TREND 2: FROM WORKFORCE TO CROWDSOURCE
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From workforce to crowdsourcer:
The rise of the borderless enterprise

Picture a workforce that extends beyond your employees: one that consists of any user connected to the Internet. Cloud, social, and collaboration technologies now allow organizations to tap into vast pools of resources across the world, many of whom are motivated to help. Channeling these efforts to drive business goals is a challenge, but the opportunity is enormous: it can give every business access to an immense, agile workforce that is not only better suited to solving some of the problems that organizations struggle with today but in many cases will do it for free.
Why now?

**Accelerated pace of IT change:** The increasing pressure to rapidly deploy new technology is accentuating some of an enterprise’s biggest pain points: market insight, innovation, and a need for highly specialized skills. These are areas for which crowdsourcing solutions are well suited.

**Maturation of crowdsourcing platforms:** Communities of shared interest have organically formed or are forming around almost every product, service, and idea that can be imagined. Crowdflower, Spigit, and Mechanical Turk are just a few of the collaboration platforms that are rapidly evolving to enable and orchestrate efficient solutions.

**Strong case studies from early adopters:** Some of the biggest market disrupters, such as Facebook and large enterprises including GE, are currently using crowdsourcing services to solve their most complex problems, and everyone is taking notice.

Where do leading companies like GE, MasterCard, and Facebook go to solve their toughest data science problems?

They don’t always turn to the professionals on their own payrolls. Rather, they are beginning to turn to companies like Kaggle—a global network of computer scientists, mathematicians, and data scientists who compete to solve problems ranging from airline flight optimization to retail-store location optimization. This is just one glimpse of how the concept of the corporate workforce is changing.

Over the last decade, organizations have been using increasingly advanced tools and processes to boost collaboration among their employees. Videoconferencing, instant messaging, blogs, wikis, and activity streams have all become the norm as large companies push to connect their employees across groups, skills, and geographic boundaries. Outside of the enterprise, these patterns are even more pronounced: tools such as Twitter and Yelp and Wikipedia connect huge swaths of the population to discuss and collaborate on everything from new-car reviews to health care.
Given that so much collaboration happens through digital channels, there is the potential for almost limitless collaboration with everyone else who is connected to the Internet—regardless of whether they are "our" employee or not. Which raises a crucial question for business and IT leaders: "Are we missing out by not connecting to this 'expanded workforce,' everywhere and in all directions?" The short answer is "yes."

Digital connection platforms

More and more digital platforms are available that make it easier to connect to what Accenture calls the expanded workforce. Kaggle is just one of these; others include Amazon's Mechanical Turk, along with services such as Elance and oDesk. All of these can be considered online labor markets. They help companies that have tasks that need to be accomplished connect with resources that have the right experience, ability, and time.

Although many organizations are experiencing the benefits of digitally enabled forums such as innovation exchanges and crowdsourcing platforms, few executives yet fully grasp the idea of being able to access a truly liquid workforce—pools of premier talent gathered in virtual communities and coalescing around specific business problems. This expanded workforce likely offers not only expertise that is not immediately available in-house but also real scale. It can be leveraged to solve problems that may be too large or too expensive to solve internally.

Name almost any challenge—early detection of driver drowsiness or the predictability of drug targets or electric-only updates to hybrid cars—and there are often already communities of experts that companies can leverage to competently address it. The individuals involved may be around the corner or on the other side of the world; what they have in common is not only the experience and expertise to solve the problem but the motivation—in many cases the passion—to do so.

The tasks involved may be as simple as data entry or as complex as industrial design. The individuals—the problem solvers—may work on a project or just part of a project. They may be paid; they may compete for prizes. But whatever their incentives and their spheres of interest, the unifying feature is that their contributions are made possible with digital tools.
The expanded workforce in action

Take the automotive startup Local Motors for example. Its Rally Fighter car can’t easily be called beautiful, with its scrawny jellybean body perched high above gangly struts and monstrous off-road wheels. Its real beauty is in how it came to be—not how it looks.

A harbinger of the future, Local Motors created a global community of car enthusiasts that included engineers, mechanics, and industrial designers and broke down the creation of the vehicle into a set of tasks that were widely distributed, via the cloud, to this eclectic workforce. In just 18 months, those individuals—working closely with the company’s employees—designed, manufactured, and delivered a car that this user community loves.1

Local Motors provides a provocative example of leveraging an unconventional workforce to accomplish something previously thought impossible. So intriguing is Local Motors’ social-plus-collaborative take on car making that it has attracted some blue-chip partners, such as BMW. BMW hopes to use the startup’s expanded workforce model to move beyond typical focus groups and inference, developing and testing new automobile interiors that reflect users’ true desires rather than incomplete and veiled answers.2

Local Motors’ real innovation is conceptual. Its leaders imagine and leverage limitless talent instead of being boxed in by what has traditionally been a predetermined workforce. They see talent that may already be waiting to solve some of the challenges the organization has yet to confront. “There are two ways to build things,” Local Motors’ co-founder and chief executive Jay Rogers told an industry publication. “You can hire the relevant people to solve a problem—or you can organize in the cloud to get better ideas faster.”3

A crucial point to make is that the use of the expanded workforce is not another form of labor arbitrage. It is not to be confused with employing contractors or temporary labor or moving to an outsourcing arrangement. The channels, structures, and transactions are entirely different—far more fluid and versatile than any familiar forms of accessing human resources.
It will be essential that borderless enterprises work to harness the energies and enthusiasm of the expanded workforce. The current workforce is not going away, of course; not every problem will be well suited to crowdsourced solutions. However, it is no longer enough to rely only on groups of in-house individuals to drive market research, innovation, and product-development activities. Digital technology has brought a global voice to those functions. It is pushing out the boundaries that previously defined the enterprise workforce. It’s not an overstatement to say that business leaders now need new perspectives on the nature of work itself.

Let’s walk through a few of the ways in which leading businesses are starting to harness the expanded workforce.

Marketing moves toward perfect information

The expanded workforce is already changing the way companies market their products and services. Technology platforms that promote comments, user interaction, and even consumer investment are giving consumers a direct voice with which to communicate with the marketing department. In doing so, these platforms create a porous membrane between paid employees and the expanded workforce. Consumers are providing richly detailed information, giving companies an unprecedented level of insight into their products, how they’re used, and the consumers that buy them.

With the right digital tools in place, producers can predict better than ever how the market will react to their products and who will buy them. They can segment markets more discretely and test premium feature sets to see who will pay for them. The new approach trades abstract market projections for data-driven market decisions; consider the difference in outcomes between
running small focus groups city-by-city and running a crowdsourcing contest to solicit customer input. Responses from 125,000 real-world consumers certainly are more statistically sound—and arguably more honest—than responses from 125 focus-group attendees.

The benefits of expanded-workforce input go further still. Direct consumer feedback can furnish data on pre-order sales that enables not only sales projections but also raising of working capital that can be used to begin manufacture of the actual product. In this way, the expanded workforce becomes an invaluable tool for reducing product inventory risks. This is market insight that is not confined by four walls or hidden behind artificial representations of consumers' wishes.

A few examples stand out. Walmart Labs, the digital technology division of the world's largest retailer, is embracing the power of the crowd to determine which items the company should stock in its stores and on its website. Using a contest titled "Get on the Shelf," which was heavily promoted on Facebook, Google+, and Twitter, the company offered a way to democratize the job of the store buyer and bring shelf selections in line with shoppers' expectations—and wants. The effort was intended only as a "fun experiment"—which it was, but it also provided Walmart with a clear view of the demand for products not currently on its shelves. Consumers voted online for the products they wanted to see sold at Walmart; winning entries for new products won prizes and a grand-prize winner was chosen from the top three contestants.4

Similarly, snack maker Lay's has used consumers' creativity to launch new flavors. The company has run flavor naming and defining contests in more than 15 countries since 2008. One recent U.S. initiative that used the slogan "Do us a flavor" drew nearly 4 million proposals. The winning flavor—"cheesy garlic bread"—was chosen from the votes of the company's fans and by a panel of experts who included a popular TV actress and several top chefs. The new flavor is now widely available for sale.5

Of course, there is no stronger indicator of market interest than customers' willingness to part with their money. These days, more and more businesses are using "crowdfunding" platforms such as Kickstarter to help validate product development. Kickstarter is the granddaddy of crowdfunding sites—new businesses that use Web-based collaboration, social media, and microfinancing techniques to raise money for everything from new film
projects to seed funding for small businesses. Since Kickstarter launched, in 2009, over 5 million people have used the platform to pledge more than $900 million, funding more than 50,000 creative projects.⁶

Companies are using Kickstarter and similar platforms not just for fundraising but to provide market insight and product viability assessments for a fraction of what those services typically cost. By determining what people will actually pay for, the process influences and validates products and pricing strategies and sometimes leads to initial consumption and to product advocates. Accenture has developed initial models that show that crowdsourcing, when used correctly, leads to higher profits for producers.

Tesla Motors is an example of a company that has taken this idea to the next level. The maker of electric cars has asked for advance reservation fees from customers—$5,000 per car—not only confirming the extent of demand but providing Tesla with working capital to the tune of $130 million. These “funds” are willingly provided by eager buyers for zero percent interest. Otherwise, Tesla might have to pay 10 to 15 percent to a bank.⁷

“With the right digital tools in place, producers can predict better than ever how the market will react to their products and who will buy them.”
Taking innovation off its leash

Innovation is now at or near the top of the C-suite agenda in every organization. But it remains difficult to execute—difficult to scale up and to ramp up fast, and hard to ensure that the results are of the quality expected. Yet innovation is happening organically everywhere, whether business leaders are aware of it or not; communities of shared interest have formed or are forming around almost every product, service, or idea that can be imagined. There are new platforms, such as Spigit, that can help to propel the innovation process quickly and effectively. Another example is TopCoder, a mechanism for running computer-programming competitions. Such platforms capitalize on the very human urges to create, solve problems, and pursue knowledge. Many people are powerfully energized by the idea of developing innovations that solve big, intractable problems. The zeal of those working on the Human Genome Project, an ambitious undertaking to fully map the human genome, is ample evidence of that.

Organizations can’t depend solely on existing or emerging innovation solutions. They should be willing to create comparable platforms and communities. Roughly a decade ago, pharmaceutical company Eli Lilly spun off InnoCentive, an innovation exchange that now has more than 300,000 registered problem solvers from 200 countries. Essentially, the company marries this expanded workforce to cloud-based technology to solve problems posed by customers. Winners receive substantial cash prizes. To date, more than 1,500 awards have been given, with the size of the award ranging from $5,000 to more than $1 million, based on the complexity of the problem and nature of the challenge.8

Similarly, companies such as Facebook and Twitter are leveraging the intellect and energy of the crowdsourcing by using application-programming interfaces to open up their platforms to the development community at large. This open approach encourages individual developers and companies to innovate and create products that solve problems and issues that might never surface in the interactions of those companies’ conventional workforces. The open approach not only motivates the users of the platforms; it creates substantial additional value for the platform and subsequently for the platform owner itself.
Fast-tracking product development

The open-source community is the original expanded workforce—the trailblazers, united by ideas and interests, who helped write the rules and define the tools for freeform ways of developing software. Collectively, these impassioned individuals make up a global army of developers who are creating and improving free software, bringing worldwide benefits server by server, device by device, for free.

This expanded workforce has touched every organization in some way. Witness the widespread use of two outputs of open-source projects: Hadoop and Linux. The first is the engine that is powering the Big Data era; the second is the kernel operating system embedded in 23 percent of installed enterprise servers, over 80 percent of smartphones shipped, and countless other systems ranging from embedded sensors to supercomputers.9

It can be argued that the open-source movement has changed the face of software development just as much as the move from punch cards to hard disks did. Open-source initiatives are foundational for companies such as Yahoo and Google. Android is based on Linux; it is projected to constitute nearly half of all mobile operating systems (smartphones and tablets) by 2017.10

Nowadays, the largest technology players all have significant roles in open-source development. Companies including IBM, Microsoft, and Oracle—once strongly opposed to all things open-source—are official, vital, and prolific contributors to the open-source community. The open-source paradigm has now moved to hardware development, as seen with Facebook’s Open Compute Project and Hewlett-Packard’s Pathfinder Innovation Ecosystem Solutions initiatives. But it shouldn’t be limited to just tech companies. Businesses of all kinds should engage in these open-source communities. By contributing ideas, time, and code, companies help set the overall direction of product development, allowing them to leverage not just software that is free but software that targets their specific needs and problems.

Software is also just one example of using the expanded workforce for product development. From smart watches to smart vehicles, the expanded workforce is being employed by bold companies to energize their product...
development. The expanded workforce is becoming an invaluable filter for reducing product development risks, improving time to market, and determining receptivity to new-product introductions. For example, the Pebble watch Kickstarter campaign not only raised more than $10 million in 2012 but allowed the company to gather valuable product intelligence about pricing and product demand. By interacting directly with its target customer base, Pebble was able to determine that consumers were willing pay $150 for one of its watches and that 85,000 watches, once funded, would be mailed in the first month.11

Using the crowd—and its assets

Innovating, marketing, and developing products are by no means the limit of what the expanded workforce can help with. The concept is expanding to include people’s assets as well as their time. Just one snapshot: Local Motors quite literally uses its customers as free labor, and the buyers of its Rally Fighter car actually pay for the experience of participating in the car’s assembly.

In fact, the use of the crowd’s assets can launch new businesses that are well positioned to attack long-established sectors. Airbnb is a classic example. Billed as a trusted community marketplace where people can list, discover, and book unique accommodations around the world, Airbnb uses the crowd as the untapped source of places for travelers to stay. In effect, everyone can offer their own home or apartment as a kind of hotel. Airbnb is possible because digital tools—particularly mobile phones—make it very easy to find, select, and obtain accommodation. Not surprisingly, the startup—it was founded in 2008—is seen as a significant threat by the hotel industry.

Similarly, Uber crowdsources assets (in this case, cars) by connecting drivers with people needing a ride, a model that the taxicab trade views with alarm. And RelayRides—through which car owners rent out their own vehicles—presents competition to the established rental-car business.

Current markets are being disrupted and new markets are being discovered by companies that are employing latent talents or assets made available through digital technology. Businesses can no longer be on the sidelines.
watching and waiting to see what will happen next and hoping to grab the coattails of the next big idea. The enterprise needs to be out there experimenting, discovering, and creating the next big idea.

From doing to orchestrating

So, there is no shortage of people willing to participate in online experiments, contests, challenges, and more. Individuals are surprisingly ready to work for little or no money if they get other rewards: prizes, recognition, fame, the sense of pride in getting to create something. But how do business leaders then effectively manage the flow of talent and ideas? How do they effectively keep control when their workforce moves from hundreds or thousands to tens of thousands?

Given the relative immaturity of these crowd-based services and platforms, there’s still much to be learned. The strengths of these services can also be their limitations. However, although there are no clear lines or absolutes when employing the expanded workforce, there are already some useful guiding principles for planning and implementing platforms for crowdsourcing.

The use of the expanded workforce demands very diligent planning. There must be clear, shared objectives for the crowdsourced exercise, whether the requirement is for new solutions to tough engineering challenges or for funds for new-product development. And complex tasks must be clearly and logically broken down into a series of independent subtasks that can be parceled out to the crowd in a way that allows the crowdsourced efforts to be reintegrated into the overall product or project. In the case of labor market exchanges, there can be no subtlety in the work description; amplified across hundreds or perhaps even thousands of “workers” in the expanded workforce, inexactness will produce meaningless results or work that cannot be re-aggregated.

This need for structure requires more than just planning; typically, it will also require a technology solution to drive users through the process. A superb example of this is the DARPA Language Challenge, which leveraged Amazon’s Mechanical Turk platform. The challenge was to translate, from Arabic to English, messages that were communicated on social platforms, where traditional grammar rules are not used and context is paramount. Using the correct platform, precise planning, and the expanded workforce,
DARPA was able to translate more than 200,000 words per week from Arabic to English. This project required partitioning the work up meticulously, with explicit quality-assurance steps, and ranked incentives for those who provided higher-quality translations. By using a crowdsourced model, DARPA was able to shift its effort from finding, recruiting and hiring the correct resources to where it will do the most good, innovation around developing the project, planning and incentives.12

It is also crucial to properly engage the expanded workforce. With crowdsourcing, adoption is paramount; lacking a properly motivated and incented community, nothing gets done. InnoCentive provides a great example. The knowledge exchange has not become a powerful platform for innovation without paying close attention to every aspect of its operations—from setting the size of prizes for "solvers" to how it communicates the challenges. One more snapshot: Quirky, a co-creation company whose crowdsourced product innovations are sold through mainstream retailers such as Target, has a disciplined weekly voting process—online as well as on-premise—to select the product ideas that it will put into production.

It's still early days for the use of an expanded workforce, and being a borderless enterprise brings its own challenges. For instance, the inherent transience and anonymity of the expanded workforce places sharp limits on traditional human resources activities such as job training. And it raises many thorny questions about the security of intellectual property.

Despite these challenges, the opportunity is immense for enterprises that are willing to step up. The companies that get it right will find themselves with better insight into their customers, more-innovative products and services, and an increased agility to retool themselves with the skills necessary to respond to the changing technology landscape. The question is this: how are you going to position your enterprise to reap the rewards?
Your 100-day plan

In 100 days, learn about the variety of options that contribute to the borderless enterprise and begin to create a strategy for how you can harness the crowd moving forward.

- Identify any existing enterprise connections to established expanded workforce platforms.
- Determine how your competitors are using crowdsourcing.
- Evaluate the benefits your market research, product development and innovation functions could reap from using expanded workforce platforms.
- Develop an initial strategy to engage existing online communities in support of your core functions. Where it aligns with your core business, create a catalog of existing online communities that are specific to market-research and product-development functions.
- Consider assets from the open-source software community that are usable for your core IT functions and begin planning how to integrate them.
- Design and implement a pilot to leverage the established expanded workforce that most aligns with the nature of your business.

This time next year

In 365 days, you should be familiar with the various types of crowdsourcing platforms that apply to your business and have started an integration strategy.

- Identify which tasks are most easily broken into smaller independent tasks and conduct pilots with existing or custom-built expanded workforce platforms to resolve them.
- For market-research and product-development functions, start to figure out how to engage consumer communities. Where communities are not yet mature or specific enough, develop a strategy to build them.
- After completing a few pilots, test your orchestration strategies. Aim to seamlessly bring solutions, no matter how small, back into the enterprise.
- Create and implement governance and cost control strategies to respond to and manage infinite capacity.
- Understand the types of specialized skills that cause surges in demand for your organization. Determine whether adoption of expanded workforces can resolve these surges and reevaluate your hiring structure in response.
- Develop an authorized and trusted talent cloud with an established expanded workforce community.
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