
Six ways to make Web 2.0 work

Web 2.0 tools present a vast array of opportunities—for companies that know how to use them.

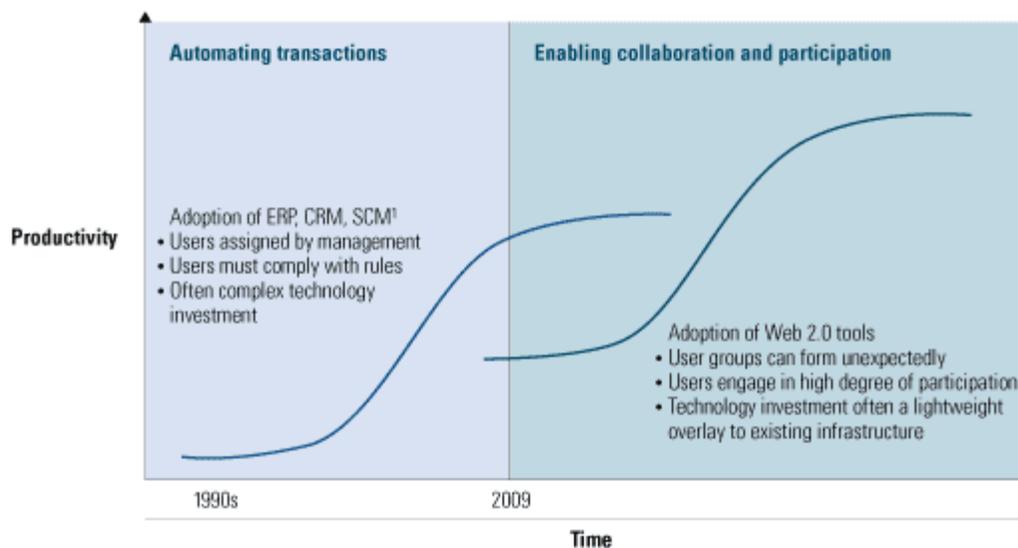
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Technologies known collectively as Web 2.0 have spread widely among consumers over the past five years. Social-networking Web sites, such as Facebook and MySpace, now attract more than 100 million visitors a month. As the popularity of Web 2.0 has grown, companies have noted the intense consumer engagement and creativity surrounding these technologies. Many organizations, keen to harness Web 2.0 internally, are experimenting with the tools or deploying them on a trial basis.

Over the past two years, McKinsey has studied more than 50 early adopters to garner insights into successful efforts to use Web 2.0 as a way of unlocking participation. We have surveyed, independently, a range of executives on Web 2.0 adoption. Our work suggests the challenges that lie ahead. To date, as many survey respondents are dissatisfied with their use of Web 2.0 technologies as are satisfied. Many of the dissenters cite impediments such as organizational structure, the inability of managers to understand the new levers of change, and a lack of understanding about how value is created using Web 2.0 tools. We have found that, unless a number of success factors are present, Web 2.0 efforts often fail to launch or to reach expected heights of usage. Executives who are suspicious or uncomfortable with perceived changes or risks often call off these efforts. Others fail because managers simply don't know how to encourage the type of participation that will produce meaningful results.

Some historical perspective is useful. Web 2.0, the latest wave in corporate technology adoptions, could have a more far-reaching organizational impact than technologies adopted in the 1990s—such as enterprise resource planning (ERP), customer relationship management (CRM), and supply chain management (Exhibit 1). The latest Web tools have a strong bottom-up element and engage a broad base of workers. They also demand a mind-set different from that of earlier IT programs, which were instituted primarily by edicts from senior managers.

Adoption of corporate technologies



¹ERP = enterprise resource planning, CRM = customer relationship management, SCM = supply chain management.

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Web 2.0 covers a range of technologies. The most widely used are blogs, wikis, podcasts, information tagging, prediction markets, and social networks (Exhibit 2). New technologies constantly appear as the Internet continues to evolve. Of the companies we interviewed for our research, all were using at least one of these tools. What distinguishes them from previous technologies is the high degree of participation they require to be effective. Unlike ERP and CRM, where most users either simply process information in the form of reports or use the technology to execute transactions (such as issuing payments or entering customer orders), Web 2.0 technologies are interactive and require users to generate new information and content or to edit the work of other participants.

Web 2.0 technologies	Description	Category of technology
Wikis, commenting, shared workspaces	Facilitates cocreation of content/applications across large, distributed set of participants.	Broad collaboration
Blogs, podcasts, videocasts, peer to peer	Offers individuals a way to communicate/share information with broad set of other individuals.	Broad communication
Prediction markets, information markets, polling	Harnesses the collective power of the community and generates a collectively derived answer.	Collective estimation
Tagging, social bookmarking/filtering, user tracking, ratings, RSS ¹	Adds additional information to primary content to prioritize information or make it more valuable.	Metadata creation
Social networking, network mapping	Leverages connections between people to offer new applications.	Social graphing

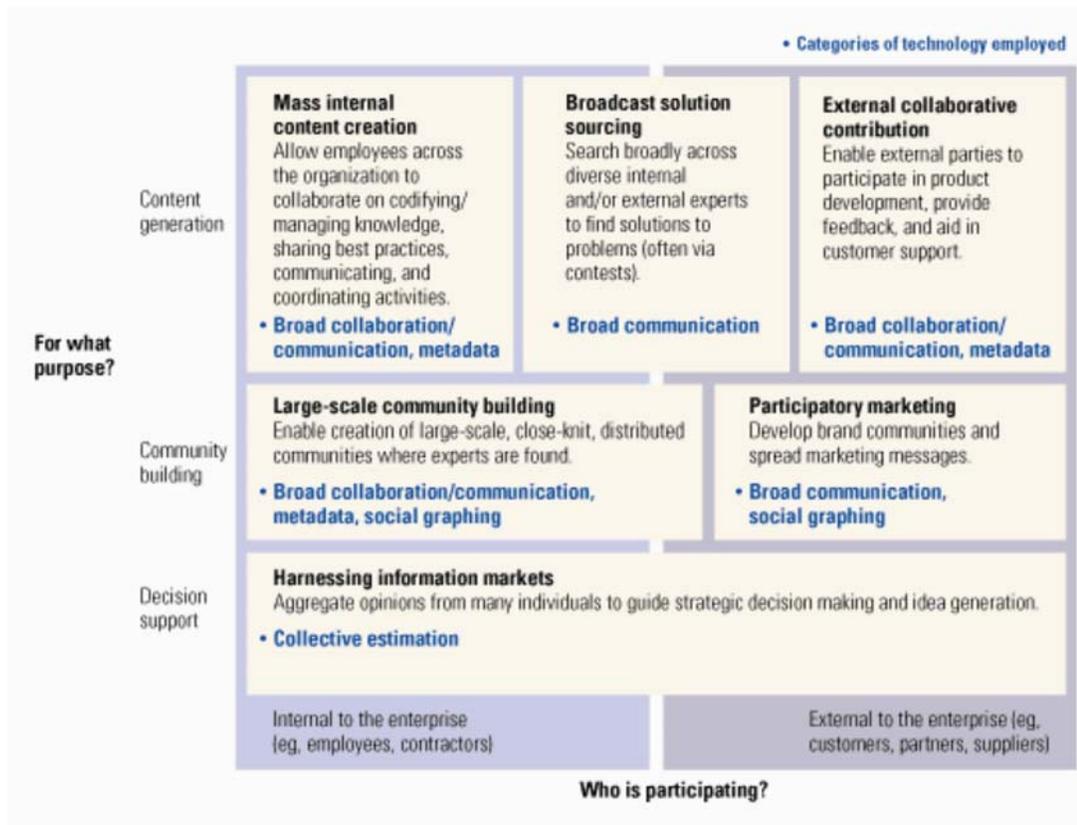
¹Really simple syndication.

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Earlier technologies often required expensive and lengthy technical implementations, as well as the realignment of formal business processes. With such memories still fresh, some executives naturally remain wary of Web 2.0. But the new tools are different. While they are inherently disruptive and often challenge an organization and its culture, they are not technically complex to implement. Rather, they are a relatively lightweight overlay to the existing infrastructure and do not necessarily require complex technology integration.

Gains from participation

Clay Shirky, an adjunct professor at New York University, calls the underused human potential at companies an immense “cognitive surplus” and one that could be tapped by participatory tools. Corporate leaders are, of course, eager to find new ways to add value. Over the past 15 years, using a combination of technology investments and process reengineering, they have substantially raised the productivity of transactional processes. Web 2.0 promises further gains, although the capabilities differ from those of the past technologies (Exhibit 3).



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Research by our colleagues shows how differences in collaboration are correlated with large differences in corporate performance.¹ Our most recent Web 2.0 survey demonstrates that despite early frustrations, a growing number of companies remain committed to capturing the collaborative benefits of Web 2.0.² Since we first polled global executives two years ago, the adoption of these tools has continued. Spending on them is now a relatively modest \$1 billion, but the level of investment is expected to grow by more than 15 percent annually over the next five years, despite the current recession.³

Management imperatives for unlocking participation

To help companies navigate the Web 2.0 landscape, we have identified six critical factors that determine the outcome of efforts to implement these technologies.

1. *The transformation to a bottom-up culture needs help from the top.* Web 2.0 projects often are seen as grassroots experiments, and leaders sometimes believe the technologies will be adopted without management intervention—a “build it and they will come” philosophy. These business leaders are correct in thinking that participatory technologies are founded upon bottom-up involvement from frontline staffers and that

this pattern is fundamentally different from the rollout of ERP systems, for example, where compliance with rules is mandatory. Successful participation, however, requires not only grassroots activity but also a different leadership approach: senior executives often become role models and lead through informal channels.

At Lockheed Martin, for instance, a direct report to the CIO championed the use of blogs and wikis when they were introduced. The executive evangelized the benefits of Web 2.0 technologies to other senior leaders and acted as a role model by establishing his own blog. He set goals for adoption across the organization, as well as for the volume of contributions. The result was widespread acceptance and collaboration across the company's divisions.

2. The best uses come from users—but they require help to scale. In earlier IT campaigns, identifying and prioritizing the applications that would generate the greatest business value was relatively easy. These applications focused primarily on improving the effectiveness and efficiency of known business processes within functional silos (for example, supply-chain-management software to improve coordination across the network). By contrast, our research shows the applications that drive the most value through participatory technologies often aren't those that management expects.

Efforts go awry when organizations try to dictate their preferred uses of the technologies—a strategy that fits applications designed specifically to improve the performance of known processes—rather than observing what works and then scaling it up. When management chooses the wrong uses, organizations often don't regroup by switching to applications that might be successful. One global technology player, for example, introduced a collection of participatory tools that management judged would help the company's new hires quickly get up to speed in their jobs. The intended use never caught on, but people in the company's recruiting staff began using the tools to share recruiting tips and pass along information about specific candidates and their qualifications. The company, however, has yet to scale up this successful, albeit unintended, use.

At AT&T, it was frontline staffers who found the best use for a participatory technology—in this case, using Web 2.0 for collaborative project management. Rather than dictating the use, management broadened participation by supporting an awareness campaign to seed further experimentation. Over a 12-month period, the use of the technology rose to 95 percent of employees, from 65 percent.

3. What's in the workflow is what gets used. Perhaps because of the

novelty of Web 2.0 initiatives, they're often considered separate from mainstream work. Earlier generations of technologies, by contrast, often explicitly replaced the tools employees used to accomplish tasks. Thus, using Web 2.0 and participating in online work communities often becomes just another "to do" on an already crowded list of tasks.

Participatory technologies have the highest chance of success when incorporated into a user's daily workflow. The importance of this principle is sometimes masked by short-term success when technologies are unveiled with great fanfare; with the excitement of the launch, contributions seem to flourish. As normal daily workloads pile up, however, the energy and attention surrounding the rollout decline, as does participation. One professional-services firm introduced a wiki-based knowledge-management system, to which employees were expected to contribute, in addition to their daily tasks. Immediately following the launch, a group of enthusiasts used the wikis vigorously, but as time passed they gave the effort less personal time—outside their daily workflow—and participation levels fell.

Google is an instructive case to the contrary. It has modified the way work is typically done and has made Web tools relevant to how employees actually do their jobs. The company's engineers use blogs and wikis as core tools for reporting on the progress of their work. Managers stay abreast of their progress and provide direction by using tools that make it easy to mine data on workflows. Engineers are better able to coordinate work with one another and can request or provide backup help when needed. The easily accessible project data allows senior managers to allocate resources to the most important and time-sensitive projects.

Pixar moved in a similar direction when it upgraded a Web 2.0 tool that didn't quite mesh with the way animators did their jobs. The company started with basic text-based wikis to share information about films in production and to document meeting notes. That was unsatisfactory, since collaborative problem solving at the studio works best when animators, software engineers, managers, and directors analyze and discuss real clips and frames from a movie.⁴ Once Pixar built video into the wikis, their quality improved as critiques became more relevant. The efficiency of the project groups increased as well.

4. Appeal to the participants' egos and needs—not just their wallets.

Traditional management incentives aren't particularly useful for encouraging participation.⁵ Earlier technology adoptions could be guided readily with techniques such as management by objectives, as well as standardized bonus pay or individual feedback. The failure of employees to use a mandated application would affect their performance

metrics and reviews. These methods tend to fall short when applied to unlocking participation. In one failed attempt, a leading Web company set performance evaluation criteria that included the frequency of postings on the company's newly launched wiki. While individuals were posting enough entries to meet the benchmarks, the contributions were generally of low quality. Similarly, a professional-services firm tried to use steady management pressure to get individuals to post on wikis. Participation increased when managers doled out frequent feedback but never reached self-sustaining levels.

A more effective approach plays to the Web's ethos and the participants' desire for recognition: bolstering the reputation of participants in relevant communities, rewarding enthusiasm, or acknowledging the quality and usefulness of contributions. ArcelorMittal, for instance, found that when prizes for contributions were handed out at prominent company meetings, employees submitted many more ideas for business improvements than they did when the awards were given in less-public forums.

5. *The right solution comes from the right participants.* Targeting users who can create a critical mass for participation as well as add value is another key to success. With an ERP rollout, the process is straightforward: a company simply identifies the number of installations (or "seats") it needs to buy for functions such as purchasing or finance and accounting. With participatory technologies, it's far from obvious which individuals will be the best participants. Without the right base, efforts are often ineffective. A pharmaceutical company tried to generate new product ideas by tapping suggestions from visitors to its corporate Web site. It soon discovered that most of them had neither the skills nor the knowledge to make meaningful contributions, so the quality of the ideas was very low.

To select users who will help drive a self-sustaining effort (often enthusiastic early technology adopters who have rich personal networks and will thus share knowledge and exchange ideas), a thoughtful approach is required. When P&G introduced wikis and blogs to foster collaboration among its workgroups, the company targeted technology-savvy and respected opinion leaders within the organization. Some of these people ranked high in the corporate hierarchy, while others were influential scientists or employees to whom other colleagues would turn for advice or other assistance.

When Best Buy experimented with internal information markets, the goal was to ensure that participation helped to create value. In these markets, employees place bets on business outcomes, such as sales forecasts.⁶ To improve the chances of success, Best Buy cast its net

widely, going beyond in-house forecasting experts; it also sought out participants with a more diverse base of operational knowledge who could apply independent judgment to the prediction markets. The resulting forecasts were more accurate than those produced by the company's experts.

6. Balance the top-down and self-management of risk. A common reason for failed participation is discomfort with it, or even fear. In some cases, the lack of management control over the self-organizing nature and power of dissent is the issue. In others, it's the potential repercussions of content—through blogs, social networks, and other venues—that is detrimental to the company. Numerous executives we interviewed said that participatory initiatives had been stalled by legal and HR concerns. These risks differ markedly from those of previous technology adoptions, where the chief downside was high costs and poor execution.

Companies often have difficulty maintaining the right balance of freedom and control. Some organizations, trying to accommodate new Web standards, have adopted total laissez-faire policies, eschewing even basic controls that screen out inappropriate postings. In some cases, these organizations have been burned.

Prudent managers should work with the legal, HR, and IT security functions to establish reasonable policies, such as prohibiting anonymous posting. Fears are often overblown, however, and the social norms enforced by users in the participating communities can be very effective at policing user exchanges and thus mitigating risks. The sites of some companies incorporate “flag as inappropriate” buttons, which temporarily remove suspect postings until they can be reviewed, though officials report that these functions are rarely used. Participatory technologies should include auditing functions, similar to those for e-mail, that track all contributions and their authors. Ultimately, however, companies must recognize that successful participation means engaging in authentic conversations with participants.

Next steps

Acceptance of Web 2.0 technologies in business is growing. Encouraging participation calls for new approaches that break with the methods used to deploy IT in the past. Company leaders first need to survey their current practices. Once they feel comfortable with some level of controlled disruption, they can begin testing the new participatory tools. The management imperatives we have outlined should improve the likelihood of success. 

Keep the conversation going on Twitter

Do our six recommendations agree with the successes and failures you've seen? Is the economic downturn affecting your perception and use of Web 2.0 tools? What organizations get the most out of Web 2.0, and why? Use the #web2.0work hashtag to respond to this article and these questions on Twitter. We'll be following them and responding via our *McKinsey Quarterly* account, [@McKQuarterly](#).

About the Authors

Michael Chui is a consultant in McKinsey's San Francisco office; **Andy Miller** is an associate principal in the Silicon Valley office, where **Roger Roberts** is a principal.

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Notes

¹ Scott C. Beardsley, Bradford C. Johnson, and James M. Manyika, "[Competitive advantage from better interactions](#)," mckinseyquarterly.com, May 2006.

² [Building the Web 2.0 Enterprise: McKinsey Global Survey Results](#)," mckinseyquarterly.com, July 2008.

³ See G. Oliver Young et al., "Can enterprise Web 2.0 survive the recession?" forrester.com, January 6, 2009.

⁴ See Hayagreeva Rao, Robert Sutton, and Allen P. Webb, "[Innovation lessons from Pixar: An interview with Oscar-winning director Brad Bird](#)," mckinseyquarterly.com, April 2008.

⁵ Exceptions exist for harnessing information markets and searching crowd expertise, where formal incentives are an essential part of the mechanism for participation.

⁶ See Renée Dye, "[The promise of prediction markets: A roundtable](#)," mckinseyquarterly.com, April 2008; and the video "[Betting on prediction markets](#)," mckinseyquarterly.com, November 2007.