

What is crowdsourcing?

“Not everyone in the crowd wants to make silly videos.”

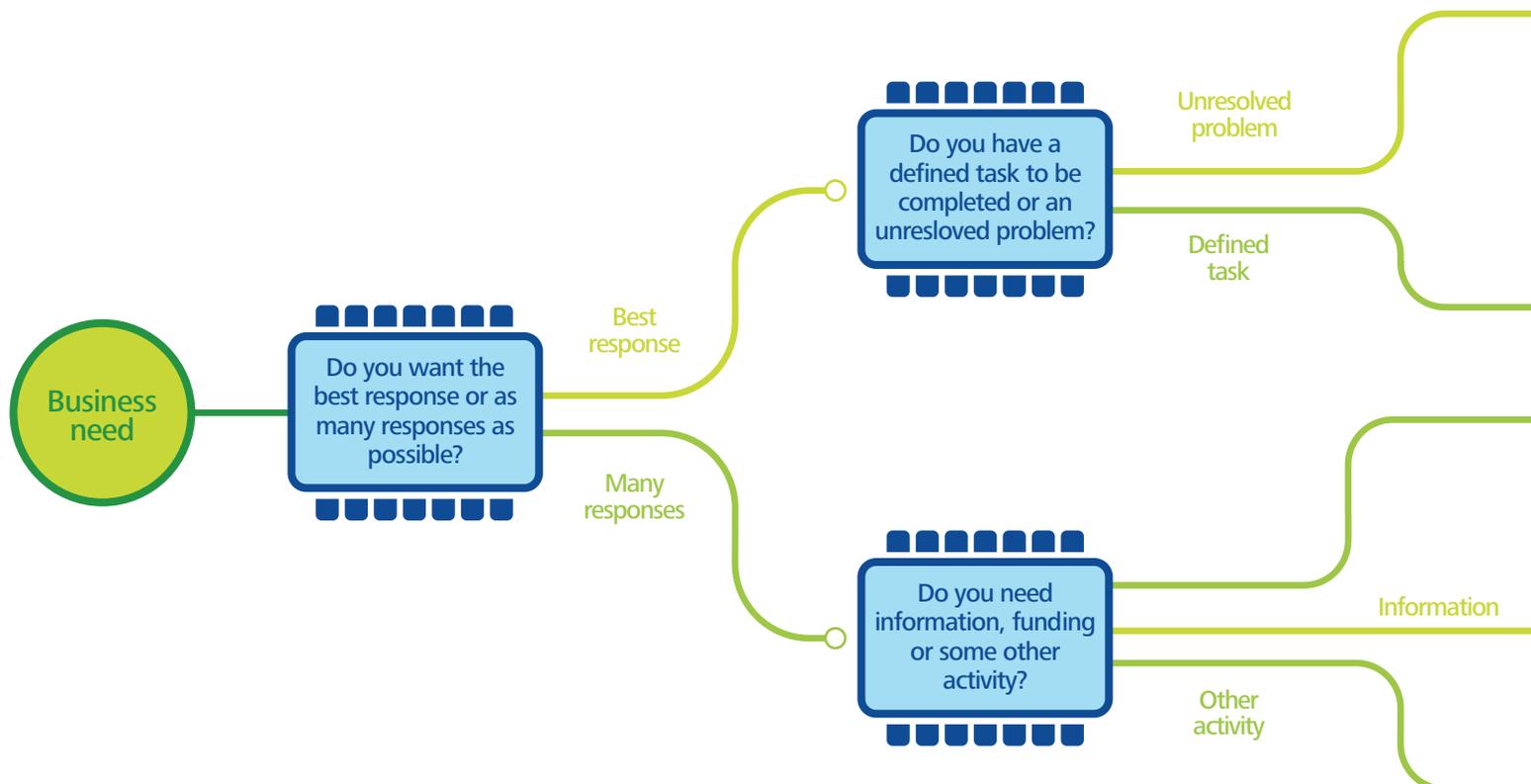
Jeff Howe ³⁷

Right crowd, right problem

As Jeff Howe said in his book, crowdsourcing is not a silver bullet for commerce.³⁸ But the crowd does provide an array of different approaches to help enterprises operate more efficiently amid ongoing shifts in policy, science, technology and skills, and the fluidity exhibited by the wider economy. Businesses and other organisations are finding that the crowd can help with a wide range of challenges, from simple rote tasks, like image labelling, raising money or voting, through to far more complex problems, like brainstorming ideas, designing new products or even strategic planning.

Crowdsourced problems can be vast in scope, such as SETIlive, a ‘citizen science’ project conducted by Zooniverse in conjunction with the SETI Institute, which asked people all over the world to help with the search for extra-terrestrial intelligence.³⁹ Or they can be exquisitely precise, such as seeking a new technology to remove microbubbles from extracorporeal bloodstreams, a current challenge competition managed by InnoCentive.⁴⁰

Figure 1. Choosing the right crowd for the right problem [double-page spread]



Some attempts have been made to classify the astonishing diversity of use cases into a standardised set of general crowdsourcing approaches. But even these typologies are in disagreement: some are problem-based while others are task- or even platform-based.^{41, 42, 43} Crowds, too, can be widely varying in size and skills of their members. For example, the freelance workers registered with on-demand micro-tasking platform TaskRabbit help consumers with everyday tasks, including cleaning, moving or delivery work, whereas the business challenges run by the competition site Kaggle, “the home of data science”, typically require members of the crowd to have high-end computer science, physical science, statistical or mathematical skills.^{44, 45}

So how can you choose what crowdsourcing approach is right for you? In Figure 1, we illustrate the paths to various crowdsourcing models.

Enterprise crowd platforms

Open approaches to innovation have long been the norm for some companies. P&G’s ‘Connect + Develop’, for instance, has enabled the company to establish more than 2,000 successful agreements with innovation partners around the world.⁴⁶ In 2001, IBM started an internal innovation experiment that has now evolved into its ‘InnovationJam™’ platform, which it uses to work with clients, helping participants to ‘jam’ by contributing their expertise and opinions in various topic areas.⁴⁷

But more and more companies and public sector organisations are now ditching traditional innovation processes and are, instead, working with enterprise-scale platforms to reach broader crowds capable of generating answers and executing tasks faster and more cost effectively than their own employees.

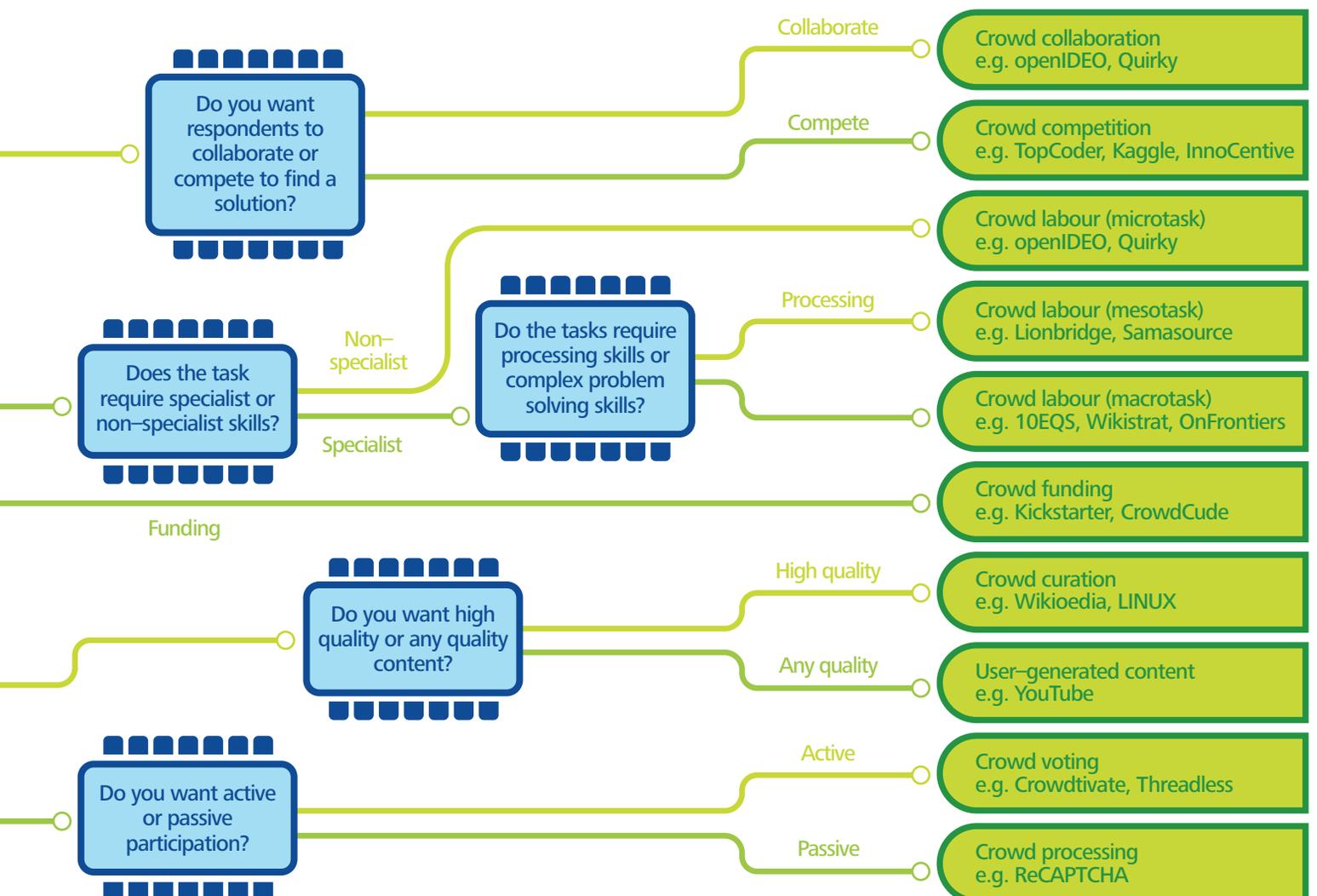


Figure 2 illustrates different types of crowdsourcing platforms and their relative strengths and weaknesses.

Figure 2. Enterprise crowd platforms

<i>Crowdsourcing model</i>	<i>Good for</i>	<i>Not so good for</i>	<i>Examples</i>
<i>Crowd collaboration</i>	<ul style="list-style-type: none"> • Tasks requiring the aggregate 'wisdom of the crowd' • Generating outside ideas 	<ul style="list-style-type: none"> • Promoting individual capabilities or expertise • Predetermined outcomes 	<ul style="list-style-type: none"> • 99Designs • X Prize • Quirky
<i>Crowd competition</i>	<ul style="list-style-type: none"> • Creating actionable solutions • Developing prototypes • Building a sense of community • Generating outside ideas • 'Gamification' 	<ul style="list-style-type: none"> • Predetermined outcomes 	<ul style="list-style-type: none"> • TopCoder • Kaggle • InnoCentive • Applause
<i>Crowd labour (microtasks)</i>	<ul style="list-style-type: none"> • Well-defined, everyday tasks for individuals that require general skills only • On-site manual work, such as store restocking, furniture assembly and cleaning • Large crowds • When you don't want to hire permanent employees or contractors • Real-time market intelligence or data gathering 	<ul style="list-style-type: none"> • Poorly defined, unstructured or non-routine activities • Tasks requiring subjective judgement • Tasks requiring specialist or higher-level cognitive skills 	<ul style="list-style-type: none"> • TaskRabbit • Amazon's Mechanical Turk • Streetbees • Gigwalk • Samasource
<i>Crowd labour (mesotasks)</i>	<ul style="list-style-type: none"> • Well-defined tasks that require specialist processing skills • Routine but time-consuming activities, such as data entry • When you don't want to hire permanent employees or contractors 	<ul style="list-style-type: none"> • Poorly defined, unstructured or non-routine activities • Tasks requiring subjective judgement or specialist skills 	<ul style="list-style-type: none"> • Lionbridge • CrowdFlower
<i>Crowd labour (macrotasks)</i>	<ul style="list-style-type: none"> • Poorly defined or unstructured tasks or problems, such as strategy development, research or consulting • Tasks requiring subjective judgement or specialist skills • When you don't want to hire permanent employees or contractors 	<ul style="list-style-type: none"> • Routine tasks and activities 	<ul style="list-style-type: none"> • 10EQS • Wikistrat • OnFrontiers • Applause
<i>Crowdfunding</i>	<ul style="list-style-type: none"> • Fundraising • Start-ups • High transparency 	<ul style="list-style-type: none"> • Financing ongoing operations • Loosely structured initiatives • High short-term expectations 	<ul style="list-style-type: none"> • Kickstarter • CrowdCube
<i>Crowd curation</i>	<ul style="list-style-type: none"> • Building and sharing knowledge 	<ul style="list-style-type: none"> • Solving defined problems 	<ul style="list-style-type: none"> • Wikipedia • TripAdvisor
<i>User-generated content</i>	<ul style="list-style-type: none"> • Building large content repositories 	<ul style="list-style-type: none"> • Ensuring the best possible quality of content 	<ul style="list-style-type: none"> • YouTube • iStockphoto

Source: Deloitte

Five billion workers by 2020

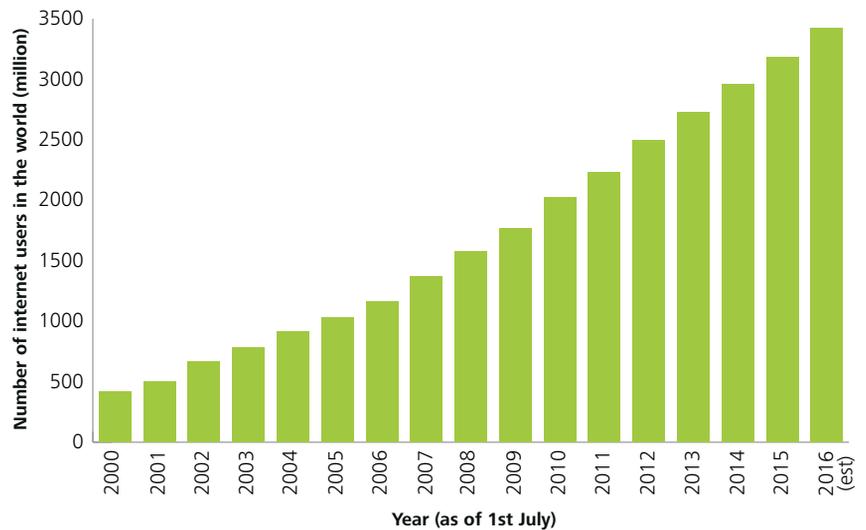
The internet is the engine of the modern-day crowdsourcing platform. It provides both a broadcast mechanism for organisations to set or announce challenges and a network for connecting people and their diverse ideas, skill sets and knowledge. The number of internet users worldwide is growing exponentially, and has risen from just 414 million in 2000 to over 3.4 billion in 2016.⁴⁸ At the current rate of growth, there will be approximately five billion internet users by 2020.

The countries driving this growth include India, China, Brazil, Indonesia and the US, which collectively added over 136 million internet users last year (China, alone, accounted for over 108 million).⁴⁹ The change in India's online population last year was over 30 per cent and, despite their comparatively small populations, the other fastest risers, with 12-month growth rates in excess of 15 per cent, include Mali, Lesotho, Cameroon, Vanuatu, Mauritania and Liberia.⁵⁰

Mobile access to the internet is also growing, with 52.7 per cent of the global mobile phone population accessing the internet from their mobile phone in 2015.⁵¹ This number is expected to reach 63.4 per cent by 2020, which means that mobile phones will be the most popular way for people to access the internet within four years.⁵²

One of the principal benefits of greater online connectivity is improved access to and provision of education – particularly in developing economies and currently impoverished nations. Through programmes such as UNESCO's Framework for Action, digital technologies are enabling international commitments to be made to provide high quality primary and secondary education to all children, focusing on numeracy, literacy, analytical problem-solving and other higher-level cognitive, interpersonal and social skills needed in the future global economy.⁵³

Figure 3. Number of internet users in the world



Source: Internet Live Stats

The implications for enterprises of this growth in connectivity and education are immense. Crowdsourcing harnesses the creative and competitive spirit of people all over the world. Sun Microsystems co-founder Bill Joy said in 1990, "No matter who you are, most of the smartest people work for someone else".⁵⁴ Geolocation and low-cost mobile applications make it easy for smart people everywhere to participate – even if just to do small tasks. And in an increasingly volatile, uncertain, complex and ambiguous operating environment, to develop a competitive advantage – or even just to survive – "companies today need armies of people," says Vivek Wadhwa, a Fellow at Stanford Law School.⁵⁵ But rather than these armies being permanent employees, the crowd gives all organisations the ability to scale up and down dynamically to match changing workload demands, and to find experts in different markets and geographies.

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Boudreau and Lakhani describe a well-functioning crowd as being “loose and decentralised” and the problem exposed to “widely diverse individuals with varied skills, experience, and perspectives.”⁵⁶ As more people from all walks of life shift online, therefore, the crowd can begin to operate at a scale that “exceeds even that of the biggest and most complex global corporation, bringing in many more individuals to focus on a given challenge.”⁵⁷ The diversity of backgrounds, knowledge, skills and abilities within the crowd can, under certain circumstances, lead to better, cheaper or more scalable solutions than those developed by teams of in-house specialists.

How is this different from outsourcing or temporary agencies that have been around for decades? Crowdsourcing platforms can now match buyers to a much broader base of sellers while reducing many of the administrative hassles, combining cloud, mobile, social, and web technologies to create new marketplaces.

For location-based assignments, individuals carry GPS-enabled devices, such as smartphones, that provide on-the-spot data entry and performance verification. For example, Clickworker, a German crowdsourcing company, draws on a pool of 700,000 ‘clickworkers’ in 136 countries to take pictures, and gather geodata and other types of information for surveying and research.⁵⁸ Others, such as Gigwalk, use mobile technology to help organisations find and manage geographically dispersed teams and workers, enabling more effective performance monitoring and management.⁵⁹ For temp agencies or outsourcers, the talent pool is constrained by their rosters. In contrast, enterprise platforms like OnFrontiers and Wikistrat can provide easy access to specialists from many walks of life – professionals, freelancers, and hobbyists – who have the motivation, qualifications, and flexibility to create innovative ideas and execute assignments promptly.^{60, 61}

Crowdsourcing is not a panacea, though, and does not always represent the right approach. So how should businesses new to crowdsourcing get started? What do they need to think about and do to ensure they benefit from the many crowdsourcing platforms available? How can they integrate crowdsourcing solutions and approaches into existing business models? In the next section, we take a look at how businesses create value from the crowd.

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