Crowdsourcing and Technology

3  Crowdsourcing and Technology
3  The Importance of Speed-to-Market
5  How Crowdsourcing Helps Technology Companies
7  Using Crowdsourcing in Open Innovation
7  Best Practices for Technology Crowdsourcing
9  Examples of Technology Crowdsourcing
9      Google Maps
9      Federal Government
10     Packaging
10     Department of Energy
11     Conclusion

12  Related Reading
Crowdsourcing and Technology

Innovation is vital for every company. That’s no secret. However, it’s especially true for technology companies. You need new, unique ideas produced and ready for the public as quickly as possible. And, you need these ideas regularly.

Like many organizations, you likely face a variety of challenges with innovation. Internally, you may face resistance to running your projects or teams in new ways. You may have people who are used to the “way it’s always been done,” or who want to choose teams and projects based on internal politics instead of merit. You may also face resistance to new technologies, or have leaders who don’t want to invest in additional upgrades and training.

Other challenges that you face include limitations due to staff size, budget, culture, uncertainty and skepticism. When it comes to developing new ideas, it’s difficult to know which ideas will have a large enough demand to be profitable until you’ve invested a significant amount of money on research and development.

All of these challenges contribute to many technology companies innovating far less than they need to remain competitive. Fortunately, that can be different for you – simply by incorporating crowdsourcing into your innovation efforts. Not only can crowdsourcing reduce the common roadblocks discussed above, but it can also help you iterate quickly, and perhaps reduce your speed-to-market.

This paper covers:

• The importance of speed-to-market
• How crowdsourcing improves speed-to-market and lowers Research and Development (R&D) costs
• Examples of technology companies successfully using crowdsourcing

The Importance of Speed-to-Market

The most successful organizations are the ones that are able to get new ideas to the public first. Time is money, and the company that offers a new technology to the public before anyone else will often dominate the market. This is true even if their version of the product isn’t the best one on the market after a year or two.
Speed-to-market is especially important in a time of fast-changing customer demands and rapid improvements in technology. As technology shifts, it drives innovation\(^1\). Your ability to adapt, quickly innovate, and bring an idea to market faster than your competitors will mean the difference between being the leader or another follower. When you develop a strategic innovation model, you’ll be able to take advantage of all opportunities to innovate while letting your customers’ preferences lead the way.

Studies show that speed-to-market is positively correlated with new product success\(^2\). This is especially true in uncertain markets – markets with unfamiliar parameters and rapid changes. Today’s technology market is nothing if not uncertain, with quick changes happening every day. As a result, speed-to-market is vital for success in today’s technology landscape.

It’s important to remember, however, that speed-to-market doesn’t mean that you compromise on safety, the law, quality, and usefulness of your technology solution. While you may not have to be the absolute best to win market share, you do have to avoid having your organization’s name associated with quick and sloppy work. Having a poor reputation can significantly impact your brand as customers take to social media and review sites to share their frustrations by the masses.

Crowdsourcing can help you avoid these pitfalls. With crowdsourcing you can develop the best new ideas quicker, cheaper, and without compromising quality.

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How Crowdsourcing Helps Technology Companies

Two of the key obstacles that confront technology companies who are trying to be first-to-market are manpower and budget. Most organizations don’t have the staff available to substantially increase speed-to-market and don’t have the budget to hire more. Even if staffing weren’t a concern, there’s still the issue of R&D budget in general. Having a big enough budget to speed up the development of new ideas is difficult for most organizations.

Another problem is that some innovations simply aren’t in demand. There’s nothing more frustrating for a project team than spending hundreds of hours and a lot of money on developing a new innovation, only to discover that no one is buying it. Unfortunately, most organizations don’t find out that they’re pursuing the wrong improvements until the R&D is already invested, the product is launched in the market, and it’s losing money.

Crowdsourcing changes the entire story for technology companies. With crowdsourcing, your organization can gain significant staff hours without hiring any new employees. You can spread out the time required for testing and development over a much larger group of people, many of whom are volunteers. Finally, you can test consumer demand for an innovation before you invest large sums of money developing it.

One way that technology companies can use crowdsourcing is by using the help of the crowd to develop new product ideas. People really enjoy participating, creating, and competing with each other. In addition, your marketing team gets to run alongside the crowdsourcing program and stir up interest for the new product. You’ll quickly discover whether there are concerns with the market fit or interest, and you can adjust your program and investments accordingly.
Crowdsourcing may reduce or eliminate the need for focus groups and committees because it uses the voice of actual consumers to influence decisions. It also ensures that there is a ready pool of buyers when the product comes to market. The good news is that it reduces risk if there isn’t enough demand to justify the development; the project can be stopped or shelved before a significant amount of money is spent. Platforms like IdeaScale make it easy to manage these types of crowdsourcing campaigns.

You can also use crowdsourcing to solve specific technical problems like Citrix did with their innovation program. Citrix was able to move from managing new ideas via email to using crowdsourcing to gather ideas from thousands of employees. Another example is Making All Voices Count, who used crowdsourcing to engage a global community across five continents to solve specific governmental problems around the world.

Ideas from diverse industries and cultures allow you to examine your technical problems from a perspective you haven’t considered. By using this type of crowdsourcing, your organization can break out of the “way we’ve always done it” rut and develop truly new and innovative processes and technologies.

In the end, crowdsourcing allows technology companies to move more quickly on ideas with existing high demand while keeping their R&D budget very low, maximizing the profit from each new innovation.
Using Crowdsourcing in Open Innovation

The term “open innovation” is no longer an exotic concept that’s discussed in abstract terms. Open innovation means creating and innovating with external stakeholders, including customers, suppliers, partners, and your wider community. It can be a key part of your organization as you incorporate new ways of thinking about business that assumes that organizations both can and should use external ideas as well as internal ones. It means that you consider both internal and external paths to market as you look to advance your technology. With open innovation, you’re adding additional avenues to your product development, marketing, and innovation processes.

Generally, open innovation is intensive. It requires all parties to make significant contributions towards a mutually beneficial outcome. When you use crowdsourcing, all organizations benefit from increasing brand awareness along with standard benefits of crowdsourcing. It’s the perfect way to enhance open innovation and propel your organization forward.

In the past, the realities of costly research and development limited true innovation to only the largest players in the technology market. Innovation belonged solely to very large companies with very large budgets. Today, open innovation and crowdsourcing levels the playing field, allowing smaller organizations to compete technologically. You can have a modest budget and still access new and innovative processes and technologies.

With a leveled playing field, comes increased competition. This means that you can’t rest on your previous accomplishments. There are always new companies, both small and large, that are looking to innovate and deliver a product that surpasses yours. This makes innovation and speed-to-market more critical than ever.

Crowdsourcing and open innovation have been delivering outcomes to a variety of technology organizations for over fifteen years. Far from being dated, the process is still standing and advancing as it adjusts to today’s technology market. Maturation from both crowdsourcing providers and client industries have led to a stable and sustainable working methodology that can be applied in your organization. It stands as a supplement and complements the more traditional innovation methods.

Best Practices for Technology Crowdsourcing

Using crowdsourcing in a technology organization requires a shift in thinking from traditional attitudes that generally exists in companies that have been around for years. If you can work on encouraging your staff, team, and leadership to change their mindset, you’ll be well on your way to helping your organization take advantage of the many benefits of crowdsourcing.
Here are some of the best practices for technology crowdsourcing:

- **Shift the Paradigm of “Must Be Invented Here.”** Make sure that your teams and your leadership aren’t too proud to embrace outside ideas and perspective. Just as working on a team can multiply an individual’s strengths, using crowdsourcing can multiply your strengths as an organization. Being the best isn’t just about who you have inside your organization, it’s about what you can access outside it as well! Remember that open innovation is not an enemy or replacement of internal R&D – they actually work together to allow you to do more with less cost.

- **Remove Geographical Bias.** Are you resistant to accepting ideas from other cultures? If your technology company is going to succeed with crowdsourcing, you need to confront your feelings honestly and boldly so that your team can move forward with new respect and admiration for other cultures and perspectives. You’ll be surprised at the innovation that develops from interacting with other cultures.

- **Be Open to Revising Your Problem Statement.** As your true needs become known, your problem statement may need to grow and adapt. When you transfer your needs into a crowdsourcing program, make sure you’ve expressed your request in clear terms, without any industry-specific jargon. Declutter your requirements and criteria to make sure that participants understand what you’re truly looking for. And don’t be afraid to post updates as things become clearer.

- **Involve the Marketing Department From the Start.** Make sure your marketing department participates in the project from the very beginning, drawing interest in the competition and developing demand for the new technology being produced. If there isn’t enough interest in your new offer, don’t be afraid to pull the plug and move on to a new idea. If there is, the involvement of your marketing department will help develop a ready-made market for when your new product hits the shelf.

- **Use Competitions to Spark Interest and Creativity in the Crowd.** People love to compete, they love to vote on others’ ideas, and they especially love to win. By using competitions, you can draw more participants than you would with a simple survey or focus group. In addition, you’ll spark the creativity in your competitors. You’ll be amazed at the unique ideas that people come up with when they’re competing for a prize.

- **Pick the Right Rewards.** Be sure that the rewards for your contest or competition match what the crowd is interested in. Many crowd workers are looking for a financial reward, but they are also very interested in making a difference, public recognition, and even simply winning! By making it clear what the rewards are and matching them to the desires of the crowd, you’ll maximize participation.

- **Follow Up After the Winner is Chosen.** When you choose a winning idea and move into implementation, keep your fans and participants updated as the product goes into production. This will keep demand high and help participants feel like their work made a difference.
Examples of Technology Crowdsourcing

Crowdsourcing is driving innovation in technology organizations around the globe. Here are a few well-known examples of technology crowdsourcing in action, demonstrating the impact that it can make in an organization.

Google Maps

Google is famous – and infamous – for its mapping software. While millions rely on it to safely find their way around new cities, millions of others have been frustrated by errors. Google Maps has decided to address these concerns by turning all of its one billion plus users into editors. A single user can report a change, and after enough users verify a change, it goes live. This change will not only allow users to feel empowered and increase the power of the Google Maps product, but it will save Google untold hours and millions of dollars in reviewing and editing change requests in-house.

Federal Government

The federal government has also embraced crowdsourcing to address a variety of challenges. Hearkening back to a time when public sector prizes were used to fuel innovation in travel and aerospace, the government asks citizens to contribute ideas to solve problems faced by various federal agencies. For instance, NASA offered a visit to an upcoming NASA launch in Florida to the winner of the Space Apps Challenge in 2016. From the best use of data to the best mission concept, NASA awarded prizes in six categories.
Packaging

The packaging industry may seem dull and boring to some, but it’s an area where technological improvements can save a company a significant amount of money. Technical challenges in packaging have generated a lot of interest in crowdsourcing circles. From improving or replacing cardboard to finding packaging solutions for temperature-sensitive products, these crowdsourcing projects have successfully brought technical innovation into a very standard industry. And, as more and more consumers turn to online shopping, innovations in packaging will play a major role in the continued success of online stores.

U.S. Department of Energy

In 2011, the US Department of Energy launched the Sunshot Catalyst program. This program was a national collaborative effort to make solar energy cost-competitive with other forms of electricity by the end of the decade. A team was assembled to scour the country for the most promising solar start-ups to help them meet that goal. To make these energy and technology challenges fun and relatable, they chronicled their results in a playful way. You can read about this amazing journey in comic book format on our website at:

**Conclusion**

Innovation in technology is no longer an inside job. Organizations have to break out of the “must be invented here” mindset and access the creativity and perspectives that abound outside the company. The best innovators use crowdsourcing in conjunction with internal R&D to help them come up with new ideas. These organizations often significantly improve speed-to-market while reducing expenses. They test and generate demand for new products in advance, which helps them avoid spending millions on a failed launch. As a technology project manager, you can’t afford for your organization to miss out on the advantages of crowdsourcing.
Related Reading

Blogs:

IdeaScale Blog
Innovation Management
Crowdsourcing Industry Site
The Daily Crowdsourse

Case Studies Referenced:

Citrix
Making All Voices Count
Department of Energy

Books:

The Wisdom of Crowds
Crowdsourcing

References: