionally conceived, is becoming an antiquated concept”.

– Jeff Howe

The vanguard of this sea change has been the media industry – publishing, filmmaking, photography and music. In niche after niche, people have gained access to cheap equipment, user-friendly software and cost-free distribution channels. As a result, a huge number of new media products are being generated, marketed and sold. These same dynamics are also at work in a wide range of other fields and will likewise bring about significant changes in the world of commerce.

A parallel universe is rapidly being constructed from what has been dubbed “user generated content”. The business model here (as used by Google with You Tube and News Corp with MySpace) is deceptively simple:



Over the past ten years or so, the cost of creating anything creative from movies through to music or even architectural designs has fallen dramatically:

- The hardware costs for all kinds of digital equipment are going down all the time, even as the equipment gets better.
- Incredibly powerful but still quite user-friendly software is now becoming available in all kinds of fields, much of it cheap or moderately priced.
- Information on how to better use these various tools is also widely available. The Web is full of free tutorials on how to do just about anything a person can think of.
- People right across the business spectrum are becoming much more familiar with using the various creative arts technologies. At one time, an aspiring filmmaker would have had to have send DVDs out to a mailing list with a movie trailer to attract attention. Today, he or she would just post it on YouTube and then e-mail the link to everyone for free.

In virtually every field imaginable, technology is making everything cheaper, faster, smaller and easier to use. All of this is having the combined effect of placing creative power in the hands of the crowd rather than in the hands of professionals.

“To build a new system you don't compete with the old one, you build a new system that makes the old one obsolete”.

– Buckminster Fuller

The importance of accessible distribution channels cannot be understated in this context. Take the music industry, for example. Music companies traditionally controlled the market because they paid radio stations to play their tracks and then shipped product to retailers in bulk so people would hear and then buy. If you wanted access to the market, you had to get the nod from a music label. Today, bands are making good money by giving away their best two or three songs as free Internet downloads. Hopefully, the listeners become zealots and the band can then make money by selling them:

- Live concert tickets.
- T-shirts, hoodies or other branded merchandise.
- Band message bags, posters, bumper stickers, etc.

In many ways, this is the flip side of the traditional music industry approach. The established music labels make their money by selling the music – which is why Napster was such a threat. Savvy bands today use electronic word of mouth to create a following and then monetize that passion.

"In a digital ecosystem, the music becomes a loss leader whose purpose is simply to create more fans, more evangelists, more ticket buyers. Most up-and-coming bands don't regard illegal peer-to-peer file sharing as piracy; they view it as a promotional and distribution channel".

– Jeff Howe

It is interesting to note that it's not only digital products which are having their production technologies become more available. Custom fabricators are also under development which can create physical objects through the accretion of thousands of thin layers of metallic plastics or by using lasers to cut physical objects from a block of material. When these fabricators are matched with 3-D modeling software which is already available as a free download, people will be able to make just about anything they can dream up. These custom fabricators currently cost around \$10,000 each – the same price as flat-screen TVs when they first came on the market. By 2008, a mid-range flat-screen TV costs less than a thousand dollars.



The rise of vibrant self-organized communities focused around people's shared interests

Having the tools of production freely available is one thing. A vast pool of enthusiastic amateurs who enjoy creating things is another good factor. The availability of the Internet is obviously a worthwhile building block, but what breathes life and vitality into these components is the emergence of online communities with the capacity to organize people into economically productive units. This is the tipping point which moves crowdsourcing from "interesting phenomena" status to "an irrevocable force".

At one time, communities were formed along strictly geographical lines. Today, online communities self-organize around topics of shared interest. People come together because they have an affinity for something and they like to interact with their like-minded peers. And these communities are rapidly starting to perform many of the functions only corporations could afford to do in earlier business eras.

That's not to say the traditional corporation will go the way of the dinosaur but its exclusive power to conduct commerce is most certainly under a sustained digital assault at present. To state the obvious, times have changed. Consider a few interesting facts:

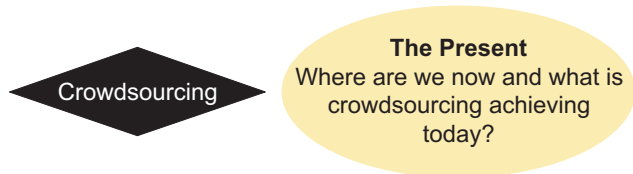
- The largest private employer in the United States is not General Motors, IBM or Wal-Mart. Manpower International, a temp agency, employs 4.4 million people as of 2008. Fueled by the dramatic increase in outsourcing, Manpower is thriving.
- The average size of firms in many industries is steadily shrinking.
- A number of companies including Hewlett-Packard, W. L. Gore & Associates and Visa International, are aggressively decentralizing their decision making processes.
- The boundaries which once existed between firms, customers, contractors and suppliers are becoming porous.

At the same time as the industrial-era firm is under attack, online communities are thriving. People are flocking to them in record numbers, creating something of a snowball effect. One reason for this is the fact when it comes to the fruits of human creative labor, communities are better at identifying talented people and evaluating their output than most firms have ever been.

Online communities work for a number of reasons:

- They are self policing. There is no need to pay for executive managers to direct what happens. The best ideas and practices bubble to the top on their own merits in a community.
- People get things done in a community by persuasion and collaboration rather than by issuing edicts. Humans generally function better in that kind of environment rather than in rigid hierarchies where freedom of thought and expression is actively discouraged.
- In and of themselves, a person who has a few spare hours to devote to a project can't realistically achieve all that much. However when a hundred thousand people pool their spare time in a collaborative community initiative, that's a pool of two or three hundred thousand man hours that can be gainfully applied. This is a huge resource available to do things.
- In an employment situation, financial incentives are all important. In a community environment, recognition and the respect of others can be far more motivational. People also respond well to competitions where they have the opportunity to show off their expertise.

One company which has been a good example of how crowdsourcing can work is TopCoder. The company was launched in March 2000 with the idea of creating a Web site where programmers could compete for prize money. TopCoder runs contests sponsored by big companies like Intel, Google and Microsoft who used TopCoder to identify new programming talent. By 2003, around seventy thousand programmers were regularly either participating in or scanning TopCoder's weekly matchups of programming skill. Armed with that community, TopCoder then approached AOL and was commissioned to write three different software programs AOL needed. TopCoder broke the projects down into modules and offered them as paid assignments to its programmer community. TopCoder also set up competitions where teams could compete against each other to see who came up with the best modules. At the end of this all, the final program was then assembled, run through a certification process and then handed over to the client. TopCoder was able to deliver industrial-strength software in a little over five months using only two fulltime staffers (an architect and a program manager) which a traditional firm with loads of employees would have taken more than a year to complete. Even better, the TopCoder software was so thoroughly debugged through the various competitions that it worked well.



At the current time, crowdsourcing is manifesting itself in at least four very different commercial settings:

- ▶ 1 The use and application of collective intelligence
- ▶ 2 The production of mass creative works
- ▶ 3 The filtering and organizing of vast information stores
- ▶ 4 The use of the crowd's collective pocketbook

When viewed from this perspective, it becomes clear the term crowdsourcing is itself just a rubric for what is a wide range of activities. It is crowdsourcing's very adaptability and flexibility which makes it so strong. It is highly adaptive and therefore certain to crop up in many applications.

- ▶ 1 The use and application of collective intelligence

In several academic studies, it was shown a large diverse crowd drawn from the general population always outperforms a crowd which, while also being large, is drawn from people who are selectively chosen by some criteria, perhaps because they were considered to be intelligent. This has led to what is known as the Diversity Trumps Ability Theorem. The essence of this theorem is "a randomly selected collection of problem solvers outperforms a collection of the best individual problem solvers".

This theorem underpins the concept of collective intelligence – the notion a crowd of people acting in concert can make a better decision than any individual could ever have managed. For much of history, the main form of collective intelligence was when people voted to elect their governments. The Internet, however, facilitates collective intelligence very efficiently.

Collective intelligence takes three main forms:

1. *A prediction or information market* – where the crowd picks the eventual winner of some type of competition. This is the phenomena that occurs when the crowd forecasts the winner of a presidential election in advance or which picture will win the Oscar.
2. *A widely publicized problem-solving exercise* – where some specific problem is broadcast to a large network of potential problem solvers (crowdcasting). The crowd can organize itself into ad hoc groups to tackle the problem.
3. *An idea jam or idea dump* – essentially an online brainstorming session where anyone and everyone can put forward for discussion pretty much any idea that comes to mind. This is like an Internet-based suggestion box.

In all three of these forms of collective intelligence, one key principle comes to the fore again and again. The people who end up solving problems are usually those who you would anticipate are the least likely to solve them. Put another way, breakthrough thinking almost always comes from someone who has no prior experience in the field and therefore is not influenced by the traditional way of approaching a problem. Collective intelligence applies such a diverse and varied number of fresh eyes to a problem that ideas which have eluded those with a narrow focus bubble to the surface.

So how can collective intelligence be gainfully harnessed? In simple terms, some kind of mechanism is needed by which the collective intelligence can be captured and understood. Some of the best mechanisms which have worked to date include:

- *Offering cash prizes for the best ideas* – like InnoCentive which awards prizes for people who solve problems submitted by various companies. Netflix did something similar when it offered to give \$1 million to anyone who could improve its own film recommendation service by 10 percent. Google has also offered cash prizes to those who come up with innovative ideas. This is a form of crowdcasting.
- *Asking for new product ideas* – and then releasing products which meet those specifications. This is what Dell is doing with its IdeaStorm approach to new model development. Anyone can suggest a new product idea, vote on what others have suggested and so forth. This is an example of an idea jam in a real world application. IBM did something similar when it held an "Innovation Jam" in 2006. The meeting attracted 46,000 ideas and IBM announced it would invest \$100 million to create ten new businesses based on the ideas which were put forward at the Innovation Jam.
- *Running prediction markets* – like the Iowa Electronic Markets which allow people to place bets on a range of future events. Traders can bet on the outcome of future events and the system calculates odds based on these bets. This is an example of an information market in action. The Defense Advanced Research Projects Agency has used a similar approach to get collective intelligence feedback on the likelihood of terrorist attacks and so forth by offering \$1 million research grants. Other good examples of this are the Hollywood Stock Exchange (forecasting movie revenues) and Marketocracy (where investors run investment portfolios using \$1 million of Monopoly money as their starting point).

Invariably, these collective devices outperform the experts in those fields. The crowd as a whole has access to far more data and the combined result of thousands or even millions of decisions independently made is always more robust and accurate than anything even a panel of highly skilled experts in a field can match.

"If great minds think alike – and in many circumstances they do – then they really constitute only one mind. A diverse group of solvers results in many different approaches to a problem. Tapping people's collective intelligence involves trafficking in what the crowd already knows. Such crowdsourcing applications generally require small investments of time and energy on the part of individual contributors."

– Jeff Howe

"No matter who you are, most of the smartest people work for someone else".

– Bill Joy, cofounder of Sun Microsystems

▶ 2

The production of mass creative works

For most intents and purposes, the first idea which comes to mind when discussing mass creative works is user generated content. These are attempts to harness crowdsourcing to come up with something of value. Successful examples of building a viable business around user generated content include:

- Wikipedia – which uses user input to generate, edit and fine-tune its online encyclopedia entries.
- Google – which incorporates all kinds of user generated factors into its Web page ranking algorithm.
- YouTube – a vast collection of video clips submitted by users.
- Threadless.com – which allows people to submit T-shirt design ideas which others can then vote on. Threadless generated more than \$17 million in revenue in 2006 using this design by democracy approach. The company pays prize money to its most successful contributors which exceeds \$1 million a year and in return keeps all intellectual property.
- iStockphoto – which has a vast collection of photographic images which have been contributed by more than fifty thousand part-time photographers and graphic artists. iStockphoto then, in turn, sells these images for much less than its competitors. iStockphoto was acquired by Getty Images in late 2005 for around \$50 million. iStockphoto is now launching separate Web sites in France, Japan, Spain and Germany to better serve these local markets. The company projects its revenues will exceed \$262 million by 2012.
- Current TV – which has a third of its broadcast schedule dedicated to viewer-created content. This content, in the form of video clips sent in by viewers, is an excellent way for up and coming talent to get noticed in the media industries. Many of the clips are made to a very high professional standard rather than being clips of cats playing pianos or that kind of thing. Current TV has found the best approach is to run short movie trailer style promo items first and then gauge the feedback which comes in. If the promo clip is well received, then the entire item is broadcast in full and the winner is paid between \$200 and \$1,000 a minute. This is far cheaper than the cost of producing an item in-house which typically works out to around \$60,000-per-broadcast-minute.

Of course, hosting a collection of video clips or photos is quite different from a directed effort to actually produce some type of coordinated creative work such as a book, magazine article or similar. To get the true driving momentum of crowdsourcing a creative work, the general rules-of-thumb are:

1. *Keep in mind most participants have just a limited amount of time available* – meaning it's usually best to split big jobs into small tasks that can be completed within a few minutes. If you like, you can have a spectrum of tasks which can take anything from ten minutes to 10 hours to complete. People will then choose for themselves whichever assignments match their interest, commitment level and available time.
2. *You have to understand why people want to get involved* – and match their personal motivations with what you ask them to do. Not everyone will get involved in a project for the same reasons and it's important to ensure there are a variety of different rationales available. People can then feel like they're getting involved because they want to and because it aligns with their preferences.

▶ 3

The filtering and organizing of vast information stores

When there are two million photos on iStock or 80 million videos posted to YouTube, the big question becomes how on earth do you sort through that and sort the wheat from the chaff? Fortunately, that's where the crowd comes into its own. Not only can content be crowdsourced but the crowd can also be used to filter out what's good.

A good model here is the hugely successful TV show *American Idol*. Not only does the crowd supply the raw talent on display but by the end of a season, the 23 million people who watch the season's finale will cast more than 80 million votes for who is best. To give that number context around the same number of votes were cast in the 2006 midterm elections in the United States.

Today's consumers are used to voting, which is very much one form of crowdsourcing. That's why a service like iStock offers ratings and download numbers for all of its images. A person looking for a specific image can find out which image in that category is best by looking at how the crowd has rated that image. The better an image is, the more it will have been downloaded – unless it is brand new. By looking at ratings and downloads, others can get an indicator of the quality of an image.

When it comes to filtering and organizing material using the crowd, two laws are important to remember:

1. Science fiction author Thomas Sturgeon suggested that 90 percent of science fiction is not worth the paper it is written on but the remaining 10 percent is actually quite good. The application of Sturgeon's Law to filtering and organizing is the more people who get involved in rating something, the better those ratings end up becoming.
2. Bradley Horowitz, vice president of the advanced development division of Yahoo! came up with the 1:10:89 Rule which states for every 100 people who visit a given Web site, 1 will create something and add it to the material, another 10 will vote on what was created and the remaining 89 will merely view or consume what was created. Therefore, Web site owners don't have to convert 100 percent of their visitors into active participants to have a thriving product. Instead, the activity of that 10 percent will be enough. Furthermore, that 10 percent who actively consume, rate and comment will make just as valuable a contribution as the 1 percent who are actual contributors.

The practical consequences of Sturgeon's Law and the 1:10:89 Rule is if you can create an active community of people who will enthusiastically be prepared to dig through the rough to unearth the diamonds, you can do some pretty impressive things. For example:

- Threadless (the T-shirt maker) makes voting fun so people enjoy being involved. Visitors to their Web site can rank T-shirt ideas from zero to five but there is also a "I'll buy it!" box sitting there on the page as well. The company not only gets volunteers to create their shirts but it also uses volunteers to figure out how many shirts it should be making. This is a very smart way to do business.
- A number of companies have asked their customers to create ads for their products and then everyone else is invited to vote which is best. The winner gets a prize while the company gets an ad that it can run during the Super Bowl.

- Intel launched a new Web site, CoolSW which stands for “cool software”. People are allowed to write descriptions of new software start-ups which have caught their interest. Everyone else then votes on the coolest ideas which get featured on the site’s home page. Intel gets lots of traffic to its Web site, discovers some new growth opportunities and gets a feel for what electronic devices are likely to do well in the future which helps with its own product line planning.

Of course, all of these various efforts to tap the Web’s collective judgement is nothing new. Google has long incorporated PageRank into its algorithms. In practical terms, PageRank determines the relevance and importance of a Web site by counting how many other Web sites link to it. Other variables are also looked at, of course, but the measurement of links is one of Google’s primary measures of Web site importance. In this way, Google is using the entire Web user base to bring order to the more than 15 billion webpages which exist as of late 2008 – the largest storehouse of information ever created in the history of mankind. This is an example of collaborative filtering powered by the crowd at its finest.



The use of the crowd’s collective pocketbook

The productive use of crowd power is not merely limited to ranking things. People can also come together to pool their money and do interesting things. Some examples of this kind of crowdfunding would include:

- Kiva.org which bills itself as “the world’s first person-to-person micro-funding Website”. Viva uses the Internet to connect small businesses in Third World countries with lenders located in First World countries who are philanthropically minded. In its first few years of business, Kiva has raised \$20 million in capital which has helped fund 225,000 new small business in eleven countries. Kiva currently has more donors than it has projects to fund, and many international institutions have opened their own for-profit microfinance divisions. In 2006, Bangladeshi economics professor Muhammad Yunus was awarded the 2006 Nobel Peace Prize for suggesting the concept of microlending as a way to jump start local economies in Third World countries. Kiva has taken this same concept and moved it to an Internet based business model.
- In the 2008 U.S. presidential elections, Barack Obama raised around \$272 million from more than 2 million small donors through the savvy use of his Web site. Interestingly, that amount of money was used just to secure the Democratic Party nomination. Mr. Obama raised even more funding for his presidential campaign proper.
- In April 2007, a 36-year old copywriter in England launched a Web site MyFootballClub.co.uk. The idea was very simple. William Brooks, the site owner, aimed to collect 35-pounds each from fifty thousand people. The money raised would then be used to purchase a professional football team. By November 2007, more than 700,000-pounds had been raised and the Ebbsfleet United Football Club was acquired. Today, online voting is used to decide everything from what the team wears to who should coach the team and which players the club should contract. Ebbsfleet United, for its part, enjoyed one of the best years in its 80-year history when the team won the FA Trophy at Wembley in May 2008.

- British writer and filmmaker Matt Hanson has started a crowdfunded film project to make “A Swarm of Angels”. Hanson’s goal is to raise \$2 million by soliciting \$50 from anyone who is interested in becoming an angel. If forty thousand people sign on, Hanson will have the \$2 million required. Investors are also invited to contribute script ideas and to decide which of two alternative scripts should go into production. Ultimately, this feature-length film will be distributed free over the Internet.
- Sellaband.com was launched in August 2006. It allows any band to create a profile page and upload some music tracks. Listeners are then invited to buy a share in the band’s future revenue streams at \$10 a pop. Once a band has attracted \$50,000 in investment, Sellaband then hooks that band up with an experienced producer and mixer in a studio. The band can then make its first album. Everyone who invested in the band gets a complimentary copy of the album and a share of any future revenues which that album may earn. It took about ten weeks for the first band to reach the \$50,000 mark and by the end of 2008, Sellaband has helped twenty-one bands get their start in the music industry.

These ideas are just the tip of the iceberg when it comes to harnessing the collective pocketbook of the crowd. All kinds of new and interesting financial models will surface in the future.

“Crowdfunding isn’t dependent on the crowd’s knowledge, creative energies, or judgments. It merely taps their spare dollars, pounds or pesos. And hey crowdfunding has more in common with the other forms of crowdsourcing than is immediately apparent. First, it radically shifts the organization of an existing field. Two, it flattens hierarchies, by directly connecting people with money to the people who need it. And crowdfunding shares crowdsourcing’s generally democratic impulse”.

– Jeff Howe

“Crowdsourcing – and crowd voting mechanisms in particular – correct a long-standing inequity. The culture industry has long been controlled by a select few, and as any tour of prime-time network television reveals, they haven’t had too much trouble finding the lowest common denominator all of their own. If anything, a dose of democracy could be just the tonic the culture industry needs”.

– Jeff Howe

“Crowdfunding isn’t new. It’s been the backbone of the American political system since politicians started kissing babies. The Internet so accelerates and simplifies the process of finding large pools of potential funders that crowdfunding has spread into the most unexpected nooks and crannies of our culture”.

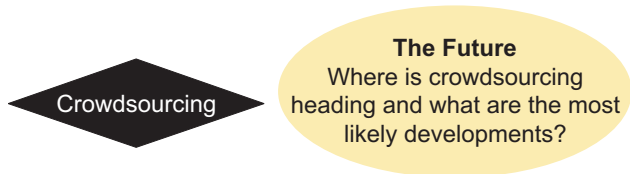
– Jeff Howe

“By asking people to place a small financial stake in the careers of musicians and film makers, artists are able to appeal directly to the very constituency that will ultimately consume their wares. Who better to decide what should be created than the same people who will ultimately consume the product?”

– Jeff Howe

“There are reasons to believe that the current manifestations of crowdsourcing is just a prelude to a far more pervasive transformation. Actually, there are about 200 million reasons to believe it. That’s the rough number of kids around the world that currently have Internet access”.

– Jeff Howe



It's almost certain crowdsourcing will dramatically change the nature of work and creativity in the future. As crowdsourcing continues to make previously scarce resources become much more abundant, what customers are willing to pay for will change and evolve dramatically. This will likely have very far reaching implications.

Crowdsourcing is not a silver bullet for commerce. It's not a magic pill which will make all commercial challenges fade into oblivion. Rather, crowdsourcing harnesses the power of today's communication technologies to liberate the potential which exists in large pools of people. It will shift the way work gets done.

Crowdsourcing represents a fundamentally different way to make and sell stuff, and the phenomenon is still in its infancy. If you aspire to be involved in the future, keep in mind these rules:

▶ **1** Pick the right model

Crowdsourcing is not a single strategy but is an umbrella of approaches. Before you launch anything, first figure out what you're trying to achieve and then look at what is the best way to do that. The four basic strategies of crowdsourcing are:

- Harnessing the collective intelligence or crowd wisdom.
- Using the crowd to sift through things and vote.
- Using the crowd to create what you want to sell.
- Tapping into the crowd's collective financial resources.

Many successful crowdsourcing projects use a combination of these four approaches. Pick and choose the variations you need to make your project sizzle.

▶ **2** Pick the right crowd

Work hard at this. More than one billion people have Internet access. You'll probably need only about five thousand active users to make your business model work. Therefore, be choosy. Craft the message you send out and broadcast it through the right outlets so you can attract the people you need.

▶ **3** Offer the right incentives

Understand what people want when they agree to get involved and give them precisely that – whether it's personal glory, the chance to interact with like-minded peers, the opportunity to acquire new skills, etc. Inject some cash rewards as well in the form of revenue sharing. The key to keeping your crowd happy is to appropriately respect them and reward them.

▶ **4** Keep employing people

Don't look at a crowd as cheap labor. You'll still need people to get things done the way they need to be done. Besides, the key to keeping a crowd is to engage them in an ongoing conversation. To do that, you need people at your end.

▶ **5** Find benevolent dictators

Someone always has to provide direction and guidance for any crowdsourced project. The person who guides a project will need to act a little like a benevolent dictator who keeps things on track. Provide your online community with good thought leaders.

▶ **6** Keep things simple

People are busy. You will increase their likelihood of contributing or participating if what's required is straightforward and can be fitted into a few spare minutes. Make this the way you split big jobs up into bite-sized chunks.

▶ **7** Be prepared for fluff

Anytime you invite the crowd to contribute, you're going to get lots of rubbish along with the gems. Be prepared for that, and anticipate most of the stuff that comes in will be below acceptable standards. Have lots of capacity available.

▶ **8** Look for diamonds in the rough

Never bother trying to sift through all the material which gets submitted to you in raw form. Instead, take the more expedient course. Install a democratic process. Make it feasible for the crowd to help you find the diamonds in the rough which will exist in all the material you receive.

▶ **9** The community's always right

While it is true someone has to act as a decider and keep things on track, don't try and ignore the direction the community wants to head with any project. To do so is absolute folly. You can most certainly try and guide the community but if you try and exercise too much control, you'll end up becoming a follower rather than a leader. That's not a smart place to be.

▶ **10** Give the crowd something

"Crowdsourcing works best when an individual or company gives the crowd something it wants. Another way of thinking about this is successful crowdsourcing involves satisfying the uppermost tier on Maslow's hierarchy of needs. People are drawn to participate because some psychological, social, or emotional need is being met. And when the need isn't met, they don't participate. What this means for companies is they must reverse the thinking that normally goes into employee relations. If iStockphoto had approached community building by trying to create a low-paid workforce of amateur photographers, it would have failed. Instead, founder Bruce Livingstone set out to create a home on the Web where enthusiasts could share and critique one another's work and, oh yeah, maybe make a few bucks on the side".

– Jeff Howe

"Given the right set of conditions, the crowd will almost always outperform any number of employees – a fact that companies are becoming aware of and are increasingly attempting to exploit. That, in a nutshell, is what crowdsourcing is about".

– Jeff Howe