

McKinsey Global Institute



July 2012

# The social economy: Unlocking value and productivity through social technologies

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# The social economy: Unlocking value and productivity through social technologies

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# Preface

The “social” phenomenon has swept through the popular culture in the past few years, as millions of people joined online communities and started using online social platforms. These IT-enabled communities have grown to more than 1.5 billion members globally. This growth indicates the almost primal appeal of social technologies, which bring the speed, scale, and economics of the Internet to social interactions. From sharing updates on Twitter to organizing support for political and social causes to forming entirely new types of communities that exist beyond the constraints of time, distance, or social group, consumers around the world have made social technologies a part of their lives.

In this report, the McKinsey Global Institute (MGI) examines the economic impact of social technologies. By looking into how social technologies are being used today and how they are likely to evolve in the coming years in five sectors of the economy (four commercial sectors and the social sector) we have identified ten value-creating “levers” that can be used across the value chain, from product development through after-sale customer service. Importantly, we find that the use of social technologies to improve communication and collaboration within and across enterprises could contribute two-thirds of the \$900 billion to \$1.3 trillion in value that we estimate can be created across the four commercial sectors we study.

This level of value creation could have transformative impact across sectors and economies. But capturing this value will be a challenge for enterprises, primarily because they will have to transform their organizational structures, processes, and cultures to become “extended networked enterprises” that connect well internally as well as with customers and partners. For social technologies to deliver their potential economic benefits, enterprises must be open to information sharing and create cultures of trust and cooperation. They must also deal with significant risks to confidentiality, intellectual property, and reputation. Policy makers are confronted with similar challenges to ensure that personal and property rights are protected in online communities. On balance, we believe that the benefits are so compelling that over the coming years business leaders, policy makers, and individuals will find ways to meet these challenges.

James Manyika and Michael Chui led this project, working closely with Jacques Bughin, Richard Dobbs, Geoffrey Sands, and Hugo Sarrazin. Adam Bird and Charles Roxburgh also made valuable contributions. We are particularly indebted to our team leaders—Samantha Test, who helped shape the initial thinking; Magdalena Westergren, who managed the core research; and Britta Lietke, who supervised additional analyses and the writing of the final report. The project team included Rickard Carlsson, Joi Danielson, Milind Kopikare, Eliza Lehner, Philip Rogers, Monique Sischy, Jay Sung, and Paayal Vora. Geoffrey Lewis provided editorial support, and we thank the MGI production and communication staff: Marisa Carder, Julie Philpot, Gabriela Ramirez, and Rebeca Robboy.

We are grateful to our external advisers, Hal R. Varian, emeritus professor in the School of Information, the Haas School of Business, and the Department of Economics at the University of California at Berkeley; and Martin Baily, senior fellow in the Economic Studies Program and Bernard L. Schwartz Chair in Economic Policy Development at the Brookings Institution.

We also thank McKinsey directors and experts whose insight and guidance were critical to our work: Karel Dörner, David Edelman, Johannes-Tobias Lorenz, Johnson Sikes, and Marc Singer. Jaana Remes, a senior fellow at MGI, also provided valuable perspectives. McKinsey colleagues from several practice areas gave generously of their time and expertise to guide our sector analyses. For their assistance in our work in consumer packaged goods, we thank Jonathan Ablett, Katya Fay, Jonathan Gordon, Supriya Handa, Betsy Holden, Jeff Jacobs, Shruti Lal, Carl-Martin Lindahl, Jessica Moulton, Jared Simmons, Vivien Singer, Kelly Ungerman, and Jim Williams. McKinsey colleagues who provided knowledge in financial services were Elizabeth Abraham, Aser Rodriguez Alvarez, Adam Homonnay, Rob McNish, Ido Segev, and Lawrence Wong. In advanced manufacturing, we benefited from the input of Jennifer Brady, Nadine Griessmann, Sri Kaza, Alan Lau, Hugues Lavandier, Anish Melwani, Mark Mitchke, Cody Newman, Bryant Shao, Pamela Simon, Melanie Taylor, and Bill Wiseman. For their guidance about the social sector, we thank Jonathan Bays, Laura Callanan, Anshulika Dubey, Christy Gibb, and Vivian Riefberg.

We also acknowledge the McKinsey colleagues who contributed their knowledge of TMT (technology, media, and telecommunications) industries: Abhijit Dubey, Daniel Hui, Davis Lin, Loralei Osborn, Kevin Roche, Bonnie Shaw, Ari Silverman, Dan Singer, and Christopher Thomas. In addition, we thank the McKinsey colleagues who provided their insights about marketing and sales: Rishi Bhandari, Cindy Chiu, Stacey Haas, Brian Loh, Thomas Meyer, Rebecca Millman, Claire Pages, Vicki Smith, and Andris Umblis.

This report is part of our ongoing work about the impact of technology on the economy. Our goal is to provide the fact base and insights about important technological developments that will help business leaders and policy makers develop appropriate strategies and responses. As with all of MGI's work, we emphasize that this report has not been sponsored in any way by any business, government, or other institution.

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July 2012

# *Social technologies today ...*

**>1.5 billion**

Number of social networking users globally

**80%**

Proportion of total online users who interact with social networks regularly

**70%**

Proportion of companies using social technologies

**90%**

Proportion of companies using social technologies that report some business benefit from them

**28 hours**

Time each week spent by knowledge workers writing e-mails, searching for information, and collaborating internally

# *... and their untapped potential*

\$900 billion–  
1.3 trillion

Annual value that could be unlocked  
by social technologies in four sectors

**1/3** Share of consumer spending that  
could be influenced by social shopping

**2X** Potential value from better enterprise  
communication and collaboration compared  
with other social technology benefits

**3%** Share of companies that derive substantial  
benefit from social technologies across all  
stakeholders: customers, employees, and  
business partners

**20–25%**

Potential improvement  
possible in knowledge  
worker productivity



# Contents

<b>Executive summary</b>	<b>1</b>
<b>1. The evolution of social technologies</b>	<b>15</b>
<b>2. How social technology creates value within and across industries</b>	<b>35</b>
<b>3. How social technologies create value in five sectors</b>	<b>59</b>
<b>4. Implications of social technology</b>	<b>119</b>
<b>5. The future of the social economy</b>	<b>133</b>
<b>Appendix</b>	<b>137</b>
<b>Bibliography</b>	<b>161</b>



# Executive summary

Seven years ago, most consumers logged on to the Internet to access e-mail, search the Web, and do some online shopping. Company Web sites functioned as vehicles for corporate communication, product promotion, customer service, and, in some cases, e-commerce. Relatively few people were members of online communities; social networking sites were for college students; chief marketing officers did not worry about how many online fans “liked” their company’s products.

While social technologies have swept through the popular culture and are being adopted across industries, we find that businesses have only just begun to understand how to create value with these new tools.<sup>1</sup> The research presented here attempts to quantify that value, which we find is potentially on a transformative scale (i.e., more than \$1 trillion annually) and can be realized across the value chain, not just in the consumer-facing applications that have been at the forefront of adoption. Most importantly, we find that social technologies, when used within and across enterprises, have the potential to raise the productivity of the high-skill knowledge workers that are critical to performance and growth in the 21st century by 20 to 25 percent.

Today, more than 1.5 billion people around the globe have an account on a social networking site, and almost one in five online hours is spent on social networks—increasingly via mobile devices. By 2011, 72 percent of companies surveyed reported using social technologies in their businesses and 90 percent of those users reported that they are seeing benefits.<sup>2</sup>

In just a few years, the use of social technologies has become a sweeping cultural, social, and economic phenomenon. Hundreds of millions of people have adopted new behaviors using social media—conducting social activities on the Internet, creating and joining virtual communities, organizing political activities. All the rituals and rites in which individuals and groups in society participate—from personal events such as weddings or daily gossip, to global happenings such as the Arab Spring—play out on social platforms. Indeed, many behaviors that sociologists study—forming, maintaining, and breaking social bonds—are now taking place online.

Social technologies have literally changed how millions of people live. People rely on their online social connections—often including friends and associates they have never met in person—for everything from advice on what movie to watch to positive reinforcement for behavior modification (e.g., diet and weight loss). On social media, writers who have never been published and musicians who have

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1 In this report we define social technologies as IT products and services that enable the formation and operation of online communities, where participants have distributed access to content and distributed rights to create, add, and/or modify content.

2 Bughin, Jacques, Angela Hung Byers, and Michael Chui, “How social technologies are extending the organization,” *The McKinsey Quarterly*, November 2011.

never performed in public are now contributing to blogs and posting videos to YouTube. Social platforms have the potential to tap the great “cognitive surplus” of society by using leisure time for creating content and collaborating, rather than consuming.<sup>3</sup>

Businesses are changing their behaviors as well. In these few short years, social technology has evolved from simply another “new media” platform to an increasingly important business tool, with wide-ranging capabilities. Thousands of companies have found that social technologies can generate rich new forms of consumer insights—at lower cost and faster than conventional methods. Moreover, in addition to engaging consumers directly through social media, companies are watching what consumers do and say to one another on social platforms, which provides unfiltered feedback and behavioral data (e.g., do people who “like” this movie also “like” that brand of vodka?).

Companies are also enlisting social technology users to “crowdsource” product ideas and even to co-create new features. Social platforms have become a tool for managing procurement and logistics, allowing instant communication between different parties on B2B supply chains. **Perhaps most intriguingly, companies are beginning to find that social technologies have enormous potential to raise the productivity of knowledge workers.** Social technologies promise to extend the capabilities of such high-skill workers (who are increasingly in short supply) by streamlining communication and collaboration, lowering barriers between functional silos, and even **redrawing the boundaries of the enterprise** to bring in additional knowledge and expertise in “extended networked enterprises.”

In this report, the McKinsey Global Institute traces the growth of social technologies, examines the sources of their power, assesses their impact in several major sectors of the economy (including the social sector), and analyzes the ways in which social technologies create value. We also explore social technology risks and obstacles to adoption, as well as the enabling capabilities and conditions to create value using social technologies.

Among our key findings:

- The speed and scale of adoption of social technologies by consumers has exceeded that of previous technologies. Yet, consumers and companies are far from capturing the full potential impact of these technologies. Indeed, new uses, technical advances, and social business models will evolve—driven by user innovation and advances in technology. Almost any human interaction that can be conducted electronically can be made “social,” but only a fraction of the potential uses have been developed (e.g., content sharing, online socializing). Today, only 5 percent of all communications and content use in the United States takes place on social networks.
- Several distinct properties of social technologies make them uniquely powerful enablers of value creation. The most fundamental is to endow social interactions with the speed, scale, and economics of the Internet. Social technologies also provide a means for any participant to publish, share, and consume content within a group. They can also create a record of interactions and/or connections (a “social graph”) that can be used by consumers to

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<sup>3</sup> Clay Shirky, *Cognitive surplus: Creativity and generosity in a connected age* (New York: Penguin Press, 2010).

manage their social connections and by others to analyze social influence. Finally, social technologies can “**disintermediate**” commercial relationships and upend traditional business models.

- Based on in-depth analysis of usage in sectors that represent almost 20 percent of global industry sales, we identify ten ways in which social technologies can create value across the value chain. Each industry’s specific characteristics determine which levers will be most impactful. Overall, we estimate that between \$900 billion and \$1.3 trillion in value can be unlocked through the use of social technologies in the sectors we examined.<sup>4</sup> (This range represents the maximum value that could be created if all participants fully implemented social technologies—and complementary organizational changes—and if all time and money saved by social technologies were applied in the most productive ways).
- Two-thirds of the value creation opportunity afforded by social technologies lies in improving communications and collaboration within and across enterprises. By adopting these organizational technologies, we estimate that companies could raise the productivity of knowledge workers by 20 to 25 percent. However, realizing such gains will require significant transformations in management practices and organizational behavior. Social technologies can enable organizations to become fully networked enterprises—networked in both a technical and in a behavioral sense.
- Companies that rely heavily on consumer insights for product development and marketing purposes have an opportunity to create value by engaging with consumers on social media and monitoring social media conversations to generate consumer insights and market intelligence. Companies in the consumer packaged goods (CPG) sector, for example, have an opportunity to create value that is equivalent to between 15 and 30 percent of current spending on these activities. This value is predicated not on use of social technologies alone, but on creative, thoughtful, and well-executed strategies that may incorporate other channels.
- Individuals and the communities they form will derive much of the benefits of social technologies. We estimate that today’s free social technologies provided \$40 billion in consumer surplus in 2010, potentially rising to \$76 billion in 2015.<sup>5</sup> Individuals will also capture additional consumer surplus (in the form of better products and lower prices) through the deeper customer insights generated by social technologies and the greater transparency that online communities provide. Finally, social technologies can empower individuals to form communities of interest around specific issues or causes, providing societal benefits.

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4 In this report, we use value to be synonymous with economic surplus, not net present value.

5 See *Consumers driving the digital uptake: The economic value of online advertising-based services for consumers*, McKinsey & Company for IAB Europe, September 2010. The IAB Europe report estimates that social technologies account for almost 30 percent of consumer value derived from advertising-supported online services. These estimates do not include the benefits that will eventually accrue to consumers from the surplus created by businesses through social technologies, much of which will be passed on to consumers via lower prices or better products.

- Giving social interactions Internet scale, speed, and economics carries risks. These risks include identity theft, loss of intellectual property, violations of privacy, abuse, and damage to reputations. Social technologies also can disrupt traditional business models.
- The benefits of social technologies will likely outweigh the risks for most companies. Organizations that fail to invest in understanding social technologies will be at greater risk of having their business models disrupted by social technologies.

Capturing the full potential value from the use of social technologies will require transformational changes in organizational structures, processes, and practices, as well as a culture compatible with sharing and openness. As with earlier waves of IT innovation, it could take years for the benefits to be fully realized, because these management innovations must accompany technological innovations. The greatest benefits will be realized by organizations that have or can develop open, non-hierarchical, knowledge-sharing cultures.

In this report, we define “social technologies” as the products and services that enable social interactions in the digital realm, and thus allow people to connect and interact virtually. These are information technologies that provide distributed rights to communicate, and add, modify, or consume content. We use the terms content and communications broadly. They include creating a message to be communicated (a tweet or a blog), adding content to what is already online, or adding information about content (“liking” a piece of content). Content creation also includes performing an action that an individual knows will be automatically shared (e.g., listening to a piece of music when you know your music choice will be displayed to others). Social technologies allow anyone within a group to access and consume content or information. They include technologies that also have been described as “social media,” “Web 2.0,” and “collaboration tools” (Exhibit E1).

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### **Exhibit E1**

#### **Social technologies include a broad range of applications that can be used both by consumers and enterprises**

NOT EXHAUSTIVE



<sup>1</sup> Social analytics is the practice of measuring and analyzing interactions across social technology platforms to inform decisions.  
SOURCE: McKinsey Global Institute analysis

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Social technologies—the computer code and the services that enable online social interaction—are, essentially, the product of 40 years of technology evolution and the fulfillment of a long-held vision of what computers and digital technology could do. Indeed, from the time that computers moved from punch cards to communicating terminals, computer users have been finding ways to interact socially with one another. The earliest academic computer networks had bulletin board systems that allowed researchers to post information to be shared and to comment on each other's content. When the Internet became available to members of the public, among the first commercial services were those that hosted interest groups (listservs). The Web's growth in reach and capability, and as a medium for interaction, set the stage for the explosive growth of social technologies.

## **SOCIAL TECHNOLOGIES HAVE BEEN ADOPTED AT UNPRECEDENTED SPEED AND SCALE**

Once the pieces were in place—and after some innovators and entrepreneurs designed the right formats and business models—social technologies took off with unprecedented speed and intensity. In fact, social technologies have been adopted at a faster rate than any other media technology. While it took commercial television 13 years to reach 50 million households and Internet service providers three years to sign their 50 millionth subscriber, it took Facebook just a year to hit 50 million users. It took Twitter nine months.

In May 2012, Facebook logged its 900 millionth user. It is estimated that 80 percent of the world's online population use social networks on a regular basis. In the United States, the share of total online time spent on social networking platforms more than doubled from January 2008 to January 2011, from 7 percent to 15 percent.<sup>6</sup> Moreover, social technologies are replacing other Web applications and uses; use of e-mail and instant messaging are off sharply in the past few years.

This growth suggests social technology's almost primal appeal. It is fundamental human behavior to seek identity and "connectedness" through affiliations with other individuals and groups that share their characteristics, interests, or beliefs. Social technology taps into well known, basic sociological patterns and behaviors: sharing information with members of the family or community, telling stories, comparing experiences and social status with others, embracing stories by people with whom we desire to build relations, forming groups, and defining relationships to others.

Social technologies have given these basic behaviors the speed and scale of the Internet. At virtually zero marginal cost, people can interact with a very large group of people, across geographies and time zones. Social technologies have lowered the barriers for joining groups and making social connections; for example, people who do not know each other comment on one another's blog posts or forum contributions. Almost all forms of social interaction—including negative ones, such as bullying—are possible on social platforms.

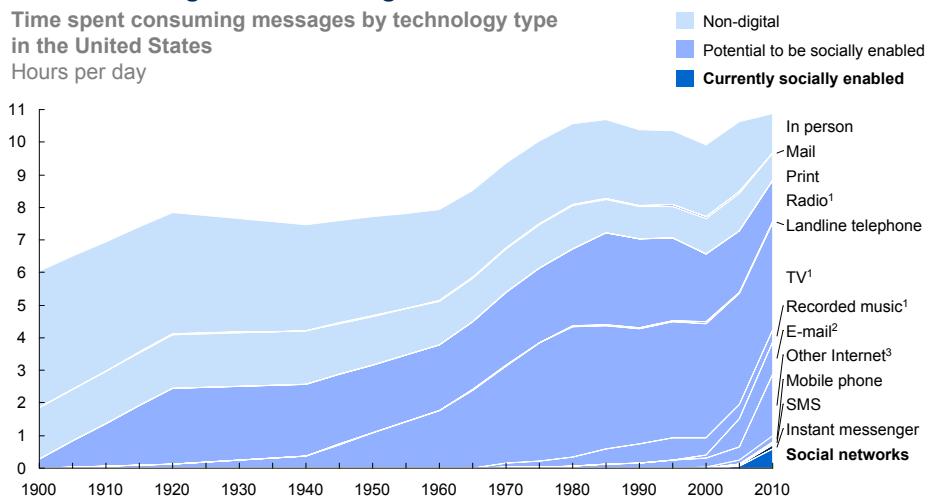
Still, despite the rapid adoption of social technologies by businesses, there is far more opportunity ahead. In a McKinsey survey of executives at 4,200 companies around the world, 70 percent said that they were using social technology in some

ways and 90 percent of those said they were seeing some degree of business benefits. Yet only 3 percent of companies could be identified as fully networked, meaning that they were achieving substantial benefits from use of these technologies across all parts of the organization and with customers and external partners.<sup>7</sup> However, penetration and usage are far lower across the millions of small and medium-size enterprises (SMEs). Only 31 percent of American SMEs used social media in 2011.<sup>8</sup>

Another indication of how much more growth potential social technologies have is the relatively small, albeit fast-growing, share of total time spent on communication and content consumption that takes place on social platforms. Americans spend approximately 11 hours a day communicating or consuming messages in various ways, including in-person, watching TV, reading, and using e-mail. Today, the average American spends about 35 minutes (about 5 percent) of his or her total time interacting with content and communicating (which does not capture all messaging via social technologies). This compares with 60 minutes for e-mail and 14 minutes for telephone talking (Exhibit E2). Social media is already responsible for a large portion of growth in Internet use in the past years and is likely to take share from other forms of communication, such as print media and telephones. Interactive social features are also likely to become embedded in broadcast media (radio and television).

#### **Exhibit E2**

#### **Social networking accounts for just 5 percent of the time spent communicating and consuming media**



<sup>1</sup> Radio, TV, and recorded music are slightly discounted to account for the time spent using these concurrently with other media.

<sup>2</sup> Does not include e-mail sent internally within companies, which is not counted as Internet traffic.

<sup>3</sup> Includes all social technologies that cannot be explicitly separated in available data.

SOURCE: Bureau of Labour Statistics; WAN-IFRA; Statistical Abstracts; National Bureau of Economic Research; US Census Bureau; Radicati Group; Yankee Group; Nielsen; ITU; eMarketer; and others; McKinsey Global Institute analysis

Social technologies also have more growth potential in how they are used by shoppers along the “consumer decision journey.”<sup>9</sup> Today, relatively few consumers rely on information obtained through social technologies as they research,

<sup>7</sup> Jacques Bughin, Angela Hung Byers, and Michael Chui, “How social technologies are extending the organization,” *The McKinsey Quarterly*, November 2011.

<sup>8</sup> *The state of small business report: January 2011 survey of small business success*, Network Solutions LLC and Robert H. Smith School of Business at University of Maryland, 2011.

<sup>9</sup> David Court, Dave Elzinga, Susan Mulder, and Ole Jørgen Vettik, “The consumer decision journey,” *The McKinsey Quarterly*, June 2009.

evaluate, and consider products to purchase. In the most active category, electronics, 16 percent of shoppers rely on social input for purchasing decisions; in home goods, only 2 percent of shoppers turn to online social communities for advice. We estimate that eventually up to one-third of consumer spending could be influenced by “social” interactions, which could mean that \$940 billion of annual consumption in some US and European categories could be influenced by social input.

As social applications migrate to mobile devices (e.g., smartphones and tablets), consumer uses of social technologies will continue to multiply. More than six billion mobile phones are in use worldwide, enabling consumers to socialize online wherever they go and inspiring a new range of social marketing applications. By September 2011, Facebook estimated that more than 40 percent of its users were already accessing its service with mobile devices.

## SEVERAL DISTINCTIVE CHARACTERISTICS OF SOCIAL TECHNOLOGIES ENABLE VALUE CREATION

Social technologies have several distinctive properties that make them uniquely powerful and help explain their rapid adoption and high potential impact.

- “Social” is a feature, not a product. Social features can be applied to almost any technology that could involve interactions among people (e.g., the Internet, telephone, or television). A social component—a button to “like” or comment—can be added to virtually any IT-enabled interaction, suggesting an almost limitless range of applications.
- Social technologies enable social behaviors to take place online, endowing these interactions with the scale, speed, and disruptive economics of the Internet. Social interaction is a powerful way of efficiently organizing knowledge, culture, and economic and political power. Freed from the limitations of the physical world, people are able to use social technologies to connect across geographies and time zones and to multiply their influence beyond the numbers of people they could otherwise reach.
- Social technologies provide platforms for content creation, distribution, and consumption. At the same time, they enable new forms of content creation, including co-creation and transformation of personal and group communications into content (e.g., a blog posting can be a means to communicate immediate information, but also accessed later as a piece of content). Instead of a small number of editors or producers deciding what content is distributed, any social technology user can create, distribute, comment on, or add to content. Thus, social platforms can extend the “disintermediating” power of the Internet to the masses. For example, rather than relying on intermediaries such as talent agents or record producers to discover new musical artists, the online community chooses—by downloading songs or watching YouTube videos. These technologies change not only the economics of content creation and distribution, but also the nature of content itself, which becomes an evolving discussion, rather than a fixed product.<sup>10</sup>

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<sup>10</sup> See Don Tapscott and Anthony D. Williams, *Wikinomics: How Mass Collaboration Changes Everything*. (New York: Penguin Books, 2006).

- Social technologies can capture the structure and nature of interactions among individuals. A “social graph” provides a map of the personal connections of a person or a group, which, combined with other data, such as topics these individuals discuss, can be the basis for inferences about groups and individuals. Social graphs capture important information about which group members contribute most and have the greatest influence.
- Social technologies can be disruptive to existing power structures (corporate and governmental). Social technologies allow people to connect at a different scale and create a unified, powerful voice—as consumer groups or entire societies—that can have significant impact on the ways in which dialogues are shaped and policy is made.
- Social technologies enable unique insights, by allowing marketers and product developers to engage directly with thousands of consumers and to monitor unprompted and unfiltered conversations. This can generate more genuine and timely insights into consumer preferences and trends. Social technologies also increase transparency—exposing more information about products and markets, and spreading information about organizations and institutions.

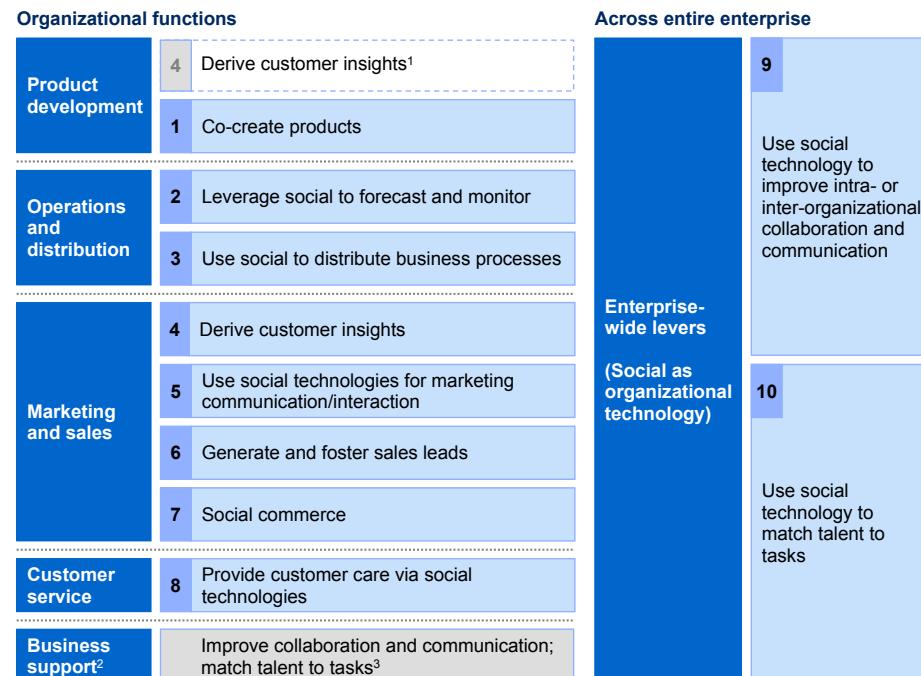
## HOW VALUE IS CREATED IN DIFFERENT INDUSTRIES

We have identified ten value “levers,” or techniques, that enterprises use to generate value from social technologies. These tactics fall into four segments of the value chain: product development, operations and distribution, marketing and sales, and customer service. In addition, two enterprise-wide value levers create value by improving organizational productivity (Exhibit E3).

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### Exhibit E3

#### Ten ways social technologies can add value in organizational functions within and across enterprises



1 Deriving customer insights for product development is included in customer insights (lever 4) under marketing and sales.

2 Business support functions are corporate or administrative activities such as human resources or finance and accounting.

3 Levers 9 and 10 apply to business support functions as they do across the other functional value areas.

SOURCE: McKinsey Global Institute analysis

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In the four industries that we have analyzed in detail (consumer packaged goods, consumer financial services, professional services, and advanced manufacturing), the estimated total annual value creation potential is \$900 billion to \$1.3 trillion. About \$345 billion of this value potential would be available from product development and operations; \$500 billion from marketing, sales and after-sales support activities; and \$230 billion from improvements in business support activities. The value contribution from improved communication, coordination, and collaboration—potentially two-thirds of all potential value from use of social technologies in business organizations—is embedded in these projections.

Individual firms can gain even more. In general, the companies that stand to benefit most have one or more of the following characteristics:

- A high percentage of knowledge workers
- Heavy reliance on brand recognition and consumer perception
- A need to maintain a strong reputation to build credibility and consumer trust
- A digital distribution method for products or services
- An experiential (hotels) or inspirational (a popular sports drink) product or service offering

We estimate that consumer goods companies, which have many knowledge workers and rely heavily on brand recognition, can use social technologies across all value chain steps. If they do so, we calculate that they can increase margins by as much as 60 percent, by using social technologies to connect with customers and to generate sharper consumer insights, as well as by using social technologies to improve the productivity of knowledge workers. Benefits of this range apply only to individual firms and not the entire industry, since they are based on initiatives that increase market share (at the expense of other players). And, it should be noted, simply shifting advertising and consumer insight budgets to social media will not suffice; in the past few years it has become clear that only well-planned and well-executed programs (often incorporating non-social components such as mass media) will capture the potential value of social technologies.

A considerable fraction of the \$900 billion to \$1.3 trillion value potential in these industries could be captured by consumers in the form of lower prices, higher quality products, offerings better suited to their needs, and improved customer service.<sup>11</sup> In addition, individuals will benefit from the participation of other individuals in their communities. For example, consumers will benefit from the ability to identify a group of like-minded people, to stay in touch with a network of people, or to access or reach out with a message or piece of content, at almost no cost.

The social sector, too, can benefit from social technologies. Nonprofit organizations and other social sector players can use social technologies to gather information, crowdsource labor and solutions, raise funds, expand their volunteer networks, build support, educate the public, engage

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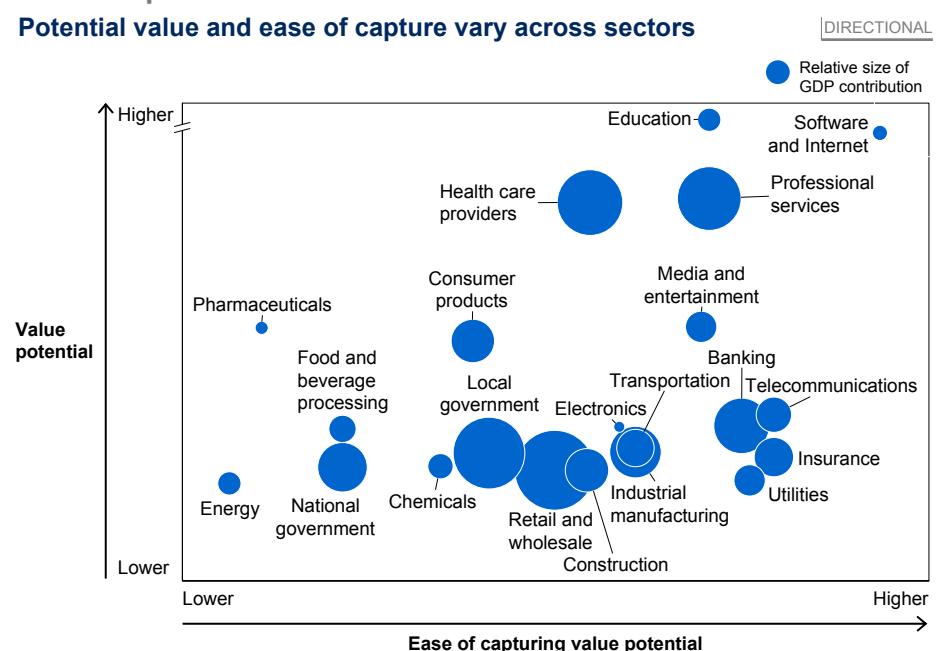
<sup>11</sup> Other consumer benefits (e.g., increased customer satisfaction with better products and services) are not yet quantifiable.

supporters, improve collaboration and communication, and establish organizational structures.

In broad terms, the value that social technologies can generate in an industry is determined by fundamental characteristics of the industry. Exhibit E4 illustrates how some characteristics, such as knowledge intensity, determine how much relative value potential an industry might have and how other characteristics, such as the need to protect proprietary information, influence how difficult capturing that value could be.

**Exhibit E4**

**Potential value and ease of capture vary across sectors**



SOURCE: McKinsey Global Institute analysis

### THE VALUE CREATION POTENTIAL WITHIN AND ACROSS ENTERPRISES IS LARGELY UNTAPPED

Our research indicates that there is great untapped potential for social technologies to improve communications and collaboration within and across enterprises. We estimate that social technologies can raise the productivity of interaction workers in large organizations by 20 to 25 percent if they become fully networked enterprises. Two-thirds of all of the value potential we estimated in four sectors relate to these enterprise applications (Exhibit E5). This assumes that social technologies are used by all interaction workers for all relevant activities and that the time that they save in communicating, finding information, and collaborating is then applied to highly productive uses. In most organizations, achieving these conditions will require substantial changes in organizational structure, processes, practices, and culture.

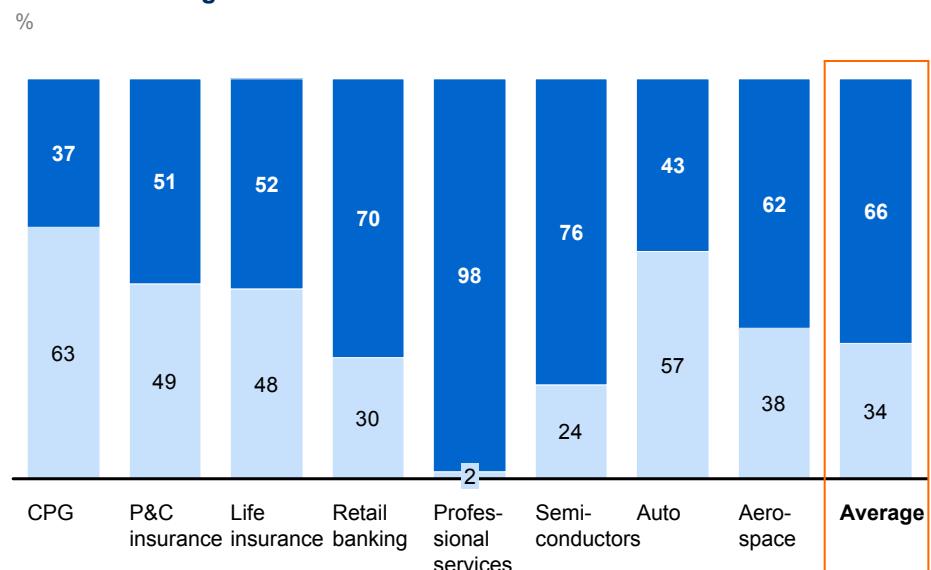
Some of these gains are predicated on shifting communications among interaction workers from channels designed for one-to-one communication (e.g., e-mail, phone calls) to social channels, which are optimized for many-to-many communication. Today, a huge amount of relevant enterprise knowledge is locked up in e-mail inboxes. As more enterprise information becomes accessible

and searchable, rather than locked up as “dark matter” in inboxes, workers could save not only the amount of time they spend on writing, reading, and answering e-mail, but also on the amount of time spent searching for content and expertise. We estimate that total e-mail use by interaction workers could be reduced by 25 percent, freeing up 7 to 8 percent of the workweek for more productive activities. With internal knowledge and information more available on social media, a typical interaction worker could reduce information searching time by as much as 35 percent, which would return approximately 6 percent of the workweek to other tasks.

However, these benefits cannot be obtained simply by installing social software. As with previous waves of productivity-enhancing IT, investment in the technologies has to be accompanied by management innovations to produce real gains. These innovations usually take years to demonstrate their full potential.

### Exhibit E5

#### Value available through collaboration and other benefits of social technologies varies across industries



SOURCE: McKinsey Global Institute analysis

### BENEFITS OF SOCIAL TECHNOLOGIES FOR INDIVIDUALS AND THEIR COMMUNITIES

Individuals are the first and most important beneficiaries of social technologies. Unless individuals receive value for using social technologies, they won't use these technologies, and none of the other forms of value can be created. People derive great personal satisfaction from the relationships they are able to maintain, the information they can glean, and the communities they form through their use of social technologies. Various studies have estimated that the economic value of this consumer surplus is significant. McKinsey and IAB Europe (Internet Advertising Bureau Europe) estimated the value of broadband services at approximately \$50 per year per household in consumer surplus in the United States and Europe in 2010. This is projected to grow to about \$253 billion in consumer value. The report estimates that social technologies account for almost

30 percent of that consumer value, or about \$40 billion in 2010 and as much as \$76 billion in 2015.<sup>12</sup>

A significant amount of the value unlocked by companies using social technologies eventually will accrue to consumers, either because market players compete away that surplus or because social technologies provide the insights that allow consumers to purchase goods that are better suited to their needs. When these better products increase total demand, both individuals and enterprises can capture value.

Social technologies, of course, also have the potential to provide individuals with significant non-economic benefits. As people multiply their abilities to organize themselves through social technologies, there is the possibility to effect positive change in communities and governments. Social technologies, for example, were an important enabler of the 2011 Arab Spring. Social technologies can also help communities collaborate in non-political ways, such as organizing disaster aid.

### RISKS OF SOCIAL TECHNOLOGIES

The use of social technologies can also carry risks. One risk is the possibility of abuse, such as excessive employee time spent “chatting” about non work-related topics on internal or external social networks or using social media to attack fellow employees or management. Enterprises have taken different approaches to handling this risk, from forbidding non-work-related conversations or censoring critical opinions to welcoming the critiques and engaging in public conversation with the critics.

Other risks involve breaches of consumer privacy, which could constrain a company’s ability to develop the most revealing consumer insights. Similarly, there is a great need for information security, but a company’s need to maintain data security can limit the ways in which social technologies can be applied. In addition, in many nations, censorship and restrictions on Internet use stand in the way of value creation by companies that hope to enable consumers to interact with them and that wish to harvest deep insights from social data.

### CAPTURING THE VALUE OF SOCIAL TECHNOLOGIES

How much future value is generated by social technologies will depend on multiple enablers. Success in implementing and using social technologies in and across enterprises will depend on transforming their organizations and cultures to take full advantage of the collaborative potential of social technologies. Success in deploying social technologies to connect with broader communities will require the ability to create trust, a critical mass of participation, and positive community cultures and practices. Social technology is not just another IT implementation. Nor is it simply a tool to improve communication and collaboration. As has been seen in the consumer context, social technologies unleash creative forces among users and enable new relationships and group dynamics. Some of the most useful innovations in consumer social technologies—the hashtags to organize tweets and the standardized Wikipedia article format—were created by users.

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<sup>12</sup> *Consumers driving the digital uptake: The economic value of online advertising-based services for consumers*, McKinsey & Company for IAB Europe, September 2010. This work measures social networks, social games, user-generated video sharing, wikis, and blogs. Values are based a USD/euro exchange rate as of April 30, 2010 (\$1 = 0.75208 €).

User innovations can drive the evolution of social technologies within and across enterprises, too, if the culture encourages them.



The real power of social technologies is only just beginning to be understood. That power stems from the innate appeal of interacting socially and the pleasure and intellectual stimulation that people derive from sharing what they know, expressing opinions, and learning what others know and think. As has been seen in early use of social technologies, when these ways of interacting are applied to commercial and professional activities (e.g., developing and selling products, working together to solve a business problem), the resulting value creation is impressive. Scaling these results to industry- and economy-wide levels produces very large numbers. For now, such figures are directional—they represent what could happen, if organizational and cultural barriers can be reduced and if risks can be mitigated. Over the coming years, it will become clear if those hurdles can be overcome.



# 1. The evolution of social technologies

In just a few years, social technologies have captured the imagination of consumers, business leaders, and politicians. Hundreds of millions of people have adopted new behaviors: transferring social interactions online, forming connections, and creating and sharing content. Governments have fallen because citizens organized themselves using social technologies. Social technologies have become a fixture of modern life—in private, public, and commercial spheres. Companies of all kinds have started to use social technologies as a way to win customers, improve performance, and advance their missions. Most large consumer-facing companies, and a growing number of smaller ones, recognize that they must now use social technology to compete.

This report explores and begins to quantify the value potential these technologies can unlock for individuals, firms, and the entire economy. In this chapter, we examine sources of the transformative powers of social technologies and the evolution of the social technology phenomenon. We examine why social technologies have set records for speed of adoption.

By enabling social interactions to take place virtually—loosening the constraints of time, location, and even the number of personal relationships that define traditional social activity—social technologies can unleash powerful forces in society and the economy. They bring the Internet's speed, scope, and scale to human interactions. Social platforms extend the disintermediating powers of the Internet—the force that have disrupted the businesses of agents in airline booking and record stores in music sales—to the masses. Today virtually anyone with a smartphone or computer can become a publisher or share his or her creative output with the world.

Social technologies are redrawing relationships between companies and customers, as well as within companies. Consumer-facing companies are mining social sites for feedback from customers and thus gaining new insights through the unprompted and unfiltered chatter about their products. By monitoring a range of online behavior in a rich social context, marketers and product designers are able to generate new views of consumer needs and trends.

At the same time, organizations are finding that social technologies can be applied internally to hasten knowledge dissemination, enable innovation, and encourage collaboration across functional silos to improve productivity.<sup>13</sup> Social technologies are making organizational boundaries more permeable, even to the extent of allowing organizations to become “extended networked enterprises,” inviting people from outside the enterprise to participate in tasks that are traditionally performed by employees. Permitting outsiders to participate in crowdsourced innovation is an example. In addition, social technologies can increase collaboration by making it more entertaining. Gamification, the infusion of gaming techniques, mechanisms, or style into non-game contexts, can add a real-time, competitive gaming element to common work activities, such as performance management.

### **SOCIAL TECHNOLOGIES HAVE DISTINCTIVE PROPERTIES THAT MAKE THEM UNIQUELY POWERFUL**

Before we examine what properties have made social technologies such a powerful phenomenon and have propelled its rapid adoption, we start with the definition of social technologies used throughout this report (see Box 1, “Social technologies share three key characteristics”).

#### **Box 1. Social technologies share three key characteristics**

We define social technologies as digital technologies used by people to interact socially and together to create, enhance, and exchange content. Social technologies distinguish themselves through the following three characteristics:

1. They are enabled by information technology.
2. They provide distributed rights to create, add, and/or modify content and communications.
3. They enable distributed access to consume content and communications.

In other words, in addition to enabling people to interact socially (e.g., chat, share personal news, send greetings), social technologies allow anyone within a group to create, add, or modify content and communications. This includes adding or deleting content such as text or a link, contributing to content added by others, endorsing (e.g., “liking” a piece of content), or performing an action that an individual knows will be automatically shared (e.g., choosing a song from a service that will display your music selection to others). Social technologies allow anyone within a group to access and consume content and communications. They include many of the technologies that are also classified as “social media,” “Web 2.0,” and “collaboration tools” (Exhibit 1).

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13 Andrew McAfee, *Enterprise 2.0: New collaborative tools for your organization's toughest challenges* (Boston, MA: Harvard Business School Publishing, 2009).

**Exhibit 1****Social technologies include a broad range of applications that can be used both by consumers and enterprises****NOT EXHAUSTIVE**

1 Social analytics is the practice of measuring and analyzing interactions across social technology platforms to inform decisions.  
SOURCE: McKinsey Global Institute analysis

Several other terms describe phenomena closely related to what we call social technologies. Social media, which refers to Web- and mobile-based technologies that allow the creation and generation of user-generated content, falls under our definition, as do Web-based tools for enterprise collaboration. We also include technologies described as “Web 2.0” that enable groups of people to generate and consume content. And we also include enterprise collaboration and the similar tools that meet our criteria and are used within and across enterprises.

Social technologies have been embraced by people across cultures, age groups, and demographic segments for several reasons. Social technologies tap into the most basic human traditions: forming groups and sharing information, enjoying entertainment, and communicating interesting content. In a sense, social technologies represent a return to aspects of the oral tradition—providing a means for all members of the group to tell their stories, add to the stories that others are telling, or offer another point of view. Indeed, the behaviors that are upending traditional media and marketing today—reliance on word of mouth and suspicion of information not sanctioned by the affinity group/clan—were fundamental to pre-literate societies. By providing an outlet for anyone with an Internet connection to participate in the group and share knowledge and experiences (or photos or the latest joke), social technologies tap into primal needs.

In addition, social technologies share a set of characteristics that make them uniquely powerful:

- **Being social is a feature, not a product.** Almost any digital technology can be made “social” through adding the ability for people to connect, comment, or share. In the realm of economics, most economic activity ultimately rests on interactions between individuals, so almost any economic activity can be “socialized.”

- **Social technologies enable social behaviors at an Internet scale.** The fundamental change enabled by social technologies is to endow social interactions with the scale, speed, and disruptive economics of the Internet. On social platforms, individuals can interact in social ways (communicating, sharing information, consuming the same content, playing games) even across different countries and time zones. Social technologies provide opportunities for individuals to reach out with a message, to signal common interests, and to engage in collective action on a scale that was previously not possible. And all of these social interactions are extended beyond the limits of offline social group size, of traditional speed of information exchange and amplification, and of past reach and penetration of social groups. There are many widely reported stories about pieces of content, such as clever videos or social games, “going viral” (i.e., achieving wide distribution because they have been forwarded through social technologies).<sup>14</sup> In addition, through social networks, individuals have gained the opportunity to maintain personal relationships that would otherwise wither away (e.g., having “status updates” sent to a list of people to whom one is connected through a social network) and thus maintain a far larger number of relationships. In particular, the number of “weak ties” that a person can maintain can be increased beyond the so-called Dunbar’s number of 150, the theoretical cognitive limit of the number of people with whom one can maintain stable social relationships.<sup>15</sup>
- **Social technologies enable new forms of content creation, distribution, and consumption.** On social networks, all members are able to contribute content, which is distributed freely and instantaneously, with little or no mediation between producers and consumers. This means that content can be produced quickly, in volume, and with great variation. Social technologies also support content co-creation (e.g., adding commentary to an existing piece of content, for example, by editing an entry on a wiki). Instead of a small number of editors or producers deciding what content is distributed, any social technology user can create, distribute, comment on, or add to content. These technologies change not only the economics of content creation and distribution, but also the nature of content itself, which can become an ever-evolving discussion rather than a fixed product.
- **Social technologies can capture the structure and content of interactions.** Online social interactions (whether conducted on a computer or a mobile device) can generate a “social graph”—a map of nodes (social connections) and how they connect. The social graph is a visual representation of how people (and organizations) interact and influence one another. The “social graph” of an individual or a group provides an explicit map of their personal connections. When combined with other data, such as topics of common interest, the social graph allows inferences to be drawn about groups and individuals.

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14 Some research suggests that the distribution of such content actually accelerates fastest once it appears in mass media, such as television. See interview with Yahoo! research scientist Duncan Watts in “How we see it: Three senior executives on the future of marketing,” *The McKinsey Quarterly*, July 2011.

15 The Dunbar number refers to the number of people one feels comfortable asking for a favor, expecting to have it granted. See Russell A. Hill and Robin I. M. Dunbar, “Social network size in humans,” *Human Nature*, Volume 14, Number 1, 2003.

- **Social technologies can be disruptive to existing power structures.** Social technologies enable people to coordinate and engage in collective action at a scale not previously possible and to create a unified, powerful voice—as consumer groups or political movements—that can have significant impact on existing power structures. Social technologies also impose greater transparency, accountability, and competitive pressure on individuals and organizations by exposing information about their behaviors.
- **Social platforms extend the disintermediating power of the Internet.** Social technology brings disintermediation—the force that has disrupted bricks-and-mortar stores in music sales and travel agents in airline booking—to the masses. The participatory properties of social technologies have already started to change the economics for discovering and testing creative talent in industries that have traditionally relied on agents, publishers, or producers to identify promising individuals. For example, with his mother uploading home videos to YouTube, Justin Bieber built his own fan base and became a global pop star before signing with a record label. Across the arts, entertainment, and publishing, success on a social platform now serves as proof of commercial potential. Even venture capital investors are starting to rely on social media to discover cutting-edge start-ups. Using a “practice before theory” approach, they are funding new concepts (e.g., games, social shopping concepts) that show rapid adoption or intense engagement on social platforms. Similarly, crowdfunding/crowdfinancing is circumventing traditional financial intermediaries, allowing individuals to invest directly in early-stage companies.<sup>16</sup>
- **Social technologies enable unique insights.** On social platforms, companies can engage consumers in natural conversations or observe the unprompted and unfiltered observations that are recorded in social platform interactions. These research methods can generate more genuine and timely insights into preferences and trends than are generally available through traditional market research methods such as surveys and focus groups. Such conversations also impose greater transparency, accountability, and competitive pressure on companies by exposing information about their products and behaviors. Social graphs also provide a rich context for consumer insights; by analyzing the graph of a consumer’s connections and interactions, a marketer or product development team can assess a consumer’s interests and competencies and can gauge the individual’s credibility (see Box 2, “Social graphs”).

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16 “Crowdfunding” refers to mass funding efforts through which large numbers of people can use social media to finance business enterprises.

## Box 2. Social graphs

A social graph is a representation of the personal connections between people (see Exhibit 2). Connections can be either reciprocal (explicitly acknowledged by both parties, such as when two people identify themselves as “friends”) or directional (defined by only one side, as when one person “follows” the postings of another, but the reverse might not be true).<sup>1</sup> When connections represented on a social graph are made intentionally, they can be seen as an indicator of social capital: the person who has been added is considered a reliable, relevant, or entertaining source of content or opinion. Social capital is valuable. According to a 2010 survey by Vision Critical, recommendations about a brand or product from a contact on a social network are more than three times as trusted as those that come from a stranger or an advertisement.<sup>2</sup> And this dependence on social connections for advice is even stronger in very trust-based cultures: as an independent survey of moisturizer purchasers found, 66 percent of Chinese consumers relied on recommendations from friends and family, compared with 38 percent for US consumers.<sup>3</sup>

### Exhibit 2

#### Social graphs capture and visualize social relations

Each node represents a person, and the lines represent the relations between nodes



A visualization of the entire social graph of the Facebook social network



SOURCE: Paul Butler, “Visualizing friendships,” Facebook note, December 13, 2010

By understanding the social graph, a marketer can see which individuals are likely to have influence on others and thus can focus on influencing those key people. When it is augmented with other information (e.g., from personal profiles or content posted), even more useful views can be created, (e.g., shared preferences for certain styles, when overlaid on a social graph, can generate an “interest” or “taste” graph). Certain individuals on the graph (nodes) can emerge as tastemakers, based on the number of relationships they have with others who share their interests and preferences. Content can be prioritized based on an individual’s social graphs (weighted by level of interaction, or common connections, with a particular content contributor).

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- 1 The social graph is based on mathematical graph theory, which describes the relationships between vertices (or nodes) and edges (lines connecting the nodes) in a structure. Graphs have long been used in mathematics and computer science to model relationships and process dynamics. See Brian Hayes, “Computing science: Graph theory in practice: Part I,” *American Scientist*, Volume 88, Number 1, January–February 2000. The concept of the “social graph” describing online relationships was raised at a 2007 Facebook conference. See Thomas Claburn, “Facebook opens up to developers, partners,” *Information Week*, May 24, 2007.
  - 2 Vision Critical, “Online social networks: Trust not included,” September 2010.
  - 3 Judith S. Olson and Gary M. Olson, “Culture surprises in remote software development teams,” *Queue*, Volume 1, Number 9, December/January 2003–2004; Cindy Chiu, Chris Ip, and Ari Silverman, “Understanding social media in China,” *The McKinsey Quarterly*, April 2012.

## SOCIAL TECHNOLOGIES HAVE BEEN EVOLVING FOR DECADES

The digital electronic platforms that enable social technologies today have been evolving since at least the 1970s, when the first interactive computer terminals came into use. As soon as computers could “talk” across data networks, the academics and computer scientists who used them created electronic bulletin board systems that allowed members to post short messages about a specific area of interest on a central computer. The late 1970s brought Usenet, the first distributed bulletin board system, which ran on university and research networks, and FTP (file transfer protocol), which made it possible to share large content files.

The Internet brought data networks to the masses in the 1990s, providing the foundation for both social technologies and e-commerce. Millions of consumers signed up for e-mail accounts on services such as America Online and CompuServe, and traditional media outlets (newspapers, magazines, and broadcasters) created online versions of their products.

The next step toward today’s large-scale social platforms was turning Internet users into content creators and distributors. Under what would later be labeled Web 2.0, Internet use became more interactive and “social.”<sup>17</sup> With the advent of peer-to-peer file sharing, millions of Internet users began to share music and video files. They also started creating their own content, forming their own communities, and sharing information on a “virtual commons.” People began publishing “Web logs,” better known as blogs, to record their thoughts and ideas in online diaries, to comment on the news, and to create an audience of other social Web users.

Blogs and file-sharing services such as Napster were early indicators of how disruptive social technologies could be. Napster let music fans circumvent the radio stations and record companies that for decades had been arbiters of popular tastes. Blogs provided a platform for millions of writers and commentators who no longer needed access to a print or broadcast outlet to be heard. RSS (Really Simple Syndication), a specification created by Netscape, made it possible to “subscribe” to blogs and all kinds of online content by simply clicking on an icon.

In parallel to the evolution of the content creation and distribution tools that would become critical social technologies, virtual communities were becoming more sophisticated. Even before the Web made connecting online easy, Internet users had created communities. Early examples such as the WELL, which was launched in 1985, Theglobe.com (1995), and Tripod.com (1995) allowed people with common interests to come together in chat rooms. They even let users build home pages where they could post personal information or share their opinions. Between 1997 and 1999, pioneering sites such as SixDegrees, AsianAvenue, and LiveJournal added new ways to connect, broadcast messages, and interact on the Web.

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<sup>17</sup> “Web 2.0,” coined in 2004, emphasizes the user-driven, more interactive, social, and collaborative uses of the Web that were then becoming more common (e.g., using the Web as a software platform, and for content creation). See Tim O’Reilly, “What is Web 2.0: Design patterns and business models for the next generation of software,” O'Reilly.com, September 30, 2005. See also Jacques Bughin and James Manyika, “How businesses are using Web 2.0: A McKinsey Global Survey,” *The McKinsey Quarterly*, March 2007.

The trajectory of adoption for social technologies shifted sharply upward in 2002 and 2003 with the arrival of highly popular social networking platforms: Friendster, MySpace, and LinkedIn. By 2005, MySpace had 25 million users and was acquired by News Corporation for \$580 million<sup>18</sup>—a sign of the growing perceived value of social technology. The next year, Harvard dropout Mark Zuckerberg expanded the market for the company he co-founded, “The Facebook,” beyond the high school and college students who were inviting one another to sign on. Six years later, Facebook has 900 million users in 213 countries and annual revenue of \$3.7 billion.<sup>19</sup>

### THE SPEED AND IMPACT OF SOCIAL MEDIA ADOPTION ARE UNPRECEDENTED

With the right technological building blocks already in place, innovative entrepreneurs were able to create new social models with mass user appeal. By early 2012, more than 1.5 billion people around the globe were interacting with social networks at least on a monthly basis.<sup>20</sup>

This is just one milestone in a record-setting pattern of adoption and penetration. It took just one year from the time Facebook launched in 2004 to grow to 50 million users; Twitter reached 50 million in nine months. By contrast, it took broadcast radio almost 40 years to reach an audience that big, and for television, it took more than a decade. Even the Internet was slow by comparison to social technology: it took commercial Internet service providers three years to sign their 50 millionth subscriber (Exhibit 3).

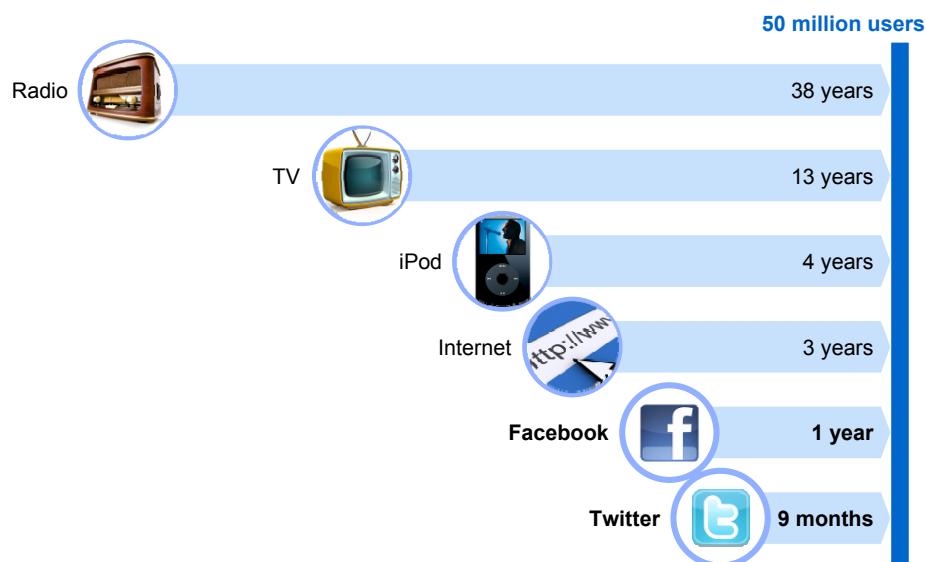
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#### Exhibit 3

##### Social technologies have been adopted at record speed

ILLUSTRATIVE

Time to reach 50 million users



SOURCE: Various press reports

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18 Danah M. Boyd and Nicole B. Ellison, “Social network sites: Definition, history, and scholarship,” *Journal of Computer-Mediated Communication*, Volume 13, Number 1, October 2007.

19 Socialbakers, “Facebook statistics by country,” [www.socialbakers.com/facebook-statistics/](http://www.socialbakers.com/facebook-statistics/).

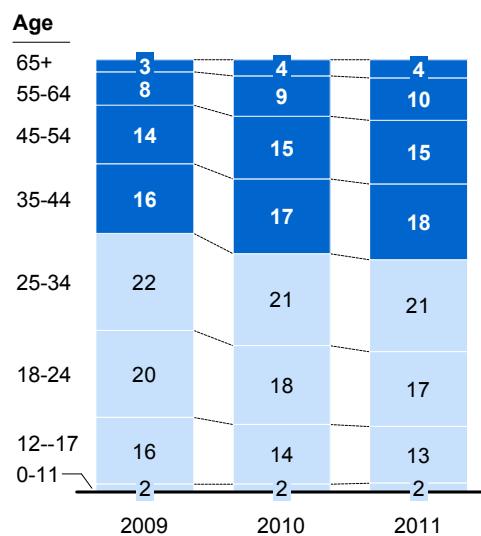
20 *It's a social world*, comScore, December 21, 2011, based on October 2011 comScore Media Metrix data.

The appeal of social technologies has spread to a wide range of users. In the early years, young adults and teenagers were the most enthusiastic users of social media, but in the past few years, older demographics have become the fastest growing in developed markets. The share of US social network users under 18 years of age dropped from 18 percent in 2009 to 15 percent in 2011, while users 35 and older grew from 41 to 47 percent (Exhibit 4).

#### Exhibit 4

##### Use of social networks is spreading across age groups

% of total US users



NOTE: Numbers may not sum due to rounding.

SOURCE: eMarketer, February 2011

According to surveys by NM Incite, the top use of social media is to stay in touch with family and friends (88 and 89 percent of users, respectively), followed by finding new friends (70 percent). About 68 percent of social media users visit social networking sites to read product reviews, and more than half contribute product feedback. Other reasons for social media usage include accessing online entertainment (67 percent), finding a creative outlet (64 percent), learning about products (58 percent), and getting coupons or promotions (54 percent). Just 16 percent of users said they visit social sites for dating and less than a third reported using social networks to find a job.<sup>21</sup>

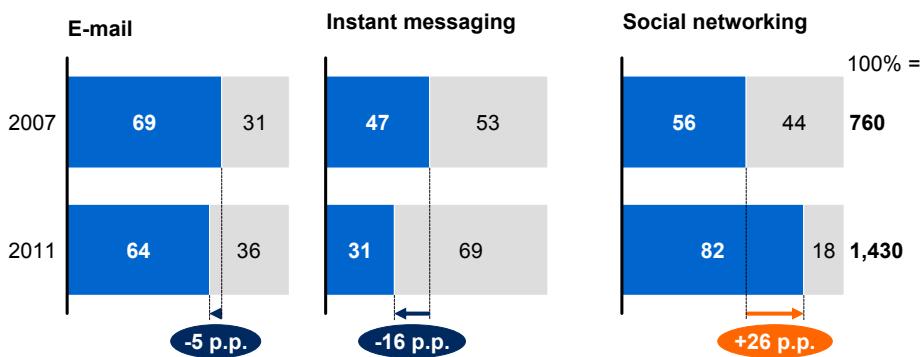
As uses of social technologies multiply, the impact on other forms of online activity is becoming more pronounced. Four years ago, e-mail was by far the most popular consumer use of the Internet. Now, more consumers use social networks each month than use e-mail accounts, and the number of unique monthly e-mail visitors as a share of the online population fell from 69 percent in 2007 to 64 percent in 2011. The drop-off in e-mail use is occurring mostly among Internet users who are under 35 years of age; e-mail remains the leading Internet use for those over 35. Over the same period, the share of users of instant messaging has fallen sharply from 47 percent of Internet users to 31 percent (Exhibit 5).

<sup>21</sup> NM Incite's State of Social Media Survey polled a representative sample of 1,865 US adult (18+) social media users between March 31 and April 14, 2011. See also *Friends, following and feedback: How we're using social media*, NM Incite, September 28, 2011.

**Exhibit 5****Communications are shifting from e-mail and instant messaging to social media**

■ Users of service  
■ Non-users

**Unique monthly visitors**  
% of global online population



SOURCE: comScore Media Metrix, October 2011

Social networking also affects searching. In 2010, 33 percent of Internet users said they accessed content such as articles or videos via links on social networking sites, rather than from search engine recommendations. This is a 20 percent jump from 2008.<sup>22</sup> Total Google referral traffic to YouTube declined by 3 percentage points from February 2010 to October 2011 (from 19 percent of all YouTube entries to 16 percent), but referrals from Facebook increased by 17 percentage points (from 9 to 26 percent). Facebook overtook Google as the leading source of traffic to YouTube in October 2011.<sup>23</sup>

At the same time, the adoption of mobile devices such as smartphones and tablets has accelerated. There are now more than six billion mobile phones in the world, and in developed markets such as the United States, smartphones make up more than 50 percent of new phone sales.<sup>24</sup> Similarly, the adoption of tablets has accelerated: in January 2012, 29 percent of American adults owned a tablet computer or e-reader.<sup>25</sup> The use of smartphones to access social networks nearly doubled between 2008 and 2011, according to McKinsey's US iConsumer survey results.<sup>26</sup> In 2011, more than 40 percent of active users accessed Facebook through mobile devices every month.<sup>27</sup>

22 McKinsey & Company iConsumer survey, US, 2008–10. Data for 13- to 64-year-old Internet users. Question: Which of the following features/Web sites do you use to get to the content that you read/browse online?

23 ComScore Source/Loss Report (Media: YouTube, February 2010, October 2010, May 2011, October 2011, May 2012, Worldwide—Home and Work), comScore qSearch.

24 International Telecommunication Union, World Telecommunication/ICT Indicators database 2011 (Estimate); comScore MobiLens, three months ending July 2011.

25 Mary Meeker, “Internet Trends” presentation at All Things Digital D10 Conference in Rancho Palos Verdes, California, May 30, 2012.

26 McKinsey & Company iConsumer survey, US, 2008–11. Includes 13- to 64-year-old Internet users.

27 Benedict Evans, “Facebook’s 300m app users,” Evans Analytics, April 23, 2012, [www.ben-evans.com](http://www.ben-evans.com).

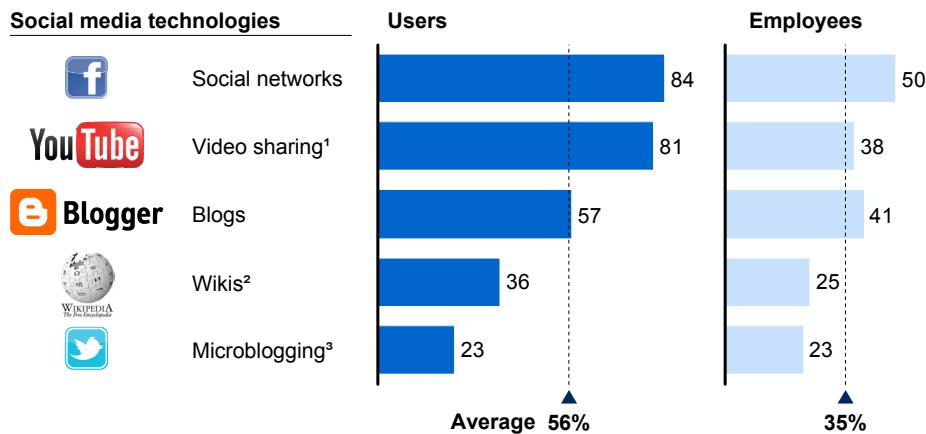
## BEYOND CONSUMERS: INTO THE ENTERPRISE

While organizations have adopted social technologies at about half the rate of consumers (Exhibit 6), adoption by businesses is accelerating in a trend that has been termed "Enterprise 2.0."<sup>28</sup>

### Exhibit 6

#### Adoption of social technologies within enterprises lags far behind consumer adoption

Consumer vs. company penetration, global, 2012  
%



<sup>1</sup> As of October 2011.

<sup>2</sup> Classified as directories.

<sup>3</sup> Includes microblogging sites Twitter, Tumblr, Weibo, Plurk, and Posterous Spaces.

SOURCE: comScore, May 2012; comScore Global Online Video Viewing, October 2011; "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011

Increasingly, they are using social technologies for internal collaboration, communications, and product development. By 2011, 72 percent of companies reported using some form of social technology in their businesses. Of these, 90 percent said they have seen business benefits from social technologies.<sup>29</sup> The heaviest users are high-tech and telecom companies, but a full range of other industries are also going "social" (Exhibit 7).

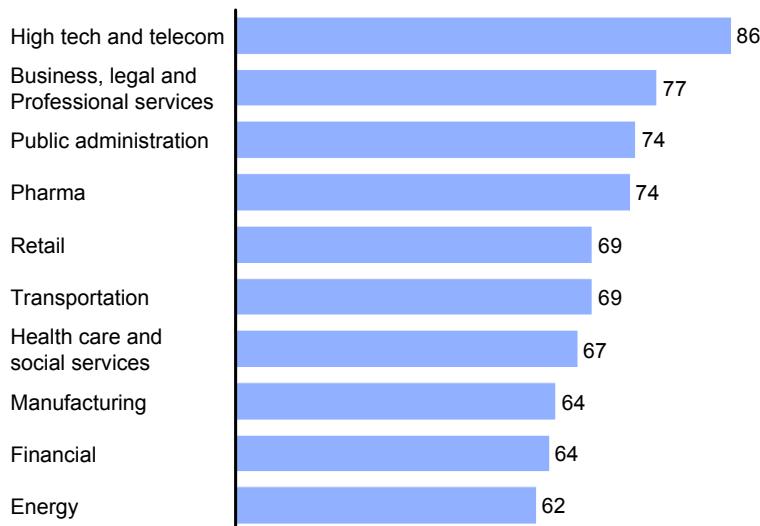
28 Andrew P. McAfee, *Enterprise 2.0: New collaborative tools for your organization's toughest challenges* (Boston, MA: Harvard Business School Publishing, 2009).

29 Jacques Bughin, Angela Hung Byers, and Michael Chui, "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011.

**Exhibit 7****Across industries, companies are adopting Web 2.0/social technologies**

Companies using at least 1 Web 2.0 tool

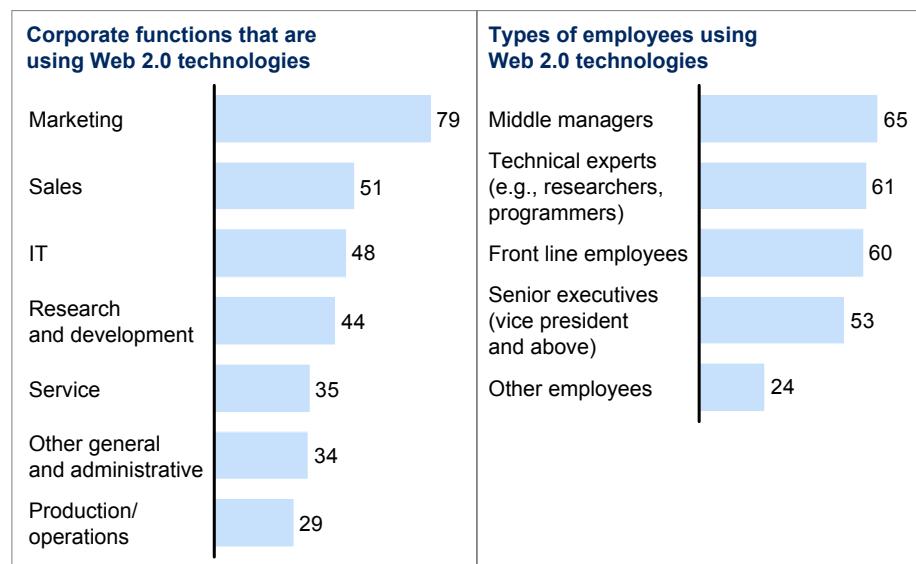
% of respondents (n = 4,261)

SOURCE: "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011

Marketing remains the most common business application of social technologies, used by 79 percent of companies in 2011 (Exhibit 8). More than half of companies surveyed say they use social technologies in sales, and nearly half use social technology in IT operations. Within marketing, the leading use is generating consumer insights, for use in advertising and promotion as well as in product development. In sales, companies are using data from social platforms to fine-tune demand forecasting. Social networks are also being used to provide customer service. Across industries, the most active users are middle managers, technical specialists, and frontline managers.

**Exhibit 8****Web 2.0 tools are used across functions and employee types**

% of respondents

SOURCE: "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011

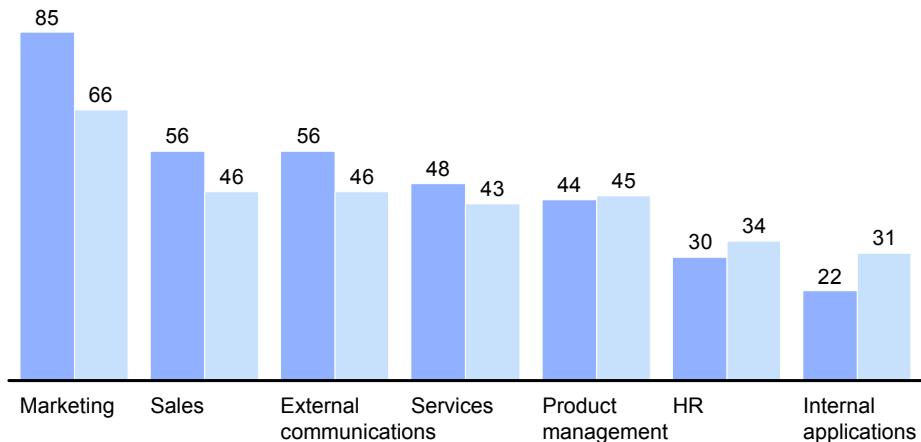
Social technology use varies by industry. Financial services, automotive, energy, and transportation companies are the most active users of social technology for internal communications and collaboration and in functions such as human resources (Exhibit 9).

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**Exhibit 9**
**Consumer and retail sectors lead in marketing and sales uses of social technologies; adoption in other areas is more even**

% of companies using social technology

Consumer goods and retail  
Other industries

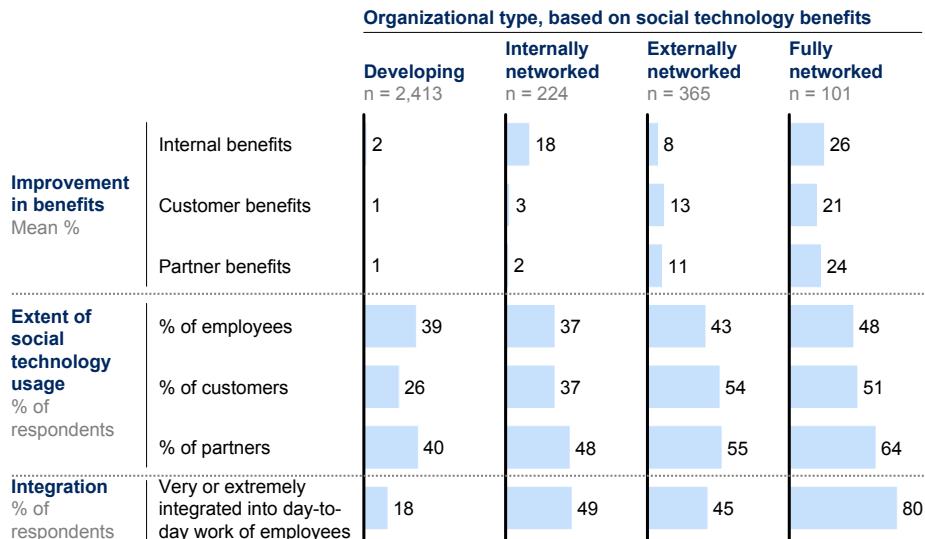


SOURCE: McKinsey Social Media Excellence Survey 2012

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Across industries, there is growing interest in social technologies as a means to improve the efficiency and effectiveness of internal operations, to better collaborate with outside partners, and to raise the productivity of interaction workers. Enterprises that have been successful in applying social tools have reported measurable business benefits (Exhibit 10). The data indicate that broad adoption by employees and integration into daily work flows are important drivers of value in enterprise applications: companies with a high percentage of employees who incorporated social technologies into their daily routines have shown the highest level of benefits. Furthermore, a small number of companies, which can be described as “fully networked,” are deriving outsized benefits from their use of these technologies to connect internal employees, customers, and business partners.

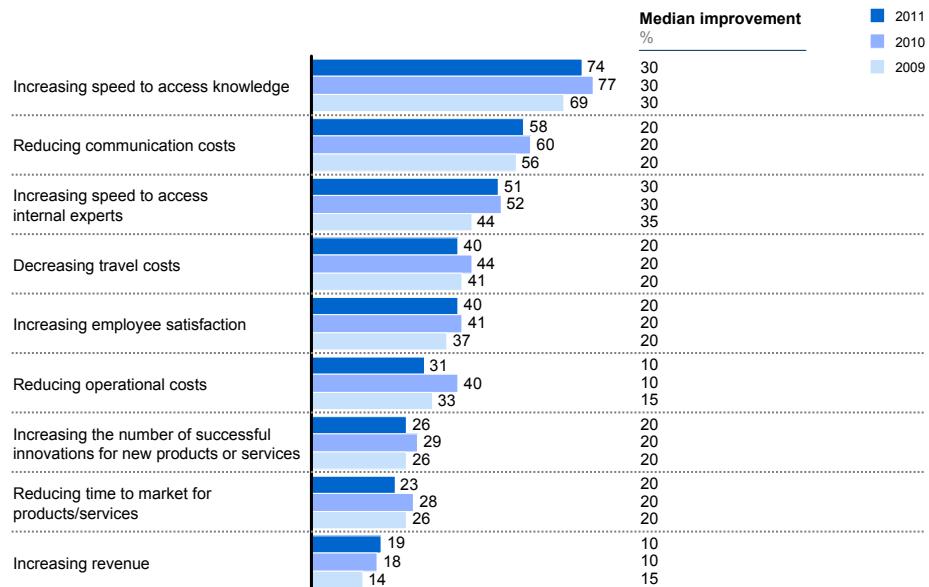
Companies have reported benefits from the use of social technologies for various internal purposes (Exhibit 11).

**Exhibit 10****How companies benefit from social technologies depends on how “networked” they are**

SOURCE: "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011

**Exhibit 11****Internal use of Web 2.0 applications has produced measurable gains**

% of respondents using Web 2.0 for internal purposes and reporting the following benefits<sup>1</sup>



1 Asked only of respondents reporting Web 2.0 use for internal purposes; 2009 responses recalculated to reflect only those respondents who are using at least one Web 2.0 technology. N = 2,051 in 2011, 1,598 in 2010 and 1,088 in 2009

SOURCE: "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011; "The rise of the networked enterprise," *The McKinsey Quarterly*, December 2010; "How companies are benefitting from Web 2.0," *The McKinsey Quarterly*, September 2009

One of the most powerful sources of value creation in the enterprise is substituting social technologies for conventional e-mail. IBM's "e-mail-less" man, Luis Suarez, for example, claims to have reduced his e-mail inbox by 98 percent while providing more room for interaction and knowledge dissemination by transferring his replies into the social sphere (see Box 3, "From e-mail to social media").<sup>30</sup> Similarly, Thierry Breton, the chief executive of IT services company Atos, is set to become e-mail-free internally by 2014 (see Box 4, "The 'zero e-mail' company").

### **Box 3. From e-mail to social media**

Returning from an offsite event in February 2008, IBM Software Group's knowledge management consultant, Luis Suarez, opened his e-mail inbox and saw more than 200 messages. This was his tipping point. An in-house expert on social software (he had been working on knowledge and sharing tools since 2001), Suarez knew that communicating on a social platform could allow him to eliminate e-mail from his life—or at least reduce his use of e-mail to the minimum.

Four years later, Suarez has reduced his use of e-mail by 98 percent; he now receives about 16 e-mails per week and uses IBM's internal social networks to extol the benefits of social technology-based communications. His first rule: stop responding to e-mail with e-mail. He estimates that an interaction worker can reduce e-mail volume by 80 percent simply by posting responses to queries on a social site, thereby eliminating all the follow-up questions, copying, and forwarding that multiplies e-mail traffic.

More importantly, Suarez notes, social communication does many things that e-mail cannot. Social platforms integrate multiple work routines and activities: he communicates easily with dozens of colleagues, posts entries to a wiki that consolidates important group knowledge, monitors ongoing discussions on topics of interest, shares files and pertinent content, adds to his blog, and reads colleagues' blogs. "The social platform allows our work to become observable; it provides more space to allow knowledge to spread freely and a richer room for interaction," he says.

Suarez sees two challenges in gaining the full benefit of social technologies for communication collaboration. First, more sophisticated and robust search engines are necessary for finding content and connections on social networks. Second, most organizations lack the top-down leadership to drive creation and use of collaborative, open, and transparent networks and communities.<sup>1</sup>

1 Interview with Luis Suarez, social computing evangelist, IBM, May 28, 2012.

30 Robert McMillan, "IBM gives birth to amazing e-mail-less man," *Wired*, January 16, 2012.

#### **Box 4. The “zero e-mail” company**

Thierry Breton, CEO of the French IT services company Atos, announced at the end of 2011 that his company will become “a zero e-mail company within three years.” His reason: the volume of e-mail that he and his employees have to deal with is unsustainable and harms the business. Breton estimates that managers spend between five and 20 hours a week reading and writing e-mails. On average, each of Atos’s 80,000 employees was receiving more than 100 e-mails per day, of which only 15 percent were deemed “useful.” By shifting communications to social platforms, François Gruau, senior vice president for business development and innovation, expects Atos staff to be “able to collaboratively process information with more focus, speed, and precision.”

Atos is counting on social technologies to improve collaboration and knowledge sharing. The company estimates that employees spend 25 percent of their time looking for information or expertise. So Atos is pushing employees to use a social community platform to share and keep track of ideas on subjects from innovation to sales. In the first few weeks after the initial announcement, these tools helped reduce e-mail volume by up to 20 percent.<sup>1</sup>

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1 BBC, “Atos boss Thierry Breton defends his internal e-mail ban,” December 6, 2011, and Stijn Phlix, “Company without e-mail,” *Smart Mobility Management*, Number 2, May 2011.

#### **ONLY A SMALL PORTION OF THE POTENTIAL VALUE OF SOCIAL TECHNOLOGIES HAS BEEN TAPPED**

Despite this rapid adoption of social technologies, far more growth lies ahead. Today, more than 80 percent of the world’s online population is interacting with social networks on a regular basis, but 65 percent of the world population—4.6 billion people—still lack Internet access.<sup>31</sup> In enterprises, there is still plenty of growth potential: although 62 percent of Fortune 500 companies use microblogging (e.g., Twitter) and 58 percent have a presence on social networks, only 23 percent have public blogs. Furthermore, 31 percent of Fortune 500 companies had no social media presence at all in 2011.<sup>32</sup> Moreover, adoption has been slower across most of the millions of smaller and midsize enterprises in advanced economies. Only 31 percent of SMEs in the United States were using social media in 2011, up from 24 percent in 2010 and 12 percent in 2009. The most commonly used social media sites are Facebook (27 percent) and LinkedIn (18 percent).<sup>33</sup>

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31 *ICT facts and figures*, International Telecommunication Union, 2011.

32 Nora Ganim Barnes and Justina Andonian, *The 2011 Fortune 500 and social media adoption: Have America’s largest companies reached a social media plateau?*, University of Massachusetts, Dartmouth, Center for Marketing Research, Charlton College of Business, 2011.

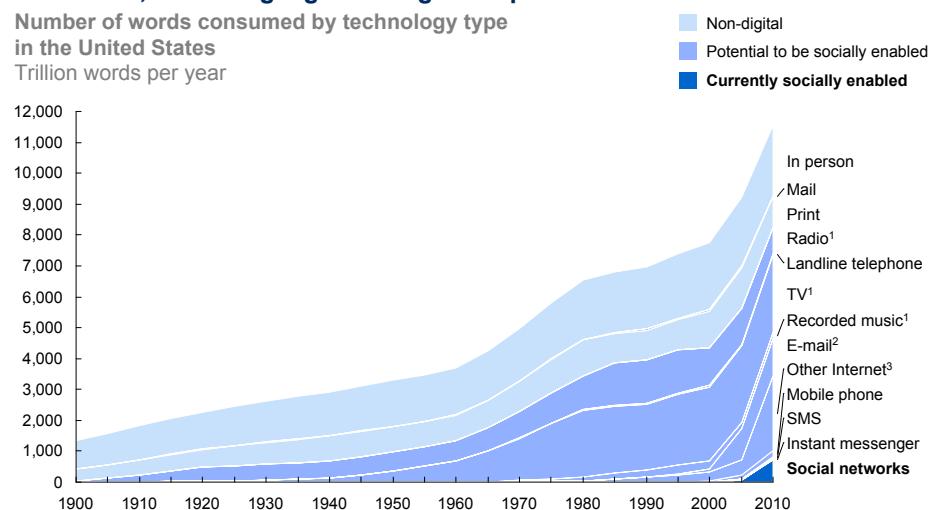
33 *The state of small business report: January 2011 survey of small business success*, Network Solutions LLC and Robert H. Smith School of Business at University of Maryland, 2011.

The benefits of social technology so far have been limited: only 3 percent of more than 4,200 companies in global McKinsey surveys could be identified as fully networked, which means that the enterprise is generating superior results from use of technology across all key stakeholder groups, both internal and external.<sup>34</sup>

Another measure of social technology's growth potential is how small the fraction of all communication that takes place on social networks is at this point. As Exhibit 12 illustrates, despite the millions of daily tweets, status updates, and content posts in the United States that are replacing e-mail, the share of messages that travel across social networks is small. Only 6 percent of the words consumed daily are via social networks, and time spent writing and reading social network messages is about 5 percent of overall messaging time (Exhibit 13).<sup>35</sup>

### Exhibit 12

#### Social technologies account for only a small share of communication and media use, indicating significant growth potential



1 Radio, TV, and recorded music are slightly discounted to account for the time spent using these concurrently with other media.

2 Does not include e-mail sent internally within companies (thus not creating Internet traffic).

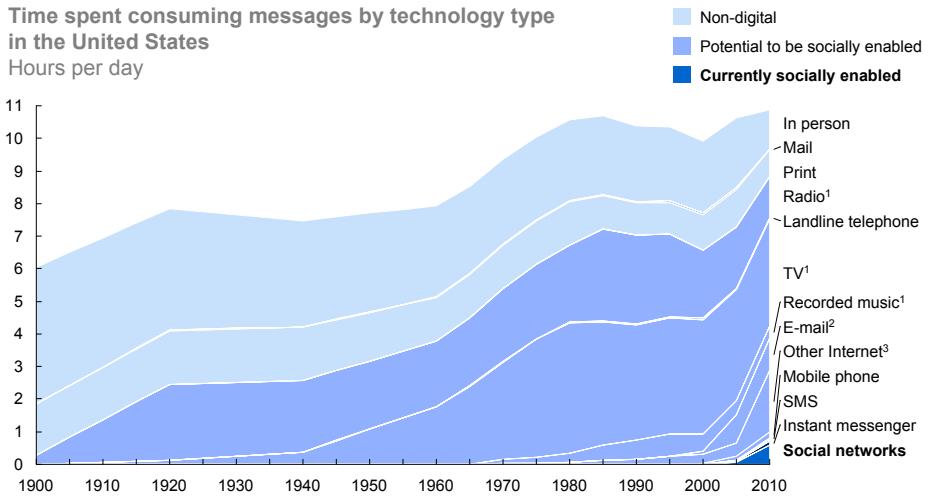
3 Includes all social technologies that cannot be explicitly separated in available data.

SOURCE: McKinsey Global Institute analysis

34 Jacques Bughin, Andy Miller and Michael Chui, "How companies are benefitting from Web 2.0," *The McKinsey Quarterly*, September 2009; Jacques Bughin and Michael Chui, "The rise of the networked enterprise: Web 2.0 finds its payday," *The McKinsey Quarterly*, December 2010; Jacques Bughin, Angela Hung Byers and Michael Chui, "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011.

35 The movements in these two graphs come mainly from the changes in radio and television. Use of radio grew rapidly through the 1920s, after which its penetration stabilized then rose in the 1980s with the introduction of new devices ("boomboxes" and portable personal receivers such as the Sony Walkman). Radio use then fell after 2000, as digital music began to replace radio. TV use grew rapidly from 1940 until 1980, then stabilized and began to fall in the 2000s, as viewers began to use multiple devices and paid less attention to TV; streaming video from the Web also made inroads. We make assumptions about words per minute and overlapping technology uses. For a full explanation of the model and sources, see "Consumption analysis methodology" in the appendix.

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**Exhibit 13**
**Social networking accounts for just 5 percent of the time spent communicating and consuming media**


1 Radio, TV, and recorded music are slightly discounted to account for the time spent using these concurrently with other media.

2 Does not include e-mail sent internally within companies, which is not counted as Internet traffic.

3 Includes all social technologies that cannot be explicitly separated in available data.

SOURCE: Bureau of Labour Statistics; WAN-IFRA; Statistical Abstracts; National Bureau of Economic Research; US Census Bureau; Radicati Group; Yankee Group; Nielsen; ITU; eMarketer; and others; McKinsey Global Institute analysis

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In the past five years, time spent on many traditional communications media such as print, radio, and TV has been falling, while time spent on social networks has grown. In addition to this continuing organic growth (on social platforms), the use of social technologies will rise as other media (TV, radio) gain social attributes and other forms of Internet activity, such as e-commerce, become more social as well. This would result in significant growth for social technology as it piggybacks on growth in currently non-social technologies while also expanding its share of communication time.

Another area that illustrates substantial room for additional impact is in influencing purchasing behavior on the “consumer decision journey” (i.e., the multiple touch points that affect purchasing behavior, such as consideration, purchase, and loyalty).<sup>36</sup> Across multiple categories, only a small set of consumers use social technologies to inform purchasing decisions. The category in which consumers are most likely to consult social sources is electronics, where 16 percent of consumers used social platforms to research products and find recommendations. This is small compared with the 46 percent who used non-social online sources such as company Web sites or ratings sites to shop for electronics. We estimate that a third of total consumer spending could become social,<sup>37</sup> and the trends from those who use social technologies suggest that such technologies can influence shopping decisions and habits greatly—up to \$940 billion of consumption in the United States and Europe alone. Of the 18 categories analyzed, the ones where online social influence is greatest also have the highest level of online sales. In the top three social categories—electronics, computer hardware and software, and mobile phones—about 30 percent of purchases are made online (Exhibit 14).

36 See David Court, Dave Elzinga, Susan Mulder, and Ole Jørgen Vetvik, “The consumer decision journey,” *The McKinsey Quarterly*, June 2009.

37 For a full description of the model, see “Share of social analysis methodology” in the appendix.

**Exhibit 14**

**Based on current patterns of adoption, “social shopping” could influence an additional \$940 billion in annual consumption**

United States and Europe, 2011

% of people influenced by each touchpoint

- Digital social
- Digital not social
- Offline WOM
- Other

Incremental influence potential  
for social technologies  
\$ billion

	Digital social	Digital not social	Offline WOM	Other	Incremental influence potential for social technologies \$ billion
Electronics	16	46	8	30	64
Computer hardware/software	15	44	11	31	49
Mobile phones	13	41	13	33	26
Large appliances	11	46	6	37	38
Video games	12	35	12	42	11
Furniture	4	38	10	47	118
Music	6	33	10	51	4
Tickets	5	27	15	53	19
Toys	4	30	11	54	16
Jewelry	4	29	9	58	28
Home improvement tools and products	5	24	8	63	41
Footwear	4	25	8	64	42
Clothing	3	26	7	65	206
Health and beauty products	4	22	8	67	73
Home décor, linens, and towels	2	22	8	68	14
Pets and pet supplies	3	17	7	73	13
Grocery	1	13	6	80	167
Household products	2	12	6	80	10
<b>Total</b>	<b>4</b>	<b>24</b>	<b>8</b>	<b>64</b>	<b>940</b>

NOTE: Excluded categories from iConsumer are flowers, DVD videos, office supplies, sporting goods, and auto parts. Countries included are United States, United Kingdom, Russia, Germany, Spain, Netherlands, France, Poland, and Italy.

SOURCE: Euromonitor; iConsumer; McKinsey Global Institute analysis

Measured by time, words, and purchase behaviors, the impact of social technologies remains far short of their potential impact, suggesting substantial room for growth. This potential for growth stems from the pervasive nature of social technology; unlike many earlier technologies, social technology is not an end product but an enabler that can be applied to almost any other technology. As technology is increasingly interwoven into most economic activity, and since most economic activity ultimately rests on some human interaction, there is little economic activity that lacks the potential to be “socialized.” Together, the small existing share of social interaction and the huge potential for social media in broader economic activity suggest that social adoption has barely begun to gain the scope and scale it could eventually attain.



## 2. How social technology creates value within and across industries

Businesses have just begun to understand the ways in which social technologies can create value. Our research suggests that there is a large untapped potential in using social technologies to improve communication, knowledge sharing, and collaboration. These social technologies of organizations could provide a new productivity boost among the high-skill interaction workers whose roles have been relatively untouched by productivity-enhancing technology, thus improving the performance of organizations, industries, and even national economies. At the same time, our research indicates that companies have only just begun to exploit the potential for value creation through use of social technologies in ways that are more well known today, such as connecting with consumers and B2B customers, and deriving deeper insights for product development or marketing.

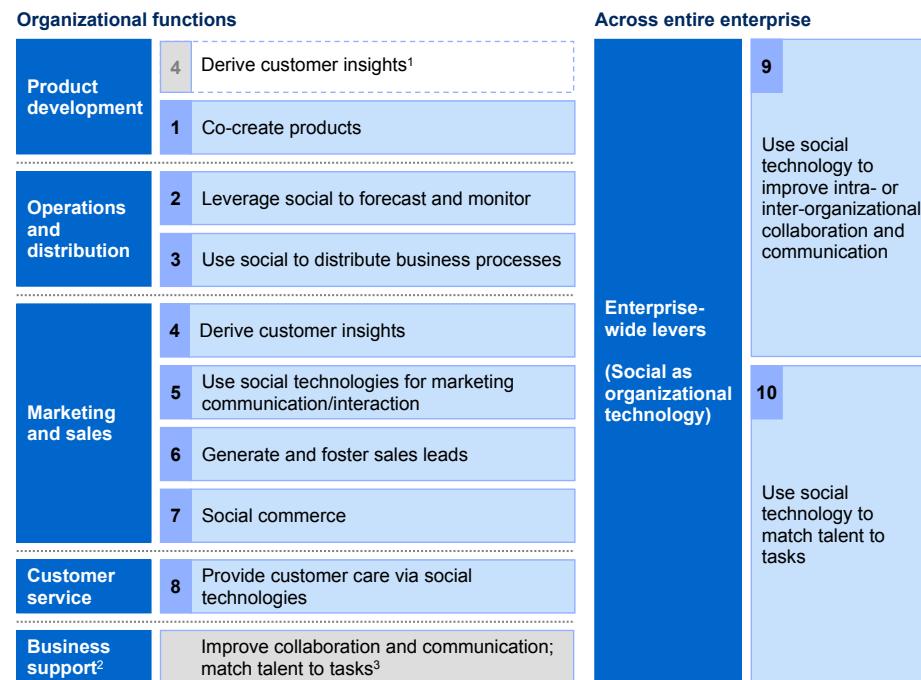
In this chapter, we examine sources of value from the use of social technology that will become more prevalent in the next decade. We first look at how value can be created through the application of social technologies across the value chain in various industries. We compare sectors based on the relative potential for value creation from social technologies, as well as the relative ease of capturing that value. We also show that there is an enormous potential for social technologies to improve the productivity of interaction workers, when accompanied by corresponding changes in management. We further demonstrate that individual end users are the prime beneficiaries of the value generated by social technologies. We enumerate some of the risks of social technologies, such as lost productivity and possible loss of confidential information and intellectual property. Finally, we examine four examples of industries in which social technologies have enabled the emergence of disruptive business models.

## TEN SOURCES OF VALUE CREATION ACROSS INDUSTRIES

We have identified ten value “levers,” or applications of social technologies, that enterprises use to generate value. As illustrated in Exhibit 15, eight of these levers apply to the four segments of the value chain: product development, operations and distribution, marketing and sales, and customer service. The other two levers are enterprise-wide and apply in every part of the organization, as well as across the value chain.

**Exhibit 15**

### Ten ways social technologies can add value in organizational functions within and across enterprises



1 Deriving customer insights for product development is included in customer insights (lever 4) under marketing and sales.

2 Business support functions are corporate or administrative activities such as human resources or finance and accounting.

3 Levers 9 and 10 apply to business support functions as they do across the other functional value areas.

SOURCE: McKinsey Global Institute analysis

### Product development

- **Co-creation.** Using social platforms, companies can tap a large community—not just their own R&D staffs—to solve product development problems, enabling them to tackle challenges that are too large for in-house resources. For example, in “crowdsourcing,” a broad spectrum of participants (the “crowd”) is solicited to submit ideas, which are then evaluated. In some cases, the crowd itself evaluates, comments on, or modifies the entries.<sup>38</sup> The process can also be broader—asking customers or other outsiders to contribute their own concepts or designs. For example, Madison Electric Products, an electrical supply company, launched a “Sparks Innovation Center,” the industry’s first crowdsourced, collaborative approach to product development. It invites users to submit new product ideas, the best of which are reviewed by a focus group. The products that the focus groups approve move ahead. In its first year, the center generated almost 100 submissions

38 See McKinsey Social Sector Practice, *And the winner is ... Capturing the value of philanthropic prizes*, 2009.

and nine new products.<sup>39</sup> Nonprofit organizations are also using crowds. More than 5,000 young people participated in CrowdOutAIDS, a project initiated by UNAIDS, the Joint United Nations Programme on HIV/AIDS. Using social tools, participants helped craft six key recommendations to shape the UNAIDS Secretariat's work on HIV and young people until 2015.<sup>40</sup>

Valuable input into the product design process can also be provided by customer insights derived from analyzing data from customer interactions using social technologies, or even by interacting directly with customers using social technologies. We've described this lever in the Marketing and Sales section below, where it also applies.

## Operations and distribution

- **Demand forecasting.** Social technologies multiply the potential sources of information about demand, adding another level of granularity to improve distribution efficiency and responsiveness.<sup>41</sup> Based on information shared on social networks by customers or people in the distribution network (e.g., retail store staff), suppliers can respond to very localized variations in demand and detect stock-outs earlier. Companies can use information derived from social platforms to improve inventory control; government agencies, such as the US Department of Homeland Security, feed social data into emergency management plans, using input from social networks to guide deployment of first responders.<sup>42</sup> The monitoring of social buzz can also function as an early warning system for infectious disease outbreaks. According to an analysis of the 2010 Haitian cholera outbreak, the volume of informal reports from sources such as microblog entries about neighborhood outbreaks correlated with official case data, but were available up to two weeks earlier.<sup>43</sup>
- **Distributing business processes.** Some organizations are using social platforms to engage outside and assign work to third parties. Amazon.com developed a system called the Amazon Mechanical Turk (MTurk), initially to find people who would scan millions of pages of product descriptions to eliminate duplicates. The system was so successful that Amazon has turned this into a service that now annually connects almost 10,000 employers, including academic researchers, with workers.<sup>44</sup> Google is using a similar process to update Google Map Maker in 190 countries.<sup>45</sup> Mapping companies TomTom, and Navteq also solicit input from Web users to locate and qualify mapping

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39 Kalypso LP, Spike Awards 2011.

40 "Young people present first-ever 'crowdsourced' recommendations for AIDS response in UN history," UNAIDS press release, April 24, 2012.

41 Some economists have described the ability to immediately use real-time information as "nowcasting," in contrast with forecasting.

42 Erin Skarda, "How social media is changing disaster response," *Time*, June 9, 2011.

43 Rumi Chunara, Jason R. Andrews, and John S. Brownstein, "Social and news media enable estimation of epidemiological patterns early in the 2010 Haitian cholera outbreak," *American Journal of Tropical Medicine and Hygiene*, Volume 86, Number 1, 2012.

44 See Panagiotis G. Ipeirotis, "Analyzing the Amazon Mechanical Turk marketplace," *XRDS: Crossroads, The ACM Magazine for Students*, Volume 17, Number 2, 2010.

45 Google, "Countries and regions being mapped" (as of June 2012), retrieved from <http://www.google.com/mapmaker/mapfiles/s/launched.html>.

errors and test feature updates for their road network databases.<sup>46</sup> In addition, TomTom has started integrating crowdsourced real-time traffic flow data in its service.

## Marketing and sales

- **Market research and customer insights.** Social technologies can be used to gather insights about products and brands, opinions about competitors, and perceptions of market segments. These insights can be used as input for product requirements and design, advertising campaigns, pricing, packaging, and other marketing and product development activities. One approach involves “listening” to and analyzing interactions and conversations on social technology platforms. This is sometimes described as “sentiment analysis.” Analyzing the interactions on social platforms can provide unprompted feedback on campaigns and help assess general brand health. Companies can also monitor social chatter to track competitor moves, and thus adjust or phase their own marketing campaigns. In addition to passively listening and analyzing social interactions, companies can engage directly with customers in online forums and communities and ask members for feedback.
- **Marketing communication/interaction.** Social technologies offer a way to achieve efficient distribution of messages, i.e., communicate directly with customers at very low costs and with highly targeted messages and content, such as special pricing or other promotions for certain customers and markets. They offer more ways to create more engagement with customers, e.g., to promote certain products, through interactive media such as social games. Additionally, they can be used to build customer communities, which can be tapped for marketing and product development. In this role, social media helps customers to communicate with one another, in a way in which companies can actively or passively participate. The number of online customer communities continues to grow and ranges from Adobe’s forums, which have more than one million members, to SC Johnson’s Right@Home platform, which promotes products via articles and information relating to topics around the house.

Using social technologies to deliver marketing messages and to generate customer interactions and engagement is still a relatively new field. For all the many successes described in this report, not every campaign is successful. Marketers have learned that creative ideas that are executed well and based on a quality product or service offering are essential in social media campaigns. They are also beginning to develop social technology-specific metrics that will help them gauge returns on social technology investments and the effectiveness of individual campaigns. They also note that effective campaigns often integrate efforts across multiple channels, including both social and mass media.

- **Lead generation.** Information from social technology platforms can provide leads for both consumer and B2B marketers. Consumers using social technology, for example, often share news about life events—marriage, the birth of a child, or a new job—that typically signal sales opportunities for financial services companies. Insurance agents have created local business

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46 David J. Coleman, Yola Georgiadou, and Jeff Labonte, “Volunteered geographic information: The nature and motivation of producers,” *International Journal of Spatial Data Infrastructures Research*, Volume 4, 2009.

pages on Facebook to connect with customers and prospects. By monitoring the posts of their Facebook connections, the agents can reach out with a tailored offer when a life event occurs. By building social capital online (e.g., by contributing content that enhances their credibility), sales reps can convert contacts into leads. In B2B businesses, sales agents can collaborate with one another through social technologies to improve cross-selling, build referrals, and research relevant contacts in new prospect companies. Specialized professional networking services can prove particularly helpful to navigate complex customer organizations and to identify sought-after decision makers.<sup>47</sup>

- **Social commerce.** Social technologies can facilitate transactions by adding a purchasing function to a seller's social platform or by adding social features to an e-commerce site, for example, suggesting products that were bought by members of the shopper's online social groups. For example, the Levi's Friends Store allows visitors to sign in with their Facebook accounts to see what products their friends liked and recommend certain products to certain friends, thus recreating online parts of the social experience of going shopping with friends.

### **Customer service**

- **Customer care.** Social technologies can improve customer service in several ways. A social platform can act as a dedicated customer service channel, taking on some of the work usually performed on the phone by call centers (e.g., answering routine questions about product features). Answers become part of a growing, searchable database that can include knowledge. Some companies let product or brand enthusiasts answer queries, and these answers can sometimes be rated by users. The Finnish insurer If recruits enthusiastic customers to be featured on the company home page and pays for their support. German mobile phone service provider EPlus has a social site where users voluntarily help answer each other's service questions.

Social technologies also give companies a way to listen to customer conversations, identify customer service issues, and act on them before they harm sales or reputations. When filmmaker Kevin Smith used his Twitter account to rant about being removed from a Southwest Airlines flight because he is too large to fit in a single seat and a second seat was not available, the carrier responded immediately with tweets of its own, apologizing and offering a refund to Smith, thereby defusing what could have become a much more negative situation.<sup>48</sup>

### **Enterprise-wide levers**

- **Collaboration and communications.** The social technologies of organizations have significant potential to improve organizational performance by streamlining communications and improving collaboration (both internally within the enterprise and with outsiders). Social tools can be used to facilitate collaboration and co-creation, reduce the time spent in unnecessary in-person meetings, and help share internal knowledge and best practices. Companies

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47 Clara Shih, *The Facebook era: Tapping online social networks to build better products, reach new audiences, and sell more stuff* (Boston, MA: Prentice Hall, Pearson Education, 2009).

48 Pete Cashmore, "Southwest tweets, blogs apology to Kevin Smith," Mashable.com, February 14, 2010.

can use social enterprise tools to “onboard” new employees and to integrate contractors and outside partners into teams.

Furthermore, social technologies can enable communication and collaborative work across dispersed locations. From almost any location, employees can initiate projects, form teams, and complete their tasks, all while being able to connect a face to a name for more “human” contact. Software vendors have continued to develop tools for creating internal social networks and to facilitate group collaboration. One service enables internal subscribers to see and listen to past meetings via podcasts. Other tools facilitate the creation of wikis and blogs to let employees contribute content, such as news or guidelines for specific roles. Collaboration tools enable team members to share knowledge, work on documents simultaneously, and communicate with remote team members, contractors, or clients. The health insurer Humana uses a social media tool that lets employees post what-if scenarios and discuss with colleagues the business impact of various decisions.<sup>49</sup>

Gamification, the use of features of games to enhance online engagement, is another way social technologies can encourage increased collaboration. For example, Rypple, a Web-based performance management program, allows managers and coworkers to create “badges” to recognize and thank colleagues for their work. The creator of a badge determines what skill or job it represents and how exclusive it is (i.e., how many can be given out). Badges are displayed on employee profiles, providing employees with public recognition of their achievements, and encouraging competition for the most recognition.

- **Matching talent to roles.** Social technology provides a window into the labor market to determine what skills are available and allowing businesses to discover the competencies of specific candidates. By studying content added by a candidate on a professional networking site such as LinkedIn, assessing (and accessing) the connections the person has made available, and the recommendations garnered, a potential employer can create a detailed picture of a prospective candidate. Internal social networks can provide similar insights. Chemicals maker BASF uses information about employees on its connect.BASF network to identify candidates to staff projects or to provide a quick answer to an obscure question.<sup>50</sup> Resumes and profiles on these services may be more current, because users are encouraged to visit these sites frequently, and additional insight can be derived from the connections that people reveal through their social graphs. The widespread distribution of such services and automated analytics can enable “passive job-searching” (i.e., the ability to identify attractive candidates, even when candidates aren’t actively job hunting).

## VALUE CREATION ACROSS INDUSTRIES

We find that substantial value potential from using social technologies across the value chain in the four sectors we analyzed in detail (consumer packaged goods, consumer financial services, professional services, and advanced manufacturing)

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49 Arthur L. Jue, Jackie Alcalde Marr, and Mary Ellen Kassotakis, *Social media at work: How networking tools propel organizational performance* (Hoboken, NJ: John Wiley & Sons, 2009).

50 Cordelia Krooss and CheeChin Liew, “Connect.BASF—Creating chemistry with an online business network,” May 23, 2012, based on presentation at DMMK Congress, November 2011.

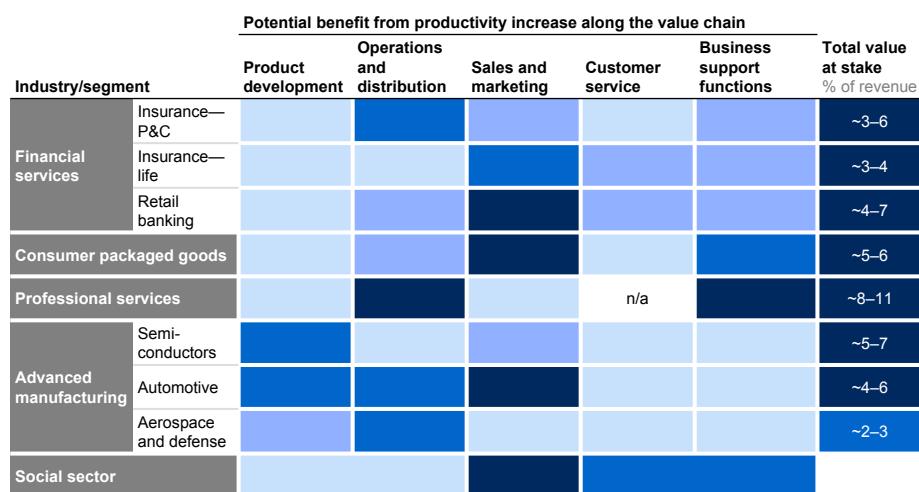
plus the social sector. We synthesize the overall findings from these five analyses here and describe the detailed findings in chapter 3. Exhibit 16 summarizes potential to create value through the use of social technologies in different subsectors as measured by overall margin improvement at the corporate level. Exhibit 17 shows potential value from the use of social technologies, expressed as a percentage of the cost base in different business functions and value chain elements.

### Exhibit 16

#### Potential of social technologies to improve margins across the value chain in major sectors of the economy

Percentage points margin potential<sup>1</sup>

<0.5  
0.5–1.0  
1.0–2.0  
>2.0



1 Margin for the social sector is expressed as a percentage of costs.

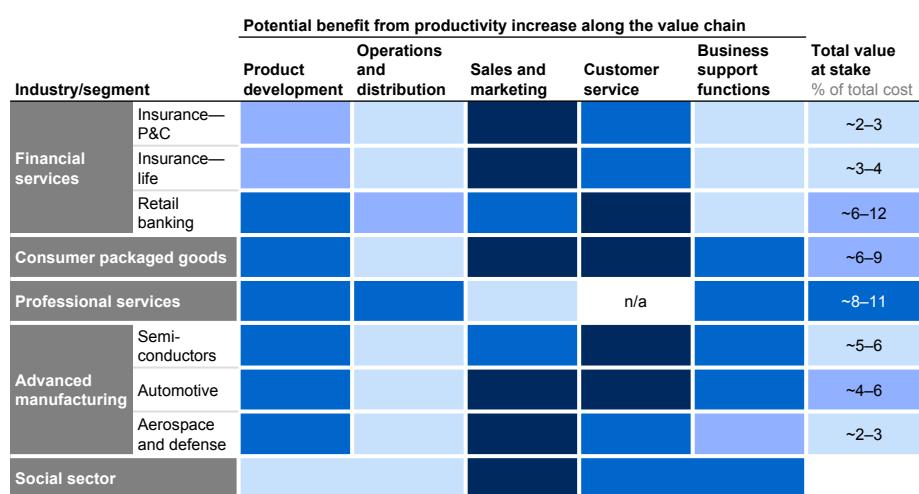
SOURCE: McKinsey Global Institute analysis

### Exhibit 17

#### Potential of social technologies to improve productivity at different points in the value chain in major sectors of the economy

% of cost base in each value chain step

1–5  
5–10  
10–20  
>20



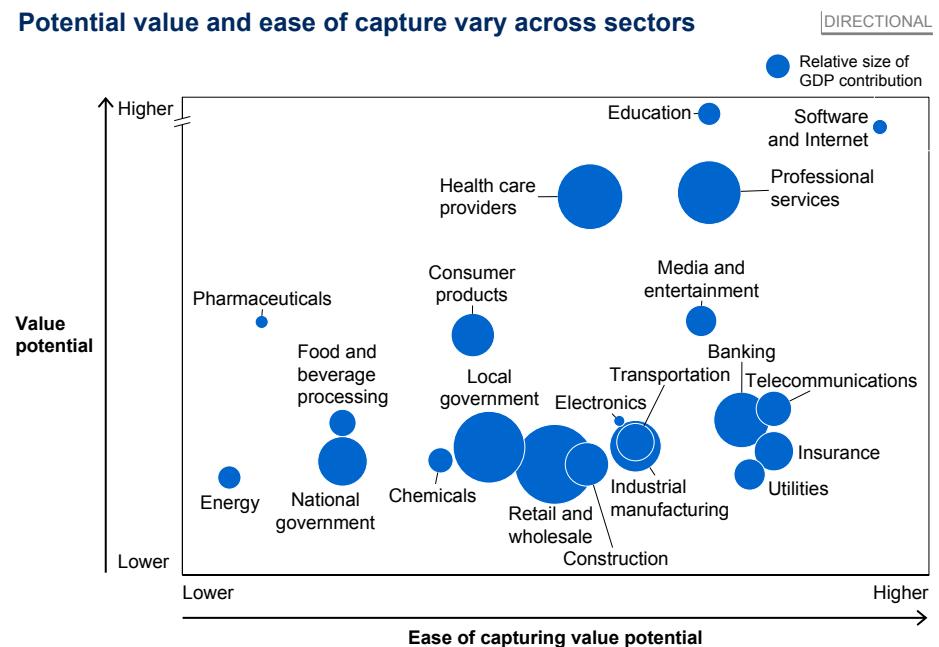
SOURCE: McKinsey Global Institute analysis

Consumer-facing industries, such as retail financial services, autos, and consumer packaged goods, have the highest potential to benefit from social technologies in sales and marketing, where they can greatly enhance interactions with consumers. Professional services, with its legions of interaction workers, has the most to gain through improving collaboration among employees. We observe that the core benefits of social technologies in professional services are in “operations” of professional and support staffs. In complex manufacturing, such as the semiconductor, automotive, and aerospace sectors, the greatest potential benefits come in product development and operations, where much of their interaction work takes place. The social sector can benefit from closer interactions with donors, volunteers, and beneficiaries.

While studying each of these industries in detail, we also sought to provide a broader view across other sectors, in terms of the value creation potential and its ease of capture. Using proxies for these dimensions, we developed a directional perspective for sectors across the economy (Exhibit 18).

**Exhibit 18**

**Potential value and ease of capture vary across sectors**



SOURCE: McKinsey Global Institute analysis

To gauge the relative value creation potential of social technologies in any particular industry, we used proxy measures for the degree to which interactions could be enhanced through the application of social technologies across the value chain.<sup>51</sup> Generally, we found that knowledge-intensive industries have the greatest potential to create value from the use of social technologies. Sectors that have a high concentration of interaction workers and sectors that have frequent interactions with large numbers of customers have a high potential for value creation. Industries that are more capital-intensive and where a large share of

51 Details can be found in the “Construction of indexes on value potential and ease of capture” section in the appendix.

workers are not engaged in interaction work, such as in construction or utilities, will likely realize smaller returns from investment in social technologies.<sup>52</sup>

The ease of value capture also varies according to the nature of the organization. Our research suggests that organizations with cultures compatible with these technologies (being externally oriented and innovative), that have policies that allow information and content to flow freely, and have made significant technology investments will find it easier to capture value from applying social technologies. Industries with high relative ease of value capture from social technologies include information services, telecommunications, finance and insurance, and professional services.<sup>53</sup>

## SOCIAL TECHNOLOGIES AS A SOURCE OF BIG DATA: VALUE DERIVED BY ANALYZING SOCIAL DATA

While many of the benefits of social technologies arise directly from the interactions among people and organizations that these tools enable, a tremendous amount of additional value can be created by analyzing the data generated by these interactions (see Box 5, “Using Twitter to predict stock market moves,” and Box 6, “Using social media to predict social unrest”). In fact, unstructured data generated by the use of social technologies are leading examples of the real-time data streams that fall under the “big data” trend.<sup>54</sup> Social data streams are huge: Twitter generated 10 terabytes per day in 2010. Facebook generated 25 terabytes per day in 2009 in log files alone.<sup>55</sup> And Zynga, the social gaming company, was generating 1 petabyte (1,000 terabytes) of data per day in 2010.<sup>56</sup>

Plowing through this volume of unstructured data requires sophisticated analytics and natural-language programming; the computer must not only scan every word to find mentions of a particular brand, but also must have the linguistic rules to interpret whether the mention was really about the brand and whether the sentiment expressed is positive or negative, strong or weak. This is a challenging computational problem, given the variety and subtlety of natural human language.

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52 Interaction workers include professionals, managers, salespeople, and other business occupations that require complex interactions with other people, independent judgment, and access to information. They perform work that is not standardized, difficult to automate, and often requires extensive education and training. Transaction workers process information or conduct repetitive transactions that have the potential to be automated (e.g., retail cashiers, bank tellers, and clerks). Production workers perform physical work to convert materials from one state to another or assemble finished goods and components (e.g., factory and construction workers).

53 We measure the ease of capture by equally weighing industry scores on openness, culture, and technology aptitude. Further details on the ease of capture index methodology can be found in the appendix section, “Construction of indexes on value potential and ease of capture.”

54 “Unstructured data” are those that do not easily fit into predefined fields, or into the rows and columns of relational databases. See *Big data: The next frontier for innovation, competition, and productivity*, McKinsey Global Institute, May 2011 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

55 Raffi Krikorian, “Twitter by the numbers,” @TwitterU, presentation at the University of California, Berkeley, September 9, 2010. See also Jeff Rothschild, *High performance at massive scale: Lessons learned at Facebook*, CNS Lecture Series, October 8, 2009.

56 Andrew Keen, *Digital vertigo: How today's online social revolution is dividing, diminishing, and disorienting us* (New York: St. Martin's Press, 2012).

### **Box 5. Using Twitter to predict stock market moves**

In a 2011 paper published in the *Journal of Computational Research*, researchers reported improving prediction models of Dow Jones industrial average (DJIA) closing values by adding a public mood variable that was calculated using content from Twitter feeds.<sup>1</sup> They found that certain changes in the public mood correlate with shifts in the DJIA values that occur three to four days later. Adding this social data into the model improved model accuracy from 46.7 percent (using only historical DJIA values) to 86.7 percent. While these findings have generated some controversy, it is clear that social big data analyses have implications for tracking sentiment and conducting market research. Most “self-reported subjective well-being” surveys are expensive and time-consuming. But public mood analysis using microblog feeds can provide automatic, fast, free, and large-scale information to complement sentiment measurement tools.

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1 Johan Bollen, Huina Mao, and Xiaojun Zeng, “Twitter mood predicts the stock market,” *Journal of Computational Science*, Volume 2, 2011.

### **Box 6. Using social media to predict social unrest**

Revolutions are among the most complex and volatile social phenomena that social scientists attempt to understand. Now, because of social media, these scientists have petabytes of data that can help show how a movement like the Arab Spring spreads and builds.<sup>1</sup> Using data visualization tools, they can find patterns and relationships that help identify the ideas that drive activity. They can even do this in real time. An example is the UN Global Pulse program, launched after the 2008 global financial crisis to collect, analyze, and visualize social media data that can be used to identify potential areas of trouble. Its techniques are based on those developed for tracking disease outbreaks.

When Liberian elections were scheduled in 2011, the Ushahidi crisis information crowdsourcing service created a Web site that tracked potential disturbances. This replicated—in real time—what it had taken researchers from Yale University two years to accomplish in Liberia. In 2009 and 2010, a team from Yale and Innovations for Poverty Action collected data via surveys from almost 1,000 local leaders and more than 9,000 community members in 247 towns and villages. The information—similar to the kind of sentiment data detectable from social media postings—was used to build a prediction model that relied on fewer than ten risk factors. The model was able to predict up to 75 percent of all conflicts two years in advance, validating the value of sentiment surveys to anticipate social unrest.<sup>2</sup>

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1 Luke Allnutt, “Pictures at a Revolution,” *Foreign Policy*, April 11, 2012.

2 Robert Blair, Christopher Blattman, and Alexandra Hartman, *Patterns of conflict and cooperation in Liberia (Part 2): Prospects for conflict forecasting and early warning*, Yale University and Innovations for Poverty Action, 2011.

As social technologies and big data both continue to grow, these examples illustrate how powerful their combined benefits could be.

## POTENTIAL TO UNLOCK VALUE WITHIN AND ACROSS ENTERPRISES

The largest source of value that we identified is using social technologies for interactions within and between enterprises (i.e., the social technologies of organizations). We estimate that social technologies, when accompanied by significant management, process and cultural transformations, could improve the productivity of “interaction” workers by 20 to 25 percent. These productivity benefits in collaboration, coordination, and communication account for two-thirds of all of the potential benefits of social technologies in the sectors we studied. Our estimates of total potential value should not be interpreted as projections. These figures are based on best-case scenarios and assume that organizational structures, processes, practices and culture can be transformed to fully take advantage of social technology innovations on a large-scale basis.

### Current level of benefits

Most companies have begun to use social technologies, but the vast majority use them in limited ways and thus derive limited value. According to a McKinsey survey, almost 80 percent of corporations that use social technologies are still “developing,” meaning they are reporting a low level of benefits from their use of social technologies to interact with employees, customers, and business partners.<sup>57</sup> Only about 3 percent of the surveyed companies could be categorized as “fully networked,” defined as those that gain substantial benefits from using social technologies to interact with all three stakeholder groups. Fully networked enterprises not only have implemented social technologies more broadly, but also have worked on the organizational changes that are needed to make new approaches to communicating and collaborating successful, including incorporating the use of these tools into employees’ day-to-day work flows.

### Importance of interaction work

Interaction workers—employees whose work requires complex interactions with other people and independent judgment—are the fastest-growing category of employees in advanced economies.<sup>58</sup> This group includes professionals such as lawyers and engineers, managers, salespeople, and a range of other knowledge workers. Most of these positions require more education and training than other jobs, which is reflected in higher compensation. Despite their numbers and value, relatively little progress has been made in using IT to improve the productivity of these interaction workers, compared with the much larger gains seen in using IT to improve the productivity of physical work (e.g., through supply chain management and factory automation) or transaction work (e.g., ATMs in retail banking and self-checkout in retail). Furthermore, previous research has found that the greater the relative percentage of interaction workers in an enterprise, the

57 Jacques Bughin, Angela Hung Byers, and Michael Chui, “How social technologies are extending the organization,” *The McKinsey Quarterly*, November 2011.

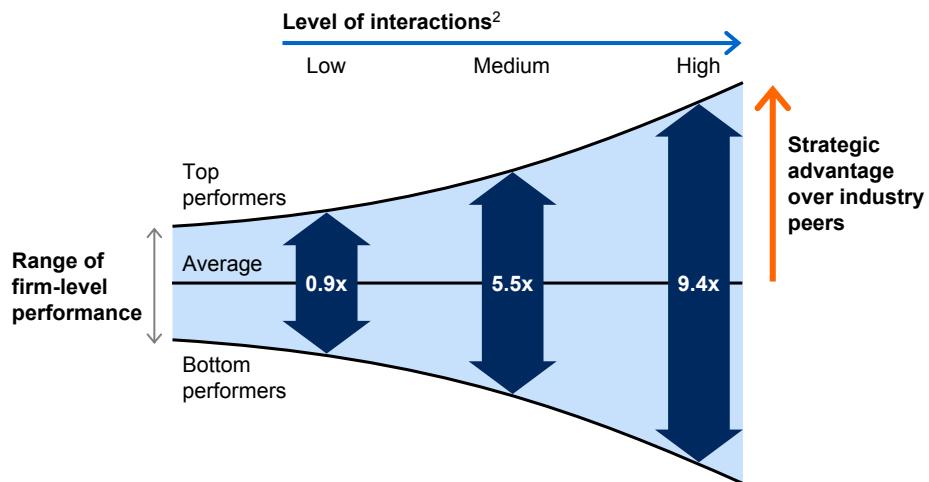
58 See Scott Beardsley, Bradford C. Johnson, and James Manyika, “Competitive advantage from better interactions,” *The McKinsey Quarterly*, May 2006; Bradford C. Johnson, James M. Manyika, and Lareina A. Yee, “The next revolution in interactions,” *The McKinsey Quarterly*, November 2005; and Patrick Butler, Ted W. Hall, Alistair M. Hanna, Lenny Mendonca, Byron Auguste, James Manyika, and Anupam Sahay, “A revolution in interaction,” *The McKinsey Quarterly*, February 1997.

more competitive it is within its peer group, suggesting that solving the challenge of making interaction workers more efficient and effective could be a powerful competitive weapon (Exhibit 19).<sup>59</sup>

### Exhibit 19

#### **Companies with higher volumes of interactions outperform industry peers**

Variation in firm-level performance<sup>1</sup>



1 Defined as the ratio of standard deviation to mean for EBITDA per employee within each industry.

2 Low is less than 14 percent interaction workers on payroll, medium is 14 to 62 percent, high is more than 62 percent.

SOURCE: Compustat; McKinsey Global Institute analysis

### Social collaboration

We estimate that implementing social technologies, along with innovations in management practices and cultural changes, has the potential to raise the productivity of interaction workers by 20 to 25 percent.

Social technologies address the most important aspects of an interaction worker's job. Typically, such a worker spends 65 percent of a workday collaborating and communicating with others. This includes 28 percent of work time reading, writing, or responding to e-mail, and 19 percent of working hours trying to track down information needed to complete tasks.<sup>60</sup>

For example, shifting communication from a medium optimized for one-to-one communication (e.g., conventional e-mail) to social platforms can increase efficiency in several ways. Not only are messages conveyed more rapidly across the organization, but they are also searchable and accessible by many people. So, for example, a financial analyst looking for the information on a specific topic—say, the latest interest rate forecast for an overseas sales region—can search the company's internal social network for mentions of those data, rather than initiating a long search by e-mail to find out who has the data. Or, a new employee or a new member of a team can quickly get up to speed by reviewing postings by colleagues.

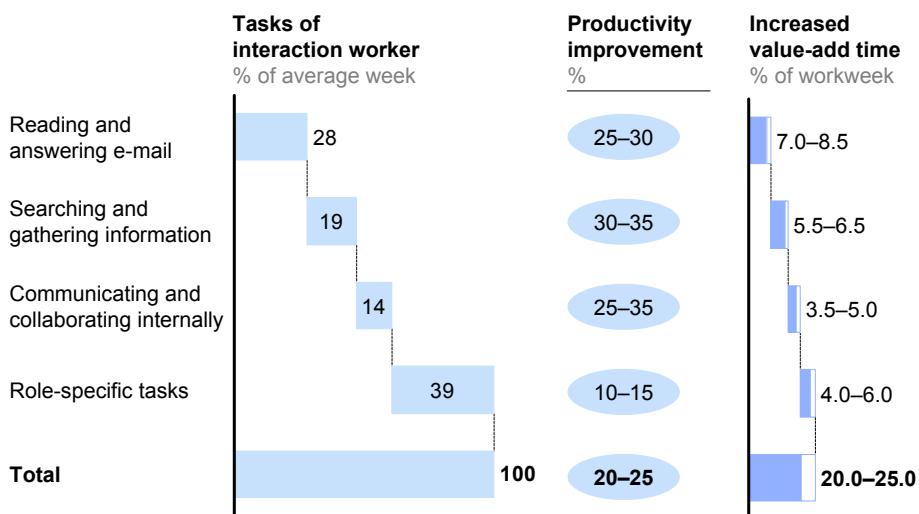
59 Scott Beardsley, Bradford C. Johnson, and James Manyika, "Competitive advantage from better interactions," *The McKinsey Quarterly*, May 2006.

60 McKinsey Global Institute analysis based on proprietary McKinsey data and Susan Feldman, *Hidden cost of information work: A progress report*, International Data Corporation, May 2009.

As Exhibit 20 shows, based on a broad set of case examples, we estimate that 30 percent of current total e-mail time could be repurposed by moving communication to a social collaboration platform, freeing up 8 percent of the workweek for more productive activities.<sup>61</sup> We estimate that having access to a searchable store of social messages could reduce information searching time by as much as 35 percent, which would return 6 percent of the workweek to the typical interaction employee.<sup>62</sup> With additional time savings for collaboration and tasks such as communicating and seeking information (e.g., e-mail, internal and external information searches), we estimate that social technologies could yield productivity improvements in the range of 20 to 25 percent.

### **Exhibit 20**

#### **Improved communication and collaboration through social technologies could raise productivity of interaction workers by 20 to 25 percent**



SOURCE: International Data Corporation (IDC); McKinsey Global Institute analysis

We recognize that this level of productivity improvement does not come about simply by deploying new technology. It will require both a successful implementation of the appropriate tools, and, more importantly, climbing a steep organizational learning curve: changes in processes, organization, mindsets, and behaviors will be needed to build up habits of open communication and information sharing, particularly when ideas and knowledge must flow across functional silos. As Unisys, a computer services company, has learned, for these benefits to flow, employees must be convinced that there is value for them in the new behaviors, too (see Box 7, “Making a productivity tool work by proving its value”).

61 The time reduction per activity has been derived from multiple interviews with users and providers of enterprise collaboration tools that incorporate social elements. See “Collaboration analysis methodology” in the appendix for additional detail.

62 Corporate knowledge management systems have had a mixed record. Implementation and overhead costs were high and the amount of knowledge captured was limited. Social technologies, which capture the informal knowledge that is made available through natural communication, may be more successful. Social technologies generate their own emergent structures rather than relying on preset templates and replace rigid taxonomies with terms that employees actually use—so-called “folksonomies.”

### Box 7: Making a productivity tool work by proving its value

Unisys, which designs and builds “mission-critical” computing environments, has made a significant commitment to using social technologies to share knowledge and improve collaboration among its 20,000 global employees. More than 16,000 employees have joined the company-wide employee social site, and more than 6,400 engineers, programmers, and other specialists have joined ten “communities of excellence” social sites. On these sites, employees can share technical challenges that they are having trouble solving, answer questions from other colleagues, and post content. This is where technical workers go when they want to find the right information and expertise to “get things done,” says Gloria M. Burke, director of knowledge and collaboration strategy and governance.

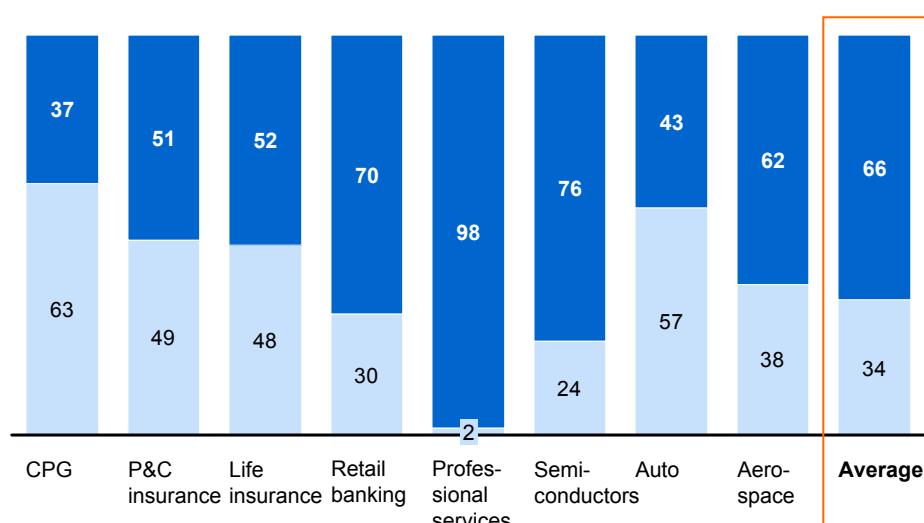
Burke attributes the success of the Unisys sites to the enthusiasm of community members. This, she emphasizes, was not left to chance. Unisys employees have come to rely on their sites because they there are clearly defined benefits, the most important of which is that using the site helps employees work more efficiently. As employees recognize the benefits and share their enthusiasm, more colleagues engage and the value of the site multiplies. Unisys also makes sure that the sites remain lively and engaging, by assigning “community managers” to capture and repurpose success stories, drive membership, increase adoption, and validate business value.

Looking across the sectors we studied in depth, the percentage of potential social technology benefits that are associated with improved enterprise collaboration varies from 25 percent in consumer packaged goods, where much of the value is concentrated in consumer marketing, to 99 percent in professional services, where essentially all of the benefits come from improving the productivity of the knowledge workers who are the productive assets of these firms (Exhibits 21 to 25).

#### Exhibit 21

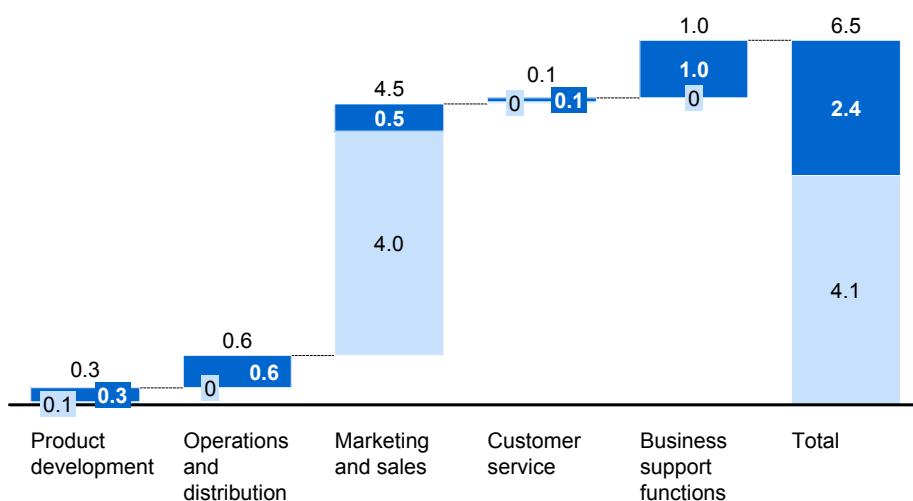
##### Value available through collaboration and other benefits of social technologies varies across industries

%



**Exhibit 22****How social technologies can contribute to margin improvements in consumer packaged goods**

Percentage points

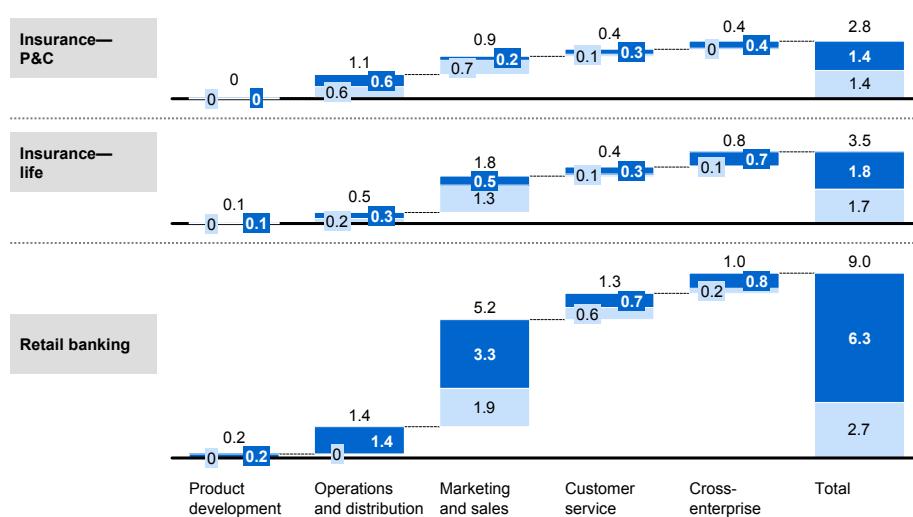


NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

**Exhibit 23****How social technologies can contribute to margin improvements in consumer financial services**

Percentage points

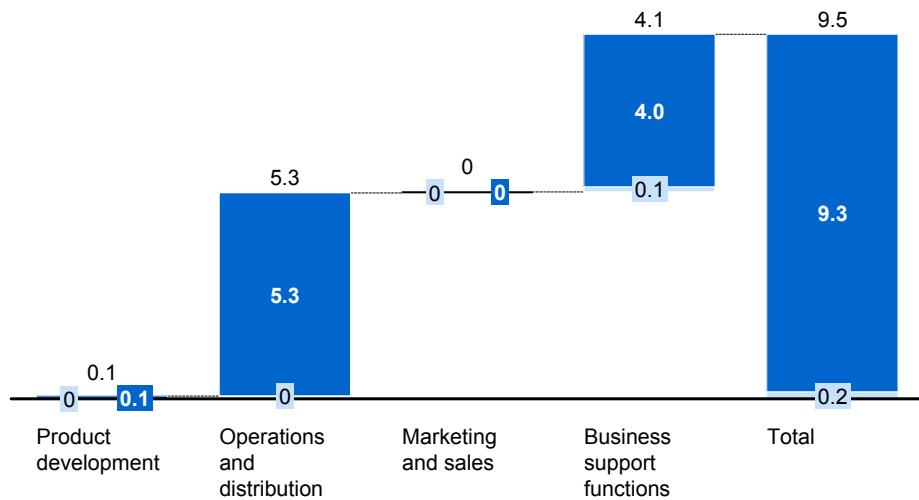


NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

**Exhibit 24****How social technologies can contribute to margin improvements in professional services**

Percentage points

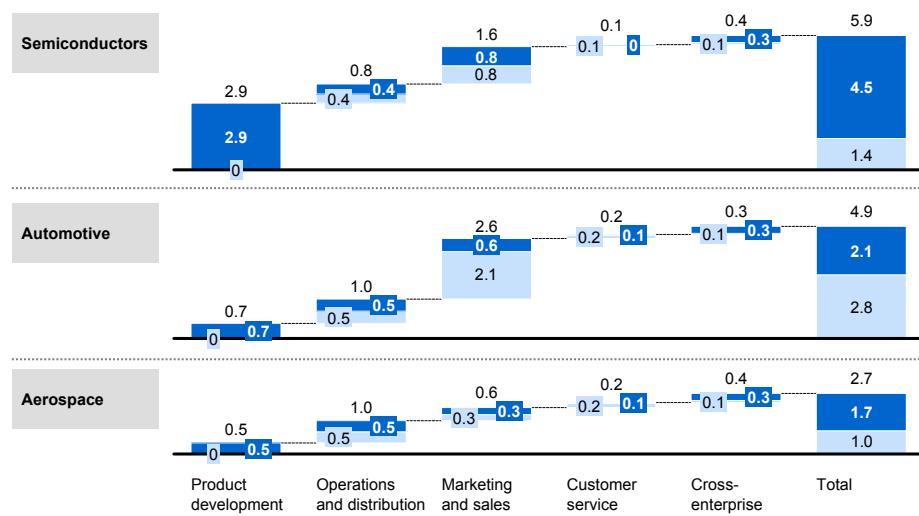


NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

**Exhibit 25****How social technologies can contribute to margin improvements in advanced manufacturing industries**

Percentage points



NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

Extrapolating from these estimates, we can also make very rough estimates of potential macroeconomic effects of such productivity gains across all industries within four major economies: the United States, Germany, the United Kingdom, and France. The combined benefit of social technologies to improve enterprise collaboration across the four sectors in these countries could reach between \$1.6 trillion and \$1.9 trillion, we estimate.<sup>63</sup>

Such productivity improvements could be increasingly important to advanced economies, where employers are reporting growing shortages of qualified high-skill workers. MGI projects a potential shortfall of as many as 18 million college-educated workers in advanced economies by 2020.<sup>64</sup> Avoiding such skill gaps—and the drag on growth that they would cause—will involve a variety of efforts, including “skill-saving” strategies that extend the capabilities of high-skill employees. Deploying social technologies to speed up communication and improve knowledge sharing and collaboration could be a highly productive skill-saving strategy.

### Capturing the value

As noted, one of the most challenging aspects of capturing value from social technologies to address enterprise collaboration is overcoming organizational barriers. As with many other technological innovations, real benefits in the enterprise are not achieved until these technological innovations are paired with corresponding management changes and, in many cases, significant shifts in mindsets and behaviors across the organization.<sup>65</sup> And given the fundamental transformations required, the full benefits can take years to achieve.

It is so early in the learning cycle about social technologies that there is not yet a reliable instruction manual to tell large organizations how to use social technologies most effectively. However, we have seen enough evidence to believe that the long-run potential does exist. Organizations that are moving along this path have begun to experiment with new organizational processes, forms, and practices. We can point in the direction of some factors that can guide organizations’ experiments as they seek to capture this value over time.

The idea of communicating with colleagues across a company the way employees communicate with friends on Facebook is easily understood, but actually embedding the use of social technologies into day-to-day work flows is a considerable challenge. It is also easy to see how turning business messages into content that can be discovered and accessed by many people can make life easier for interaction workers, but making sure that the most relevant information is fed to people when they need it is a problem for which technology solutions will continue to improve.

However, what is much more difficult—and essential for social technology applications to succeed—is changing the culture of the organization and the behaviors of its members to implement these new approaches. For example,

63 Based on freeing up 25 percent of the workweek through use of social technologies and applying that time to the most productive uses. Using the income method for calculating GDP; total cost of labor is one of the components and can be assumed as a lower bound for the productivity improvements. Other components are corporate profits and rental income.

64 *The world at work: Jobs, pay, and skills for 3.5 billion people*, McKinsey Global Institute, June 2012 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

65 Erik Brynjolfsson and Adam Saunders, *Wired for innovation: How information technology is reshaping the economy* (Cambridge, MA: MIT Press, 2009).

employees need to get used to the idea of making information available to larger groups, rather than restricting access rights to a specified few. In many cases, individuals and groups within the corporation (i.e., in different silos) maintain power by withholding information from others. Managers will need to reward employees for the information they share, rather than the information they hoard.

Social technologies can also enhance productivity by changing how enterprises organize and distribute work. Social technologies enable a more fluid, less hierarchical approach, based more on talent and capacity, rather than hierarchy and designated roles. Using social technologies, companies can apply the right resources, in the right amounts, whether they are internal sources or people outside the organization. An organization will still have leaders, but the work of employees may be less closely directed. They could be organized around challenges and evaluated based on how well their tasks and the team's mission are executed.

### **MUCH OF THE VALUE GENERATED BY SOCIAL TECHNOLOGIES WILL BE CAPTURED BY CONSUMERS**

We believe that consumers, in addition to companies, will eventually capture large amounts of the value generated by social technologies. This economic surplus comes in the form of direct benefits to consumers—the value they get from social interaction on the Web—and the value that companies generate from social technologies that will be passed on to consumers in better products, lower prices, faster responses to changing needs, and higher levels of customer service.

Consumers will capture a significant share of the value that companies create with social technologies because market competition will force companies to transfer substantial benefits to consumers over time as either price or product improvements. In addition, social technologies increase transparency into what various competitors can offer. Consumers also gain leverage over suppliers by joining forces on social platforms. A single message about the quality or price of a product from one consumer may not warrant attention, but when thousands—or even millions—of consumers share those messages on a social site or blog, companies are compelled to respond.

Social media have already shifted power to consumers. According to an NM Incite survey, 58 percent of social media users say they write product reviews to protect other consumers from bad experiences, and almost one in four say they broadcast their negative experiences to “punish companies.” More than 60 percent of social media users say that consumer ratings and consumer reviews are their preferred sources for information about products and services.<sup>66</sup>

Consumers also generate benefits for themselves simply by participating in social networks and using other forms of social technology. They benefit from the ability to post content or send messages and by accessing a range of content posted by their connections. Other benefits include receiving recommendations from friends. Finally, they derive value of creating and maintaining social connections. Social technologies allow users to identify with a group of like-minded people, to stay in touch with a network of people at almost no cost, and to coordinate activities with groups of people without intermediaries.

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66 *State of the media: Social media report Q3 2011*, NM Incite, 2011.

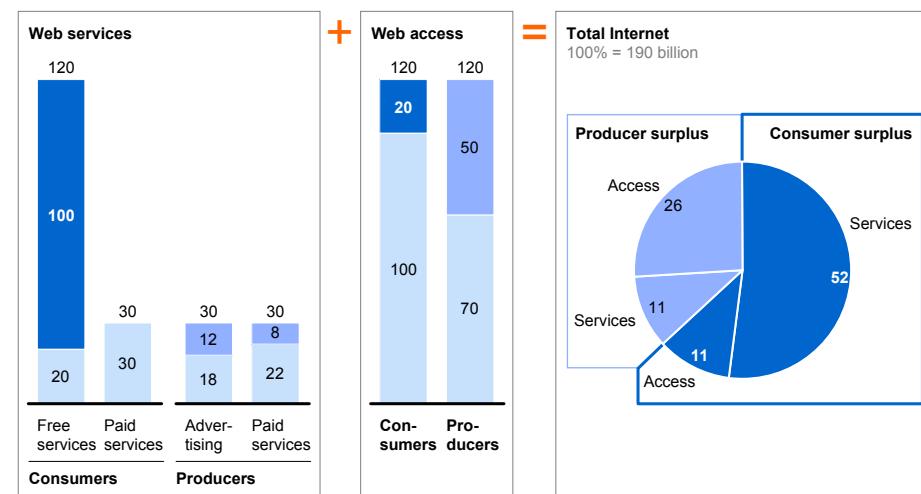
While we do not attempt to predict how much economic value created through social technologies will become consumer surplus and how much will be realized as corporate profits, other research indicates that large amounts of surplus already have been captured by consumers. McKinsey conducted a detailed consumer surplus study for IAB Europe of value accruing to Internet service subscribers.<sup>67</sup> The study, which included comprehensive conjoint analyses, found that the average European household that used advertising-supported online services derived about \$50 per year (on top of access costs) in value. That would translate into about \$133 billion of consumer value in 2010 for US and European broadband users, which is projected to grow to about \$253 billion by 2015.<sup>68</sup> Based on these findings, it can be argued that consumers capture two-thirds of the total value created by the Internet (Exhibit 26). The report estimates that social networks account for almost 30 percent of that consumer value, or about \$40 billion in 2010 and \$76 billion in 2015.<sup>69</sup>

### Exhibit 26

#### Consumers capture two-thirds of Internet surplus

2010

€ billion per year



SOURCE: McKinsey & Company, *Consumers driving the digital uptake: The economic value of online advertising-based services for consumers*, IAB Europe, 2010

<sup>67</sup> *Consumers driving the digital uptake: The economic value of online advertising-based services for consumers*, McKinsey & Company for IAB Europe, September 2010.

<sup>68</sup> Including a large majority of European countries and using the USD/euro exchange rate as of April 30, 2010.

<sup>69</sup> In the report, the following social technologies are considered: social networks, social games, user-generated video sharing, wikis, and blogs.

## RISKS OF SOCIAL TECHNOLOGY

Social networking has opened up the world as never before. Social networking connects people with people. Static ideas become a living conversation that builds through the work of myriad users across the globe. Learning accelerates, resources are easier to mobilize, and—in the best instances—the quality of life for consumers, and problem solving by society and industry improve.

However, in an environment where people can contribute in any way they want, there are also risks. Old societal evils such as predatory behavior, bullying, theft, and vandalism have now moved to social technologies. There are also risks to businesses and governments; social technologies force greater transparency, which can be useful or dangerous. Information released using social technologies can reach an audience of millions in a matter of hours. Maintaining control over proprietary or classified information becomes more challenging.

Managing these risks will be part of living in a world where social technologies become increasingly prevalent.

### Societal risks

- **Social cohesion.** Social cohesion is the bond that brings people together in society. Social cohesion depends on the embrace of collective societal values, which traditionally have been built through face-to-face interactions and shared collective experiences. But as people spend more and more time physically isolated and interacting online, traditional institutions and social conventions may have less influence and social cohesion could be undermined. Critics say that social networking sites lead to narcissistic behavior.<sup>70</sup> However, there are also examples of how relationships formed on social platforms have strengthened societal bonds or have become the bases of social movements; Facebook updates helped turn dissatisfaction with the Egyptian government into a widespread movement with unprecedented speed that led to a change in government.
- **User-generated content quality.** With social technology, more and more users are becoming part of the global conversation, creating their own content rather than just consuming it. However, the quality of user-generated content varies dramatically—from excellent works of journalism to spam and even abuse. With billions of new entries daily, sifting through content will become increasingly arduous. Some critics have argued that the very disintermediating power of social technologies has reduced the overall quality of discourse.<sup>71</sup> Others have argued that the short-form content made available through social technologies is making people less able to digest large and complex amounts of information.<sup>72</sup> The opposing view is that even our existing means of content selection didn't ever assure quality, that the diversity of opinions is healthy, and that if people can learn social media literacy, access to a broader set of opinions can actually promote critical thinking.

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<sup>70</sup> Andrew Keen, *Digital vertigo: How today's online social revolution is dividing, diminishing and disorienting us* (New York: St. Martin's Press, 2012).

<sup>71</sup> Mark Bauerlein, *The dumbest generation* (New York: Penguin Group, 2008).

<sup>72</sup> Nicholas Carr, *The shallows: What the Internet is doing to our brains* (New York: W. W. Norton, 2010).

## Risks to young people

Young people may not dominate social media, but they are still a large cohort of users. They are also targets of adult predators and victims of abuse by their peers.

- **Sexual predators.** Young people like adults, post personal information, photos, and videos about their lives on social networking sites that many people, including sexual predators, can access. Research by the American Academy of Pediatrics found that 15 percent of Internet users aged 10–15 years have received unwanted sexual solicitations online, with 4 percent of this age group having received such solicitations on social sites. Despite notorious instances of adult predators, most online sexual harassment occurs between young peers who know one another.<sup>73</sup>

While providers of social platforms must take steps to protect underage users, it is virtually impossible to police every group and remove abusers. To reduce the risks of unwanted sexual solicitations, parents can teach children about online behavior risks (e.g., not agreeing to every friend request) and how to use the various privacy tools within social technology platforms (e.g., ensuring a child's profile is set to "private"—only 66 percent of youth profiles now are private).<sup>74</sup>

- **Cyber-bullying.** The ability of social technology to transmit information quickly to a peer group unfortunately makes it an ideal tool for bullies. Vicious and degrading messages and taunts can become viral, exposing the victim to humiliation on an unprecedented scale. According to the Pew Internet and American Life Project, 32 percent of teens have experienced some form of online harassment. In 92 percent of cyber-bullying cases, children know their tormentors, most of whom are schoolmates.<sup>75</sup> While the majority of children pass through such experiences relatively unscathed, it is serious torture for some victims, and can lead to depression, substance abuse, delinquency, and even suicide.

## Internal risks to enterprises

While social technologies have the potential to raise worker productivity, that benefit comes with some risk to the enterprise. Workers can waste time socializing and playing games; they can also use social media to attack the company. Moreover, company security and intellectual property can be compromised. Companies will need to assess these risks and understand how to mitigate them when implementing social technologies.

- **Worker productivity.** McKinsey's social technology survey found that 40 percent of employers were worried that social technology distracted

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73 Michele Ybarra and Kimberly Mitchell, "How risky are social networking site? A comparison of places online where youth sexual solicitation and harassment occurs," *Pediatrics Journal*, Volume 121, Number 2, February 1, 2008.

74 Amanda Lenhart, *Cyberbullying. What the research is telling us ...*, Pew Internet and American Life Project, presentation to Youth Online Safety Working Group in Washington, DC, May 6, 2010.

75 Amanda Lenhart, *Cyberbullying. What the research is telling us ...*, Pew Internet and American Life Project, presentation to Youth Online Safety Working Group in Washington, DC, May 6, 2010.

employees from their core tasks.<sup>76</sup> As a response, some companies have restricted access to external social networks. But others have argued that doing so simply prevents employees from accessing an important source of communications, information, and ideas, and that the type of employees who waste time using external social networks will find other ways to waste time at work. Companies have also taken approaches to non-work-related discussions on internal social platforms; some have chosen to try to restrict discussion to work-related topics, and others have embraced the broader discussion as a means to enhancing engagement and employee connections.

- **Proprietary information.** One of the greatest sources of value creation from social technologies—the speed and reach of content dissemination—raises one of its greatest risks: loss of confidential information. In a McKinsey survey, 55 percent of executives said that the use of social technologies significantly increased the risk of confidential information being leaked, and 40 percent felt that the use of social technologies significantly increased the risk that corporate intellectual property would be distributed inappropriately.<sup>77</sup>
- **Brand reputation.** In some companies, employees have used social technology to express hostility about the organization, disparage strategic plans, or attack management. Thirty percent of executives surveyed felt this was a significant risk to their company.<sup>78</sup> Enterprises have taken different approaches to handling such risks, including monitoring or even censoring conversation on internal social networks. Such measures can prevent the open communication that generates productivity improvements. Some companies, however, have welcomed the unfiltered feedback and responded, helping build trust in management and support for social technology. In general, while having appropriate policies in place and technical systems to manage these risks (e.g., audit trails) are helpful, the social aspect of these communities (i.e., social norming) that is the most powerful tool to enforce positive behavior.

### **External risks**

- **Brand reputation.** Potentially more dangerous than internal risks are external ones, including brand-damaging attacks on public social media. Once the communication shifts to a social medium, companies can no longer craft and control the brand message. Today, company products, services and even corporate behavior with employees and suppliers are under public scrutiny and social networks can vastly accelerate the spread of information (positive or negative, true or false) about a brand. This heightened brand transparency requires companies to raise their level of quality in both their interactions and competitive offerings.

Negative contributors may be dissatisfied customers, critics, or even employees who think they're making a harmless joke. Whatever their motivations, social media give them an instant, global audience. For example, two Domino's Pizza employees posted a prank video, in which they show themselves violating multiple health code rules as they prepare an order. The

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76 Annual social technologies survey, McKinsey Global Institute, 2012.

77 Annual social technologies survey, McKinsey Global Institute, 2012.

78 Annual social technologies survey, McKinsey Global Institute, 2012.

video became an instant hit on YouTube, and Domino's experienced a drop of 1 to 2 percent in domestic same-store sales for the quarter.<sup>79</sup>

There is also an alternative—to react swiftly and constructively to minimize damage. By monitoring shifts from positive to negative buzz, companies can quickly spot imminent issues and mobilize social outreach teams and other relevant parties to engage with online opinion leaders directly. In fact, if companies react quickly and with appropriate messages through the same social channels, negative buzz can even be transformed to positive sentiment. A large logistics service provider, for example, saw negative net sentiment turn positive after uploading and sharing YouTube messages from a board member in which he apologized for the behavior of personnel who had been criticized on social platforms.<sup>80</sup>

- **Intellectual property.** One of the basic enablers of online social interaction—the ability to instantly share content—also makes social technologies an ideal way to distribute stolen content faster and more easily. Indeed, platforms such as Napster and BitTorrent, which helped make the Internet more “social,” have also been used to distribute protected intellectual property.

### Disrupted business models

Furthermore, certain sectors of the economy are exposed to value destruction from social technologies as a result of disruptive business models. Content-producing industries such as media and entertainment are particularly vulnerable to technology that makes every participant a potential producer, editor, and professional critic. More often, value will be shifted from one sector or group, rather destroyed. In the case of content selection, the value may shift from content middlemen, to content producers and consumers.

While social technologies have spawned new business models—and built whole new industries—they have also threatened some established business models. Here are some illustrative examples (and this list is not exhaustive) of business models that social technologies have disrupted and are disrupting:

Peer-to-peer content sharing sites offer 24-hour access to content—music, video, and software—often before the public release. Operators of mainstream distribution channels need to adapt their models to offer legitimate alternatives that are as good or better than what consumers can obtain from these newer models. In video distribution, Netflix and Hulu have been adapting to the challenge of new models.

As noted, social-based models threaten the businesses of traditional content intermediaries. Content producers, writers, entertainers, and filmmakers—virtually anyone with a smartphone or a computer—can now distribute their work at little or no cost directly to consumers. With success on social platforms indicative of commercial potential, the need for and influence of talent experts (agents, publishers, and producers) is diminished, resulting in a significant reduction in the cost of talent discovery. Similarly the social networking phenomena of crowdfunding/crowdsourcing and crowdfinancing are challenging traditional financing models.

79 “Domino’s Pizza Q2 2009 earnings call transcript,” Seekingalpha.com, July 22, 2009.

80 *Turning buzz into gold: How pioneers create value from social media*, McKinsey & Company, May 2012.

Some professional service sectors may be vulnerable to new models, including R&D firms, advertising agencies, market research firms, and recruiting firms. These firms, while disrupted, have the opportunity to adapt their business models to benefit from social technologies as well. A marketing research firm might, for example, move into the business of setting up social technology testing communities, or a recruiting firm might use LinkedIn to identify potential candidates.

Finally, the more that consumers communicate on social networks, the more threatened traditional communication models will be. Between 2008 and 2011, the amount of communication time spent on social platforms rose from 15 percent of all communication time (including time spent using landline phones, cell phones, e-mail, instant messaging, and video chat) to 29 percent (Exhibit 27). Lucrative telecom SMS revenue streams could be threatened by similar messaging services provided through social technology platforms.

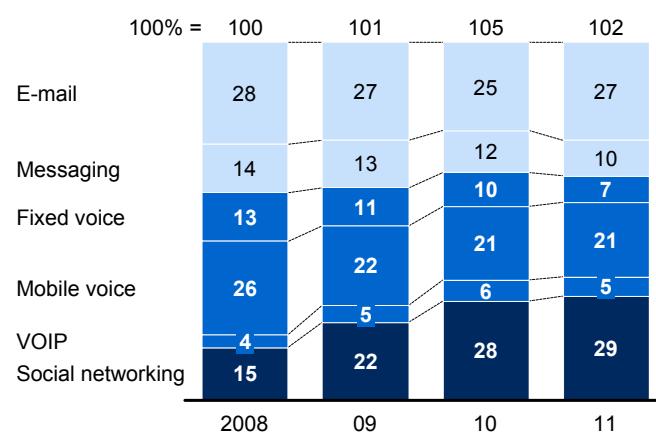
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### Exhibit 27

#### **Use of social networks for communications nearly doubled from 2008 to 2011, while use of landline phones and instant messaging fell**

Communication portfolio, 2008–11<sup>1</sup>

%; average minutes of use per day, 2008 index



1 Q: You mentioned several activities you do daily or almost daily. How much time do you spend doing these activities?  
NOTE: Numbers may not sum due to rounding.

SOURCE: iConsumer survey 2008–11

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### 3. How social technologies create value in five sectors

While companies across industries have used social technologies in diverse and sometimes unique ways to create value, we also see that there are some general approaches that are proving to be productive across sectors. In this chapter, we describe and quantify the potential value that can be created for businesses and consumers through ten levers that use social technologies across an organization's value chain.

#### **CAPTURING VALUE FROM SOCIAL TECHNOLOGY: A TALE OF FIVE SECTORS**

While the ten value levers we identify are used across industries, the ways in which they are applied and their relative importance vary a great deal across sectors and industries. In the following five sector profiles, we illustrate those variations, as we examine how social technologies are being adopted, which strategies are generating the greatest returns, and where opportunities for greater value creation lay. Overall, we find that in most sectors the use of social technologies is still in an early stage, and while we see some early examples of value capture, most organizations are at only the initial stages of exploiting this trend, particularly in the application of social technologies to internal operations.

To gauge the overall economic impact of social technology, we have examined four large business sectors (consumer packaged goods, consumer financial services, professional services, and advanced manufacturing) and the social sector (e.g., nonprofits, non-governmental organizations) to create a cross-section of the economy. These sectors include both product and service companies and companies that operate in B2B and B2C markets. In the following pages, we examine each in turn.

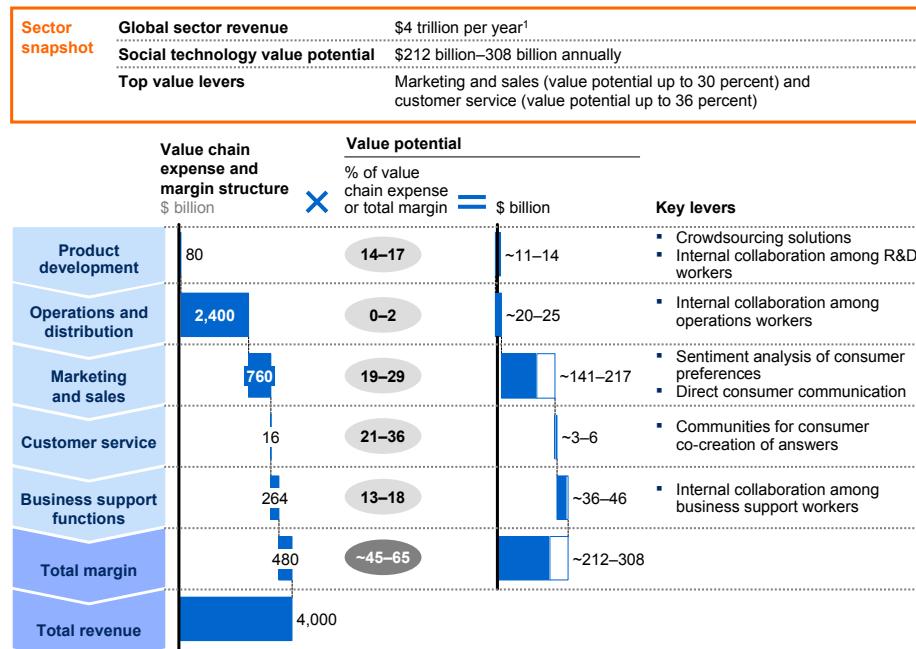
## CONSUMER PACKAGED GOODS

The consumer packaged goods (CPG) industry sells a broad range of products that are purchased on a regular basis—the staples, such as packaged foods, beverages, personal care products, paper goods, and laundry detergent, that fill shopping baskets at supermarkets and big-box stores. In addition to heavy spending on advertising and promotion to build and sustain brand loyalty, CPG companies depend on a continuous stream of product enhancements and brand extensions to drive sales and brand loyalty. A CPG company often generates one-third of annual revenue from products that have been on the market for one year or less, so setting product requirements and successfully launching new iterations are critically important. Social technologies can help in both of these areas (Exhibit 28).

### Exhibit 28

#### Social technologies could create \$212 billion–308 billion in annual value in the CPG sector

Global 2011



1. Industry market size: Euromonitor, Global Insight. Adjusted to reflect ~25 percent of retail value captured by retailers.  
NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: McKinsey Global Institute analysis

Not surprisingly, companies in the consumer packaged goods industry have been early and enthusiastic adopters of social technologies. CPG companies are among the largest mass-market advertisers (spending 15 to 20 percent of revenue on marketing and sales activities) and have found social technology to be an effective and efficient way to reach consumers, maintain contact, and gather critically important insights for product development. Several leading CPG companies are very large, global organizations with complex supply chains and have a huge opportunity to create value by using social technology to improve internal and external collaboration and raise white-collar productivity.

## Primary uses of social technology

While CPG companies have been pioneers in the use of social technology, most companies are still defining the role of social technologies in the marketing mix. Also, because companies lack methods for estimating the value contribution of social technology, they continue to work in a trial-and-error mode. Some smaller, niche players, meanwhile, are committing fully to social approaches and have shifted all marketing to social channels.

At this point, the level of commitment to social technologies by CPG companies depends largely on the level of engagement that consumers have with their brands or products. Some of the heaviest users of social technologies have been producers of beverages (both alcoholic and non-alcoholic), whose products exhibit high engagement, strong consumer preferences (e.g., Coke vs. Pepsi), and intense loyalty. The Coca-Cola Co., for example, has dedicated 20 percent of overall marketing investments to social technologies.<sup>81</sup>

Beverages lend themselves to social-based marketing because they are often consumed in a social context. Beer brands have millions of online “friends” and offer apps to entertain fans and reinforce brand loyalty. Diageo’s Captain Morgan rum offers pictures, videos, and downloadable games for its Facebook friends. In Australia, Coca-Cola’s “Share a Coke” social media campaign included significant social elements: sharing songs and virtual Cokes online, as well as competitions. The company sparked a social media phenomenon when it shipped special bottles of Coke, each with the familiar trademarked script spelling out one of the 150 most popular names in Australia. Coke kept quiet about what it was up to, so the campaign went viral, as social network users speculated about what the special bottles were all about. Coke followed up with a second round, in which consumers could vote for which names should be put on the bottles next. The campaign resulted in a 4 percent volume increase in three months.<sup>82</sup>

While products such as laundry detergent are not used socially and lack the level of engagement that a favorite food elicits, marketers are finding that social technologies can also help raise consumer engagement with products that aren’t found in the food and beverage aisles. In Brazil, for example, Unilever used social media to promote its OMO liquid detergent. The company posted a series of online videos, featuring a high-energy maid called Super Nice, who gives advice on how to manage the household, (e.g., how to iron shirts). References to OMO products are made only when it is relevant for the topic. Once Super Nice gained popularity on video, Unilever dispatched 150 models dressed like Super Nice to grocery stores, helping lift OMO sales by 194 percent in just four weeks.<sup>83</sup> Similarly, Procter & Gamble is building engagement for its Tide Pods product by posting company-produced and user-generated videos on YouTube and Amazon.

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81 Adi Ignatius, “Shaking things up at Coca-Cola,” *Harvard Business Review*, October 2011.

82 “‘Share a Coke’ campaign post-analysis,” Marketingmagazine.com, June 22, 2012, and Cannes Lions, “Share a Coke,” Media Lions Entry, 59th International Festival of Creativity, June 17–23, 2012, [www.canneslions.com](http://www.canneslions.com).

83 Presentation by Unilever’s marketing director at Proxxima conference, May 2011.

## **Value creation**

The three largest sources of value from social technologies for CPG companies are marketing, product development, and enterprise collaboration. We estimate that these three sources could generate as much as \$300 billion potential over the next ten years in the CPG sector, resulting in potential productivity increases for the category of between 0.6 to 0.9 percent per year.

In marketing alone there is an opportunity to improve productivity by approximately 20 to 30 percent. In a \$4 trillion global industry that spends 15 to 20 percent of revenue on marketing and sales, that could generate as much as around \$220 billion of additional value.

The potential of social technologies to improve the ability of large, multinational CPG companies to coordinate activities and share knowledge across many brand and geographic organizations and across corporate functions has big implications. Our research suggest that there is a potential to generate productivity gains that are equivalent to two to three percentage points of margin by applying social enterprise tools in CPG organizations.

## **Product development**

New products are key to growth in most CPG categories because many products are not highly differentiated and brands must continually add new variations in response to even minor changes in consumer preferences (e.g., low-sodium crackers). Yet, despite heavy investments in consumer research to support new launches, 75 percent of new CPG products in the United States fail. Only 3 percent become “blockbusters” that generate additional revenue for many years.<sup>84</sup>

By using social technologies to derive richer consumer insights about changing needs, companies can raise the survival rate of new products. We estimate that if a company managed to produce one more blockbuster for every 100 products launched, its revenue could increase by 3 percent.<sup>85</sup> Social platforms have proven to be a powerful source of more detailed and timely information than other research methods. Generating insights by engaging directly with consumers on social platforms or by observing what they say about products and features can cost as little as one-fifth as much as conventional research using focus groups or surveys. Companies use input from social technology users to test product concepts or to bring in external ideas or solutions through crowdsourcing. Some companies have created specialized communities to focus on a particular idea, and some communities have advised companies throughout the development cycle, including providing post-launch feedback (see Box 8, “Kraft’s South Beach diet community”). Procter & Gamble’s Connect + Develop program welcomes external ideas by allowing companies and individual inventors to submit product ideas or solutions to problems that the company posts online.<sup>86</sup>

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84 The Symphony IRI Group defines a failed launch as a product that does not reach \$7.5 million in first-year sales. It defines a blockbuster as a product that reaches \$50 million in sales during the first year.

85 Assuming about 15,600 new products launched per year in the United States at a total value of \$750 billion (average of 2008 to 2011, Global New Products Database product launch database), \$50 million in first-year revenue for blockbuster products, and three-year lifetime of blockbuster products.

86 Larry Huston and Nabil Sakkab, “Connect and Develop: Inside Procter & Gamble’s New Model for Innovation,” *Harvard Business Review*, March 2006

Access to external knowledge through social technologies can also reduce product development time significantly, an important advantage in a sector where speed of innovation is key to success. By continuously testing ideas with consumers on social networks, one company reduced from nine months to three months the time to bring a new variation to market.

### Box 8. Kraft's South Beach diet community

When Kraft Foods created the South Beach line of diet foods, based on a best-selling book by cardiologist Arthur Agatston, it invited 150 opinion leaders in health and nutrition, as well as 150 consumers who had struggled with weight loss, to form an online community. They talked and shared their experiences in the community and allowed people to build on each other's ideas. While listening in on these conversations, Kraft discovered that women had trouble maintaining their diets throughout the day and wanted packaged food that conformed to the diet's requirements for meals and snacks around the clock. As a result, the South Beach line (48 products in all) was developed in 16 months, a significantly shorter time than for traditional development.

Another important insight was that consumers have trouble remembering the differences between different diet approaches—South Beach, in fact, had been incorrectly lumped with low-carbohydrate diets. To avoid confusion, Kraft used a pre-launch campaign to educate consumers about how the South Beach Diet works and the benefits of having appropriate products for all eating occasions. The community members helped refine product concepts and packaging and were involved in the merchandising and test marketing. Community members also shared their retail experiences after the launch (e.g., difficulty finding the products in stores) and reported their usage patterns, helping to refine the product line.<sup>1</sup>

<sup>1</sup> Amanda F. Batista, "Kraft tallies \$100M in sales lift by tapping into online communities," *DemandGen Report*, July 7, 2008.

## Operations

Given the huge volume of products that large CPG companies manufacture (hundreds of brands and products in different formulations and package sizes) and the breadth of their distribution networks, one area of experimentation is in the use of social media to obtain more immediate and granular data about end-user demand. Social technologies could become an additional source of information for sales and operations planning efforts, through an approach to demand forecasting that uses not only point of sale information but also new sources of downstream data. These new sources can include data picked up from social networks and microblogging sites. Social data, for example, in which users share their shopping experiences with their connections, has the potential to detect sales lost to stockouts, which point of sale data do not capture.<sup>87</sup>

<sup>87</sup> On average, a CPG companies face lags of 11 to 14 days in demand data. Best-in-class CPG companies have only a one- or two-day lag. See Robert J. Bowman, "In consumer goods, a new approach to retail replenishment," *Supply Chain Brain*, October 2009.

So far, however, attempts to improve forecasting using social technologies have been limited in their success. One company measured the weekly level of “buzz” about a snack bar and found a high correlation—0.8—with sales volume, but causality was not clearly established. After further refinement, these techniques could potentially provide a new input for forecasting models.

### **Marketing and sales**

Marketing and sales applications have the highest value creation potential for social technologies in CPG companies. These opportunities arise in consumer insight, customer communications and promotions, and sales. Overall, we estimate that companies can generate productivity improvements of 20 to 25 percent in these functions. Given that CPG companies spend on average 15 to 20 percent of revenue on marketing and sales, such a large improvement in productivity would have a significant impact on their top and bottom lines.

#### *Consumer insight*

CPG companies typically spend 1 to 2 percent of revenue on acquiring consumer insights. About a quarter of consumer insight budgets are dedicated to product development, with the rest going to marketing activities such as brand monitoring, advertising copy testing, and competitive intelligence. By using online consumer panels and communities where people can interact with each other and online brand representatives, rather than traditional panels and focus groups, some CPG companies have gained the same level of insights at only 60 to 80 percent of their previous spend on market intelligence and consumer insight.<sup>88</sup>

Instead of—or, in addition to—convening focus groups, many CPG companies now organize or participate in online communities where they can float new product ideas, conduct polls, distribute coupons, and test packaging or advertising concepts. Consumer communities range from open forums for brand fans to tightly targeted groups whose input is used for development of a specific product.

Companies cite the more intimate connections that they can form by interacting with consumers in a social context as the basis for qualitative improvements in consumer insights. And, unlike a focus group where participants often change every time, a digital dialogue with consumers can be ongoing. As one executive describes it, “The panel allows me to create a relationship with the participants, and they get more honest in their comments. In addition, a single individual cannot dominate, as often happens in a panel or focus group.”<sup>89</sup>

Social technologies also provide wider samples—tens of thousands of consumers, rather than hundreds. Thus, the amount of information that can be generated through “social” research initiatives is many times larger than what is gleaned from a few hours of work with the traditional focus groups or periodic panel queries. Sales forecasting models still require representative and statistically valid samples, but candidates for those samples can be recruited from the online community.

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88 Refer to “Estimating value potential of using social technologies in four global sectors” in the appendix for details on calculation.

89 McKinsey Global Institute interview.

In addition to gaining insights by engaging directly with consumers on social media, CPG marketers can learn a great deal by simply tracking what is being said in social platform conversations. For example, a maker of personal care products learned only by listening to online chatter that its products were being used by different consumer groups and in different ways than those for which they were intended. This type of misalignment between marketing efforts and customer perceptions or behaviors can be difficult to uncover with traditional surveys. The insight persuaded the company to update its product information to reflect the new use and change its marketing to target the new groups.

Social technologies also enable new possibilities for tracking brand and product health. Instead of relying on quarterly or annual survey data, companies can monitor consumer attitudes continuously. This instant feedback can provide the opportunity to improve a new advertising campaign after it launches or even tweak a new product early on to improve its chances of success.<sup>90</sup> Online testing of advertising copy gives marketers far greater opportunity to iterate changes.

Finally, by using the detailed profile data and behaviors recorded on social networks, CPG companies can generate finer customer segmentations. Instead of knowing only age and zip code, marketers can add other characteristics, such as musical tastes or hobbies, based on choices of social circles and activities on social sites. Already, social networking services provide much finer segmentation categories of their users than traditional media—for example, people who like cheese—for advertising purposes.

### *Communications*

Social media provides a way for CPG brands to communicate directly with consumers in a light-touch manner—and at less cost and with greater reach than in typical customer relationship management (CRM) deployments. Many players launched ambitious CRM systems in the 1990s hoping to use those systems to connect directly with consumers. CRM often did not live up to expectations in CPG, because these companies did not have direct connections to end consumers (their products are sold through retail stores), and communication based on CRM was still rudimentary (i.e., segmenting was limited to basic demographic splits). By contrast, social technologies now make possible a natural and rich dialogue between consumers and CPG companies and allow companies to address a community of consumers directly. Unilever, for example, rather than promoting the benefits of Dove soap, engaged communities of consumers by prompting online conversations about the unrealistic demands that the beauty and fashion industries place on women, as part of its “Dove campaign for real beauty” initiative.

Through social technologies, it is now possible to launch shorter interactive campaigns or create long-lasting communities to interact with customers. Leading examples of individual social media campaigns show additional value gained the equivalent to 30 to 60 percent of traditional advertising campaign budgets. Major CPG companies will not migrate their entire advertising budgets from traditional media into social—if only to cover multiple touch points—we believe the emerging shift from traditional to social media will continue. Interactive campaigns can include elements such as competitions and games and are often

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90 Hal R. Varian, “Kaizen, that continuous improvement strategy, finds its ideal environment,” *New York Times*, February 8, 2007.

combined with offline activities (see Box 9, “A bounty of consumer data,” on an integrated campaign example). This is where most CPG companies have been experimenting with social technologies.

### **Box 9. A bounty of consumer data**

The Captains Island promotion for Captain Morgan rum was launched on Facebook, where fans of the brand could enter a contest to win a trip to an exotic island. Contestants complete challenges such as posting pictures of themselves dressed as the captain or collecting keys found in bars, supermarkets, and on Web sites that fully integrate the campaign with the product. The unique keys allow Diageo’s marketers to trace the connection between online engagement and sales by mining the information associated with each key to understand where they bought the drinks and which Web sites influenced them. The contests generated so much interest that a market for the keys sprang up on eBay.<sup>1</sup>

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1 Marcus Dyer and Mark Wheeler, “Diageo case study: Delivering sales through social for Captain Morgan,” presentation at Social Media Marketing & Monitoring conference in London, September 19, 2011.

On social platforms, consumers can also co-create marketing campaigns and provide content. Doritos, for example, launched a Web-based competition in which consumers submitted videos to be shown as part of the snack brand’s Super Bowl campaign. Contestants could submit, watch, and vote for the videos online, and Doritos aired the winner during the Super Bowl. More than 6,100 videos were submitted, and the winning video was voted the number one video in the USA Today/Facebook Super Bowl Ad Meter.<sup>91</sup>

### *Social commerce*

CPG companies are using social technologies in sales in several ways, including adding reviews and communities to online sales sites and creating finely targeted couponing programs. While most CPG products are sold through retail channels, some subsegments such as personal care and home products use direct channels (e.g., Avon Products, Mary Kay, Amway). However, established CPG players are experimenting with sales of products such as detergents via online stores. According to McKinsey’s 2011 iConsumer survey, only 4 percent of groceries are bought online in the United States and Europe, and less than 1 percent of consumers seek online advice before buying these products.<sup>92</sup> This leaves significant opportunity to change shopping behavior for large categories. There is a high correlation between the share of online sales of a given category and the degree to which consumers seek advice from other consumers online. Therefore, the importance of making sales social will increase as more sales move online.

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91 Cotton Delo, “Doritos’ latest Super Bowl ad contest storms viral video,” *AdAge Digital*, January 12, 2012, and Bruce Horovitz, Laura Petrecca, and Gary Strauss, “Super Bowl ad meter winner: Score one for the Doritos baby,” *USA Today*, February 8, 2012.

92 McKinsey & Company iConsumer survey, 2011 (United States, United Kingdom, Russia, Germany, Spain, the Netherlands, France, Poland, and Italy).

When consumers advise each other on product uses and benefits, brand loyalty and sales increase. For example, studies found that online consumer ratings significantly influence product sales in the online book market and the movie industry.<sup>93</sup> But this effect is not limited to the online space; it is possible to leverage reviews in offline advertising as well. Rubbermaid added information from online reviews to traditional printed coupons and increased the redemption rate by 10 percent. Further evidence of the impact of active consumer advice and recommendations was uncovered during our research. A CPG company created a community for consumers to discuss its products in connection to its Web shop. When comparing shopping behavior and engagement in that product community, the company found that consumers who were very active in the community also generated up to ten times the revenue of an average consumer. While this example does not indicate whether consumer activity in a community influences consumer purchases or vice versa, we believe that higher involvement through product-specific communities fosters the bond between a consumer and a brand, thus potentially lifting sales. This is also in line with study findings showing that using social elements on shopping Web sites is advantageous for sellers because they provide consumers with enhanced perceptions of human connection and the formation of emotional bonds.<sup>94</sup> Therefore, e-commerce services will benefit from adding social elements.

Coupons provide another avenue of impact for social technologies in CPG. The coupon market for household products in the United States was \$1 billion in 2010, and social technologies have several benefits for this spending category. For example, distributing individual discount offers over social networks and to communities instead of sending coupons through direct mail or print publications makes it possible to connect purchase patterns to detailed demographics. These data can be used to direct coupons to new customers, rather than existing ones, who now receive about half of all promotional discounts on CPG products. Digital distribution of promotions have additional benefits, including shorter cycle times and lower distribution costs; printing and distribution costs constitute about 30 percent of the total cost of coupon programs.

Social technologies will also take an increasing role at the point of purchase in stores. The use of check-in via such services as FourSquare at stores is only the beginning of making the in-store experience social. Currently, accessing reviews and ratings takes too long for consumers to seek advice every time they buy shampoo. However, imagine a mobile application that allowed a shopper to take a digital picture of a bottle of shampoo and find out which friends have reviewed it before committing to a purchase (or even having an augmented reality application proactively provide that information as the shopper walks around a store). These applications might not be feasible now, but given advances in technology, you can imagine the possibility that any interaction with a consumer can be made social, if the cost of accessing and processing social information is sufficiently low.

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93 Judith A. Chevalier and Dina Mayzlin, "The effect of word of mouth on sales: Online book reviews," *Journal of Marketing Research*, Volume 43, Number 3, 2006, and Xiaoquan M. Zhang and Chrysanthos Dellarocas, "The lord of the ratings: How a movie's fate is influenced by reviews," *Proceedings of the 27th International Conference on Information Systems*, 2006.

94 Liz C. Wang et al. "Can a retail Web site be social?," *Journal of Marketing*, Volume 71, Number 3, July 2007.

## **Enterprise-wide applications**

The CPG sector includes very large, global organizations that compete in many product categories and across regions. These are highly complex organizations, and the most successful ones have learned to balance local independence (at the regional or national level) with centralized functional “centers of excellence” (e.g., in marketing or sales), often in a matrix structure. In addition, CPG companies often have hundreds of partners and suppliers to both their regional and central operations.

Social technologies have a significant potential—mostly unrealized—to improve communications and collaboration within CPG organizations and between them and external partners. We estimate that by becoming “networked” and using social platforms to reduce e-mail use, provide faster access to information, and increase collaboration, the industry could improve the productivity of its interaction workforce by 20 to 25 percent, resulting in improvement equal to two to three percentage points’ margin. Internal communities, forums, and news feeds can speed up the processes of launching virtual teams, finding experts, and sharing knowledge.

## **Value shifts**

The largest potential benefits from the use of social technologies in the CPG industry increase productivity in marketing, product development, and enterprise collaboration. Some companies might choose to capture some of those benefits by reducing their costs in these areas, but our research suggests that many firms will choose to maintain their levels of spend and capture value by additional growth, both in new markets and by taking share from competitors.

While a number of players have been experimenting with social technologies for the past few years, few have created a fully integrated strategy covering all relevant value chain steps. Therefore, the value created by social technologies will benefit innovative enterprises for some time. Those players that are successfully leveraging social media are likely to enjoy this first mover advantage for some time, especially if they continue to more fully integrate social technologies into their business. Individual firms can hence significantly improve their market position if they are able to create a successful integrated social strategy.

However, the highly competitive nature of these markets suggests that over time consumers will capture a substantial portion of the surplus created by social technologies. Consumers will benefit through improved products that are better matched to their needs and through lower prices. Operational and marketing efficiencies will allow enterprises to do the same activities at less cost or reinvest the value to improve customer offerings.

Consumers will also capture value in the form of greater transparency into prices and even through influence on the CPG industry beyond what they buy, e.g., around corporate social responsibility. The power of consumer opinion mobilized by social media has been demonstrated by online campaigns against companies that are perceived to have lax safety or environmental standards.

## Enablers and barriers

A key enabler in the further use of social technology in CPG sectors will be better metrics. Most CPG companies today are struggling to build data-driven social marketing strategies because so few standard measures of effectiveness exist. For now, CPG companies rely on intermediate metrics, such as engagement (time spent on a social site) or impressions (number of “eyeballs” attracted to a social site), unable to consistently demonstrate the relationship between social campaigns and incremental revenue. Integrating online sentiment into advanced marketing mix models might be one step toward the solution. On the product development side, some benefits are more tangible (e.g., reduced development time), but other types of metrics, e.g., to measure the improvement in product specifications as a result of social technologies, have been more difficult to develop.

Another important challenge is to fully integrate the insights generated from social technologies into business processes across the value chain. Social communities can be used to feed consumer insights and ideas into product development, and they can also be used to test advertising copy, disseminate messages, and help create answers for customer service questions. To make sure that CPG companies can call on social platform users for all these activities, companies will need integrated, cross-functional strategies and processes to ensure that different organizational units collaborate effectively.

## CONSUMER FINANCIAL SERVICES

Financial services companies, broadly defined, account for approximately 20 percent of economic value add in developed economies.<sup>95</sup> In this report we examine three consumer-facing segments of financial services: retail banking, life insurance, and property and casualty insurance. Together, these industries generate \$6.6 trillion in annual revenue globally, or approximately 60 percent of total financial services sector sales (Exhibit 29). Despite the financial crisis, the global market has grown consistently at about 6 percent annually over the past decade, led by expansion in the less developed economies, where growth is expected to remain robust.<sup>96</sup>

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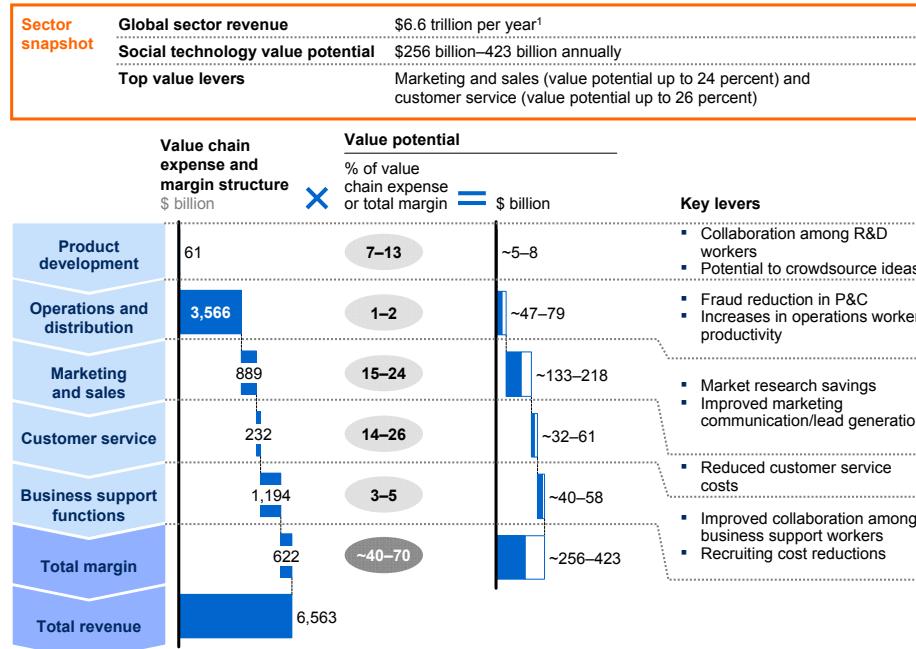
95 Financial services typically represent about 30 percent of the total service market in developed economies and 20 percent of total GDP (Organisation for Economic Co-operation and Development, *The service economy*, Business and Industry Policy Forum Series, OECD Publications, 2000.).

96 World Global Insurance Pools and Global Banking Pools data, (2000–10, actual; 2011 estimate), and forecasts 2012–20.

### Exhibit 29

#### Social technologies could create \$256 billion–423 billion in value annually in consumer financial services

Global 2011



1 US Census Bureau, *Statistical Abstract of the United States: 2012, 131st Edition*.

NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: US Census Bureau, *Statistical Abstract of the United States: 2012, 131st Edition*, Washington, DC, 2012; McKinsey Global Institute analysis

Retail finance—which includes insurance, credit accounts, loans, and personal investments—provides a unique challenge and a valuable perspective on the potential of social media to create value. These products are intangible and often complex; consumers find it difficult to make comparisons across offerings, even within the same category (e.g., two different home insurance policies). Consumers do not always have full transparency into products or a clear understanding of how they work. So, rather than doing their own research and evaluation, consumers often place their trust in an adviser (either a professional or a knowledgeable relative or friend) or a brand.

According to McKinsey surveys, the third most important driver of satisfaction with a bank is that the customer feels good telling other people about where he or she banks. In other words, that the bank is a brand they feel close to is more important than how well the bank resolves problems with accounts or if it provides accurate statements. The top reason for switching banks is an emotional one: 22 percent of people switched banks to move to an institution that they felt more confident about (which is above the percentage who switched for better products or service).<sup>97</sup>

Social technologies can also provide financial institutions with valuable insights into consumer behavior and attitudes to build a positive brand perception. In addition, an analysis of historical behavior can be used to help price products, assess risk, and detect fraudulent activity, benefiting both the institutions and individual consumers.

Social media is also a great tool for helping financial institutions anticipate future customer needs. Demand for many financial products is tightly bound to significant life events such as buying a home, switching jobs, or becoming a parent. Social media can provide a window into these events, allowing financial industry players to engage customers early in their financial journey and keep track of life events to identify cross-selling or up-selling opportunities.

Given these market characteristics and developments, there is substantial opportunity for consumer finance firms to improve customer relations and build trust by leveraging social media, in the process creating value for the customer as well as for their bottom lines.

Consumers are increasingly willing to interact with financial services providers online and even on social platforms. While face-to-face interactions still dominate certain aspects of financial services, consumers are increasingly open to virtual customer service even for transactions such as filing an insurance claim.<sup>98</sup> Finally, there is significant potential for social technologies to create value through enterprise collaboration in financial services. Many of the top consumer-facing financial services players in mature markets are large, complex organizations that were formed from mergers and acquisitions, resulting in siloed personnel structures, fragmented processes, and differing IT systems. Effectively applied electronic collaboration tools can help create more cohesive, transparent organizations that consistently and effectively share knowledge. This is particularly important in the financial services industry, which employs a large pool of knowledge workers such as underwriters, researchers, and sales agents whose productivity depends on having ready access to the right information. Multinational organizations can particularly benefit as such tools can be used across countries to spread knowledge and ensure alignment of processes, especially in the light of regulatory tightening since the financial crisis.

### **Examples of current usage**

In general, the financial services industry lags behind other sectors in adoption of social technologies. In a 2011 survey of social technology users, only 64 percent of financial service firms reported using at least one social technology tool, compared with 86 percent in high tech. Only energy firms reported lower usage.<sup>99</sup> While most consumer-facing financial services companies have a social media presence, only a few players have developed fully defined strategies.

Most social technology implementations in the sector so far have been in marketing and customer service, usually using well-established social platforms to reach consumers. Some of these players use their social media pages to attract new customers and retain existing ones by starting discussion threads, posting links to company-related media files, publicizing promotions, and responding to

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98 Kausik Rajgopal and Glen Sarvady, "Online payments and digital disintermediation," *McKinsey on Payments*, Issue 1, February 2008.

99 Jacques Bughin, Angela Hung Byers, and Michael Chui, "How social technologies are extending the organization," *The McKinsey Quarterly*, November 2011.

customer complaints. Financial services companies are also employing social technologies in their B2B markets, particularly to serve small and medium-size businesses. For example, American Express has launched a high-profile effort to use social technologies to create community among owners of small businesses (see Box 10, “American Express friends small business”).

#### **Box 10. American Express friends small business**

To help drive sales to its small business customers—and bolster its reputation with them—American Express launched Small Business Saturday in November 2010. The company started with a social media campaign to encourage consumers to shop at small businesses in their towns on the Saturday after Thanksgiving—the day after the “Black Friday” shopping spree when millions of Americans descend on malls and big-box stores, marking the start of the holiday shopping season. Amex created a large social advertising campaign on Facebook and also provided 10,000 participating small businesses with free Facebook advertising to help drive sales. It also created a tool to allow small business owners to promote their business via social networks. About 100,000 small business owners downloaded point-of-purchase and promotional materials and, on average, saw a 28 percent lift in revenue over the after-Thanksgiving Saturday of the previous year. The 2011 Small Business Saturday drew 103 million shoppers and generated a 23 percent increase in Amex card member transactions.<sup>1</sup>

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1 American Express Company, [www.smallbusinesssaturday.com](http://www.smallbusinesssaturday.com); NM Incite.

Internal social collaboration tools are gaining in popularity in financial services, and several major players have implemented global collaboration software tools. Our research suggests that the application of social technologies to enterprise collaboration holds the biggest value potential for the industry.

Some of the most sophisticated users in the sector have begun to explore social media as a source for consumer data and information that were previously not available or easy to obtain. This information—such as age, educational attainment, and current or past employers—can be used to build a more accurate risk profile to calculate credit scores and price insurance premiums. Although only a few firms are using social technologies for this purpose, it has significant potential and will likely be an aspect of many firms’ social technology strategies in the future.

Finally, social media has allowed radically innovative financial services players to fundamentally challenge traditional operating models by leveraging social network connections (see Box 11, “A social selling model for insurance”).

**Box 11. A social selling model for insurance**

Insurance broker Friendsurance developed a way to encourage potential customers to apply for insurance as a group to save money. The savings come because customers in the group underwrite all the small claims themselves, which allows them to qualify for lower premiums and rebates on the coverage that the insurer provides for bigger claims. This creates value for the insurance company by lowering the administrative costs of managing small claims as well as the likelihood of fraudulent claims, since that would reduce the annual rebate across the group. The system also works because groups are likely to be careful about letting in members who might be high risk. Finally, the model reduces the cost of customer acquisitions. According to Friendsurance, customers save 50 percent on average, and some groups have saved as much as 70 percent.<sup>1</sup>

1 “Social insurance company relies on communities to reduce premiums,” Springwise.com, May 18, 2011.

The largest opportunities in the value chain for consumer-facing financial institutions are in customer insights and sales and marketing. Value creation in these areas could amount to approximately \$133 billion to \$218 billion per year globally. If the entire value generated from social technologies is captured over the next ten years, the industry will enjoy annual productivity increases between 0.4 and 0.7 percent. Fraud reduction and increased productivity in operations and distribution account for the second-largest source of value—about \$47 billion to \$79 billion annually. Social technology can enhance fraud detection as well as decrease incentives for fraud by leveraging connections in social networks. Across the entire value chain, internal collaboration improvements through social technologies can increase white-collar worker productivity, including in product development and business support functions. We estimate that social technologies could generate value equivalent of as much as 26 percent of the cost base in customer service operations, through more productive call centers and reduced costs per customer contact.

**Product development**

The financial services industry can use social technologies for product development in a number of ways. First, product development teams can monitor digital communities where customers share opinions and views on products and services, and they can use this information to shape the direction of product development. They can also solicit consumer feedback directly through social media and enlist customers in co-creation and idea generation. Financial firms have successfully tapped social networks for consumer insights and have used crowdsourcing to develop ideas such as iPhone and iPad apps and features, mobile banking solutions, and mobile peer-to-peer payment systems.

Social technologies also raise the efficiency of product development teams by enabling better collaboration among dispersed R&D teams and local branches. Such virtual collaboration can start in the idea generation phase and be used all the way through product testing and post-launch improvement initiatives. We estimate that social product development can generate product development productivity improvements worth 7 to 13 percent of costs, or about \$5 billion to \$8 billion a year globally.

Danske Bank in Denmark has used its social presence to build connections with customers and generate new product ideas. To show that it was a different kind of bank—one that truly listened to customers—in 2011, Danske Bank launched a page called Idebank (“idea bank” in English) on a public social network. On Idebank, the bank crowdsourced new product suggestions from customers, who also commented on each other’s ideas and provided tips for improvements on current products. Consumer suggestions were incorporated in Danske’s mobile phone and iPad applications, and the bank also adopted recommendations for changes in mortgages and other loans. Idebank is an ongoing project, which posts a new topic every month and has raised the company’s Facebook following significantly.<sup>100</sup>

### **Operations**

Operations and distribution represent a significant share of total cost for consumer banking and insurance companies. Social technologies can help improve collaboration (and raise productivity) across large, geographically dispersed operations networks. Banks and insurance companies can relay relevant and consistent information to branch office employees and agents using social media. Experts can relay answers to many employees and agents simultaneously, and the knowledge can then be retrieved by others and amended as needed. This has the potential to significantly expand the capacity of each expert to address the daily flood of questions about loans or insurance products that must be answered to complete a transaction. Furthermore, rating and commenting functions allow employees to sort advice based on its relevance and quality, as well as post their own insights on the topic.

The social graph that social technologies provides has a particular benefit for property and casualty insurers, because it gives them a new tool in the fight against fraud. Insurers can use the information claimants provide on social networks about themselves, about their relationships to other claimants, and about the events that led to a claim. For example, Liverpool Victoria, a UK insurer, used social media to find out more information about a group of passengers who were filing whiplash claims after a low-speed bus accident. Using social media, Liverpool Victoria discovered connections between the claimants and the bus driver, which saved the company £250,000.<sup>101</sup>

Banks can also use the social graph to sharpen loan underwriting and, ultimately, reduce defaults. Some large banks have begun to experiment with using consumers’ social graphs and other data from social platforms to enhance their underwriting.

At the same time, some start-ups are basing new lending models on social data (see Box 12, “Lending decisions based on social media data”). Algorithms draw on the online data to quickly check loan applicants’ ability and willingness to repay the loan, for example by tapping into available social network, online shopping, or online gaming behavioral data. Social technologies significantly enhance data already available on the Internet; cross-referencing a standard

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100 Christophe Langlois, “Danske Bank launches Idebank 2.0 and invites their Facebook fans to help them improve mortgages & housing,” *Visible Banking*, May 17, 2011.

101 Sam Barrett, “Insurance & social media: To tweet or not to tweet,” Postonline.com, July 5, 2011.

form of ID against the social graph provides valuable insights into a potential customer's financial behavior and default risk.<sup>102</sup>

### **Box 12: Lending decisions based on social media data**

UK-based alternative lending start-up Wonga developed an algorithmic, big-data approach to underwriting microcredit loans that combines data from social platforms with other customer information. Underwriting payday loans—emergency loans issued to borrowers who often have no other sources of credit—traditionally has not been very sophisticated (lenders charge high fees and accept high risk). Wonga's algorithm allows it to take a different approach, by allowing it to more clearly differentiate between good and bad credit risks among the types of consumers who rely on payday lending. Customers who apply for a loan on Wonga's Web site are guided through a series of questions. The answers build a record of 30 pieces of simple information about the potential borrower for Wonga. Based on that information and social platforms, Wonga has found it can access a further 6,000 to 8,000 online data points that relate to the applicant. By refining the algorithm and using machine learning from past loans, Wonga was able to reduce its default rate from 50 percent in the first few weeks of the operation to single-digit percentages in the most high-risk loan market.<sup>1</sup>

1 Lucy Tobin, *Entrepreneur: How to start an online business* (Hoboken, NJ: John Wiley & Sons, 2012).

## **Marketing and sales**

Marketing and sales consume about 15 percent of costs for bank and insurance companies. Institutions spend hundreds of dollars to acquire new customers. Credit card issuers spend billions of dollars annually on direct mail and mass-market advertising to get new accounts. Social technologies have great potential to make this spending more productive, particularly for customer acquisition, and to reach a large number of customers and potential customers in a less intrusive and more effective way. With technology, financial institutions can engage clients more closely and more personally; financial institutions can learn who clients really are, and customers can find out about the lives of their insurance agents, for example.

Across banking and insurance, we estimate that use of social technologies can reduce the cost of acquiring a customer by as much as 30 percent, equivalent to a 0.5 percent margin increase for the consumer-facing financial services industry as a whole. We estimate that rigorous use of social technologies could generate value equivalent to as much as 24 percent of the cost base in marketing and customer acquisition, although capturing this depends on many factors, including effective execution.

102 For example, Wonga is more likely to approve a loan if the applicant has a mobile phone with a contract. One of many factors that Klarna, an online payments provider, uses to eliminate applicants is if they shop online late at night. See also "Go figure: A new class of Internet start-ups is trying to turn data into money," *The Economist*, March 17, 2011.

Financial services players can also use social media to develop better insights about potential customers and assess how attractive they might be to acquire. Using social data, a bank or insurance company can generate relevant consumer insights more efficiently and potentially more accurately (given the larger volume of data) than traditional focus groups can provide. Start-up Movenbank, for example, requires consumers to have a Twitter or Facebook account as well as a mobile phone number in order to sign up. In return, it offers a unique customer engagement system (see Box 13, “No bank branch, no paper, and no plastic”). This model allows Movenbank to not only collect significantly more behavioral data than average banks, but also to significantly drive down customer acquisition costs.

### **Box 13. No bank branch, no paper, and no plastic**

The founders of Movenbank want to create the next generation of banking: If it succeeds, Movenbank—currently in its alpha testing—will be the first branchless, paperless, and even plastic-less bank. Movenbank will use social and mobile technologies across its operations: customers will sign in using Facebook, and bank “members” will be encouraged to participate in a behavioral, social, viral, gamified engagement system called CRED. As depositors pay their bills, shift money between accounts, socialize, and play games, CRED gathers information. The bank will market CRED as a friend and colleague who helps customers with day-to-day financial decision making. Movenbank, meanwhile, will use CRED data instead of traditional credit scores. Social media intelligence, such as behavioral data and influencing skills (number of recommendations) are important factors in its ratings. Using only word of mouth on social media, Movenbank has pre-registered 5,000 users, who are testing its feature in the alpha version. According to Movenbank management, it plans to enlist 50,000 customers in its first year, at a \$200 lower acquisition cost per customer than banks usually pay.

Customer acquisition is a very large cost for financial services companies. Typically, banks spend between \$70 and \$300 to acquire a new depositor or to persuade a customer to open another credit card account.<sup>103</sup> And while the costs are high, the results can be mixed. Researchers find that mass direct mailings tend to result in lower marketing effectiveness. Furthermore, there are risks of adverse selection; the least creditworthy consumers are more likely to respond to credit card or loan offers, reducing the profitability of a marketing campaign. By using social media-enhanced customer relationship marketing data, banks can target customers according to their specific needs (e.g., sending a home equity loan to a new homeowner). Also, the additional data could improve forecasting on whether a customer would be approved for the particular financial product. Companies can also improve efficiency by not sending offers to customers who are unlikely to respond or unlikely to qualify—and redirect marketing dollars to where they will be more effective.

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<sup>103</sup> Brad Strothkamp and Elizabeth Davis, *Financial services firms open up about customer acquisition costs: Results from our Q1 2008 ebusiness and channel management survey*, Forrester Research, July 1, 2008.

Social technologies provide an excellent view into the lives of customers and potential customers; on social media, people broadcast the life events that signal selling opportunities in financial services. For example, with the birth of a child, new parents often buy their first life insurance policies; the first car triggers the need for auto insurance; the first job necessitates a bank account. Consumers who interact a lot with one another and share the same demographics are often in the same phase of their lives, allowing financial institutions to project sales opportunities across connections that have been articulated on social technology platforms. Citi Credit Cards, for example, in 2009 tapped existing customers' philanthropic instincts and social networks to bring in new credit card customers with the "Make a Difference, One Friend at a Time" program. For every confirmed card applicant referred from an existing cardholder's Facebook group, Citi agreed to donate \$50 to a charity of the cardholder's choice —turning customers into a crowdsourced marketing machine. Citi says the donations cost far less than the costs of acquisition through mass media, Internet advertising, or direct mail.

Given the demographics of early social technology users, social marketing has been particularly useful for banks that are looking to attract young adults as they enter the market. These are the most sought-after accounts; persuading older customers to switch banks is far more expensive, and recruiting customers when they are young provides years of up-selling and cross-selling opportunities. Wells Fargo was a pioneer in targeting 16- to 24-year-old social media users with Stagecoach Island, a game that weaves in messages about financial literacy and money management. Stagecoach Island helped Wells Fargo acquire tens of thousands of e-mail addresses of 16- to 24-year-olds. Since its launch in 2005, membership has grown at double-digit rates every year.<sup>104</sup> Common Wealth Credit Union, based in Alberta, Canada, launched a social media contest to find an under-25 spokesperson for its banking products. Applicants submitted videos and competed for votes on multiple social media sites. The campaign resulted in two million impressions, 2,300 new accounts, and about \$3.9 million in new deposits. Leveraging social technologies in these ways to improve marketing activities amounts to value creation of up to 20 percent of the cost of a marketing campaign.<sup>105</sup>

For retail banking, social commerce—providing traditional retail branch banking services through social platforms—provides another opportunity. Consumer acceptance of connecting to banking services via a social media platform has evolved over the last few years. In 2008, a survey of 400 Facebook users found that only 14 percent were receptive to the idea of banking on a social platform; by 2012, the share had risen to 24 percent.<sup>106</sup> According to comScore, the number of customers visiting the top ten online banking sites increased from approximately 40 million people in 2006 to more than 58 million in 2010. Nearly 60 percent of US Internet users visited at least one of the top 20 financial institution Web sites every quarter in 2010.<sup>107</sup> Given the shift of online time toward social technologies, integrating social features into online banking services could increase the time and involvement of customers in online banking sessions. One of India's largest banks, ICICI, recently launched "Your Bank Account," a social networking

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104 Daniel Terdiman, "Wells Fargo launches game inside 'Second Life,'" Cnet.com, September 15, 2005.

105 "2008 Forrester Groundswell Awards winners," Forrester Research.

106 Jim Bruene, "Banking in Facebook," *Online Banking Report*, Number 201/202, January 6, 2012.

107 *The 2010 state of online banking report*, comScore, May 11, 2010.

application that allows customers to carry out banking tasks. The app, which requires a secure connection, enables users not only to view account details and mini statements but also to apply for debit cards and request checks. Three months after launch, the application is used by 20,000 customers every month.

Barclaycard US, the payments business of Barclays in the United States is using “gamification”—applying game design techniques to make non-game content and activities more engaging—is using gaming techniques to market “Ring,” a new social credit card it has launched in partnership with MasterCard. With the card, the company also launched “Barclaycard Ring,” a social community of cardholders. Members receive incentives for sharing their suggestions and ideas for credit card features. They compete for both in-community rewards (e.g., badges for switching to paperless billing and referring friends), and offline rewards, such as charity contributions through the Barclaycard’s Giveback program.

### **Customer service**

Financial institutions rely heavily on customer satisfaction for loyalty. Both banking and insurance products are intangible and are used over many years; they are not fully delivered at the point of sale, but evolve over time (e.g., securities and savings accounts; insurance policy balances). As a result, the services after the initial purchase become an important factor in determining the overall satisfaction with the brand.

Social technology can significantly improve customer service in two ways. First, financial institutions can offer a wider range of customer service channels by adding social media channels. Switching some customer service requests from call centers to social media channels can potentially provide better quality and faster service, thus leading to higher customer satisfaction. Banks and insurers have demonstrated significant cost savings per customer contact using social media instead of traditional call centers, while retaining comparable service levels. Social media also gives an institution the ability to act on customer feedback in more varied ways, from inspiring new product ideas to better informing customers about a product before they purchase it (see Box 14, “Turning customers into advocates”).

In a broader sense, social technologies can improve the entire customer relationship process. Financial services companies depend on long-standing relationships with their customers; many customers purchase their banking and insurance products early in life and then return to the same sales agents when further needs arise. Social technologies can help cement those relationships and enhance traditional CRM (customer relationship management) systems. CRM software is designed to manage all interactions with existing and potential customers. If applied correctly, social technologies can provide cost-efficient and effective alternatives or enhancements to traditional CRM tools. Because consumers are increasingly social, CRM needs to manage the social customer relationship, too. USAA is one of the insurers that uses multiple social media touch points to enhance CRM capabilities.

**Box 14. Turning customers into advocates**

Texas-based United Services Automobile Association (USAA) embraces customer service as a pillar of its strategy. USAA involves customers in active member communities and makes a significant effort to provide customer service online and through social technology. In addition, USAA is using insights from member reviews to improve customer experience at the USAA.com Web site. For example, a new online function that allows users to select renewal options and an iPhone application for depositing checks were developed based on customer feedback. Furthermore, existing customers actively participate in providing customer service. Authentic case stories and testimonials from customers on the USAA Web site and its public social networking page help customers make more informed decisions before opening a new account or starting a new service, too. These initiatives have helped USAA's insurance operation continue to excel in customer advocacy; the unit tops Forrester Research's customer advocacy ratings report.<sup>1</sup>

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<sup>1</sup> *Customer Advocacy Reports 2007–12*, Forrester Research.

**Enterprise-wide collaboration**

Financial services can exploit social media to improve the productivity of interaction workers. Banking and insurance companies have a large proportion of interaction workers, situated in complex organizations with networks of branches, multinational operations, and multiple lines of business. They have much to gain through improved communication and collaboration. Specifically, by connecting central and local staff via social networks, by using social platforms to access information and communicate, and by collaborating via social tools, the retail finance sector could improve the productivity of its white-collar workforce by as much as 25 percent, which corresponds to 6 to 8 percent of total personnel costs or a potential overall margin improvement of 3 to 5 percent.

TD Bank implemented a social-based communication system that greatly improved the productivity of lending officers in distant branches and of the headquarters experts they rely on (see Box 15, “TD Bank sees benefits from internal social networking”).

The recruiting function of retail finance companies can also benefit from social technologies. The industry relies on many high-skill workers (e.g., loan officers, underwriters), who command relatively high salaries. Companies in the sector that have made the greatest use of social technology platforms to find candidates have reduced per-candidate costs by up to 40 percent.

### **Box 15. TD Bank sees benefits from internal social networking**

With 85,000 employees around the globe and several recent acquisitions, Canada's TD Bank Group faced a challenge: to get its growing organization more connected and more collaborative, and make all employees more engaged. The answer was an internal social media platform. Launched in November 2011, in Canada, then extended to the United States in January 2012, the enterprise social network already has more than 4,000 communities and thousands of blogs and wikis. TD employees use the social network to communicate with team members, share expertise and information, support each other with advice, and collaborate. With thousands of employee profiles, colleagues can also easily find experts with the most relevant knowledge or skills.

TD has found internal social networking cuts down on the phone calls, meetings and unwanted e-mail (the endless chains of repetitive information; lengthy dissertations with massive and multiple attachments). More importantly, the social network gives management a new way to supervise and lead. TD senior district leaders, for example, must maintain constant contact with sales and customer service teams—to coach, motivate, and lead. Each leader is responsible for ten to 15 branches and social technology gives them an easy and natural tool for staying in touch, providing recognition, and sharing business updates. Previously, such communications had been filtered through the branch managers—by e-mail, in meetings or during conference calls. Now communications are direct and teams are always up to date, thanks to status updates and bulletin board posts that the group can all see immediately.

### **Value shifts**

In the near to medium term, retail finance players could capture a significant share of value created by social technologies, in the form of margin and share gains. Because switching costs are high in financial services and churn rates are low (about 2 percent annually), firms are positioned to capture most of the value added by social technologies in margin improvements. However, young consumers entering the market as well as consumers searching for new financial products are likely to benefit from lower prices or better services offered by players that have successfully integrated social technologies. In the long term, we would expect to see a gradual shift of value toward increasing consumer surplus.

Another group of players is also beginning to capture value from social technology: creators of new business financial services business models. Start-ups like Wonga, Lending Stream, and Zest Cash have the potential to take share and profit from traditional players in the retail finance sector with lending models based on rich social media data and sophisticated algorithms to analyze that information. Other disruptive social lending communities such as Zopa are leveraging the power of online communities to provide financial services in new ways. Zopa, based in the United Kingdom, and similar communities such as Prosper in the United States and Smava in Germany, allow members to lend and borrow money within the group, sidestepping traditional banks. The basic idea is

that consumers can get better rates, because social lending is more efficient than traditional bank lending, which has to cover significant overhead costs and must deliver returns to shareholders.

Another potentially disruptive idea is using the “collective intelligence” of a networked customer base to generate financial advice based on information supplied by members about their financial dealings. In Sweden, a newspaper invited homeowners to post their mortgage rates on an online database, along with information about their banks and where they live. More than 25,000 people submitted data, giving other consumers the information they needed to negotiate better rates. Many people realized for the first time that quoted mortgage rates are not final and that they can push for a better deal.<sup>108</sup>

### **Enablers and barriers**

Within the consumer-facing financial services sectors, a variety of issues are preventing full social media adoption. A number of barriers are common to banks and insurance firms.

Social media complicates compliance. Financial services companies must document how they comply with regulations that govern what they can say about their products or how they solicit customers; in insurance, for example, only licensed agents are allowed to approach customers. Also, the publication of insurance and banking services content is strictly regulated and often requires lengthy disclosures about investment risks.

As a result, regulatory issues pose a significant obstacle to the use of social technologies. According to a recent survey, about 50 percent of surveyed global banks cite regulatory hurdles as one of the largest deterrents to embracing social technologies.<sup>109</sup> Players in this market will need to invest in technology solutions and processes that enable them to use social technologies while complying with the relevant regulations (see Box 16, “Farmers empowers [and monitors] sales agents with networking support”).

Many financial services companies face organizational barriers that could inhibit productive use of social technologies. Given their size and complex structures, large global banking and insurance players are not able to shift quickly to new operating models that would let them capture the productivity benefits that social technologies make possible. So far, most of these institutions have limited social technology investments to marketing functions and not attempted to implement large-scale collaboration or communications applications on social platforms. By definition, banking and insurance firms have a culture of confidentiality and discretion that bodes against the blossoming of a free-wheeling open community of ideas on an internal social network. However, as innovative upstarts such as Movenbank and Zopa prove that there is more value to be gained from social technology than cutting marketing costs, even the largest institutions may be convinced that social technologies can work for them, across operations.

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<sup>108</sup> SVD Näringsliv, “Sök bland tusentals räntor på SVD:s räntekarta” (Search through thousands of interest rates on SVD’s interest rate map), [www.svd.se/naringsliv/sag-din-ranta/](http://www.svd.se/naringsliv/sag-din-ranta/).

<sup>109</sup> Social media: *Catching up with the banks*, MHP Communications survey, London, 2011.

### **Box 16. Farmers empowers (and monitors) sales agents with networking support**

Like other financial services firms, Farmers Insurance Group relies on independent agents to sell its products—but those products are also highly regulated, including by restrictions on what a salesperson can say about his offerings. Agents quickly recognized that they could use Facebook and other social sites to build relationships and drive business. But to ensure quality and comply with regulatory requirements, Farmers needed agents to stick to the same script.

To address these challenges, Farmers implemented a company-wide social networking tool that allows the company to monitor social media activities of agents and archive social network communications, as regulatory guidelines require. The company trains agents in social media best practices and compliance and provides a store of content for agents to use, which range from articles and videos to contests and sweepstakes—all providing consistent brand messaging.

Farmers was able to provide 4,000 agents with a Facebook presence in the first four weeks. It then used its agents' networks as a basis for a major promotion on the FarmVille game site, resulting in the acquisition of more than two million Facebook fans in less than 12 hours.<sup>1</sup>

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<sup>1</sup> Brian Kotlyar, "Social business summit report: Clara Shih explains local social at scale," dachisgroup.com.

## **PROFESSIONAL SERVICES**

### **Scope and size of market**

The professional services industry includes accounting, advertising and marketing, architecture, management consulting, engineering, IT, legal, and scientific research services. Professional services globally generate annual sales in excess of \$3 trillion. They represent 7 to 8 percent of total service sector revenue in advanced economies, and about 3 percent of all revenue globally.

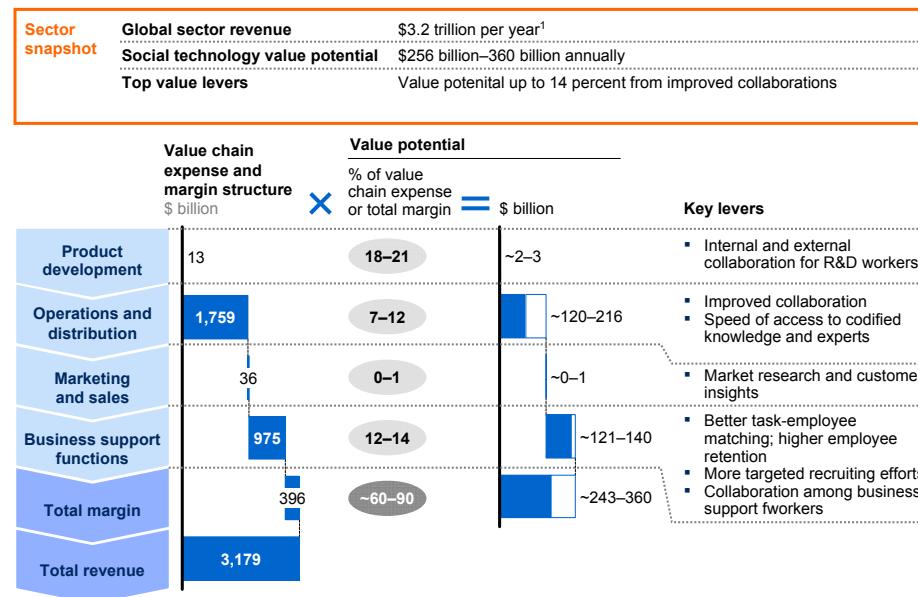
Professional services firms, more so than other businesses, are innately social organizations. They depend very heavily on social interactions—with clients and among professional colleagues—to carry out their work and develop new business. They rely on long-term relationships that are built on trust and traits such as intellectual leadership, integrity, and confidentiality are elements of the reputational brand promise that professional services firms rely on to retain clients and attract new ones. Within professional firms, encouraging effective collaboration and building distinct organizational cultures are common aspirations. Furthermore, it is common for professional services staff to collaborate with colleagues and clients in different locations, which may be many time zones away. Specialized knowledge and expertise is often essential, and in many firms, professionals are expected to publish content, share knowledge internally, and build reputation externally.

All of these characteristics point to very large potential benefits from social technologies. From demonstrating knowledge and intellectual prowess through tweets, to recruiting via social sites, to mining social data for information to assist in litigation, professional service firms are finding ways to employ social technologies. In fact, we estimate that because the daily operations of professional services firms involve such a high degree of collaboration and interaction, the more efficient ways to communicate and collaborate using social technologies could create value worth as much as 12 percent of the operating costs in these industries (Exhibit 30). Moreover, through capabilities such as crowdsourcing talent, social technologies make possible disruptive new business models in professional services.

### Exhibit 30

#### Social technologies could add \$243 billion–360 billion in value annually in professional services

Global 2011



<sup>1</sup> Hoovers, May 2012; US Census Bureau, *Statistical Abstract of the United States: 2012*, 131st Edition.

NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: Hoovers; US Census Bureau, *Statistical Abstract of the United States: 2012*, 131st Edition, Washington, DC, 2012; McKinsey Global Institute analysis

However, little of this value is being captured today, because professional services firms in some areas are not using social technologies to the extent that they might. When asked what are the most valuable online activities for their organizations, law firms ranked distribution of white papers and e-books at the top of the list, with social applications were not near the top.<sup>110</sup> In this and other areas, such as collaboration, knowledge management, and communication, the slow uptake reflects to some extent the relative immaturity of the relevant technologies.

Slow adoption also reflects organizational and cultural barriers. In surveys of law firm marketing executives, only 13 percent said they see value in using social media—and 60 percent said that there is resistance to doing so by top management in their firms. While 85 percent of surveyed law firms view social

<sup>110</sup> Hinge Research Institute, “Online marketing for professional service firms,” Hingemarketing.com, 2011. The survey was of 500 professional services firms and 20 online marketing experts.

media as important and 92 percent track what is said about them in social media, 29 percent do not engage with any form of social media because of their firm's risk policy.<sup>111</sup> There is a range of reasons for resistance, including a history of difficult technology implementations in professional services: professionals who must generate "billable hours" doing client work need substantial incentives to take time out to learn a new system—even if it would make them more productive.<sup>112</sup>

### **Examples of current usage**

Nonetheless, social technology-based collaboration tools are starting to play an important role in some firms in the professional service industry today. Some organizations are using social technologies to streamline processes, by, for example using internal social platforms to create and share guidelines and instructions for repetitive, similar tasks (e.g., templates for drafting client proposals or a primer on the most common tax issues in sales of retail properties). These shortcuts enable professional teams to spend more time on executing client work and less time reinventing known processes. Management consulting firms, for example, have started setting up communities where project managers can get fast access to useful blueprints for new engagements.

Social technologies are also helping speed access to internal knowledge and expertise, particularly to find in-house experts (and sometimes external ones) who can fill specific knowledge gaps. Professionals in large global law firms, for example, use internal social networks to quickly locate specific local knowledge of foreign legal systems and to share best practices.

Law firms have recognized the value of social data in litigation support. Information from social platforms is helping attorneys discredit witnesses and fine-tune jury selection, for example. In the past, the party that could spend more on professional trial consultants (such as social scientists or psychologists) to evaluate members of the jury pool had significant advantages. The Internet and social media allow attorneys to gather immense amounts of information about prospective jurors (e.g., arrest records, political affiliations) and to track their activities on social networks (e.g., blog posts, comments, group affiliations). Trial lawyers also use social media to understand and manage public perceptions of a case. In some cases, they have even started using social media to find trial evidence.<sup>113</sup>

Several professional service firms have made social media an integral part of their broader recruiting strategies. Recruitment staff create their own profiles on social media sites to help them communicate with potential employees, search for professionals based on their network and recommendations, and post vacancies that are easy for targeted candidates to find (see Box 17, "Improving talent scouting through social media recruiting campaigns").

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<sup>111</sup> *Salary and social media survey*, Law Firm Media Professionals and Hellerman Baretz Communications, 2011.

<sup>112</sup> See W. Orlowski, "Learning from notes: Organizational issues in groupware implementation," *Proceedings of the 1992 ACM Conference on Computer-Supported Cooperative Work*, 1992.

<sup>113</sup> Rich Meehan, "Facebook and trials," [blog.ctnews.com](http://blog.ctnews.com), March 1, 2012.

### Box 17. Improving talent scouting through social media recruiting campaigns

In Gap Year 2012, an intern recruitment program in Germany, Allianz, Bertelsmann, Henkel and McKinsey used social technologies to reach out to college graduates who might be candidates for entry-level analyst roles. This social media campaign was much more successful at reaching the target group than other digital channels, such as banner advertising. It improved reach by 20 percent and lowered cost per contact by 27 percent. The effort even yielded higher quality candidates: the proportion of applicants who eventually received offers was 36 percent higher for those who connected to the firms via social networks than for those who applied through standard career Web sites. It is worth noting, however, that application quality from single-purpose social career networks (i.e., serving only university graduates) was much higher than those from general-purpose social networks.<sup>1</sup>

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<sup>1</sup> McKinsey & Company, *Turning buzz into gold: How pioneers create value from social media*, May 2012.

In some professional services fields, such as architecture, social technology-based marketing has become common. But in professions such as law, where social media provides a natural point of contact to establish new client relationships, many firms have been reluctant to pursue this opportunity. Many top law, consulting, and audit firms, as well as advertising agencies, use social media almost exclusively to distribute image-building content, such as white papers, and news about corporate social responsibility or pro bono initiatives.

Professional services firms may risk falling behind the demands of their clients to use social technologies for business communications and collaboration. According to a 2011 survey of 150 large UK businesses, 96 percent want the option to communicate online with their lawyers. In the same survey, consumers said they would rely on online reviews as much as personal references to choose an attorney.<sup>114</sup> And, while major law firms weigh the benefits of using social technologies for client development, entrepreneurial firms are moving ahead. In the United Kingdom, where the Legal Services Act of 2007 was enacted to increase competition and allow new types of law firms, start-ups such as QualitySolicitors, face2face solicitors, 360 Legal Group and Lawyers2you are using social networks, including Twitter, Facebook, and LinkedIn, to connect with potential clients and recruits.

Indeed, social technologies are making possible new service delivery models that could prove disruptive to the professional services industry (see Box 18, “Disruptive legal firm models rely on social technology”). For example, ReferMarket, an online referral market where lawyers and other professionals in the United States and the United Kingdom can be paid for referring clients to other professionals, uses LinkedIn and other social networks to attract

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<sup>114</sup> Peppermint Technology, *What clients really want from a legal service provider—the first fully comprehensive research into the role of the customer experience in legal services, post the Legal Services Act*, research report commissioned by Peppermint Technology in association with Microsoft, NatWest Business Banking, Epoq and Oyez Professional Services, October 2011.

new members. Such social networks and marketplaces have the potential to change how lawyers and other professionals obtain referrals and build new relationships.<sup>115</sup>

### **Box 18. Disruptive legal firm models rely on social technology**

The economic downturn forced the legal industry to re-examine its high-cost business model. Even large clients were willing to try unconventional ways to engage legal talent so they could reduce expenses. Firms like Axiom and Clearspire offered a more efficient model—supplying legal talent on a project or temporary basis, charging flat fees for services and using social technology for collaboration and information gathering.

To lower overhead, these firms use highly qualified, freelance attorneys who are paid only when working on assignment. The new firms also have little need for expensive office real estate. Social technology enables its attorneys and other staffers to work from home anywhere in the world or from client premises. The collaborative social platform also allows clients to co-create documents and can make changes and comments in real time.<sup>1</sup>

As a result, the upstarts charge about half of what traditional law firms do, while still guaranteeing quality work by highly skilled attorneys.<sup>2</sup> It proves that social technologies can bring new disruptive business models into even the most conservative, risk-averse industries.

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1 “Bargain briefs—technology offers 50 ways to leave your lawyer,” *The Economist*, August 13, 2011.

2 Daniel Fisher, “New precedent for law firms,” *Forbes*, June 6, 2011.

## **Value creation potential from social technologies within professional services**

Professional services organizations are collections of highly skilled and deeply specialized individuals who come together to create value for clients by drawing on and combining their expertise. The core activities involve interacting with other professionals, support staff, clients, and outside experts and finding, creating, and using content and knowledge. Therefore, the biggest opportunity for value creation comes from making interactions (e.g., collaboration, communication, knowledge sharing) more efficient and effective. Additional sources of value lie in product creation (e.g., co-creating new service lines), marketing and sales (e.g., more timely and accurate client insights), and recruiting. We estimate that the annual value generated from social technologies could be as high as \$240 billion to \$360 billion in professional services. This would equate to productivity gains between 0.4 to 0.7 percent annually over the next ten years.

## **Product development**

An important source of growth for professional services firms is creating new service lines. Often, these new businesses are based on the specific demands of clients in particular industries and require access to narrowly defined expertise. Using social technologies, professional service firms can more readily access

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115 *Examining the future for law firms and social media*, LexisNexis Martindale-Hubbell, 2011.

knowledge and experts to shape these service offerings and improve the economics of a highly labor-intensive process. Based on the estimated level of improvement that social technologies can bring to other knowledge-intensive collaboration work, we project that professional services firms can unlock value equivalent to 18 to 21 percent of current costs for developing and modifying services.<sup>116</sup>

Social technologies make possible a new development model for professional services: co-creating services with clients or even with other third parties. Co-creation and knowledge sharing with clients, in fact, can become an important source of differentiation and competitive advantage. Instead of providing commodity services (e.g., IT staffing), firms can develop unique services through collaboration and knowledge sharing that will also tie clients more closely to the firm. Successful co-creation of services depends to a large extent on willingness to disclose information and to work together across organizational boundaries to create new products or develop new ideas. Social technologies can support these tasks. Professional services firms investing in this model for product development are likely to benefit significantly from the collaboration tools of social technologies.

Helping clients manage their own social technologies represents a growing service line in many professional service sectors. Advertising, design, and marketing agencies build practices in social media, one of which is monitoring and analyzing social data; IT consulting firms provide technology; and law firms advise clients on social media policies, ranging from intellectual property protection to use of employee social data.

## Operations

Social technologies provide a way for professional services employees to search, share, modify, and interact on relevant knowledge from anywhere, allowing for flexible work flows and global collaboration, both internally and across company boundaries. These activities, which we describe as being the “operations” of a professional services firm, are where social technologies can create significant value. Based on our analysis of interaction work across industries and the high concentration of interaction workers in professional services, we project that the potential value from fully implementing social technologies in professional services operations could be equivalent of 7 percent to 12 percent of total operating costs, depending on the subsector. This indicates potential value at stake of \$120 billion to \$220 billion globally across all professional service sectors.

These benefits can be captured not only by client-facing professional services staffs, but also by employees in business support functions, such as finance and accounting and IT. Realizing the potential value of improved collaboration, however, requires widespread participation, which sometimes needs to be induced (see Box 19, “Getting employees to use a social platform for collaboration and knowledge sharing”).

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116 Assuming 80 percent of labor in this value chain step is interaction workers.

### **Box 19. Getting employees to use a social platform for collaboration and knowledge sharing**

Bluewolf, an IT outsourcing and consulting company, faced the challenge of encouraging employees to share knowledge and collaborate on a social platform. It created a social portal-based resource center that provides training on different collaboration and knowledge-sharing platforms. Then it created social profile pages for all employees, identifying team memberships, areas of functional and vertical (industry) expertise, clients served, and personal information. The page also listed internal and external social activities, including blog posts, white papers, or case studies by the employee, as well as social media analytics showing the employee's influence.

To build engagement, the company added gaming components to internal and external collaboration tools: employees earn points for filling out fields on their profile pages, for posting or commenting using the internal communication tool, for publishing blog posts, for attracting visitors to those blog posts, and for sharing content via external social networks, as well as for receiving inbound clicks on those shares. There are special challenges that reward the winners with small prizes: the “spread-the-word” challenge gives employees who get 50 clicks on a shared link to the Bluewolf site a \$25 gift card and a badge saying they won the challenge. Bluewolf monitors the success of its social media initiative via site traffic and internal collaboration. In the first four months after the program launch, collaboration via the internal social network increased by 57 percent.<sup>1</sup>

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<sup>1</sup> David Kirkpatrick, *B2B social media: Gamification effort increases Web traffic 100 percent, employee collaboration 57 percent*, Marketing Sherpa, case study number CS32169, May 2, 2012.

## **Marketing and sales**

Opportunities in marketing and sales in professional services through the use of social technology are in building and fostering relationships. Using the social graphs of influential clients (or even opening up a firm’s social graph) could expand professional networks of all participants, foster new relationships, and provide introductions to potential clients. By building up existing customer relationships on social networks, and integrating client personnel into proprietary social networks, firms can also enable more effective knowledge sharing and co-creation, as well as speeding access to experts and expertise. These activities are beyond traditional marketing and sales but are powerful tools for forming and strengthening the relationships that create revenue opportunities. They also help make loss of clients less likely—clients who have co-created knowledge, shared expertise, and made professional connections on one firm’s social platform have substantially higher switching costs.

Externally, social media is a powerful tool to build overall brand strength and awareness and to signal subject matter expertise. At relatively low cost (i.e., compared with print or television advertising), professional services firms can establish credibility as thought leaders with a wide audience. Firms can use social media—home pages, tweets, blogs—to share knowledge initiatives, circulate press releases or video interviews, stimulate debate around topical issues, and build public awareness about what they do. By creating and sharing valuable content such as white papers, case studies, or how-to videos, even smaller professional service firms can create significant visibility and recognition as experts (see Box 20, “How social technologies gave a small architecture firm a national reputation”).

### **Box 20. How social technologies gave a small architecture firm a national reputation**

By blogging, podcasting, and interacting with the design community online, HPD, a three-person architecture and interior design firm in Dallas, gained national visibility and developed qualified leads. HPD used microblogging to meet and follow relevant design community members and to engage in ongoing discussions by sharing links to relevant content on other design Web sites. Simply by sharing content created by others (or “curating”), HPD built a reputation as a knowledgeable resource for the architecture and design community.

HPD also creates its own content, including “The Architecture Happy Hour,” a podcast series in which the partners share their views on architecture topics. They also write blogs to spotlight innovative and interesting happenings within the architecture community. The team uses social media to promote podcasts and new blog posts and to build a loyal subscriber base. HPD’s social media efforts have led to interviews in national publications, invitations to speak at industry conferences, and word-of-mouth recommendations as a resource not only for architects, but also for all kinds of firms that hope to raise their profiles and find business by using social technologies.<sup>1</sup>

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1 Sean McVey, “HPD Architecture: A study in social media for architects,” Professional Services Marketing Blog, Hingemarketing.com, August 26, 2011.

Social technology-based collaboration tools can also be used to create virtual project teams with clients. For example, TMS, a London-based firm that specializes in road transportation, has adopted social technologies to manage communications and collaboration among its professional staff and with its clients (see Box 21, “Speeding up collaboration with clients”).

### **Box 21. Speeding up collaboration with clients**

Traffic Management Services (TMS) manages road works for contractors and local or national road authorities in the United Kingdom. The company introduced a proprietary collaboration tool in April 2009 to simplify the sharing of information and improve electronic communication and online collaboration with its clients. In one virtual workspace, TMS now shares design drawings with clients such as the London Borough of Barnet and Transport for London, vastly reducing turnaround time on changes and improving collaboration by avoiding mailing revisions back and forth. Using social technology, TMS now uploads the documents into the workspace, the system automatically notifies the clients that new documents are available, and clients as well as other invited team members can review, comment on, and approve material in real time. In addition, teams use a central diary to coordinate projects. So far, TMS has implemented 14 workspaces for three clients and expects to have its entire customer base using the collaboration tool within 12 months.<sup>1</sup>

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1 “Huddle and Traffic Management Solutions work together to keep the traffic flowing,” [www.huddle.com](http://www.huddle.com) case study.

One of the most important ways in which social technologies can improve professional service operations is optimizing the allocation of professional talent. This involves both assigning internal resources and drawing on the global pool of freelance or subcontracted professional talent that can be tapped across social networks. Social technology can significantly improve talent resourcing, because it provides ways to identify specialized expertise—partners, subcontractors, and offshore resources—to simplify resource sharing among firms regardless of location.

Another critical source of value in professional services is recruiting. Firms thrive—or don’t—based on their ability to attract and retain the best professional talent. In the first stage of the employment life cycle, social recruiting platforms make it significantly easier and cheaper to identify talented individuals in labor markets across the world. We estimate that firms can reallocate the equivalent of 40 percent of recruiting costs through use of social technologies. Moving to social media can reduce costs of recruiting agencies and traditional recruiting advertising by, for example, using professional networks and expert forums to reach the most likely targets directly.

Once talent is identified and hired, social media may help raise retention rates by improving the general work environment, building communities of employees with shared interests, and enlarging the breadth and depth of professional relationships. Furthermore, using social media to improve resource assignments (matching talent to projects) can also improve project quality and employee satisfaction. These improvements are likely to increase employee retention in the long run.

### **Value shifts**

Firms can use social technologies to provide highly customized offerings, where price is not the primary factor in purchasing decisions. By doing so, firms can generate higher margins than are available with more commodity-

like services, such as routine accounting or IT services. However, the potential for social technologies to enable crowdsourcing of professional talent shows how social technologies could disrupt existing players (see Box 22, “Bringing high-end design to small and medium-size businesses”). If clients can bid for professional services online, many kinds of professional services firms could feel pricing pressure.

### **Box 22. Bringing high-end design to small and medium-size businesses**

Choosa is an international design crowdsourcing platform and community. Registered customers publish their requests for design work—a new Web site, logos, brochures) together with an offering price. Any of the 16,000 designers in the Choosa community can pick up the request and respond with a proposal. The customer can monitor those proposals and suggest creative adjustments. Then the customer executes a contract with the best designer with the best offer. Choosa customers have offered more than 1,000 jobs, and have received, on average, 125 submissions for each. The platform helps both small business owners and designers alike: small business can access a global talent pool and get high-end design results at affordable prices, while designers are able to increase their exposure and client base and establish themselves in an international design community.<sup>1</sup>

1 Choosa, “About us,” [www.choosa.net](http://www.choosa.net).

Firms with highly customized offerings and strong customer ties may regard the payoff from investments in social technologies less as an opportunity to capture direct economic value, and more as a way to bolster relationship and intellectual capital. With social technologies, firms will build up knowledge of their clients’ processes, working styles, and industries. All of this information contributes significantly to the total amount of value a firm can create for its clients. If a client were to switch firms, this value would be lost. As a result, clients will be less inclined to switch firms to save on the cost of service. However, in the long run, market forces will likely cause increasing amounts of the value creation to filter down to the customers.

### **Why adoption in professional services is slow**

For all the potential benefits of social technologies, professional services firms face many barriers to adoption. In addition to the cultural issues noted above—resistance by top management and lack of enthusiasm by professionals who don’t see a personal benefit in investing in a new work routine and sharing more information—professional service firms must consider privacy and security issues. What’s more, the mode of social interactions that social technologies make possible and that have become so popular in some cultures, is not useful in others. For clients and colleagues in cultures that value “face time” and relationships rooted in physical proximity over task orientation, virtual online collaboration via social technologies may be inappropriate.<sup>117</sup>

117 Gary M. Olson and Judith S. Olson, “Distance matters,” *Human-Computer Interaction*, Volume 15, 2000.

Ensuring that relationships of trust and confidentiality are maintained is another barrier for social technology adoption. Maintaining confidentiality is a key priority for most professional service firms and is critically important for firm reputations. The concept of sharing information on a social platform—even in a completely secure environment—could make clients and employees uncomfortable. There are additional risks, even in the personal use of social technologies by professional service employees or clients. Logging on to Facebook from a smartphone could give away the whereabouts of parties to secret negotiations, for example. As a result, users of social technology within professional services firms need to ensure that their personal use does not damage the firm's brand or reputation.<sup>118</sup>

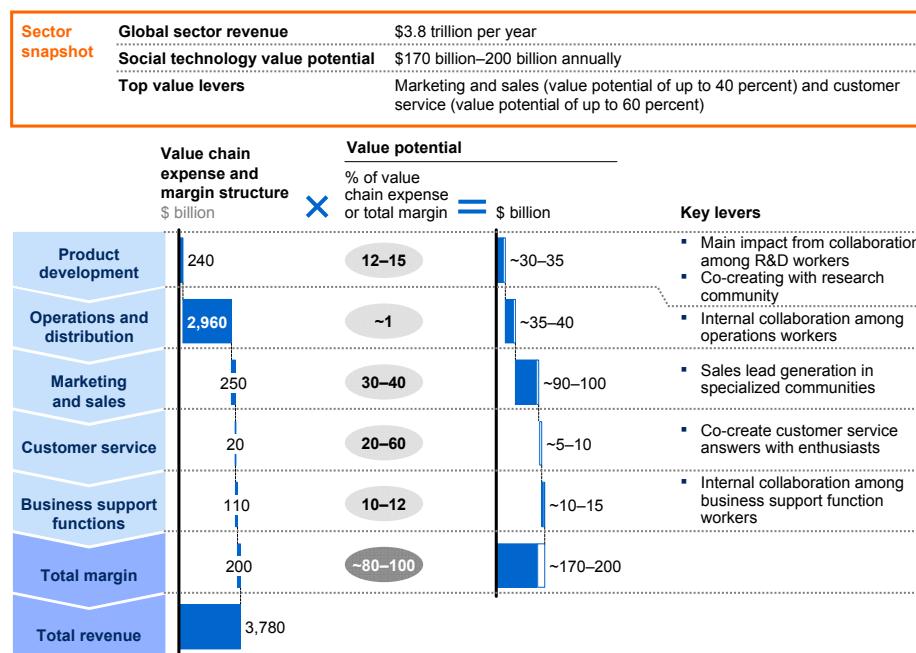
## ADVANCED MANUFACTURING

In this study, the focus of advanced manufacturing is on three subsegments: semiconductors, automotive, and aerospace.<sup>119</sup> Global sales of those industries in 2011 were about \$300 billion, \$3.3 trillion, and \$140 billion, respectively (Exhibit 31).

**Exhibit 31**

### Social technologies could add \$170 billion–200 billion in value annually for advanced manufacturing industries

Global 2011



<sup>118</sup> Examining the future for law firms and social media, LexisNexis Martindale-Hubbell, white paper, 2011.

<sup>119</sup> We use the Hoover's description of the semiconductor segment, which includes semiconductor and electron tube manufacturing, electronic capacitors, resistors and connectors manufacturing, as well as printed circuit boards and other electronic components manufacturing. Global sales information for semiconductors is 2011 data from iSuppli. For automotive, we use 2011 global sales (gross output) according to Global Insight WIS database (June 2012). For aerospace, we use 2011 global sales data from the Teal Group.

These three segments offer complex, engineered products. They are capital-intensive and require extensive R&D, and they employ a high proportion of highly educated knowledge workers. Many of these companies also must integrate components or subsystems from specialized suppliers in global supply chains. Therefore, companies in these sectors can gain significantly from more effective collaboration and coordination in their internal operations and with supply chain partners. In all sectors, competitors succeed through innovation and advanced product development. Across advanced manufacturing, social technologies can make significant contributions to raising the productivity of high-skill workers, improving coordination and collaboration with partners, and accelerating innovation through co-creation. In the automotive sector, a large consumer industry, additional benefits can be gained from use of social technologies in marketing and sales.

Two segments—semiconductors and aerospace—operate in B2B markets, in which customers (e.g., computer makers and airlines) require not only cutting-edge products, but also extensive pre- and post-sales technical support services. To sell these highly complex products, the supplier must assist in defining the specifications for the order and, in the case of aerospace, provide specialized technical repair and maintenance services; the finished product is surrounded by an entire ecosystem of services to deliver continuous post-sale support and maintenance. Relationships between semiconductor and aerospace suppliers and their customers are usually collaborative and long term. This makes switching costs high and marketing costs relatively low.

Both semiconductors and aerospace are highly consolidated industries, with large, global organizations that depend heavily on knowledge management and sharing across functional and geographic organizations. At the same time, both industries have a very strong need to maintain information security, which could limit the use of social technologies for knowledge sharing. Aerospace includes defense industries that have particularly stringent requirements for information security; breaches can have both economic consequences and national security implications.<sup>120</sup>

Aerospace and semiconductors are very different in terms of demand and product cycles. Semiconductor demand is highly volatile, with major surges and subsequent downturns, driven by high rates of innovation and short product life cycles.<sup>121</sup> To deal with this volatility, semiconductor production and supply chains must be highly flexible, putting a premium on demand forecasting capabilities. Aerospace, by contrast, has long product life cycles and customers that buy on schedules that can last decades.

While the automotive sector requires innovations, like the semiconductor sector, and has extremely complex supply chains, like aerospace, it differs from the other advanced manufacturing industries in its consumer focus. Automakers are among the largest advertisers in heavy industry, spending approximately 7 percent of revenue on sales and marketing. Purchase decisions are heavily influenced by

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120 US government officials expect aerospace to remain a prime focus of industrial espionage, including through cyber attacks. See Office of the National Counterintelligence Executive, *Foreign spies stealing US economic secrets in cyberspace*, report to Congress on Foreign Economic Collection and Industrial Espionage, 2009–2011, October 2011.

121 For example, from 1998 to 2000, semiconductor industry sales rose more than 35 percent, then dropped by the same amount from 2000 to 2002.

brand favorability, which competitors manage through marketing activities and continuous product development. Automakers are highly attuned to consumer preferences, and inputs in the product development process can benefit from the consumer insights that social technologies enable.

### **Current uses of social technology**

According to a 2010 survey among advanced manufacturing executives, most manufacturers are just beginning to explore how social technologies can help to achieve business objectives. Only 63 percent of the 268 surveyed executives saw opportunities and potential benefits in combining social technologies with their enterprise IT systems. The main benefits cited were to gain a better understanding of the marketplace, to get better insights into how their brands were perceived, to research customer behavior, and to acquire competitive intelligence. Most did not perceive social technologies as important for decision-making systems and only a third said they would select enterprise IT solutions based on their ability to integrate social tools. Larger companies in the sample, however, are ahead of the adoption curve, with nearly 50 percent stating that social media will become important for their IT systems.<sup>122</sup>

Within advanced manufacturing, auto manufacturers have led in social technology use, primarily for marketing. The intense brand loyalty of auto enthusiasts, however, is not yet reflected in social media: no auto brand is represented among the world's top ten social sites for brands, as measured by number of fans and "likes."<sup>123</sup> BMW has less than 25 percent the number of followers on its main Facebook page as Coca-Cola; Ford Mustang has less than 10 percent.<sup>124</sup>

But auto manufacturers have launched innovative campaigns that have attracted consumer attention and engagement, especially among younger buyers. For example, both Ford and Chevrolet have used social sites to send young drivers on road trips with challenges to undertake (see Box 23, "Ford's social media Fiesta"). The next step for auto makers is building Internet access (and social connectivity) into cars. In July 2012, BMW announced that some 2013 models will have an onboard system that provides Web access and will read e-mails aloud and allow drivers to dictate e-mails in response.

Automakers are also using social technologies for market research and product development. They have enlisted online focus groups to evaluate product ideas and use sentiment analyses to determine consumer design preferences and identify potential improvements based on discontent with products already in the market.

This auto industry has also started to find ways to make its products "social" by adding built-in smartphones and exploring other ways to connect socially from the road, such as giving navigation systems capabilities to identify and rate

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122 The survey was conducted by RBLinteractive Research Group for IFS North America among 268 corporate, operations, and IT executives and managers in manufacturing companies with revenue of \$100 million or more. IFS North America, *2010 IFS Advanced Manufacturing Software Trends Study*, 2010.

123 *The power of like: How brands reach and influence fans through social media marketing*, comScore, July 26, 2011. See also Jeff Bullas, "The world's 10 most popular company Facebook pages," [Jeffbullas.com](http://Jeffbullas.com), 2012.

124 Percentages measured by the number of "likes" on each company's Facebook page in July 2012.

nearby restaurants or points of interest based on social network reviews posted by the driver's friends. Other potential functions include automatically providing directions through GPS to places where friends have checked in or playing the same music that friends in other places are listening to. While the development of these applications are still in early stages, auto companies are committing to integrating social technologies in their cars.

### **Box 23. Ford's social media Fiesta**

To successfully reintroduce the Ford Fiesta, a subcompact that had been absent from the American market since 1981, Ford needed to attract young, urban drivers (under 30 years old). Ford's traditional market base was white, suburban family men. Thus, Ford decided to launch an innovative marketing campaign, distinct from its usual approaches and aimed at gathering new followers. It was called "The Fiesta Movement."

Ford loaned Fiestas to 100 "agents"—clever, adventurous young people who, most importantly, had a proven following on social media sites. In return for the use of the car for six months (and related expenses), these agents would share their unfiltered views of the Fiesta experience through all forms of social media. Ford also provided free publicists, in case the agents wanted additional guidance.

Together these agents produced more than 600 videos (one of which was viewed 200,000 times), 600 blog entries, 5,500 photographs, and 7,700 tweets (to 400 followers on average). By the end of the campaign, Fiesta had garnered enough press mentions to earn a 33 percent "share of voice" rating in its category; 92 percent of these mentions were favorable or neutral. Of the 50,000 "handraisers" (consumers who expressed interest in buying a Fiesta by giving Ford their contact information pre-launch), 97 percent did not own a Ford car.<sup>1</sup>

In total, the campaign cost \$2 million in cars and other costs, plus \$500,000 per month for program maintenance. But, according to chief marketing officer Jim Farley, that is about one-tenth of what Ford would have spent on a launch campaign using traditional media.

The Fiesta social campaign continues. "AJ," a test car, has Twitter and Foursquare accounts, which are linked to the car's telematics system, enabling the car to automatically microblog messages such as "Stuck in traffic" or "It's getting pretty dark." The test drivers check in at restaurants and tourist spots on Foursquare.<sup>2</sup>

1 John Deighton and Leora Kornfeld, *The Ford Fiesta*, Harvard Business School case study, June 20, 2011, and Andrew Stephen, *Ford Fiesta Movement: Using social media and viral marketing to launch Ford's global car in the United States*, INSEAD case study, May 2010.

2 Bernie Woodall, "Ford bets big in digital marketing departure," Reuters, November 1, 2010, and John Deighton and Leora Kornfeld, *The Ford Fiesta*, Harvard Business School case study, June 20, 2011.

## **Value creation potential**

Because advanced manufacturing industries are very knowledge-intensive sectors, the largest potential from social technologies lies in using enterprise tools to improve collaboration, knowledge management, and coordination within and between enterprises. These uses represent 60 percent of the potential value available from social technologies in these sectors. Our estimate for the total annual social technology potential in advanced manufacturing is as high as \$170–\$200 billion, which over ten years could yield additional compound annual productivity growth of 0.5 percent.

In automotive, there is also significant potential value in applying social in marketing activities. We estimate that the value potential in marketing is 40 percent of total marketing spend, which corresponds to approximately \$85–90 billion.

## **Product development**

R&D spending in these industries is generally large, ranging from 5 to 20 percent of revenue. We estimate that by utilizing social technologies, advanced manufacturing enterprises can capture value equivalent to 12 to 15 percent of costs, by gathering customer feedback, improving collaborating among engineers, and co-creating products with an external community. Kia, for example, designed more comfortable seats and increased the space of the Kia Optima cabin after learning from consumers in social forums that they found the Optima cramped and uncomfortable. These changes were implemented just a year after the model's launch, which—in an industry with long design cycles and lagging customer insights—represents a big leap in responsiveness.

Semiconductor makers are also using social technologies to capture customer insights for their R&D efforts. Texas Instruments, for example, uses online panels to evaluate new semiconductor products in development. One of the biggest benefits is discovering which features potential buyers don't want, helping TI avoid over-engineered and costlier products.

In terms of R&D operations, social technologies have the potential to improve communication and collaboration between R&D and engineering teams in dispersed locations. While Intel and other technology companies pioneered connected R&D and engineering teams on internal networks to allow them to work continuously (passing a design from Japan to Israel to the United States, for example), social media allows companies to take this to a new level, by enabling more ad hoc collaboration.

Finally, advanced manufacturing industries can draw significant benefits from co-creation using social technologies. Since the technological barriers and need for expertise are high, firms can benefit from reaching out to more specialized and highly skilled groups such as engineering communities or external research organizations that have spare capacity. Local Motors, a company that was launched to show that there was an alternative to the traditional capital-intensive auto manufacturing model, relies on co-creation for its designs and runs co-creation contests from its Web sites (see Box 24, “Local Motors co-creates a car for the US military”).

**Box 24. Local Motors co-creates a car for the US military**

Getting new vehicles that are adapted to particular terrains into the field quickly is an important goal for the US Defense Department, which faces rapidly shifting mission requirements. Faster development could also produce significant savings. In 2010, the director of DARPA, the US Defense Advanced Research Projects Agency, hypothesized that it was possible to design, manufacture, and test a new vehicle in less than one-fifth of the usual time (about five years on average). So, as a pilot, DARPA, the Defense Department research operation, asked Local Motors, a small auto manufacturer known for its use of crowdsourcing in product development, to design and produce within about four months a vehicle that could run at high speeds over desert terrain.

Local Motors launched a competition with a \$10,000 prize to design the vehicle. Designing the competition and scoping it with the Army took two weeks, and the competition itself was live for three weeks. In that time, Local Motors received 162 entries. After one week of the crowd voting, the engineering development and prototyping began. During the three and a half months of building, specific design challenges were again opened up to the Local Motors community to solve. The entire process took less than five months to create a fully functional, combat-ready vehicle. In his speech at the ceremony when the vehicle was delivered in June 2011, President Barack Obama noted that by speeding up development, new approaches like crowdsourcing could save billions of dollars.<sup>1</sup>

<sup>1</sup> *Remarks by the president at Carnegie Mellon University's National Robotics Engineering Center*, White House Office of the Press Secretary, June 24, 2011. See also Tom Kalil and Regina Dugan, *Crowd-sourcing the renaissance of manufacturing*, White House Office of Science and Technology Policy, June 24, 2011, and "Local Motors and co-creation," *Cocreationforum.com*, November 2011.

**Operations and distribution**

While operations account for 60 to 90 percent of costs in these manufacturing sectors, the potential for productivity improvements from social technologies is estimated to be relatively modest within this part of the value chain. This is because a large percentage of operating costs are tied up in machinery and material, which social technologies have limited ability to affect. However, there are applications of social technologies within operations, including in demand forecasting, which we estimate has a value potential of up to \$40 billion globally. Companies can analyze customer information from social technologies to supplement conventional forecasting methods. These techniques are most appropriate in sectors where demand fluctuates and there are large groups of end users: autos and semiconductors, but less so aerospace. Since the lead times for auto components are long, more precise demand forecasting can generate significant value by avoiding overpurchasing (and shortages) across massive supply chains. For semiconductor companies, where fluctuating demand can quickly turn profits to losses, using social media in demand forecasting can improve the effectiveness of capacity planning. Intel, for example, applies social aspects to its demand forecasting system (see Box 25, "Intel predicts demand via social interactions").

### **Box 25. Intel predicts demand via social interactions**

Intel, the world's largest semiconductor company, determined that customer information filtered through sales, marketing, and business planning teams led to biased forecasts. In order to predict true market demand and build better forecasts, Intel decided to create "forecasting markets," based on the concept of prediction markets (in which many players bet on what the correct answer will be). Market participants—Intel employees with a broad knowledge of the global market—enter their own unit sales estimates while watching others enter theirs. Participants reveal not only one expected outcome, but also a series of expected outcomes over time, capturing individual and collective assessments about demand trends. The forecasting market results were 20 percent more accurate than those from traditional methods and were within 2.7 percent of actual sales in six out of eight cases. Intel says it plans to quadruple its use of prediction markets and open them to a more diverse group of employees.<sup>1</sup>

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<sup>1</sup> Jay Hopman, "Using forecasting markets to manage demand risk," *Intel Technology Journal*, Volume 11, Number 2, May 2007.

Social technologies could improve operations for advanced manufacturing beyond demand forecasting by supporting better collaboration in product customization—the process of transferring individual customers' needs into concrete product specifications. This collaborative design process, in which consumers help define, configure, and modify products, enhances customer satisfaction. With the right social technologies, co-design and customization could be faster and less expensive, expanding the range of design alternatives available to the customer. This could be relevant to B2C (e.g., car manufacturers) as well as to B2B advanced manufacturing industries.

### **Marketing and sales**

For automakers, the greatest source of value from social technologies in marketing and sales is in deriving customer insights and in social platform marketing campaigns, as Ford's Fiesta Movement demonstrated.

For semiconductors and aerospace, the impact within sales and marketing is driven by the effectiveness with which sales leads can be generated and fostered through social technologies. Texas Instruments, for example, built an engineer-to-engineer network to connect engineers inside and outside TI (see Box 26, "Engaging with engineers on their own terms").

**Box 26. Engaging with engineers on their own terms**

A few years ago, semiconductor maker Texas Instruments decided to improve its relationships with its customers, who mainly consist of engineers. TI realized that the main reason that engineers engaged with each other online was to get assistance and knowledge to help solve specific, complex problems. Social sites for engineers already existed, but TI could offer something more with its online community: access to TI's internal engineers. In the mid-2000s, TI launched the TI engineer-to-engineer (E2E) community, an open network of more than 50,000 engineers and TI experts. Members engage on this social site by asking and answering technical questions about TI chips, sharing knowledge and solving problems, or tracking down bugs. Texas Instruments recognizes members for their community contributions, including by naming top contributors "gurus," and posting their pictures on the site. The site has improved TI's customer service, by making its engineering expertise available and posting a constant supply of useful content. And it has made external community members more committed customers: engineers who engaged in the E2E community ordered on average six times the number of samples (across three times as many product areas) as those who were not engaged with the community. This also helped to reduce the amount of time during which samples were tested, reducing the sales cycle.<sup>1</sup>

1 "E2D help central," Texas Instruments Web site, <http://e2e.ti.com/group/helpcentral/default.aspx>, and "How Texas Instruments' E2E community is driving productivity through increased engagement," Wordofmouth.org, June 10, 2010.

**Customer service**

Since continuous support is important for customer retention in advanced manufacturing and many customer support activities require knowledge workers with technical expertise, social technologies can create significant value for advanced manufacturers in customer service. The value opportunity in customer service, which would be mainly in the automotive industry, is \$10 billion globally. This value would arise through reducing the costs of call centers and improving the productivity of costly experts. Social tools would allow customer service staff to reuse earlier answers and to identify the best answers from in-house experts, based on customer ratings. This pre-sorting and answering also frees up customer service representatives to focus on answering the questions that have not yet been adequately answered or addressed. For customers and companies alike, ratings and comments can identify the most useful expertise, and additional comments can build knowledge that a company itself may not have and immediately make it accessible to the public, all at almost no cost.

Some semiconductor companies also have opened up online communities for customers or enthusiasts to answer technical inquiries from each other. Such communities can foster loyalty among customers and can help companies encourage potential buyers who are in the consideration phase, by answering queries or sending out samples. Communities also feed back insights for product development.

## **Enterprise-wide applications**

Due to the complexity of the supply chains, along with the high concentration of knowledge workers, the largest potential for advanced manufacturers lies in applying social technologies within and between enterprises. For example, if all barriers were removed and collaborative tools were applied successfully, business support functions could improve their labor productivity by 10 to 12 percent. Social technologies can also effectively support coordination among multiple players in the complex supply chain.

Social tools can also be used to share best practices and to quickly identify experts, based on content they have uploaded on their profiles or conversations held on accessible social platforms. These conversations can be converted to content that captures the experience and wisdom of experts and that can be further enhanced with additional comments. The most useful sources of information can be identified, based on usage and recommendations, and highlighted so that they are easy to find.

Manufacturers can also use social tool for personnel tasks, such as orienting new hires and selecting project team members. New hires can be presented with a pre-set social graph consisting of relevant coworkers and experts, in order to speed the onboarding process. Using social platforms, companies also can quickly identify candidates for geographically dispersed teams. Social tools also support ongoing collaboration, documentation, and sharing of results.

Finally, as in other knowledge-intensive industries, social technologies can improve the recruiting process for advanced manufacturers. Many R&D and engineering roles in advanced industries require highly specific technical knowledge. Social technologies can be used by companies to screen large numbers of profiles and identify people with specific expertise. Furthermore, the social graph helps to screen people using references from existing connections.

The savings can be significant. Astreya Solutions, which supplies contract IT workers to advanced industries, uses professional networking services to recruit technical talent. Astreya recruiters screen huge databases and send personal messages to the most qualified candidates, cutting down time-to-hire by as much as 50 percent and reducing overall recruiting costs by more than 30 percent. Today, the firm finds almost a fourth of new hires through professional networking services and referrals.

## **Enablers and obstacles for leveraging social tools in advanced manufacturing**

Because the information in these industries is very sensitive (including trade secrets), companies will need to address security so that social technology can be used to its fullest extent for collaboration in product development and in other applications. In addition, since most of the expected benefit involves collaboration and knowledge sharing, it is critical that organizations address the cultural transformation and capability building necessary to support broad adoption and effective usage of social tools. Major automakers, for example, are very complex organizations with hierarchical structures and standard work flow processes; they have a long way to go to become open information-sharing cultures where collaboration takes place easily across silos and geographies.

## SOCIAL SECTOR

The social sector—defined here as nonprofit institutions and non-governmental organizations (foundations, social service organizations, cultural institutions, and advocacy groups) as well as social movements—has unique opportunities to benefit from social technologies. These organizations are social by nature: they depend on social connections and personal appeals to enlist volunteers and to raise funds. Their ongoing operations require a network of continuing support and, in many cases, their missions are social in nature as well (e.g., providing assistance to the needy, building support for social action). Thus, expanding the reach of social-sector organizations by increasing the number and quality of social interactions they have with their supporters and recipients offers them a crucial source of value.

Expanding the value of the social sector has real economic consequences as well. While the size of individual organizations varies greatly—from the International Red Cross with \$580 million in annual revenue and 13 million active volunteers, to one-person local charities, the overall economic impact of the sector is substantial. In many countries, the social sector provides health care, education and social assistance, and research funding. In the United States, the 1.6 million registered nonprofit organizations (which include more than 500,000 civic groups such as chambers of commerce) receive annual donations of approximately \$300 billion.<sup>125</sup> Including major nonprofit hospitals, US charities had \$1.4 trillion of revenue in 2009 and accounted for 9 percent of national salaries.<sup>126</sup> In Europe, nonprofits employ about 4 percent of the workforce.<sup>127</sup>

### Value levers

Many of the strategies for creating value with social technologies by private sector companies also apply to the social sector. However, because the operating models and missions of social-sector organizations are distinct from those of private-sector enterprises, we have identified nine social sector value levers that fall into four areas: collecting information and insights, mobilizing resources (including fundraising), executing mission, and organization-wide levers (Exhibit 32). While each of these levers has distinct elements, many overlap and build on each other.

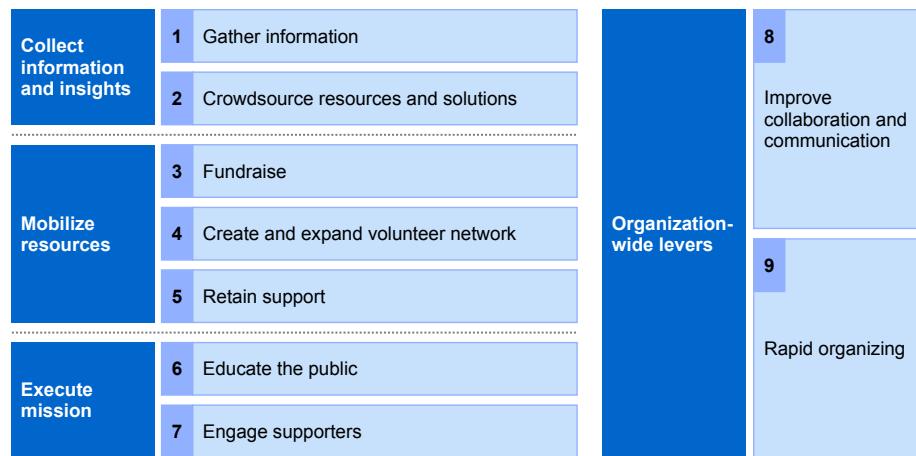
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<sup>125</sup> *Giving USA: The annual report on philanthropy for the year 2011*, Giving USA Foundation, June 2012.

<sup>126</sup> *NCCS core file 2009*, National Center for Charitable Statistics.

<sup>127</sup> European Commission, "Small and medium-sized enterprises (SMEs): Social economy," *Official Journal of the European Union*, Volume 53, April 1, 2012.

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**Exhibit 32**
**The social sector can benefit from social technology applications across many elements of the value chain and in internal operations**
**Organizational value levers**


SOURCE: McKinsey Global Institute analysis

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## Collecting information and insights

### *Gathering information*

Nonprofits need to gather information for marketing and outreach purposes and also to carry out their missions, particularly aid groups that must respond quickly to natural disasters and other crises. Social media has proven to be an excellent way for organizations to improve crisis response. By gathering and aggregating on-the-ground reports, agencies can quickly understand the scope of the situation, prioritize where to send aid first, and coordinate the activities of relief workers. Because social technologies are available on mobile phones (mobile is the primary way in which people in developing economies connect to social media), social communication remains available even when other infrastructure (e.g., landline telephone and electric wires) is damaged. Mobile phones also automatically track their users' location. Social platforms, which are often operated on public Web sites such as Twitter or Ushahidi, also allow numerous organizations to gather information, communicate, and coordinate simultaneously, helping to increase the speed and effectiveness of aid efforts.

In addition, in many instances, social media gives outside organizations access to information that is not available through traditional news and communication channels, either because of censorship or infrastructure damage. Diffusing information and bypassing official sources can act as a check to violent governments or groups that would otherwise operate with less transparency. Social media's ability to spread unfiltered, live messages from the field, through online video broadcasting, for example, can mobilize supporters and put pressure on governments to act—or cease unwanted activities (see Box 27, "Using a social platform to gather on-the-ground data").

In non-crisis situations, social-sector organizations can use social media to gather information and connect with their volunteers in a way analogous to how marketing teams comb the Internet for product references and address online complaints (see Box 28, “The American Red Cross: Supporting mission with social technology”). As in the private sector, this usually revolves around using scanning software to pick up on references to the brand and code them by type of comment—a compliment, criticism, request for a specific service, or even just a comment about a general need.

### **Box 27. Using a social platform to gather on-the-ground data**

Ushahidi (“testimony” in Swahili) is a nonprofit software company based in Kenya that provides free, open-source, crisis mapping software, which enables communication through a social platform for people in areas where natural disasters or political or social upheaval are occurring. It allows both victims and social sector workers to submit information, detailing their locations and the interventions needed.

In 2008, Kenyans used the system to collect data about post-election violence through anonymous text messages, mobile phone apps, and e-mail. After the 2010 Haitian earthquake, Ushahidi aggregated the thousands of text messages about trapped victims that had been sent to an emergency text number. Volunteers from all over the world translated the messages into English and plotted them on a crisis map, which Ushahidi volunteers conveyed to the United States Coast Guard rescue operation by instant messaging.<sup>1</sup>

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<sup>1</sup> Anand Giridharadas, “Africa’s gift to Silicon Valley: How to track a crisis,” *New York Times*, March 13, 2010.

### **Box 28. The American Red Cross: Supporting mission with social technology**

The American Red Cross is harnessing social technologies in a variety of ways to support its mission. For example, it uses the information it gathers from social media to tailor its strategy and improve service delivery. The Red Cross uses software that parses 4,000 online mentions a day to uncover insights into what is being said about the Red Cross, to identify contributors whom the Red Cross should thank, and to find potential donors or students for Red Cross classes.

The Red Cross is finding ways to communicate with people in crisis via social media and mobile devices—even providing comfort to tornado victims who are still in their homes and helping them locate the nearest shelter. The Red Cross is also developing a digital volunteer program, which has trained 200 people using social media who will respond to comments on all social platforms (not just Red Cross sites) to help during disasters. In addition, the Red Cross has used social media to improve its offerings—responding to the occasional compliant about a boring CPR instructor or a bruise from a blood donation. Acknowledging these issues and responding to them publicly has elicited positive reactions.

### *Crowdsourcing resources and solutions*

Crowdsourcing—harnessing the knowledge of a large group of people to solve problems and mobilizing volunteers to work on specific tasks—allows large and small organizations to tackle problems that their staffs can't solve and also to add talent as needed. Social sector crowdsourcing is gaining in popularity around the world. Donors and volunteers contribute their expertise for solving problems or executing tasks and contribute to organizational knowledge, which becomes more refined and useful as more volunteers participate.

Crowdsourcing is also being used to support the missions of research institutions and the many nonprofits that are committed to fighting chronic diseases.

Malaria researchers at the University of California, Los Angeles (UCLA) are using crowdsourcing to improve the process of classifying blood cells, through an online game called GameOn! Researchers found that with a bit of training, people without scientific credentials and experience could accurately classify malaria-infected cells. They found that the amateurs were nearly as good as UCLA's medical professionals and proceeded to create a game for mobile phones to crowdsource volunteer blood cell classifiers.

The game has the potential to substantially reduce costs, including by making better use of the time of pathologists, who review around 300 views of a blood smear to classify malaria-infected blood. The game also has potential to reduce unnecessary medical costs. In many areas of sub-Saharan Africa, where this diagnosis process is not used because it is too labor-intensive, 60 percent of malaria cases diagnosed are false positives. So creating a way to crowdsource the labor-intensive element of this process may allow wider use of blood analysis, increasing the proportion of accurate diagnoses and reducing unnecessary medical costs.<sup>128</sup>

### **Mobilizing resources**

Mobilizing resources—both money and personnel—is crucial to a social-sector organization's existence; most organizations rely entirely on donations, and many depend on volunteers to help carry out their missions. Social technologies have the potential to improve recruiting and retention of donors and volunteers in a number of ways.

The key benefit in using social technology for finding and keeping donors and volunteers is the ability to more precisely target people who are likely to engage with the organization's mission or cause—and to do it cheaply and on a large scale. The demographic and behavioral information that people provide on social networking sites (e.g., sharing content about environmental issues, or “liking” an animal rights group) provides profiling data that is difficult to obtain by other means. Social technology users also provide a social graph that shows personal connections, group affiliations, and areas of common interest. Groups looking for donors and volunteers can use all these data to craft custom messages for a specific type of audience, and then rely on their social connections closest to that audience to spread the message. The organization can target its message by demographic, history of support, or interests, which becomes viral when supporters pass on the message to their connections (e.g., by posting it on a social site and commenting favorably or by forwarding e-mails). Moreover,

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128 S. Mavandadi et al., “Distributed medical image analysis and diagnosis through crowdsourced games: A malaria case study,” *PLoS ONE*, Volume 7, Number 5, May 2012.

social media allows organizations to enlist support on a massive scale on a very tight timeline.

### Fundraising

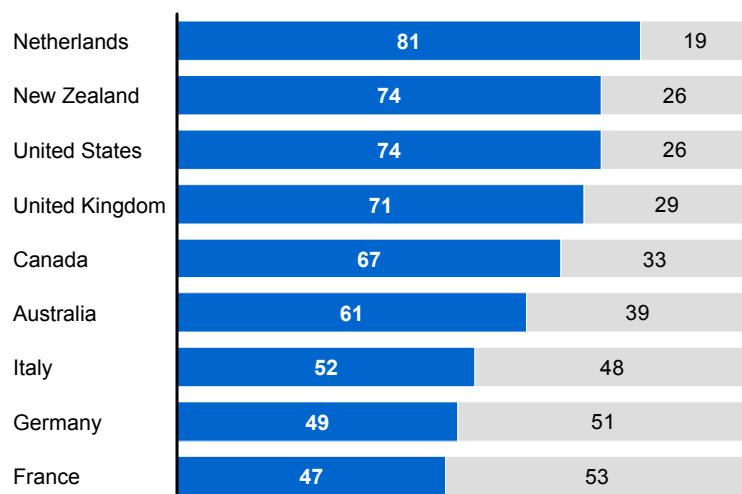
Across the world, fundraising on social platforms has become a standard tool for nonprofits (Exhibit 33). Not only does online solicitation cost far less than conventional means, but it also is proving to be more effective. “Social” fundraising costs can be as much as 80 percent less than those for direct mail, telephone solicitation, and other traditional channels. And, according to some estimates, when individuals solicit donations from online social connections (rather than calling friends and neighbors), their fundraising increases by as much as 45 percent.

### Exhibit 33

#### Nonprofits around the world are using social networking to raise funds

■ Yes  
■ No

Charities using social networking to drive donations, by country, 2011<sup>1</sup>  
%



1 Survey of 2,203 charities.

SOURCE: 2011 State of the nonprofit industry survey by Blackbaud

Overall, charities and advocacy groups have found that they get better returns from online solicitations than from traditional telephone and direct mail campaigns; in the United States, 58 percent of charities reported an increase in donations from online fundraising compared with 43 percent from direct mail solicitations.<sup>129</sup> One factor is size of donation: a donor who joined an organization online gave an average of \$62 in 2010, compared with the \$32 given on average by someone who joined by mail.<sup>130</sup>

By using social media to more precisely target fundraising efforts, nonprofits also may be able to save money and increase revenue, too. Typically, organizations limit their spending on fundraising and administration to about 20 cents of every dollar raised in order to devote most of their donors’ money to the cause they

129 “The nonprofit fundraising survey,” Nonprofit Research Collaborative, 2010.

130 Helen Flannery and Rob Harris, 2011 *donorCentrics™ Internet and multichannel giving benchmarking report*, Blackbaud, 2011.

promote.<sup>131</sup> But doing this means that they do not maximize their fundraising potential. The inexpensive, high-bandwidth channels that social technologies have opened up create new choices for nonprofits, including using the savings to fund additional fundraising.

Finally, fundraising through social media has almost limitless scalability—anyone, anywhere with a credit card or online payment account can donate to an organization, even if they are too far away to offer any meaningful in-person, real-time support. Mobilizing volunteers can be more geographically constrained.

#### *Creating and expanding volunteer network*

Social media has a huge potential to rally volunteers, in part due to the social nature of volunteering. Many people volunteer with friends or become friends with people they meet as volunteers. So the ability to see on a social network where friends are volunteering, or to hear from an organization that a friend has become a volunteer, can encourage a social technology user to join in.

#### *Retaining support*

Nonprofits thrive on continuing support—donors and volunteers who participate year after year. Social technologies are an excellent way to keep donors and volunteers engaged. An estimated 93 percent of nonprofits maintain a presence on a commercial social network to participate in a dialogue with supporters.<sup>132</sup> They use these forums to share news, respond to comments and criticisms, amplify positive comments, or recognize outstanding volunteers and beneficiaries—on a daily basis, if necessary.

### **Executing mission**

#### *Education*

For many social-sector groups, the core mission involves behavioral change, such as getting smokers to quit, helping people avoid heart disease through diet and exercise, and preventing drug and alcohol abuse (see Box 29, “Using peer influence to prevent drug abuse”). The mission is essentially educational—informing people what they can do to minimize risks and measures. By enlisting social connections to deliver these messages, social technologies provide a powerful educational tool—an anti-smoking message from a respected peer has far more impact than an anti-smoking ad on the radio or a generic message on a Web site. In many ways, educational campaigns are among the nonprofit activities that are best suited to social technologies. An important capability of social technology is to bring influential social connections (e.g., friends or family) into the education process and enlist their support to encourage the needed behavior change.

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131 James M. Greenfield, *Fund raising: Evaluating and managing the fund development process* (New York: John Wiley & Sons, 1999).

132 2012 nonprofit social network benchmark report, Nonprofit Technology Network, Common Knowledge, and Blackbaud, 2012.

**Box 29. Using peer influence to prevent drug abuse**

The “Above the Influence” campaign, created by the White House Office of National Drug Control Policy, aims to give teenagers who have been exposed to peer pressure a place to talk about choosing to not engage in substance abuse. It hosts a Facebook page, on which it places informational videos, articles, and links, in addition to creating a space for teenagers to post content. As of July 2012, it had 1.4 million “likes” and numerous posts each hour.

In addition to using social media to enact its mission, Above the Influence is innovative in how it uses information online to promote its site. It bought ads that targeted teenagers who listed community involvement like the YMCA or the Jewish Community Center or listed statements against substance abuse on their Facebook profiles. This allowed Above the Influence to target the teenagers who were most likely to engage with a site conveying this message and who will value a community of like-minded peers. These ads brought more than 100,000 fans to the Web site.<sup>1</sup>

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1 Jason Keath, “The 2012 Facebook advertising report,” Socialfresh.com, April 4, 2012.

*Engaging supporters*

For advocacy groups, social technologies can help enlist and engage a large number of supporters quickly and at low cost. Whether they are pushing for a new firehouse in their city or agitating in a national capital for civil rights, advocacy groups need to show that they have a large number of supporters. Organizations that used to rely on known connections—addresses, e-mails, telephone numbers—can now post petitions on highly trafficked social media sites, knowing that they will be passed from friend to friend very quickly. This allows organizations with limited resources to involve a larger share of current supporters and reach a far larger audience at a dramatically reduced cost.

**Enterprise-wide levers**

Social technologies provide a new and powerful way for new social-sector organizations to organize and for existing ones to function more efficiently and effectively. Like private-sector enterprises, social-sector organizations can benefit from improving internal collaboration and communication on social platforms. In the social sector, social platforms have the additional potential to provide instant infrastructure for new organizations. Established organizations with the appropriate structures and cultures (i.e., non-hierarchical and collaborative) can also realize rapid benefits from shifting communications and knowledge sharing to a social platform.

*Improving collaboration and communication*

Social technologies have the potential to improve internal collaboration for social sector organizations—both the well established and the young, the large and the small scale, the well endowed and the poorly endowed. As with any enterprise, social-sector organizations thrive on collaboration—with donors, volunteers, and other organizations whose missions are complementary. Social technologies can help such collaboration by, for example, connecting different chapters to share ideas and best practices more easily or hosting an online, searchable

repository of these practices to share within and across organizations. The Nature Conservancy, for example, has used its social intranet to create a closer community among thousands of employees around the world—and speed up crucial knowledge sharing (see Box 30, “The Nature Conservancy’s CONNECT”).

The social sector has yet to embrace this idea on a large scale. While widely used for fundraising and outreach, social technologies are applied to internal operations in only 13 percent of American nonprofits. Those that do use social networks, however, tend to value it: 75 percent say that they gain some benefits from internal social networks.

### **Box 30. The Nature Conservancy’s CONNECT**

The Nature Conservancy (TNC) faces unique challenges. It is a global organization that protects ecologically important lands and waters for nature and people (from jungles in Borneo to coral reefs in Honduras). Many of its employees live in remote places, but as a nonprofit dedicated to preserving the environment, TNC cannot support extensive travel—both for financial and environmental reasons. As a result, almost all communication was from the center outward and TNC employees—on the ground and in its 600 field offices—had little access to their remote colleagues’ expertise and insight.

Social technologies have provided a way to knit together this far-flung operation into a more cohesive, collaborative enterprise. In March 2012, TNC inaugurated the CONNECT social intranet. Within months, more than half of TNC’s 3,800 employees are using CONNECT every day. Some 85 private meeting rooms have been created, where employees from all over the world can work together on specific issues; there are 54 public communities where employees with a common interest can get together and share knowledge. More than 90 percent of senior managers have created a profile, which includes a photograph, an “about me” and “expertise” section, and overall more than three-quarters of staff have created a profile.

While it’s too soon to measure results, CIO Jean-Louis Ecochard says that the organization is already benefiting from easier access to expertise, greater collaboration, and time savings. For example, by searching through the profiles the employees post on CONNECT, which include much more detail than a typical employee directory, it takes very little time to compile a list of people with very specific knowledge (e.g., oyster reef restoration) and get questions answered or organize resources to tackle a project. The social site has also set a new, faster rhythm for the organization, helping eliminate delays when working across oceans or international datelines, for example.

People in the field have expressed unsolicited appreciation for CONNECT; they cite in particular the benefit of finally getting to “meet” people back in the office with whom they have worked for years, to “put a face” on remote colleagues they communicate with, and to reduce the typical friction between headquarters and the field by providing a human face for centralized services. The site has been so successful that The Nature Conservancy is expanding it to its 1,500 field trustees (i.e., lead volunteers) and plans to open it for public access soon.

### *Rapid organizing*

Social media can quickly create a structure for rapidly evolving social movements, as happened during the Arab Spring movements in 2011. In Egypt, support on Facebook became a way of “electing” informal leaders of the revolution, who provided information, rallied groups, and conveyed demands to the government. The support generated by the Facebook page of Mohamed Elbaradei, a prominent Egyptian politician, played a major role in the ousting of Hosni Mubarak. Elbaradei’s site became the second most popular site in Egypt in 2010. A Facebook page made in honor of Khaled Said, who was killed by police after posting a video of attacks on protesters, quickly attracted 500,000 members. All of this can happen over the course of hours or days and can leave the person behind the organization anonymous.

In addition to helping to rapidly structure a movement, social technologies significantly lower the barrier to entry into the social sector. Instead of needing a grant from a major donor and a core group of supporters as a precondition to launch, a free social page and a catchy social media campaign can draw supporters. This creates the potential for new, young organizations to disrupt the social sector; on social platforms, a small charity or less well-publicized cause can compete for donor dollars.

### **Enablers and obstacles**

Many social-sector organizations share a common barrier to success in social technologies with private enterprises: cultures that are not well prepared for the changes required. While the physical switch to using social platforms is small compared to that of implementing new IT systems, the organizational and cultural changes needed to capture the full value of social technologies can be quite difficult to achieve. In addition, in many contexts, it will be challenging to overcome doubts about the relevance of social technologies. Doctors and other professionals, for example, will need to be convinced that experiments like the UCLA crowdsourcing solution to blood screening are valid and reliable and can be replicated. Privacy and norms about private communications form another barrier: employees may be hesitant to post their questions on a social forum, even if they know it will get them a speedy answer, because they are uncomfortable exposing their question to a broader group.

Nonprofits also must consider reputation risk; once they engage in a public conversation on social platforms, they no longer control the message. Social media allows critics to spread negative messages as efficiently as supporters spread positive ones. However, social technologies also give organizations a chance to engage critics and respond quickly, potentially heading off a larger media crisis.

Nonprofits also face a unique challenge in the phenomenon known as “slacktivism” or “clicktivism”—reducing commitment to a charity or a cause to a click of a mouse button. There are concerns in the social sector that viral campaigns such as Kony 2012 (which overnight enlisted millions of social technology users in an effort to punish a Ugandan warlord 25 years after he began his brutal crusade) will trivialize nonprofit work and alienate core supporters. They also fear that supporters may assume that clicking on a “like” button will suffice—that they no longer need to donate money or show up to volunteer on a Saturday. Since most organizations rely on donations of money

and time from their supporters to execute their mission, if this shift actually occurred, could dramatically undermine nonprofits' impact.

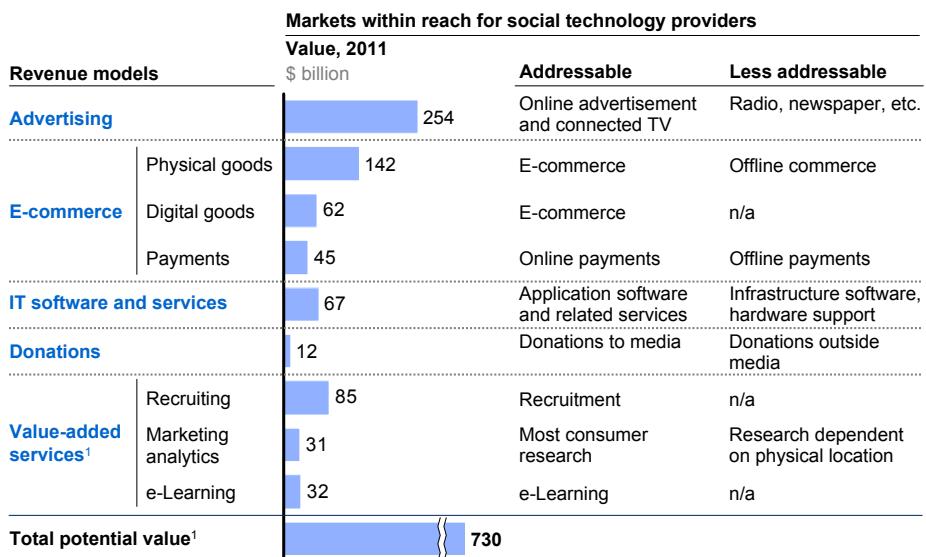
## SOCIAL TECHNOLOGY PROVIDERS

A wide variety of companies provides social technologies and related services. Many supply IT-enabled services and products that provide a platform for social interactions, including Web companies that provide social networking services to consumers; enterprise software companies that sell collaboration software; social gaming companies; crowdsourcing software companies, and IT services companies.

This section will explore potential revenue streams that can be tapped by social technology providers (Exhibit 34). Detailed descriptions of the methodologies used to estimate potential value streams are included in the appendix. These analyses do not suggest valuations for any of the providers of social technologies. The five categories of revenue streams examined in this section are:

- Advertising. Sales of advertising, including display advertising on social platforms, messages propagated through social technologies, and advertisements that are targeted based on the analysis of social data
- E-commerce. Sales of physical or virtual goods on social platforms or use of social technologies to increase sales on other e-commerce platforms (e.g., adding social features to e-commerce sites)
- IT software and services. Sales or licensing fees for providing social technology software, which may be provided in a “cloud” environment, using a software-as-a-service model; additional revenue sources include implementation services and software maintenance fees
- Donations. Monetary gifts from the public and organizations to support the development of social software and content (e.g., Wikimedia’s model)
- Value-added services. Payment for services based on social technologies, such as recruiting services, social marketing analytics, and social e-learning

Social technology providers often use a combination of revenue models, as illustrated in Exhibit 35. Companies continue to experiment with new models to increase and diversify their sources of revenue, so the environment for social technology providers remains very dynamic.

**Exhibit 34****Social technology providers have five business models**

1. Not exhaustive.

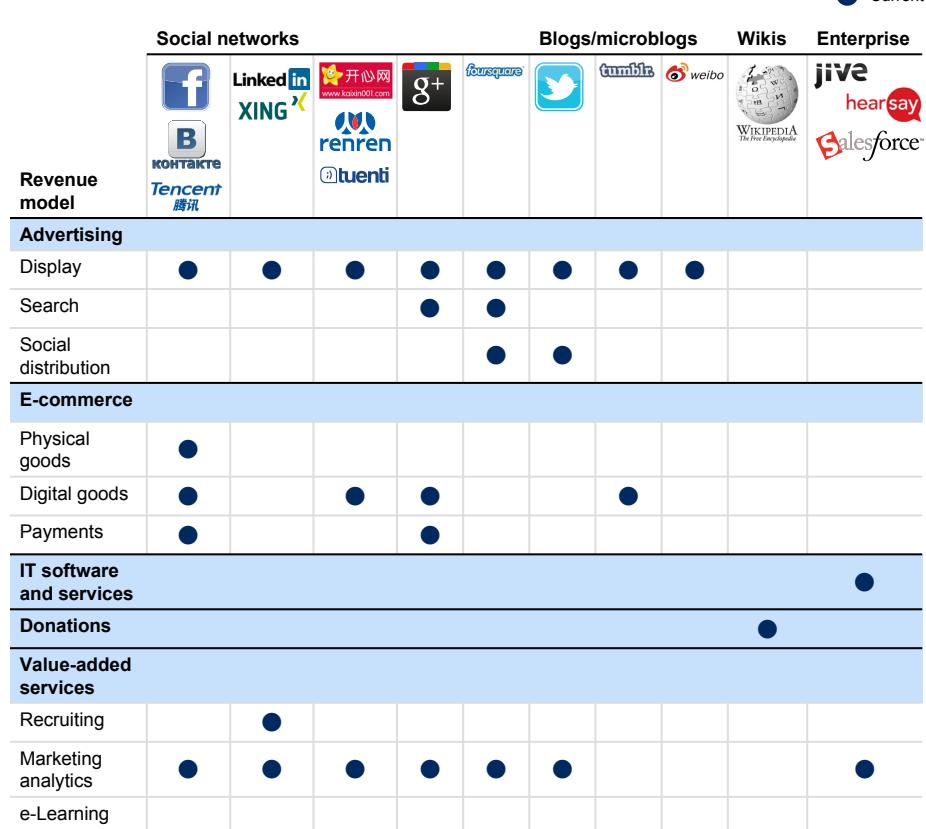
NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

**Exhibit 35****Revenue models of different social platforms**

NOT EXHAUSTIVE

● Current



SOURCE: Press search; McKinsey Global Institute analysis

## Advertising

The most common revenue model for consumer social technologies is advertising. Many consumer social networks sell display advertising on their sites or with their applications. Pricing models include cost per thousand impressions; cost per click, under which an advertiser pays only when the consumer clicks on its ad; and cost per action, under which advertisers pay only if the user takes a specific action, such as engaging with the brand in some way, or executing a purchase.

There are several ways for social network providers to enhance revenue. First, they can take actions to increase the traffic on their sites and apps, to drive higher volumes of advertising impressions, clicks, and actions. They can also attempt to raise prices, by using the data that consumers have made available on social platforms (including personal preferences, as well their connections with other people), to provide advertising to more valuable micro-targeted customers; advertisers will pay more under any payment scheme to reach customers who are most likely to respond. For example, if a social technology user mentions an interest in fashion and many of that person's friends are also interested in fashion, an apparel marketer is likely to value an advertisement targeted to that individual more highly than an ad that will go to a group of undifferentiated consumers. Furthermore, when social data are combined with location data (which is increasingly possible to do in real time through mobile technology), marketers can place advertisements and offers that reach a consumer at the moment when they can have the most influence (i.e., when the consumer is near a shop where the merchandise is available).

Making a real-time offer to a consumer based on a combination of social and location data requires access to location information, most often through a mobile device. However, there are several challenges to be solved related to mobile advertising, including the relatively small screen size on many mobile devices, as well as finding a mechanism to present an offer in real time that is engaging enough to attract the user's attention without coming across as overly intrusive.

Unit prices of advertising on social networks have been somewhat limited by the nature of social media (e.g., many users do not reveal commercial intent) and the shift in social media growth to developing economies. Unlike on search engines, where users often signal intent to buy (a consumer searching for "auto insurance" is probably shopping for auto insurance), users of social networks often are not revealing any commercial intent or their intent is more difficult to confirm; a social media user may spend time browsing through pictures or may follow a discussion about a product with no intention of purchasing. Social networking platforms have accumulated very large numbers of users, but recently much of the growth in unique users has come from developing countries, especially as penetration rates start to plateau in advanced economies. Due to the relatively limited purchasing power of these new social media users, marketers have had a limited appetite to pay to target these users.

Social platform operators can also generate advertising-related revenue by selling the consumer insights derived from social data to advertisers to use in other channels. For example, social data can be used to more finely target search advertising, or on e-commerce sites. Developing the capability to target advertising based on social data in channels other than on social platforms could

represent a valuable means of monetizing the rich consumer data social platform operators are collecting.

To take advantage of these opportunities to monetize consumer data, providers will have to ensure that consumers share valuable data on these platforms. Thus, providers will have to give users a compelling value proposition to continue to share these data. Furthermore, providers will have to earn and maintain the trust of their users (e.g., by meeting privacy expectations) to persuade users to continue sharing data. And there is also a need to show restraint in regard to micro-targeted advertising; offers that seem to be based on too much knowledge could backfire if people feel such a level of intimacy is “creepy.” Trying to understand what consumers will perceive as being “creepy” is a matter of consumer behavior, not a simple analysis. Some retailers that have been doing micro-targeting with discounts on specific products (e.g., offers targeted to women whose personal data indicate that they are likely to be pregnant) have reportedly attempted to head off the unease by including other offers that any young homeowner might want, such as deals on lawn mowers.<sup>133</sup>

Social platform operators also continue to experiment with ad types to increase revenue, including through messages that are intended for redistribution to social connections. For example, Twitter provides the ability for brands to pay to send “sponsored tweets.”

Based on our finding that social features can be added to almost any IT-enabled human interaction, we conclude that virtually all online marketing and even television advertising can be enhanced with social features, from social data-based ad targeting, to enabling consumers to interact with advertising in social ways (e.g., Bronx Shoes’ interactive billboard in South Africa, which adds a strand of hair to a man’s face every time a user “likes” its Facebook page).<sup>134</sup> A key enabler will be Internet-connected televisions and virtual displays, which are increasing in adoption and can enable advertising to be targeted based on social data, or even allow consumers to share TV advertising messages on social platforms.<sup>135</sup> Other traditional advertising channels, including print, radio, and most outdoor billboards are not currently addressable by social technology providers, but this may change with technology that would turn these “broadcast” media into interactive media, for example through QR codes or audio analysis of data messages in text or audio. The global value-add potential of social technology advertising could reach \$254 billion annually.

## E-commerce

Social platforms are a natural home for e-commerce. Adding user-generated reviews is a common way to apply social technologies in an e-commerce context. E-commerce players have often found that they experience a lift in revenue when users are allowed to post ratings and reviews, though that raises the risk that users will post negative comments about products. Furthermore, social platform providers could either sell goods themselves or allow others to use their platform

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133 Charles Duhigg, “How companies learn your secrets,” *New York Times*, February 16, 2012.

134 Peter Milosheff, “Bronx Men’s Shoes beard growing billboard,” Bronx.com, April 20, 2012.

135 Informa projects there will be 1.8 billion connected TVs in more than 570 million homes globally by 2016. Connected TVs include TVs, Blu-ray Players, set-top boxes, game consoles, and media streaming boxes.

to facilitate third-party sales, for which the social platform operator could collect a commission.

- **Physical goods.** Any online shopping site can be enhanced by adding social features, such as ratings and reviews or the ability to share news of one's purchases. The most common items sold through e-commerce sites are physical goods, particularly electronics. New e-commerce models are springing up that allow users to place orders for physical goods through social platforms. China's popular microblogging site, Sina Weibo, for example, is rolling out local consumer services that will allow users to order food deliveries directly from Weibo business accounts. Rakuten, a large Japanese online retailer, has teamed up with Pinterest to embed e-commerce functionality into pinned images. When users interact with these images, they are taken to either Pinterest or Rakuten Ichiba checkout pages for purchase.
- **Digital goods.** This category includes everything from online content—movies, television shows, books, music and apps—to virtual goods such as weapons, tools, and upgrades for use in social games. Virtual goods, in particular, are one of the fastest-growing revenue sources for social technology providers. Most virtual items in social games sell for less than \$5, but they add up to a big business, reaching \$5 billion in sales globally in 2011 and expected to grow to \$13 billion in 2015.<sup>136</sup> More than half of US in-game virtual goods are purchased through Facebook, which recorded \$1.2 billion in virtual goods sales in 2011.<sup>137</sup> In games like Zynga's FarmVille, which is often played through Facebook, thousands of virtual tractors are purchased daily at \$20 each.
- **Payments.** An essential requirement for any e-commerce model is a convenient and secure payments system. Payments can be provided by a social technology provider, or a traditional payments player could add social features (e.g., the ability to share information about purchases with social connections). Social payment or banking systems have not yet become a major part of the online payments business, and it is not clear how this business model will evolve in the social technology age. Credit card companies, which continue to dominate online payments, are experimenting with social technologies, and new, innovative players in the payments space that leverage social technologies continue to grow.

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<sup>136</sup> "Virtual goods in social networks and online gaming," In-Stat, November 2010.

<sup>137</sup> Charles Hudson and Justin Smith, *Inside virtual goods: The US virtual goods market 2011–2012*, Inside Network, December 2011.

## IT software and services

Enterprises are only beginning to realize the benefits of social networking to harness the collective knowledge and capabilities of their employees and improve many customer-facing elements of their businesses. For companies that supply enterprise social technologies, the most straightforward revenue model is to simply charge customers software license fees on a per-user basis. This software might be installed on the customer's servers or might be delivered via a cloud-based service. Software sales are also often accompanied by additional services, such as implementation, upgrades, and maintenance. Because retooling an organization to take full advantage of social technologies can be very challenging, there is a significant opportunity for sales of professional services to help organizations design and execute customized social technology solutions and implement the change programs necessary to ensure that expected collaboration performance improvements materialize.

Entrepreneurial providers of enterprise collaboration tools and other social technology software sometimes use revenue models inspired by consumer services. Yammer (recently purchased by Microsoft), for example, uses a "freemium" pricing system for its enterprise social networking tool. Under the freemium model, users get a basic set of social tools at no charge. To gain access to additional features, companies pay a monthly per-user fee. Jive Software has adopted a "try before you buy" model.

Existing technology suppliers of products in categories such as enterprise resource planning, sales force automation, customer relationship management, and supply chain management are also adding social features to their existing enterprise software offerings, creating additional social software revenue streams. And while consumer-focused social-technology platforms generally provide their services for free, some could also charge consumers directly for premium services.

## Donations

Some social technology media and services organizations rely on donations from users and organizations to fund activities, ranging from developing code and content, to running the organization. For this to work, users must have strong attachment to the social platform. Wikipedia has a strong no-advertising/no-commerce policy to protect the integrity of its content and depends entirely on stakeholder donations from users and institutions to cover the costs of its servers and operations staff (see Box 31, "Wikipedia paves the way for donation-based revenue models"). Conceivably, some of these platforms could be funded (partially) by endowments, much as some other leading media players in offline formats (e.g., National Public Radio, Harper's, and ProPublica) fund at least part of their operations through endowments.

### **Box 31. Wikipedia paves the way for donation-based revenue models**

With more than 400 million unique users each month, Wikipedia is the fifth-largest Web site in the world. Its parent entity, the not-for-profit Wikimedia Foundation, relies solely on donations to fund its operations. According to its Web site, Wikimedia states that “ads are not an appropriate thing to find in a project devoted to education and knowledge—and especially one that strives for balance and neutrality.”<sup>1</sup>

Wikimedia has refused to accept advertising and operates on an extremely lean model; it has fewer than 150 employees and uses open-source software and donated bandwidth. The only ads on Wiki pages are banners seeking donations, which lead to donation landing pages. Wiki also sends out e-mail pleas. Every year it tests hundreds of banner and appeal versions, resulting in a 20 to 30 percent increase in donations year on year. A personal appeal from founder Jimmy Wales, who signed the e-mails in 2009 and 2010, or from Wiki editors, who signed in 2011, has proved to be far more powerful than an appeal from the foundation. Adding a green leafy background also helped—increasing individual donation amounts by 30 percent.<sup>2</sup> Wikimedia also accepts donations in multiple currencies using a range of payment methods. Wikimedia reached its \$20 million fundraising goal in 2011 in just 46 days, with donations from more than one million donors. This went a long way toward covering 2011 operating expenses; the remaining budget needs of \$8.3 million were met by institutional grants and other donations throughout the year.

1 “Fundraising 2012/How Wikimedia revenue grows,” last modified May 30, 2012.

2 “Wikipedia:Advertisements,” [www.wikipedia.org](http://www.wikipedia.org), March 25, 2012.

### **Value-added services**

In theory, the types of additional value-added services that could be based on social technologies or the data created by social technologies are limited only by the range of IT-enabled interactions and the imagination of entrepreneurs. We describe four of them below but recognize that many more approaches could be possible.

- **Recruiting.** Online resume posting services fit our criteria for being social technologies in that they permit content creation and consumption to be done by distributed groups of individuals. However, many do not exhibit some of the other characteristics of more recent social platforms, such as the ability to explicitly define one’s social graph or create communities. However, more recent professional networking sites such as LinkedIn and Xing have included these and job placement functions. Players in this space often have multiple revenue streams (much like competitors in other similar markets): more than 50 percent of LinkedIn’s revenue (\$85 million in 2011) comes from selling access to databases of millions of members to recruiters.<sup>138</sup> Recruiters can search for candidates, place job advertisements, and use a

138 LinkedIn 2011 financial reports.

LinkedIn application to manage the candidate relationship process. LinkedIn derives its remaining revenue from advertising and subscription fees for its premium service.

- **Marketing analytics.** Social technology providers are now getting into the big data business. They are developing predictive marketing analytic models and segmentation analyses using established statistical methods of clustering, inductive decision tree (IDT), logistic regression, and text-mining to be sold as functions within other software solutions (covered above under IT software and services), delivered as consulting services, or provided as a value-added service on top of other offerings such as advertising.
- **E-learning.** Social networking technology has sprouted numerous e-learning options. Today's students can have teacher-led, self-study, and blended instruction (classroom and online). In classrooms around the world, teachers post assignments on community portals and create opportunities for collaborative learning, unhindered by time zones or geographic proximity. E-learning interfaces and curricula are also being designed for mobile phones, extending the reach of existing education. And learners are excited: 160,000 learners from around the world enrolled in an open-access, university-level course on artificial intelligence given by Stanford University professors, where questions were often answered more quickly online by fellow classmates around the world than by one of the professors or teaching assistants. These ideas have even spawned a new acronym: MOOC, which stands for massively open online courses, which are now being offered by the Massachusetts Institute of Technology (whose OpenCourseWare was a pioneering effort), Harvard, Stanford, and other institutions. Numerous opportunities exist for social providers in e-learning, from designing e-learning tools to hosting or offering e-learning courses on their platforms.

Social technologies have a huge potential to create value, and providers will be able to capture some of that value. They will continue to experiment with various revenue models, sometimes adopting models from traditional software and IT services and in other cases developing new models.



## 4. Implications of social technology

Social technologies have clearly established their power and appeal and, increasingly, are demonstrating their ability to create value for individuals, groups, and organizations. However, there is far more potential value to be obtained from the use of social media in the coming decade. This value varies across different application domains—for example, the application of social technologies to improve collaboration within and across enterprises is a trend that has reached only a small fraction of its potential. At this early stage in the evolution of social technologies, all of the enablers of success—the factors that must be in place to realize the full value of social technology use—are not yet known. However, many examples point the way to greater impact.

The degree to which social technologies can continue to generate value for users and can enable significant improvements in organizational productivity will depend on how leaders of businesses and other organizations, as well as policy makers and the companies that supply social technologies, respond to today's challenges and opportunities. For social technology applications to continue to evolve and bring benefits to individuals, enterprises, and the overall economy, business leaders will need to learn how to maximize those benefits. Policy makers will need to find ways to protect the rights of individuals, groups, and organizations in ways that do not undermine the essential strengths of social technologies. Individuals will need to make well-informed choices about where they socialize online and the content they consume and contribute and also will also need to take responsibility for maintaining integrity and trust in their communities. In this chapter we examine the implications of the challenges and opportunities that these stakeholders face.

### WHAT ORGANIZATIONS CAN DO TO FOSTER SUCCESS IN SOCIAL TECHNOLOGIES

Because social is a feature that can be added to any digital application through which people can interact, the potential uses of social technologies by organizations are extremely varied. We have illustrated the broad applicability of social technologies, and the value they can create, across the value chains of a selection of diverse sectors.

While much has been written to counsel leaders of organizations about how to approach social technologies, and in particular, how to work with social media,<sup>139</sup> this is a rapidly evolving environment; this is a time to be discovering “next practices” rather than codifying still immature “best practices.” Based on our research, we provide indications of the directions that a leader could follow now to capture some of the potential benefits of social technologies, recognizing that nobody yet has all of the answers.

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<sup>139</sup> See, for example, Roxane Divol, David Edelman, and Hugo Sarrazin, “Demystifying social media,” *The McKinsey Quarterly*, April 2012.

The implications for businesses and other organizations that we will describe fall into four broad categories: “internal” applications of social technologies within the networked enterprise, “external” applications of social technology for the extended enterprise to interact with outside stakeholders such as customers and partners, common implications across both internally networked and extended enterprises, and the strategic implications of using these technologies.

### **The networked enterprise: Internal applications of social technologies**

Our research indicates a substantial opportunity for organizations to increase the efficiency and effectiveness of interaction work—what most professionals, managers, and high-skill office workers do—potentially raising their productivity by 20 to 25 percent. As the basis for value creation in the economy migrates from production of products to innovation and services, improving the efficiency and effectiveness of interaction workers will continue to grow in importance.

While we have early evidence that this potential is real, we can not yet write a comprehensive instruction manual that describes how to capture it in every global organization. Nevertheless, our research has uncovered some enablers that begin to point in the direction of the next practices that can unlock this value and create more fully networked enterprises.

First, since these are essentially social technologies, the primary enablers for capturing value will be social in nature. The decisions that will make the most difference will not be about the technologies themselves, but about steps that affect interactions among people. Clearly, the technologies are necessary in order to bring the scope, speed, and scale of IT to interactions within enterprises, and continuing technological innovation will be required—for example, providing big data analytics to give employees access to the most timely and relevant information from the torrent of social data that can be made available. But the essential transformations that will have to be made in order to capture the full potential of social technologies will be primarily in organizational practices and culture.

Second, as with many organizational issues, the prescription that is appropriate for one organization is unlikely to work for another, with its different people, practices, history, and context. Therefore, one of the most important practices that an organization will have to adopt is purposeful experimentation. Discovering what combination of practices and technologies will create value in their unique situations requires organizations to adopt a thoughtful but persistent approach of trying new things, learning, and adapting. Concepts borrowed from “lean startup” methodologies can be helpful.<sup>140</sup> These include deploying “minimal viable products” to determine what gains traction, test and learn cycles, and “pivoting” to new models when necessary. Indeed, successful networked enterprises are continuous learning organizations. They use their networked connections to accelerate their learning processes, promiscuously proliferating findings from experiments across the organization.

One of the most important subjects of experimentation should be finding out how to achieve a critical and growing mass of participation using social technologies—how does a particular organization create a self-reinforcing cycle of adoption?

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140 Eric Ries, *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses* (New York: Crown Business, 2011).

More often than not, we have observed organizations deploy social technologies in the enterprise to great fanfare, resulting in a temporary spike in usage and engagement, only to see the participation and benefits of these technologies decline as the initial excitement and novelty fade away.

Our previous research into use of Web 2.0 tools, and the “highly networked” organizations that get the most benefit from such tools, uncovered some key success factors.<sup>141</sup> For example, while success can be described as achieving bottom-up adoption of social technologies, we found that in successful organizations, role-modeling and vocal support of leaders also were important catalysts. Furthermore, while it was helpful to have a hypothesis for where these technologies could generate the most value, it was often the case that users discovered other valuable functions for these technologies. Therefore, a critical role for leaders is to discover and celebrate these sources of value creation and support ways to give them enterprise-wide impact.<sup>142</sup>

We also found that what’s in the work flow is what gets used; if social technology is not part of their “day jobs,” employees will not participate for long. Highly networked organizations not only have a higher percentage of employees using social technologies, but these social technologies also are embedded into their day-to-day activities. If using social technologies is just one more action item on a long to-do list, it’s very likely to fall off the list as soon as soon as things get busy. However, if using social technologies is part of the day-to-day work flow of employees—enabling them to solve real business problems—then participation will more likely reach critical mass. Sometimes this requires changing work flows to integrate the use of social technologies (often, by taking over uses of other technologies, such as one-to-one e-mail). Social technologies can be modified to fit existing work flows, too; and in many cases both the tools and work flows may need to change.

However, changing processes is only one (albeit critical) enabler of success. Equal, if not more important, is establishing a culture that is conducive to broad collaboration and sharing. If an organization has not established trust amongst colleagues, and if there are no ingrained habits of teamwork and collaboration across the organization, solely implementing social technologies is not likely to create these conditions in the absence of other interventions.<sup>143</sup> In a low-trust environment, employees will likely limit their social network contributions to good news or “safe” information. In a culture where organizational power is based on keeping information from rivals or subordinates, the least valuable information will be shared. Furthermore, employees who do not perceive value in what is offered on the social network will stop participating—as contributors and as seekers of information and expertise.

Transforming culture, mindsets, and behaviors is not an easy task. It requires an organization to create a compelling story about why a cultural change is needed

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141 Michael Chui, Andy Miller, and Roger P. Roberts, “Six ways to make Web 2.0 work,” *The McKinsey Quarterly*, February 2009.

142 Charlene Li, *Open Leadership: How Social Technology Can Transform the Way You Lead*. (San Francisco: Jossey-Bass, 2010)

143 There is a large body of academic literature demonstrating the negative impact of disincentives to sharing (e.g., rewarding those who hoard the most information or client relationships), which is relevant to social technologies. See W. Orlowski, “Learning from notes: Organizational issues in groupware implementation,” *Proceedings of the 1992 ACM Conference on Computer-Supported Cooperative Work*, 1992.

to achieve a step change in organizational performance that will make everyone's work life better. It requires role-modeling by leaders and carefully constructed reinforcing mechanisms; our research has found that intrinsic rewards (e.g., status or recognition by peers) are often much more powerful than extrinsic rewards (e.g., bonuses, or requirements to making use of social technologies one of an employee's formal objectives). Capability building and training are also standard components in change programs, but in many of the most successful implementations of social technologies, relatively little formal training was required. Because enterprise social tools are based on consumer applications, they are intended to be familiar and intuitive. The most useful training is mentoring by experienced peers.

The cultural and management traits that underpin success in use of social technologies by interaction workers are in marked contrast to those that were appropriate for optimizing the performance of production work or transaction work (Exhibit 36).

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### Exhibit 36

#### Many companies need a cultural transformation to prepare for successful internal implementation of social technologies

	Interactions		
	Transformation	Transaction	Tacit
Strategy and innovation	Centralized and top-down		Decentralized, bottom-up, evolutionary
Organization	Hierarchies, command and control		Flat, flexible, contingent, porous
Performance management	Physical outputs, efficiency	Physical and activity outputs, efficiency	Outcomes, effectiveness
Knowledge and learning	Rote and instruction-oriented, top-down		Apprenticeship, decentralized, knowledge marketplace
Technology leverage	Substitute, automate	Substitute, automate, accelerate, scale	Complement, extend, adapt
Role of management	Set targets, assign tasks, optimize		Set direction, enable, learn

SOURCE: McKinsey Global Institute

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Similarly, the role of the chief information officer (CIO) in deploying social technologies is very different than in deploying other types of enterprise software such as ERP (enterprise resource planning), CRM, or supply management applications. Rather than focusing on formal, top-down, planned rollouts, and enforcing standards, the CIO must understand the informal, "real" behaviors that users are exhibiting, identify successes from experiments (either planned or natural), and help scale success (Exhibit 37). We will return to other IT implications below.

**Exhibit 37****IT leaders will also need to adopt new mindsets**

	From ...	... to
<b>Understanding of business</b>	Transaction processes, structured and routine workflows	Patterns of interactions, user models, how work really gets done, community formation
<b>Focus of impact</b>	Formal structures, departments, functions, hardwired processes	Communities of work, social networks, intra-/extra-company, customers
<b>Policy approach</b>	Enforce enterprise standards	Proliferate the most adopted enabling technologies
<b>Technology deployment</b>	Planned rollouts based on roadmaps	Experiment, scale, and deploy based on usage and adoption
<b>Decision making</b>	Top-down, efficiency- and consistency-oriented	User-centric, usage- and effectiveness-oriented
<b>Economics of impact</b>	Labor-capital trade-offs, IT productivity/ROI efficiency, throughput	Labor AND capital, total factor productivity, effectiveness, outcomes

SOURCE: McKinsey Global Institute

**The extended networked enterprise: External applications of social technologies**

Social technologies not only can make the boundaries between internal organizations more porous, but they also can be used to allow organizations to extend their interactions to outside stakeholders, including customers and business partners. Many—but not all—principles of a successful internal deployment of social technologies within the enterprise apply to inter-enterprise social applications.

For example, a culture of sharing ideas within the workgroup and also accepting ideas from outside the group is necessary for successful collaboration in a highly networked enterprise. Similarly, when using social technologies to connect with customers or business partners to co-create products or marketing programs, i.e., to create an extended enterprise, a company's culture must be more than accepting. When former CEO A. G. Lafley was driving Procter & Gamble's open innovation initiative, he set a goal that 50 percent of the company's innovations would come from the outside, and he worked to transform a culture from a "not invented here" mentality to a "proudly found elsewhere" attitude.<sup>144</sup>

While significant behavior changes may be needed eventually, companies can, nevertheless, begin implementing social technologies on a small scale. If a company is not ready to open up two-way interactions with outside stakeholders, for example, a "no-regrets" move would be to simply monitor dialogue on social platforms by subscribing to services that analyze social data streams, extracting insights such as sentiment about corporate brands, or alerting the company to particular complaints or controversies. Companies need not always respond in the same medium, but many companies find it helpful to learn how to do so,

144 Larry Huston and Nabil Sakkab, "Connect and develop: Inside Procter & Gamble's new model for innovation," *Harvard Business Review*, March 2006.

particularly for specific complaints, which can be a gateway to fuller participation on social platforms.

### **Implications for internally networked and extended enterprises**

A common set of implications applies to the use of social technologies within the enterprise and as a tool to connect with outside stakeholders. They fall broadly into three categories: building social capital, managing risks, and measuring the results of social technology efforts.

First, companies need to build organizational social capital—the trust of other participants with whom these organizations connect using social technologies. All of the lessons about developing and maintaining an organization's reputation, or a brand—consistency, reliability, authenticity—are amplified when using social technologies, because the ramifications of any action that affects this trust, negatively or positively, can be multiplied as others share their experiences. For example, people are generally very sensitive to inauthentic behavior. If supposedly personal posts by a CEO are ghostwritten by the PR department, there is a high likelihood that this will be discovered and any positive goodwill created by the blog will be eroded by the social distribution of this fact. Conversely, authenticity builds trust that can be amplified in these social systems. Cory Booker, the mayor of Newark, NJ, famously helped constituents shovel snow when they requested help through their Twitter accounts, stories of which have spread throughout the Twitterverse.

Moreover, the amount of social engagement is also dependent on social capital and trust, which operate in a virtuous cycle with participation: the more people who join and post content, the more they respond to one another, the greater the quantity and quality of opinions and personal information they disclose, the greater the value of the network or community will be. With more participation, participants gain access to a larger pool of content and their data can be used to generate more insights about opportunities or products. This virtuous cycle depends on trust.

Second, as we described in Chapter 2, organizations are confronted with a new set of risks to manage when engaging with social technologies. Prime among these is the possibility that employees or critics outside the company will use social platforms to share negative information and opinions about the organization, potentially doing serious damage to the reputation of the organization or its brands. It is important to remember that these discussions will occur whether or not the organization chooses to acknowledge them or engage with the people who start them. Engaging on these platforms does require courage to hear honest feedback from individuals (some of whom may be employees). But it also provides the opportunity for the organization to respond to valid criticism. Furthermore, if true communities are formed with healthy social norms, these norms will be enforced by members of the community. For example, some organizations have deployed buttons to flag inappropriate content for further review in their internal social platforms, but these buttons have rarely been used because the communities have provided the social pressure to keep discussions constructive.

Breaches of personal privacy are also high on the list of risks for companies using social technology. When consumers or employees feel that their privacy is being threatened or that their personal information is being used in ways inconsistent

with their expectations (e.g., to expose them to unwanted commercial messages), they are likely to opt out, decreasing the value potential of social technologies. Meeting the varying privacy-related regulatory requirements across the globe is challenging, but necessary. However, what might be more important is better understanding the explicit and implicit agreements that an organization has with various internal and external stakeholders. Companies must ascertain when and for what purposes stakeholders would be comfortable with their use of data.

Companies can also take steps to prevent the unauthorized disclosure of confidential information through social technologies. Technology tools exist to help manage this risk, among them, automated auditing and alerts and access control systems. It is always good policy to update and promulgate IT security policy. But technology solutions can prevent only so much; social pressures and norms can be powerful forces to reduce unauthorized disclosures.

Regulations can also prevent companies from starting to share information on internal or external networks. In many industries, such as pharmaceuticals and financial services, what companies can and cannot say about their products and services is regulated by law. Farmers Insurance dealt with regulation by using special software that provided pre-approved material and monitored all agent-written messages to make sure they do not violate any compliance rules. There is a delicate balance between content control and the spontaneity and ease of social interaction, which many companies must learn to navigate.

Organizations will also have to address the issue of intellectual property (e.g., who owns a design that has been co-created or crowdsourced). One common approach is to have users agree to assign all co-created intellectual property to the company. But asserting ownership might inhibit social interaction, particularly when outside contributors are involved.

Finally, organizations will need to measure the results of their social technology efforts. However, at this point, the science behind these efforts is not yet fully developed. Determining the return on investment from social technology investments is still an evolving science, and discovering reliable relationships between social technology investments and corporate performance metrics such as incremental revenue has been particularly challenging. For now, intermediate metrics, such as user engagement, have been used. But organizations will continue to develop these capabilities.

### **Strategic implications**

A range of businesses that rely on exclusive access to information or that have been the traditional arbiters of professional content and talent could find their business models disrupted and thus may need to adapt and redefine their sources of value creation. Sectors whose business models are potentially at risk include media companies, news organizations, and data suppliers.

Business leaders whose industries could be disrupted by the use of social technologies should look for ways to co-opt the power of these technologies. Businesses that are involved in content discovery, validation and prioritization, and distribution, for example, can tap social sentiment to discover and assess content and talent (e.g., musicians or aspiring writers) and can use social platforms as an advertising and distribution medium.

News organizations, for example, can co-opt the “citizen journalists” by incorporating citizens’ material into their news reports. Some local TV stations, for instance, encourage citizens to upload video that is then featured in broadcast news. Furthermore, these and other media organizations can emphasize the quality and consistency of their curation of content as being a competitive differentiator over the analogous function provided through social technologies.

Traditional data providers themselves could also be threatened by large-scale data-gathering efforts coordinated through social technology. For example, the OpenStreetMap project threatens to disrupt traditional mapping data providers. The incumbent can respond by co-opting and/or positioning competitively against the disruptor, or moving into another business. For example, a mapping provider could try to develop a strategy to use crowdsourced map data, assert that its product is superior to crowdsourced maps, or even move into an adjacent market such as providing professional services to help organizations use mapping data.

## **IMPLICATIONS FOR INDIVIDUALS**

Rather than being passive observers, individuals use social technology to actively participate in the world around them. They can share stories and jokes or collaborate on important global problems. They can use social technologies to deepen relationships with friends and loved ones regardless of time zone or geographic distance. With social technology’s ability to multiply one’s influence, ordinary individual users can even start social movements.<sup>145</sup> Social technologies are powerful, and their myriad benefits carry rights, responsibilities, and risks. Individuals should think critically about where and how they socialize online, what type of content they consume and contribute, and what the long-term implications are for such choices.

### **Social media literacy**

Media literacy is the ability to critically analyze and evaluate messages received through traditional media. In a world where social technologies are becoming increasingly powerful, individuals will have to develop “social media literacy,” which involves understanding the mechanics of using social tools and learning how to judge the context, bias, and motivations of social media contributions. Furthermore, because social technologies are fundamentally an interactive medium, social media literacy will require an understanding of how to produce as well as consume content.

### **Privacy/data trade-offs**

Social technology platforms offer users an enormous amount of value, but individuals should be aware of the explicit and implicit bargains they are making when they participate on these platforms. For example, users are trading use of free services in exchange for their personal information on many platforms. Users leave virtual footprints as they stop to comment or contribute. This personal information can be quite detailed; including names of friends, a user’s location, and personal interests. Understanding what the privacy risks are and how to avoid exposing more information than one wants to share is a particularly salient aspect of social media literacy.

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145 B. J. Fogg, *Persuasive technology: Using computers to change what we think and do* (San Francisco, CA: Morgan Kauffman, 2002).

## Risks to young people

There are real risks associated with online sexual predators and cyber-bullying, particularly for children and young people. Setting appropriate boundaries is important, but teaching age-appropriate social media literacy will also be vital for arming young people with the tools to recognize and appropriately respond to potentially dangerous situations.

## OPPORTUNITIES FOR SOCIAL TECHNOLOGY COMPANIES

As the use of social technologies grows, both by consumers as well as enterprises, providers of social technologies can take advantage of opportunities to create relevant products and services that fulfill various emerging needs. These opportunities include:

### Contextual content filtering

As more and more communications and content are generated and distributed through social channels, the critical challenge for users is to receive exactly what they want or need when they need it. Search engines help users find information that they are explicitly seeking, but they also need systems that deliver relevant social content even when they aren't searching for it. Content filtering systems that extract and deliver the social data that is most relevant to a user's current context will be essential. These systems will be particularly important in a networked social enterprise when social channels become the default communication medium. Such contextual content filtering systems are not yet fully developed.

### Social analytics, big data, and real-time response

Social platforms are an important new source of unstructured big data and social technology providers have the opportunity to provide "social analytics" tools that can analyze this real-time torrent of noisy data and make sense of it. Contextual content filtering is one very specific and critical application of social analytics, but many more analytical tools are needed.

Many companies, for example, would like to be able to monitor their brands' health through sentiment analysis of social communications. Others would like tools that can mine social streams to develop insights into what features should be included in future product development. Still others are seeking a better understanding of which individuals hold the greatest influence in order to prioritize sales resources (a technique that is as applicable in B2B sales as it is in consumer marketing). Some companies are seeking to infer an interest graph on top of a social graph to micro-segment marketing efforts. Social analytics can start to address these problems and more.

In addition, organizations would like to be able to respond in to social signals in real time, through tailored responses, on a large scale. For example, when a company conducts a promotional event or when a brand crisis occurs, a flood of related social communication often appears. Tools that help to monitor and manage a real-time response will be in demand.

## **Identity management**

Social platforms that have large numbers of authenticated users could leverage their positions to become identity management platforms for other Web services. For example, when individuals make social connections with an identity (e.g., applies for a credit card online), their connections can function as a way to vouch for the individual's identity. Additional information that is provided as part of a profile or social communication further helps to confirm a person's identity.

Real benefits could accrue to users from having integrated identity management on a common platform (e.g., authentication through a single channel, rather than having to remember multiple passwords) and potentially accessing common information for use with multiple services (e.g., credit card information). However, such a system also presents obvious risks, including creating a single point of failure for access and a single target for security breaches. Such systems could also present some interesting public policy questions, such as what role such identity management systems would play in competitive dynamics.

## **Social-local-mobile**

Social technologies are being combined with mobile technologies and a trend toward increasingly local data, resulting in the “SoLoMo” trend. Smartphone adoption, which is projected to reach 50 percent of consumers globally by 2015, will bring more than 1 billion new users online who may never surf the Web from a personal computer.<sup>146</sup> In the developing countries of Africa, for example, there is very low PC Internet penetration, but much higher mobile Internet penetration via mobile phones.

Today, social technology providers are providing multiple SoLoMo-related services, including optimizing physical locations for online engagement, designing SoLoMo-based marketing strategies, designing interactive mobile applications, and providing local/social content optimized for mobile devices. But there are many other opportunities for social technology providers to leverage the SoLoMo trend.

## **Integration and interoperability**

Interoperability—getting different digital systems to work together—is a key enabler for the growth of social technologies and for realizing their full value for enterprises and consumers. This capability can be applied in three ways: integration of social features into existing applications; tools that enable users to manage interactions across multiple social technology channels; and interoperability of social platforms.

Social features can be added to applications of all kinds, including existing categories of enterprise software such as enterprise resource planning (ERP), procurement, supply chain management (SCM), and customer relationship management (CRM). Work flows for these activities already include social components and are frequently used to deal with exceptions. Adding a social communication capability can help smooth exception processing by allowing workers at various approval stages to append a special note or communication explaining the issue.

Integrated tools will enable both business and consumers to consolidate and manage their social interactions within a single application. Marketers, for example, want to have a single integrated tool that bundles social platform marketing, monitoring, and management processes. Eventually they would like to integrate digital, mobile, and even traditional marketing activities into one continuous, computer-mediated work flow. Consumers would like to be able to send and read content and communication to and from multiple social platforms in a single session.

Finally, both enterprises and consumers would benefit from greater interoperability among social platforms. In enterprises, for example, different functional or business units might deploy different enterprise social platforms, or separate companies that would like to collaborate might have different enterprise social platforms. Consumers would benefit from interoperability among different consumer social platforms in many ways, including by making it easier to register at new sites and avoiding the need to repopulate their lists of connections when joining a new platform. For this to happen, platform operators would need to agree on some open standards, but these efforts often are perceived to bring more benefit to attackers than incumbents.

### **Integrating synchronous and asynchronous communications and content**

The ability to transform communications into content is an essential characteristic of social technologies and an important source of value creation. The content of a social media communication becomes accessible and searchable by others. Some social technologies, including video chat rooms, are synchronous (real time). However, because they operate in real time, participation is limited to people who are available at a specific time.

Greater participation can be achieved through asynchronous communication (participants access content when they choose to). Recording tools can make content of synchronous collaborations (e.g., voice or video meetings) accessible and searchable.

### **Organizational transformation**

As noted above, a critical requirement for the success of social technologies in enterprises is to transform organizational structures, processes, and cultures to ensure wide participation, open sharing, and collaboration. Social technology providers can play an important role in helping companies make this transition through various services, including consulting services to select and implement social technology tools, update organizational design, and assist in process transformation and change management programs. These challenges will multiply as organizations seek to become extended networked enterprises.

## IMPLICATIONS FOR POLICY MAKERS

Social technologies can transform how government connects with the public, how it includes citizens within the governing process, and how it accomplishes its missions. It opens up new avenues for citizen dialogue, potentially harnessing the collective wisdom of the world. But social technologies have also raised new policy considerations, especially in protecting privacy, identity, intellectual property, and content. Policy makers will need to answer many unresolved questions in the coming years, as social technologies continue to proliferate around the globe.

### **Privacy and identity**

Privacy is a contentious issue across modern societies, and the spread of social technologies heightens concerns. Users often share intimate details about themselves on social platforms. Marketers, law enforcement officials, insurance underwriters, health care providers, and others see tremendous benefits that such details could have for accomplishing their work. To complicate the issue, no universal definition of privacy exists. Nor are there any universally accepted legal requirements or cultural mores about privacy rights across nations and sectors (e.g., health care and financial data have distinct privacy rules).

Unresolved policy questions for policy makers include: Should an employer be permitted to follow prospective hires online to learn things that employers are forbidden by law to ask, such as age, race, marital status, sexual orientation, and political affiliations? Under what conditions should a social platform provider be compelled to provide personal information for law enforcement officials or legal discovery? Should users have a right to access, modify, or delete data that are collected about them?

Some privacy regulations are focused on what data can be collected, and where and to whom they can be transferred. While this aims to be a “common-sense” approach, it often has unintended consequences, such as when the restrictions on the collection of health care data hinder clinical research. An alternate approach would be to take into account context through regulating the use, rather than the collection, of personal data. These are the types of complex choices that policy makers will have to address.

Closely related to privacy are concerns about identity and identity management. Public policy questions include: If social platforms become platforms for identity management, what role should these identity management systems play in the provision of public services? What impact would these systems have on competitive dynamics in various industry sectors that depend on identity management?

### **Intellectual property**

Governments seek to create intellectual property policies that strike a balance between incentives for developing innovations and content through temporary monopolies (with patents and copyrights), and derivative innovation and free expression through fair use, limited terms, and co-creation. Social technologies have characteristics that push on these balances. They make it easy to distribute content that is meant to be protected intellectual property, and they facilitate co-creation and the combination of different ideas and expressions. Policy makers need to take these new realities into account and continue to strike a balance that optimizes societal benefits.

## **Content controls**

Different governments have imposed regulations on content in various media and information channels, including social technologies. These include restrictions on political speech, outlawing criticism of various protected entities, prohibiting the importing of information from outside a country, and rules to restrict obscenity, depictions of violence, and other content that is considered harmful. As with intellectual property, the rise of social technologies tends to push on these limits. On social platforms, content production and consumption are highly distributed, so control becomes much more difficult.

In addition to grappling with the practicalities of enforcing content controls on social technologies, policy makers will have to consider the other consequences of various types of content control, e.g., impact on beneficial trade and innovation.



## 5. The future of the social economy

Social technologies are beginning to deliver on their value potential, and more of this value will be realized in the coming years. Indeed, the impact of social technologies will likely spread more deeply into various sectors and can help address some of the grand challenges that societies around the world are facing. For example, in an emerging global labor market, there is a great need to match people with jobs.<sup>147</sup> As we have documented in this report, social technologies can help to improve the matching of people to positions, particularly when mismatches arise from a lack of transparency into supply and demand.

One of the levers for addressing the supply of qualified talent is improving education, a relatively underutilized application of social technologies at this point. The communication and collaboration that social tools enable in enterprises can also be applied to education, allowing students to learn more interactively, collaborate on tasks, and solve problems together, both online and offline—and across bounds of time and geography. Scenarios range from schoolchildren collaboratively trying to construct a kite to university professors writing a research paper together.<sup>148</sup> Social tools enable students to create self-paced, customized “learning paths” that draw on interactive, social, and self-publishing media tools. Social technologies will be important enablers of future learning styles by facilitating the formation of learning communities, fostering student engagement and reflection, and enhancing the overall student learning experience in synchronous and asynchronous learning environments.

Social technologies also have the potential to positively influence health care outcomes, another global challenge. One of the clearest opportunities is in improving the performance of health care organizations—providers, payers, and producers of medical products. Social technologies also show promise in the practice of medicine itself. For example, communities such as Sermo and Doctors.co.uk enable physicians to serve their patients better. Sermo provides forums in which physicians can discuss treatment options (even anonymously if desired), and Doctors.co.uk offers online applications for practice management as well as discussion groups for how to best use the applications.

Perhaps more importantly, social technologies also have the potential to greatly improve how individuals manage their health. Social communities for people coping with similar diseases have already formed on platforms such as PatientsLikeMe.com, where patients pool their knowledge, share their experiences, and help reinforce beneficial behavior (e.g., complying with diet and exercise requirements). But as the focus of health care shifts from a provider-centric view of “treating sick patients” to a consumer-centric perspective of

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<sup>147</sup> *The world at work: Jobs, pay, and skills for 3.5 billion people*, McKinsey Global Institute, June 2012 ([www.mckinsey.com/mgi](http://www.mckinsey.com/mgi)).

<sup>148</sup> Gavriel Salomon and David N. Perkins, “Chapter 1: Individual and social aspects of learning,” *Review of Research in Education*, Volume 23, Number 1, January 1998.

“keeping healthy people well,” applications for social technologies in health will multiply.

There is a very large opportunity for social technologies to address the issue of patient adherence—getting patients to engage in the treatments they are prescribed. A lack of adherence to therapies prevents patients from getting the full benefits of their medicines, as well as costing billions in avoidable treatment.<sup>149</sup> Social networks can provide a supportive community that can help to encourage adherence to drug and health care regimens. We have also seen other communities form around healthy choices, such as diet or exercise. In some virtual running groups, members share their running experiences, including data captured from sensors in their shoes.

More broadly, as we observed at the beginning of this report, almost any experience through which people can interact can become social, when enabled by social technologies. But only a small percentage of all of these interactions have become social so far. As the social feature is added to more and more contexts—from TVs to outdoor advertising—we expect to see a much more social world.

In business, we expect to see the impact of social technologies grow, as management innovations start to accompany deployment, innovation, and adaptations of social technologies in and across enterprises. The types of organizational changes required to take advantage of these opportunities do not happen overnight, and we expect that it will take years before the full potential is achieved. However, the history of the waves of information technologies over the past several decades shows that technological innovation is followed by the management innovation that leads to lasting productivity improvements.

We expect social technologies and management innovation to help firms and economies improve their productivity, and we look forward to a world in which the experience of work is improved. Social technologies, in fact, have the potential to unlock the initiative, creativity, and passion that are needed to produce true innovations and enable companies to tackle the most difficult problems. “Individuals choose each day whether or not to bring these gifts to work,” says management consultant and author Gary Hamel.<sup>150</sup> We believe that the interactions enabled by social technologies can encourage more engaged employees to bring their creative gifts to their work.

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<sup>149</sup> According to various studies, 45 to 55 percent of adults fail to use drugs as prescribed; some studies found noncompliance with physician instructions to be as high as 75 percent. The World Health Organization (WHO) estimates that only about 50 percent of patients worldwide typically take their medicines as prescribed. See Consumers Union, “Take meds faithfully,” *Shopper’s Guide to Prescription Drugs*, Number 7, 2007; and Richard P. Kusserow, *Medication regimens: Causes of non-compliance*, Office of Inspector General, June 1990.

<sup>150</sup> Gary Hamel, *What matters now: How to win in a world of relentless change, ferocious competition, and unstoppable innovation* (San Francisco, CA: Jossey-Bass, 2012).

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In this report, we have described how social technologies can be catalysts for disruptive business models in various industries. We also expect that social technologies will enable the creation of radically new organizational forms.<sup>151</sup> With social technologies bringing the speed, scope, scale, and transformational power of the Internet to human interactions, it is not unlikely that new organizational life forms will appear. These could include far more networked, flexible, mega-scale global organizations that don't require command-and-control hierarchies to maintain coherence. Conversely, agglomerations of small firms that coordinate through social technologies might challenge large, integrated multinational corporations. We would not be surprised to find social technologies as the backbone, exoskeleton, or connective tissue of new organizational life forms that we cannot anticipate today. And perhaps the use of social technologies could lead to more participatory governance processes and more responsive governments.

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<sup>151</sup> Ronald H. Coase, "The nature of the firm," *Economica*, Volume 4, Number 16, November 1937.



# Appendix

1. Consumption analysis methodology
2. Share of socially-influenced commerce methodology
3. Construction of indexes of value potential and ease of capture
4. Value potential index
5. Ease of capture index
6. Potential impact of collaboration methodology
7. Estimating value potential of using social technologies in four global sectors
8. Estimating value potential for social technology providers

## 1. CONSUMPTION ANALYSIS METHODOLOGY

To estimate potential growth in the use of social technologies as a share of communications (i.e., versus e-mail and other formats), we modeled communication through various media by the amount of time spent and words conveyed from 1900 until 2010. This entailed standardizing statistics for each form of communication (e.g., face-to-face, telephony, listening to radio), then scaling them to the US population (over 15 years of age) to aggregate trillions of words per year read, spoken, or heard per minute, and to calculate the average time spent on each communication method per person per day. Except where otherwise noted, statistics come from US sources, and we used 200 words per minute (WPM) in full, spoken conversation, as estimated by Mark Liberman of University of Pennsylvania,<sup>152</sup> and 225 WPM for an average reader.<sup>153</sup>

Since many technologies have been used concurrently with other media sources in the past few decades, we discounted by an increasing percent the time and words consumed in radio, television, and recorded music, in order to have the sum of the times spent with each medium reflect the total time that a person would spend in communication and content consumption. Radio, TV, and listening to recorded music rarely overlap with each other but often overlap with other types of communication, such as e-mailing and texting, so discounting these once covered the time spent concurrently on two technologies without double discounting.

Discounting applies only to communication done concurrently with other communication types measured, not concurrently with other activities; listening to the radio while driving a car, for example, is not a concurrent use and thus not among the discounted set of activities.

The types of communications, the primary analysis, and the data sources we used for each follows.

- **Face-to-face communication.** We broke down face-to-face communication in two ways. First, we divided time by work and leisure, and we segmented those periods according to definitions of the Bureau of Labor Statistics' American Time Use Survey from 2010. Second, we segmented the time as either "full" or "discounted" face-to-face time, depending on the intensity of conversation embedded in the activity. "Full" face-to-face time refers to the in-person time spent wholly in conversation and assuming a normal pace of conversation (200 WPM) to derive word count estimates. "Discounted" face-to-face time refers to in-person time in which conversation is not the only focus of face-to-face time spent, resulting in a discounted rate (67 WPM, based on McKinsey expert analysis). Going to a baseball game with

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<sup>152</sup> Mark Liberman, "Sex-linked lexical budgets," Language Log blog, Institute for Research in Cognitive Science at the University of Pennsylvania, August 2006. Another article (Diana Binnenpoorte et al., *Gender in everyday speech and language: A Corpus-based study*, Center for Language and Speech Technology, Radboud University Nijmegen, the Netherlands) places it around 220 as well.

<sup>153</sup> According to the Psychonomic Society, a slow reader reads at 200 WPM and the fastest reader at 330 WPM (Keith Rayner, Timothy Slattery, and Nathalie Belanger, "Eye movements, the perceptual span, and reading speed," *Psychonomic Bulletin & Review*, Volume 17, Number 6, December 2010). Given that there are more slow readers than fast readers, we assume an average of 225 wpm. One reading expert places most readers between 200 and 250 WPM. See James McNair, "What is the average reading speed and best rate of reading?" Ezine Articles, May 2009.

a friend and having partial conversations is an example of this. Multiplying these two segments by the average words per minute in a conversation and the US population gave the number of words per year and time per day communicated in-person across the country. We held the hours of work and leisure constant back to 1900, based on National Bureau of Economic Research data<sup>154</sup> and the Federal Reserve Bank of St. Louis research.<sup>155</sup> We adjusted the share of full and discounted face-to-face time at discrete intervals based on US Census Bureau data and research from the Federal Reserve Bank of Boston<sup>156</sup> to account for the changing uses of time over the past 100 years.

- **Mail.** United States Postal Service statistics about official mail delivered per year were converted to an average number of letters per person per day. Using sources to triangulate between the average size of letter paper and typical paper coverage allowed us to estimate the average words consumed in a piece of mail, which we could translate into a per person time spend on mail by dividing by the average reading speed. Local leaflets and other non-envelope-based mail were not included in calculations; but letter format bulk mail was included.
- **Print.** We triangulated data on hours spent reading print media from three sources, WAN-IFRA (the World Association of Newspapers and News Publishers), Statistical Abstracts, and eMarketer. Print includes daily newspapers, magazines, and books. Consistent with other written sources, we assumed 225 WPM read.
- **Telegraph.** To estimate words and time consumed by telegraph messages we estimated the average words per message, and for time, divided by words read per minute. The Economic History Association tracked the number of messages handled by telegraph networks through 1970 and other data points, which allowed us to estimate a timeline to the present. Transcripts of parliamentary debate in Ireland provide data on telegram length; hence, we use 15 words per telegram.
- **Radio.** We used three sources to estimate radio time and minutes: WAN-IFRA, Statistical Abstracts, and eMarketer. We assumed a spoken word rate of 120 WPM on radio.<sup>157</sup> We began discounting radio from 1965, when radio's original novelty was starting to wear off with more people listening while simultaneously engaging in other activities. By 2010, 20 percent of radio listening was with concurrent activities.

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154 Valerie Ramey and Neville Francis, *A century of work and leisure*, NBER working paper number 12264, May 2006.

155 Kristie Engemann and Michael Owyang, "Working hard or hardly working? The evolution of leisure in the United States," *The Regional Economist* of the Federal Reserve Bank of St. Louis, January 2007.

156 Mark Aguiar and Erik Hurst, *Measuring trends in leisure: The allocation of time over five decades*, Federal Reserve Bank of Boston working paper number 06-2, January 2006.

157 Hadley Cantril and Gordon Willard Allport, *The psychology of radio* (North Stratford, NH: Ayer Publishing, 1971) and Mike Causey, "Speed limit: 120 words per minute," *Federal News Radio*, January 16, 2007. According to an analysis of news bulletins (Emma Rodero, "A comparative analysis of speech rate and perception in radio bulletins," *Text and Talk*, Volume 32, Number 3, June 2012), the recommended speaking rate on radio is 160 to 180 WPM, so discounting that to account for the slower rate on non-news shows, music, and sounds gets to 120 WPM as well.

- **Landline telephone.** For 1900 to 1940, we use data on telephone lines provided by Gregory Russell, curator of the Telephony Museum in Chicago, to approximate the number of telephone subscribers. For the same period, we assumed that only people of households with subscriptions would have access to telephones and used average household size data from the US Census. As of 1945, we assumed more general access (including pay phones). From this time on, we estimate landline telephone consumption based on US Census data and US telephone subscriptions from International Telecommunication Union (ITU) data. Telephone time per user was calculated using Office of Communications (Ofcom, the independent regulator and competition authority for the UK communications industries) data as a proxy. We assumed a slightly discounted pace of conversation (180 WPM) in comparison to full face-to-face communication to account for time spent on hold, dialing, and retrieving e-mail or using other telephone services.
- **Television.** We relied on the same sources and methods for calculating average hours per week of TV consumption as we did for radio. The WPM, though, differs: the Journal of Deaf Studies and Deaf Education estimates that the average television program has 142 words per minute.<sup>158</sup> Similar to radio, we began to discount TV watching time for concurrent time spent on other activities in 1980. This figure rose dramatically from 2000 to 2010 and reached 25 percent, according to a 2009 report from the Council on Research Excellence, “Video Consumer Mapping,” and a 2012 report on multiscreen communicating from the Consumer Electronics Association. This allows us to use a number that represents the hours spent paying attention to the television, as opposed to the number of hours during which a television is on but being ignored.
- **Recorded music.** For recorded music, we used the same method as radio and television but relied on slightly different sources. Statistical abstracts from the 1980s, 1990s, and 2000s provide average hours of radio use. Earlier data come from an analysis done by Indiana University, which provides the revenue per minute of recorded music played, which we combined with total revenue data to determine minutes of play before 1980.<sup>159</sup> Generally the only communication listeners hear with recorded music is song lyrics, so we needed to discount radio’s 120 WPM estimate by 20 percent to subtract radio DJ communication inherent within radio, resulting in 96 WPM for recorded music. We estimate that by 2010, recorded music had a 20 concurrence rate, just like radio (e.g., listening to MP3 files while reading e-mail).
- **E-mail.** Using data from the Radicati Group, a technology market research firm, we aggregated the corporate and personal e-mails sent per day across hosts, separated by spam and desired e-mails, as it has evolved since the inception of e-mail in the 1980s. We reduced the number of spam e-mails to account for those stopped by spam filters (a number that grows over time as filters become more sophisticated). The Digital Technology Center at the University of Minnesota and SPIE (the International Society for Optical Engineering) provides information on the average kilobytes per e-mail over

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<sup>158</sup> Denis Burnham et al., “Parameters in television captioning for deaf and hard-of-hearing adults: Effects of caption rate versus text reduction on comprehension,” *Journal of Deaf Studies and Deaf Education*, Volume 13, Number 3, Summer 2008.

<sup>159</sup> David Waterman and Sung Wook Ji, *Online vs. offline in the US: Are the media shrinking?*, Revised Version, Indiana University, November 18, 2011.

time.<sup>160</sup> The kilobyte total also includes non-text-based data (e.g., graphics for headers, routing information), which we removed to reach an estimated 300 words for the average read e-mail (having removed spam from the calculation).

- **Other Internet.** Other Internet communication includes all other online activities, including time spent on Web sites, online games, portals, videos and movies, search, multi-category entertainment, and classified advertising/auction sites. To create an estimate of Internet use over time, we used data from two sources, Statistical Abstracts and eMarketer. We estimate words consumed when accessing textual material to be 225 WPM.
- **Mobile phone.** CTIA—the Wireless Association, provides the mobile usage minutes for the entire US population since 1985. Divided by the US population, these data lead to the average time per person on the phone, allowing us to calculate time and words consumed on mobile phones. In accordance with landline telephony, we assumed a slightly lower conversation rate of 180 WPM.
- **SMS and MMS texting.** The US Census Bureau provides data on the annual number of text and picture messages sent in the United States. Based on various sources, we estimate 30 words per text and assume reading rates of 225 WPM.
- **Instant messaging.** Based on estimates of IMs per year from the Yankee Group, a market researcher, and an estimate of average length of a message and time to read it, we estimate words and time of instant messaging use. The WPM read in instant messaging is substantially lower than other forms of conversation (33 WPM) because it depends on the average speed that both participants (in turn) can type, which is far slower than they can talk.
- **Social networks.** We used Nielsen data to estimate the share of Internet time spent on social networks. As with other written sources, we assumed 225 WPM read.

In our analysis, we included estimates for voice over Internet protocol (VoIP) and content services provided only on mobile devices,<sup>161</sup> but they contributed so little that they are not observable in the overall visualization.

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160 Andrew Odlyzko, "Internet traffic growth: Sources and implications," in *Optical Transmission Systems and Equipment for WDM Networking II*, ed. B. B. Dingel et al., SPIE Conference Proceedings, Volume 5247, 2003.

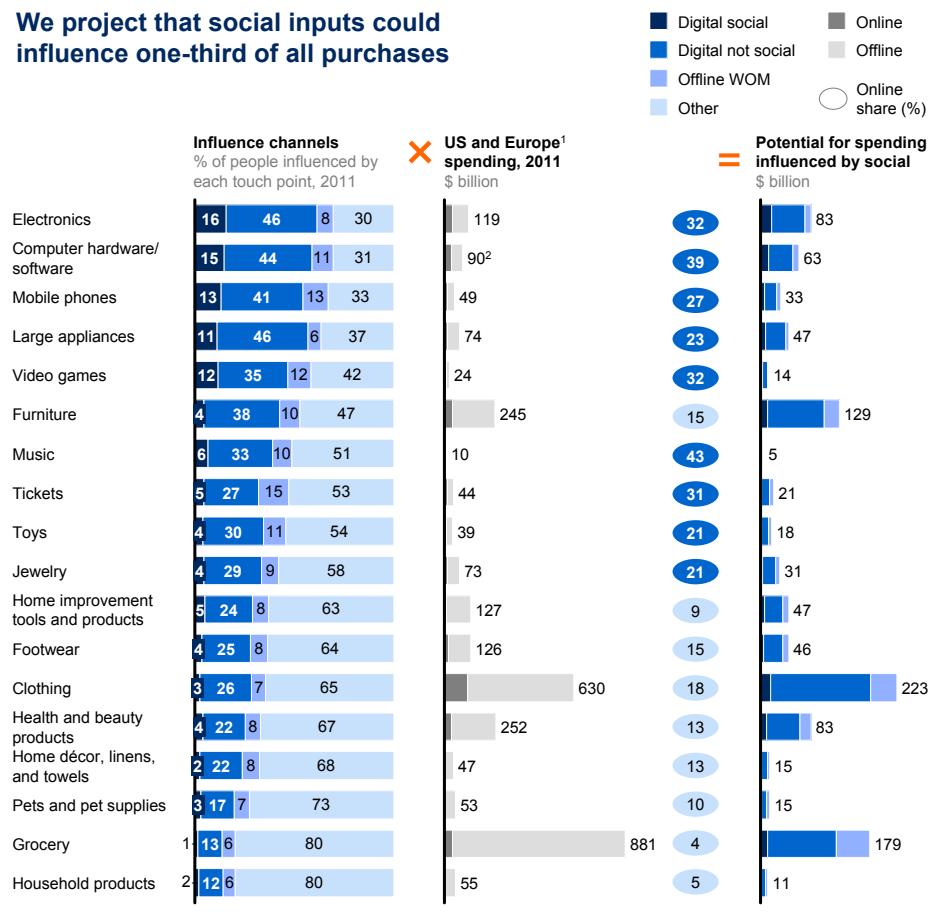
161 Pure-play Internet and mobile services include telecommunications access (such as DSL and dial-up, but not cable modems), pure-play content (such as eHarmony, GameSpy and MobiTV), and mobile instant messaging and e-mail alerts (see US Census, Table 1098, Media Usage and Consumer Spending: 2000 to 2010).

## 2. SHARE OF SOCIALLY-INFLUENCED COMMERCE METHODOLOGY

We use a model of “socially influenced commerce” to estimate the percent of purchase decisions that are influenced by input from social media and other sources. We analyze different methods of consumption (i.e., online or offline) separately to estimate revenue currently influenced and potentially influenced through social technologies. The potential for spending influenced by social inputs was determined by multiplying the percentage of people influenced by non-social digital (which has the potential to be easily converted into social digital) by total spending (Exhibit A1).

**Exhibit A1**

### We project that social inputs could influence one-third of all purchases



1 European countries included are United Kingdom, Russia, Germany, Spain, Netherlands, France, Poland, and Italy.

2 Includes only computer hardware spending.

NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: Euromonitor; iConsumer; McKinsey Global Institute analysis

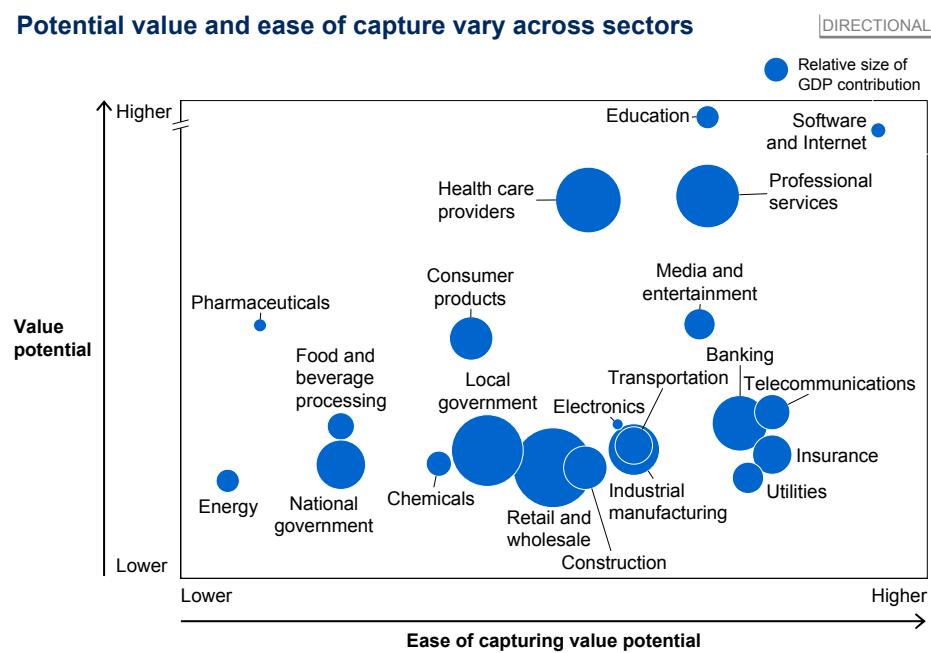
The data on consumer behavior and spending in the top 18 product categories come from McKinsey's iConsumer database and Euromonitor. The iConsumer database supplies information based on consumer surveys that capture which media types influence consumers' decisions. Euromonitor provides consumer spending data. To create 18 consistent product categories, we mapped together each database's categories. For example, we mapped "health and beauty products" in iConsumer to "beauty and personal care" and "consumer health" in Euromonitor. Some product categories, such as automobiles, are excluded because one of the sources (e.g., Euromonitor for automotive) lacked data.

Together, these 18 categories constitute 16 percent of household spending in nine countries, for a total of \$2.9 trillion in 2011. The nine countries are the United States, United Kingdom, Russia, Germany, Spain, the Netherlands, France, Poland, and Italy.

### 3. CONSTRUCTION OF INDEXES OF VALUE POTENTIAL AND EASE OF CAPTURE

By analyzing the application of social technologies in four commercial sectors—consumer packaged goods, consumer financial services, professional services, and advanced manufacturing—we have selected a set of proxy measures that can be used to indicate the relative potential value that can be captured and the ease of capturing maximum value. Using these criteria, we create two indexes: the value potential index and the ease of value capture index, which can be used across sectors. Each index has multiple criteria, which give us a relative sense of which sectors may be poised for greater gains and which sectors would face the largest barriers. These indexes do not paint a precise picture, but they do provide a directional sense of both the potential value available and the ease of its capture across sectors. (Exhibit A2). It is also important to note that these measures are indicative at the industry level, but any individual organization could have a significantly different level of value potential or ease of capture than its industry average might suggest.

**Exhibit A2**



SOURCE: McKinsey Global Institute analysis

#### 4. VALUE POTENTIAL INDEX

The value potential index is based on characteristics that our research identified as drivers for value creation. The industries where we see the largest opportunities are those in which a high volume of information exchanges take place among many employees and between the organization and outside parties (customers, partners). These conditions are found in many kinds of companies, including those with a high concentration of interaction workers—knowledge workers whose work requires personal interactions, independent judgment, and knowledge sharing. Such organizations can benefit from social technologies that enable more effective communication, collaboration, or knowledge management in information exchanges. Companies that have interactions with many customers, especially consumer-facing organizations, also have a great potential to benefit from social technologies, which can help develop more detailed consumer insights, generate interactive and engaging marketing campaigns, and provide customer service.

We use four dimensions to give a directional indication of the value generation potential in different industry sectors: 1) R&D intensity; 2) marketing intensity; 3) customer service intensity; and 4) interactions intensity. The first three dimensions are indications of impact along the value chain, i.e., product development, marketing and sales, customer service. As the level of interactions is indicated by this fourth measure of interaction intensity, we deduct collaboration effects from all other metrics except R&D to avoid duplication. We do not separate collaboration from R&D because it is intrinsic to the R&D function. Our proxies do not cover two value chain steps: operations and distribution, and business support functions. This is because almost all the effect observed in these functions originates from enterprise collaboration and therefore is covered in the fourth metric.

##### **Proxy 1: R&D intensity**

A company's R&D intensity (measured as R&D spending per revenue unit)<sup>162</sup> is an indication of potential value to be captured through use of social technologies in product development. The mechanism for potential value creation is through more effective collaboration and knowledge management within the R&D organization, generation of consumer insights from social technologies, and crowdsourcing solutions.

##### **Proxy 2: Marketing intensity**

The impact of social technologies on marketing and sales operations is largest for industries where advertising and other marketing activities are powerful drivers of sales. The proxy measure we use is advertising spending per revenue unit, which we found to be positively correlated with the margin effect in marketing and sales in our deep dive sectors.<sup>163</sup> Although ad spend does not capture all marketing and sales activities where social technologies can offer improvement potential (e.g., company-generated content and public relations materials are not measured), it is a reasonable proxy, given that ad spend is reasonably correlated with the total potential in marketing and sales.

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<sup>162</sup> We use US Bureau of Labor Statistics classification code NAICS to get funds for industrial R&D performed in the US sales for the latest year available, as well as sales figures, for each industry. We divided the funds spent on R&D with the sales figures to form proxies that were comparable between industries and that could indicate the potential in R&D.

<sup>163</sup> Schonfeld & Associates, "Advertising ratios & budgets," Saibooks.com, 2012.

### Proxy 3: Customer service intensity

Customer service is another organizational activity whose performance can be improved through the use of social tools. By posting answers to questions about their products on social platforms, companies can address similar concerns for many customers simultaneously. Moreover, those answers remain online and can be found through Web searches by other customers. In addition, inquiries can be answered by brand enthusiasts and other consumers who are members of a community where a particular brand or category of product is discussed. Our proxy for customer service intensity is the number of customer service representatives per revenue unit, based on US Bureau of Labor Statistics classifications. We correlate this proxy with the observed effect in customer service, less the effects of enterprise collaboration in this part of the value chain (since that is modeled in proxy 4).

### Proxy 4: Interactions intensity

Interactions intensity is a key indicator of value creation potential from enterprise collaboration because knowledge work depends very heavily on social interaction. Interaction workers spend a great deal of time communicating (often by e-mail), searching for information that other interaction workers and knowledge experts possess, and in meetings with other interaction workers. The efficiency and effectiveness of interactions work can be enhanced with social technologies. As a proxy for how much potential exists for such improvements in a sector, we use the number of interaction workers per revenue unit to indicate interactions intensity. The number of interaction workers in this case is gathered from the US Bureau of Labor Statistics and the Standard Occupation Classification codes, which capture occupations such as business and financial operations and engineers. We found this measure to be positively correlated with the effects from collaboration that we have observed in our deep dives.<sup>164</sup>

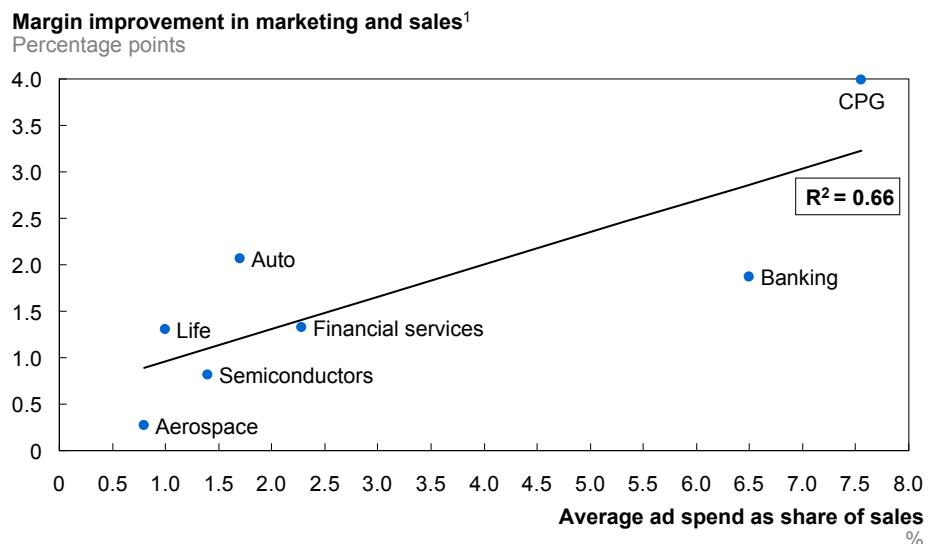
The relationship between each proxy and the associated potential margin improvement was derived through a linear regression between the proxies for our deep dives and the corresponding impact potential that our research showed for those industries. This is illustrated in Exhibit A3, where the relationship between proxy 2 (ad spend per revenue unit) and margin improvement potential in sales and marketing (when disregarding collaboration effect) was modeled.<sup>165</sup>

After determining the relationship between the proxy and the margin improvement for each part of the value chain, we could approximate the full expected value potential for an industry, as a sum of the expected margin improvements, assuming no interactions among separate effects. Exhibit A4 classifies each sector by potential margin improvement. Again, these proxies are meant to be directional, and provide some sense of the relative impact between sectors, rather than predicting the specific value potential for industries that we did not study in depth.

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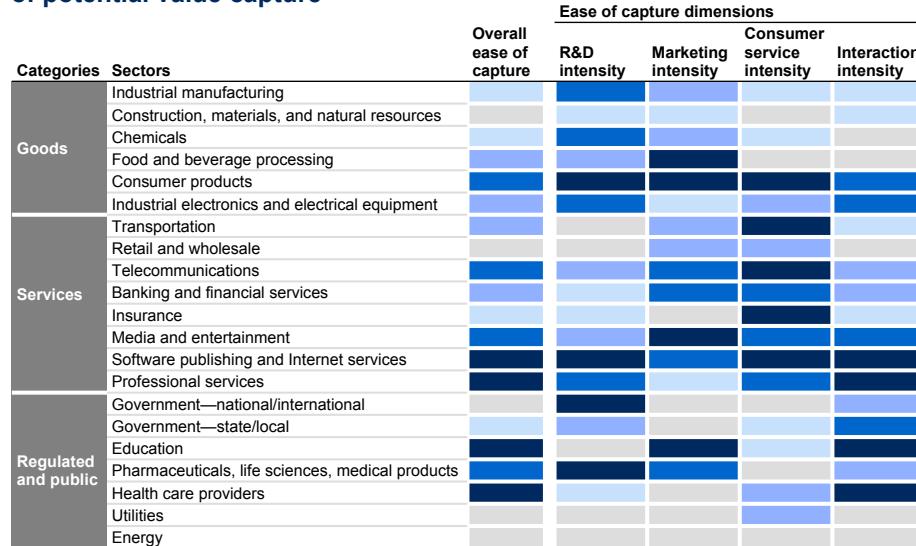
<sup>164</sup> Collaboration gained from product development was not included in proxy 4, given the challenging nature of separating the lever effects of “collaboration” with those of “co-development.” It is therefore accounted in proxy 1 (R&D intensity).

<sup>165</sup> Data availability did not permit for a more complex analysis at this point, but we are aware of the limitations of this approach: no proxy is able to capture the full potential of social technologies as it is only an indicator for some of the effects (for example, ad spending indicates mostly awareness, not conversion). The assumption of linear relationships between proxies and value potential does not hold beyond certain levels of proxy intensity (value potential increases are not per se inelastic with intensity).

**Exhibit A3****How various sectors are positioned to benefit from social technology use in advertising**

<sup>1</sup> Excluding collaboration.

SOURCE: McKinsey Global Institute analysis

**Exhibit A4****Relative value opportunities across industries, based on four proxies of potential value capture**

SOURCE: McKinsey Global Institute analysis

## 5. EASE OF CAPTURE INDEX

This index is made up of three dimensions: openness, culture, and current technology capacity. We assess each of these factors through two or more proxies (Exhibit A5), described below.

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### Exhibit A5

#### We use nine proxies to assess ease of value capture, based on openness, culture, and technology expertise

Dimensions	Enablers of social technology usage	Description of driver	Proxy
Openness	Ability to share information	Degree to which privacy is demanded by players or consumers in industry	Share of reported privacy breaches
	Independence from intellectual property	Intellectual property (IP) intensity of industry	IP intensity
	Freedom from regulation	Industry-specific requirements for content control (legal, compliance)	Compliance officers as percentage of industry employment
	Low amounts of sensitive data	Data sensitivity/importance of secure IT systems	IT security spend as percentage of IT spend
Culture	Cultural orientation to external changes	Degree of focus on external developments and trends	External orientation score
	Innovative and learning culture	Ability of an industry's players to innovate and learn new things	Innovation and learning score
	Ability and tool set to quickly adapt to changes	Ability to use the right tools and technologies to react to business changes	Transformational IT spend as percentage of IT spend
Technology	General technological adeptness	Current usage of technologies	Total IT spend as percentage of revenue
	Social technologies adeptness	Current usage of social technologies	Social tools adoption score

SOURCE: McKinsey Global Institute analysis

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### Openness

The openness dimension describes the degree to which an industry must secure or control content and rights to content. Four proxies determine how open an industry will be; the greater degree of openness, the easier it will be for an industry to capture value from social technologies.

- **Reported privacy breaches.** We use data from the Verizon 2012 Data Breach Investigations Report, which tracks the number of compromised records by industry group.<sup>166</sup> Industries with high incidence of breaches are assumed to be concerned about maintaining control over information and therefore less open with their data.
- **Intellectual property intensity.** We calculated the intellectual property (IP) intensity of an industry as the share of IP-intense subsectors in comparison to the total number of NAICS subsectors, based on data from the “Intellectual Property and the US Economy: Industries in Focus” report provided by the US Commerce Department’s Economics and Statistics Administration and the US Patent and Trademark Office. A high IP index is an indication of a need to control access to information and possible hurdles in fully implementing social technologies.
- **Compliance officers as percentage of industry employment.** Based on 2011 US Bureau of Labor Statistics data, we calculated the share of compliance officers per total industry employees. A high level of compliance

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<sup>166</sup> Corrected for breaches of more than one million records to avoid distortions.

personnel indicates a highly regulated industry, which may have difficulty achieving the degree of openness needed to optimize social technology use.

- **IT security spending as percent of IT spend.** We used Gartner Inc. data on IT security spending as percentage of total IT budgets by industry.<sup>167</sup> A high level of IT security spend indicates potential issues with sharing information and a lower level of openness.

## Culture

We use three proxies to assess whether an industry culture is conducive to successful adoption and use of social technologies within company organizations. The first two are the degree of external orientation and emphasis on innovation and learning within employer organizations, measured through self-reported large employee surveys. The third proxy is the level of transformational IT spending (i.e., IT investments to implement new capabilities, rather than technology investment used for running day-to-day operations).

- **External orientation score.** We use consolidated data from the proprietary McKinsey Organizational Health Index (OHI). McKinsey's OHI survey is based on nearly 800 surveys that have been conducted in 400 organizations and capture assessments of nearly 500,000 employees. The OHI external orientation construct relies on multiple variables measuring the degree of an organization's customer focus, competitive insights, business partnerships, and government and community relations.
- **Innovation and learning score.** We use McKinsey's Organizational Health Index data to measure innovation and learning. The innovation and learning construct is built from multiple variables, capturing an organization's ability to capture external ideas, to introduce top-down innovations as well as bottom-up innovations, and to share knowledge.
- **Transformational IT spend as percentage of IT spend.** The transformational IT spend proxy, based on the Gartner IT Key Metrics Data report from January 2012, includes all technological R&D spend a company invests to transform its operations. It does not include technology expenditures used in running day-to-day operations or in growing the business organically. This metric is calculated as the share of the total IT budget.

## Technology

The technology dimension assesses the technological capability of an industry—its capacity to incorporate social technologies into IT operations. To build this proxy, we calculate total IT spend as a percentage of revenue, and social tools adoption for each industry.

- **Total IT spend as percentage of revenue.** Total IT spend as percent of revenue is based on the Gartner IT Key Metrics Data report from January 2012. Higher IT intensity is interpreted to indicate a greater preparedness for social technologies adoption.

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<sup>167</sup> Kurt Potter et al., *IT Metrics: IT Spending and Staffing Report*, 2010, Gartner, January 2010.

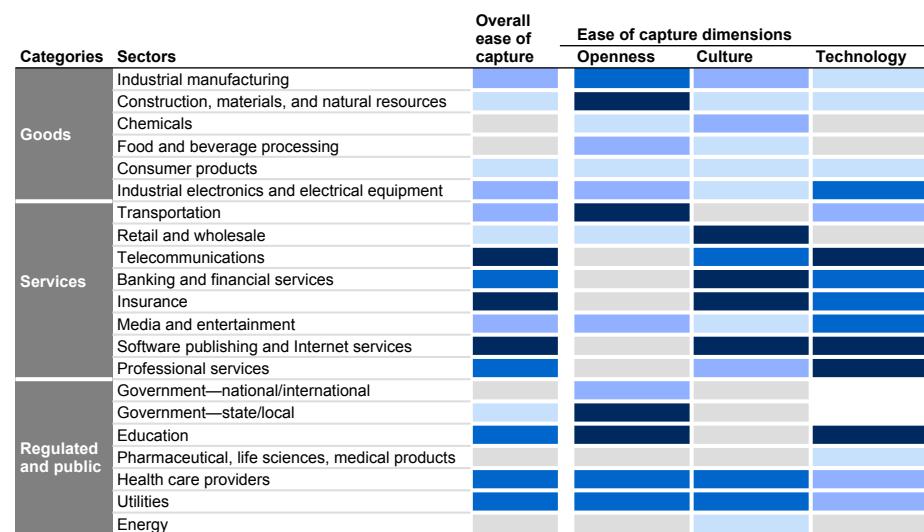
- **Social tools adoption score.** We use survey results from McKinsey's "Minding Your Digital Business" Global Survey<sup>168</sup> to assess an industry's degree of social tools adoption. Survey participants across industries were asked to indicate the extent to which their organization has adopted social tools or technologies (e.g., blogs, wikis, social networking).

Once we quantified each criterion, we gave each sector a score of one to five based on the quintile into which it falls for each criterion. The overall ease of capture index is the mean of the scores across the three dimensions (Exhibit A6).

### Exhibit A6

#### Relative ease of value capture across sectors

Top quintile    3rd quintile    Bottom quintile (most difficult to capture)  
 2nd quintile    4th quintile    No data available



SOURCE: McKinsey Global Institute analysis

<sup>168</sup> McKinsey's C-level executive survey on key trends in digital business: "Minding your digital business: McKinsey Global Survey results," *The McKinsey Quarterly*, May 2012.

## 6. POTENTIAL IMPACT OF COLLABORATION METHODOLOGY

Modeling the potential impact on productivity from social collaboration involved four steps: 1) defining categories of workers; 2) classifying workers by those categories and calculating their respective share of the labor force; 3) quantifying the productivity potential for interaction workers; and 4) estimating impact on a national level.

### Category definition

Based on previous McKinsey research,<sup>169</sup> we defined three categories of workers: interaction, transaction, and production (see definitions below). Although a common distinction is between knowledge and non-knowledge workers, we used a three-way split to paint a more nuanced picture of the labor force. Our classification system distinguishes between knowledge workers who perform highly routine tasks (e.g., processing standardized forms), whom we classify as transactions workers, and knowledge workers who require independent business judgment and carry out complex interactions with other people; these are classified as interaction workers:

- **Interaction workers:** Occupations requiring complex interactions with other people, independent judgment, and access to information (e.g., professionals, managers, and consultative salespeople). It is work that is not standardized and is therefore difficult to automate. Many of these positions require extensive education and training.<sup>170</sup>
- **Transaction workers:** Roles in which most time is spent processing information or conducting transactions that are repetitive and have the potential to be automated (e.g., retail cashiers, bank tellers, clerks, and assistants).
- **Production workers:** Employees whose work usually involves converting materials from one state to another or in assembling goods and components, (e.g., factory and construction workers).

### Worker classification and occupation cost

We divide the different types of workers listed in national statistics of employment into these three categories. These national statistics include the number of people per occupation as well as the average compensation by country. The labor force composition can be expressed both in number of people employed and their associated cost (i.e., compensation). The share of interaction workers is higher when measured in cost than in employment because of relatively high compensation in many interaction occupations.

### Interaction workers' productivity potential

The goal of this analysis is to understand how much social media can improve the productivity of interaction workers. To do this, we first quantify how much time interaction workers spend on various activities ("time split by activity"). Then, based on multiple case examples, we estimate the potential productivity improvements across each of those activities. We conservatively project

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<sup>169</sup> Bradford C. Johnson, James M. Manyika, and Lareina A. Yee, "The next revolution in interactions," *The McKinsey Quarterly*, November 2005

<sup>170</sup> Some previous research had classified certain low-skill jobs such as nurse's aide as interaction work. In this research, such roles are classified as transaction work.

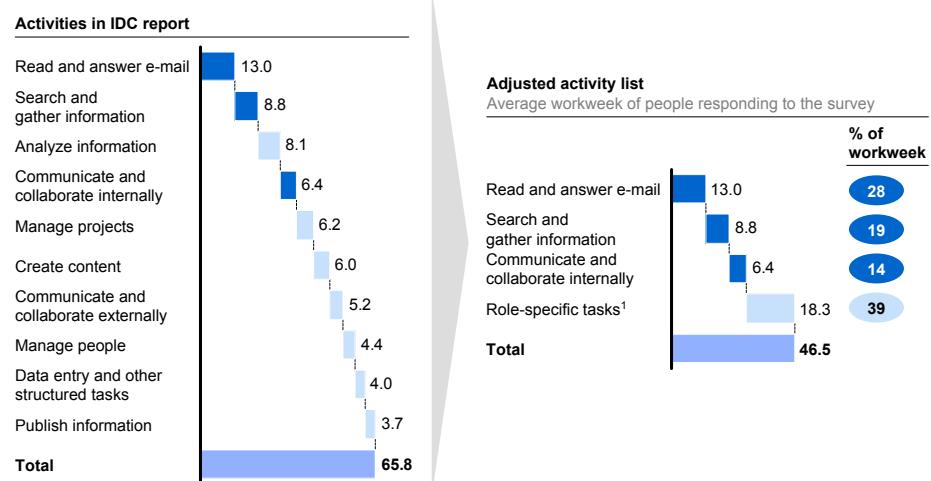
productivity increases only for interaction workers whose roles rely heavily on communication and collaboration and, therefore, they have the most to gain from social technologies. We do not include the potential productivity gains that production and transaction workers could obtain from their use of social technologies, which we also expect, but to a lower degree than for interaction workers.

- **Time split by activity.** We base our breakdown of interaction workers' time spent on various working activities on International Data Corporation estimates, which were based on multiple surveys on how workers spend their time, as well as McKinsey proprietary data. From this data set, we identified the three activities that are performed by almost all interaction workers and for which social technology could have an impact: reading and answering e-mail, searching and gathering information, and communicating and collaborating with colleagues. The data show an average workweek of 46.5 hours, so we aggregated the time spent on other tasks as being "role-specific tasks." (Exhibit A7).

### Exhibit A7

#### We adjust IDC data to estimate time spent on different activities by a typical interaction worker

Hours per week per activity



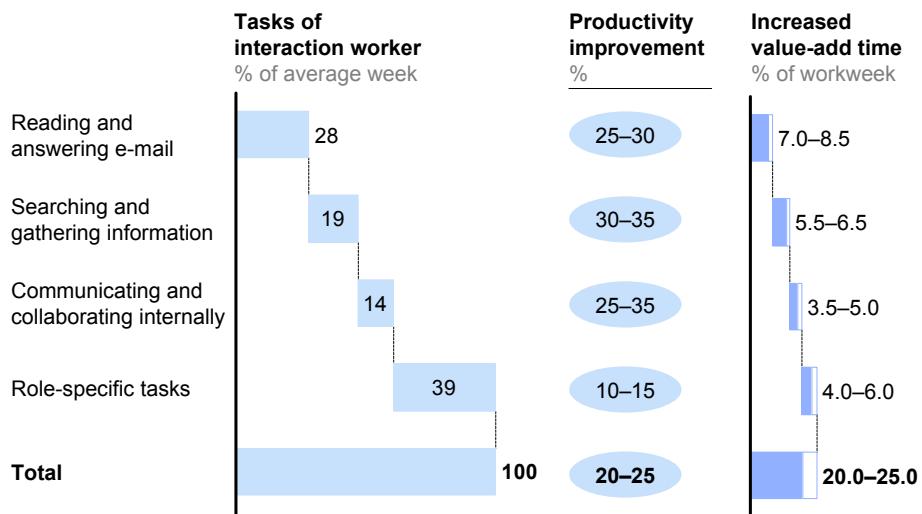
<sup>1</sup> Included activities depends on specific role, e.g., project management, content creation, people management, data entry, and information analysis.

SOURCE: IDC; McKinsey Global Institute analysis

- **Productivity improvement.** We next used the hourly breakdown to estimate the weekly productivity improvement possible for each type task. Our estimates for possible productivity improvements in each activity came from interviews with users, IT executives, providers of collaboration tools, experts on organizational behavior, social collaboration advocates, and case studies. We also incorporated survey data about social technology usage and reports from social technology tool vendors. The net potential productivity benefit is estimated to be in the range of 20 to 25 percent (Exhibit A8).

### Exhibit A8

#### Improved communication and collaboration through social technologies could raise productivity of interaction workers by 20 to 25 percent



SOURCE: International Data Corporation (IDC); McKinsey Global Institute analysis

### National-level economic impact

We combined the per-worker productivity improvement projections with the proportion of interaction workers in each economy to estimate the overall economic impact that productivity improvements could have. We used the analysis of four countries and then scaled up to a global estimate.

- **Four main countries.** The four main countries are the United States, Germany, the United Kingdom, and France. Calculating the overall productivity improvements possible required calculating the overall cost of interaction workers, as a proxy for productivity, multiplying that by the productivity improvement possible, and then stating the result as a percent of overall GDP. The overall cost of interaction workers in each country is estimated from share of interaction workers (based on national labor statistics) multiplied by the total cost of labor estimated in each nation by the Organisation for Economic Co-operation and Development (Exhibit A9). This gives the cost base for interaction workers in the country.<sup>171</sup>

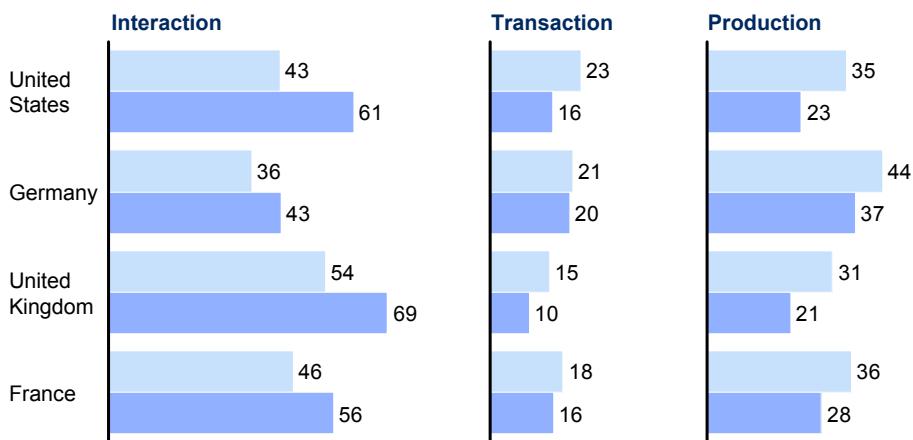
171 US data: annual wage reported by the Bureau of Labor Statistics, May 2011. Germany: annual median gross salary as reported by Bundesagentur für Arbeit (the German Labor Agency), December 2010, excluding civil servants in the “Beamte” special employment definition and the self-employed. UK mean salaries reported by the Office for National Statistics, June 2011. US and UK data exclude the self-employed. French private sector and self-employed data from 2010 INSEE (National Institute of Statistics and Economic Studies) reports; public sector data from DGAFP-BSEEV. We assume that the distribution of self-employed workers in the three occupation categories is similar to the overall labor force. We use the OECD definition of annual labor cost of employees compiled according to the System data from 2010 INSEE (National Institute of Statistics and Economic Studies) reports; public sector data from DGAFP-BSEEV. We assume that the distribution of self-employed workers in the three occupation categories is similar to the overall labor force. We use the OECD definition of annual labor cost of employees compiled according to the System of National Accounts 1993, adjusted for the self-employed by multiplying COE (cost of employment) by the ratio of total hours worked by all persons in employment to total hours worked by all employees of businesses.

**Exhibit A9****To gauge macroeconomic impact of social technologies across nations, we examine a mix of worker types and wage rates**

## Distribution of workers

% of workforce

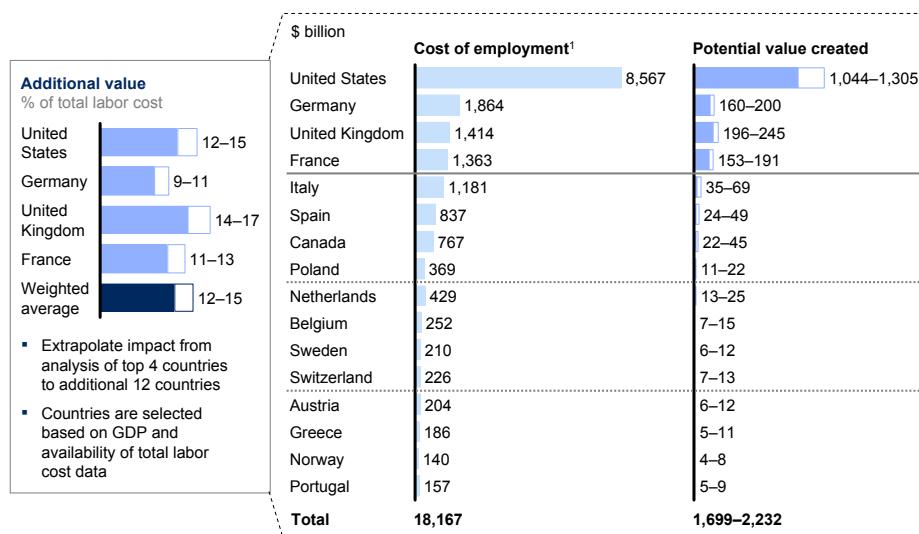
Number of workers  
Cost



NOTE: Numbers may not sum due to rounding.

SOURCE: National statistics; OECD; McKinsey Global Institute analysis

- Scaling to additional economies.** We scale up the analysis to 12 more major economies, for a total of 16 major economies, using a weighted average of the productivity improvements for the four countries we analyzed. For each country, we use a similar method to what we use for the four focus countries (Exhibit A10). The 12 additional countries—Austria, Belgium, Canada, Greece, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, and Switzerland—were selected based on the size of their economy and the availability of estimates for total labor cost in the OECD database.

**Exhibit A10****Improved productivity through social technologies could create \$1.7 trillion–2.2 trillion in value across 16 large economies**

NOTE: Numbers may not sum due to rounding. Not to scale.  
SOURCE: OECD; McKinsey Global Institute analysis

## 7. ESTIMATING VALUE POTENTIAL OF USING SOCIAL TECHNOLOGIES IN FOUR GLOBAL SECTORS

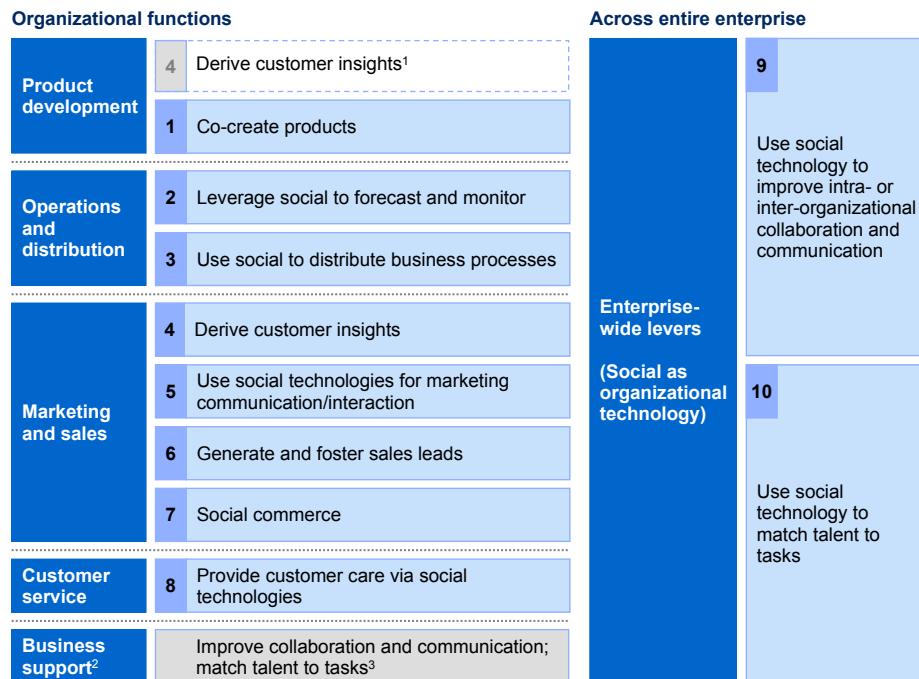
We considered four major industries: consumer packaged goods, consumer financial services, professional services, and advanced manufacturing.<sup>172</sup> We chose those industries because they are a significant share of global industry sales (almost 20 percent) and to reflect the diversity of industries in the economy. Consumer packaged goods companies sell through third parties but have a high level of consumer interactions. The consumer financial services sector is a consumer-centric, customer service–focused industry. The professional services industry was chosen as an example of a knowledge/interactive worker-intensive sector. Advanced manufacturing industries all devote a substantial amount of resources to R&D, but semiconductors and aerospace have a B2B focus, while the automotive sector is B2C. Finally, we included the social sector because it is by nature social and interaction-intensive.

To estimate the value potential of social technologies in these sectors, we identified across the value chain—in product development; operations and distribution; marketing and sales; and customer service—eight ways in which companies use social technologies. In addition, we identify two enterprise-wide value levers that can improve organizational productivity across functions (Exhibit A11). For the social sector, we rely on a similar value chain approach to identify and sort levers but customized these to reflect the unique context of the social sector.

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### Exhibit A11

#### Ten ways social technologies can add value in organizational functions within and across enterprises



1 Deriving customer insights for product development is included in customer insights (lever 4) under marketing and sales.

2 Business support functions are corporate or administrative activities such as human resources or finance and accounting.

3 Levers 9 and 10 apply to business support functions as they do across the other functional value areas.

SOURCE: McKinsey Global Institute analysis

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172 We included the social sector in our sector analyses but not in the numerical analysis.

In our analysis, we rely on the MGI micro-to-macro approach: we based estimates on proven impact on the micro level (e.g., a collection of individual cases), which we then scaled up to the macro level (global sector), with appropriate adjustments. In estimating the potential impact, we prepared detail analyses of 60 case studies after reviewing more than 300 cases from organizations around the world and academic and industry research. To assess case credibility, we considered source quality as well as impact and repeat success rates (i.e., consistency with other reported cases). We selected case studies and expert estimates (on which we base some impact estimates) specifically to minimize any double counting of impact across the social technology levers.

Wherever possible, we use reported impact numbers. In cases where the impact has not been sized, we rely on expert interviews along with industry data to complete our value potential calculations. We know that many factors in addition to social technology implementation and usage need to come together to generate the observed value. Nevertheless, we have assigned the full value of the identified levers to social technology use because it is not possible to break down impact among contributing factors, and “social” is an essential enabler to achieve the impact in the cases we chose.

In order to estimate the benefits enabled by the use of social technologies, we used a productivity framework, i.e., the ratio of inputs to outputs. In some of the cases, the benefits of using social technologies were higher outputs for the same input, e.g., revenue uplift. In other cases, the same output is generated with a lower amount of inputs, e.g., conducting market research with a large number of participants at a lower cost. To make the cases comparable, we assumed a constant revenue (assuming that the overall revenue in the industry would not change), and estimated the potential margin improvement that would result from more productive use of resources. By focusing on quantifying the productivity impact from margin expansion, we are able to estimate total sector potential, excluding effects that redistribute market share among players. However, we are not suggesting that implementing social technologies will improve margins to the full potential estimated; some of these benefits could be captured by customers. Also, this method understates the full potential of social technologies; it does not take into account other consumer benefits (e.g., the value consumers gain from use of social technologies to connect with friends, share content, and so on).

Whenever possible, we interviewed leaders who are involved in the cases to obtain more detailed data and cross-check assumptions on drivers and cost relationships. We checked and triangulated those numbers with reported impact numbers, where available. This allowed us to aggregate results and distill average, minimum, and maximum impact figures.

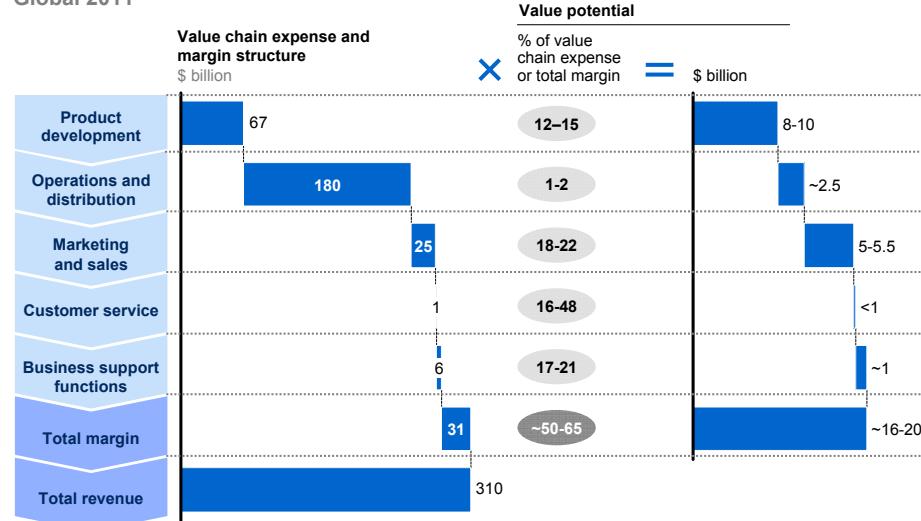
To calculate productivity benefits as a percent of total costs, we derived detailed industry cost breakdowns using external and proprietary McKinsey industry benchmarking databases. We triangulated the resulting impacts on total costs per value chain step with leading economists, industry leaders, and internal and external experts on the four sectors and on the respective value chain steps (e.g., marketing and sales).

In estimating potential value that could be derived from use of social technologies at different points in the value chain, we observed significant differences, even within the four sectors we studied in depth. As illustrated in Exhibits A12 to A14, we see that much of the potential benefit of social technology for semiconductor firms rests in product development, where R&D-intensive companies can benefit greatly from improved collaboration. In automotive, the greatest value from social technologies would be available in marketing and sales, where social communities are rich sources of lead generation data (Exhibit A14).

### Exhibit A12

#### Social technologies could add \$16 billion–20 billion in value annually for the semiconductor industry

Global 2011



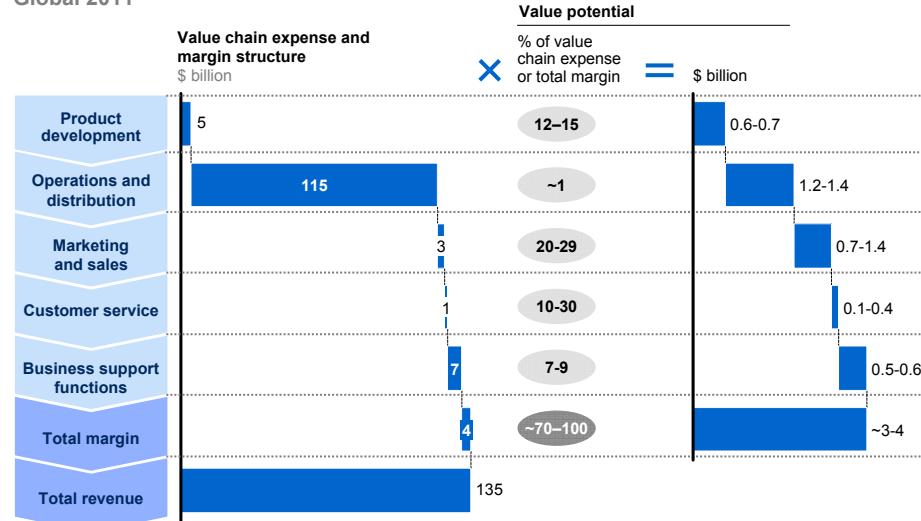
NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: iSuppli; McKinsey Global Institute analysis

### Exhibit A13

#### Social technologies could add \$3 billion–4 billion in value annually for the aerospace industry

Global 2011

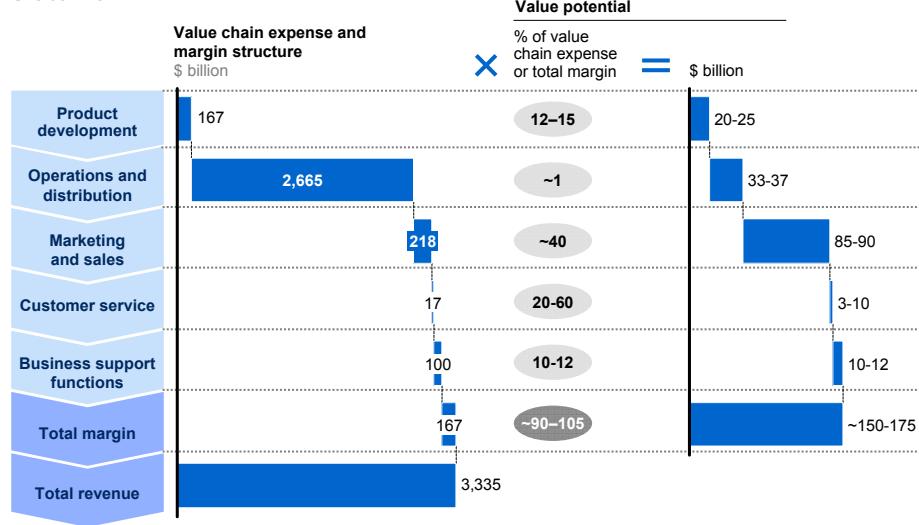


NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: Teal Group; McKinsey Global Institute analysis

**Exhibit A14****Social technologies could add \$150 billion–175 billion in value annually for the automotive industry**

Global 2011



NOTE: Numbers may not sum due to rounding. Not to scale.

SOURCE: Global Insight WIS database; McKinsey Global Institute analysis

## 8. ESTIMATING VALUE POTENTIAL FOR SOCIAL TECHNOLOGY PROVIDERS

We estimated the revenue potential for social technology providers by examining eight provider revenue streams: advertising, e-commerce (both physical and digital goods), payments, donations, recruitment, marketing analytics, and e-learning. These revenue streams have the potential to grow over the next decade, based on greater access to social technologies (e.g., we project that most TVs will have Internet connectivity) and the emergence of additional disruptive social technology business models (e.g., Twitter is monetizing its archive by selling old tweets for marketing analytic purposes),<sup>173</sup> although it should be noted that these are aspirational projections requiring structural changes within these industries for the full potential to be realized. For all calculations, we use 2011 as our base (Exhibit A15).

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### Exhibit A15

#### Social technology providers have five business models

Revenue models		Markets within reach for social technology providers		
		\$ billion	Addressable	Less addressable
<b>Advertising</b>		254	Online advertisement and connected TV	Radio, newspaper, etc.
<b>E-commerce</b>	Physical goods	142	E-commerce	Offline commerce
	Digital goods	62	E-commerce	n/a
	Payments	45	Online payments	Offline payments
<b>IT software and services</b>		67	Application software and related services	Infrastructure software, hardware support
<b>Donations</b>		12	Donations to media	Donations outside media
<b>Value-added services<sup>1</sup></b>	Recruiting	85	Recruitment	n/a
	Marketing analytics	31	Most consumer research	Research dependent on physical location
	e-Learning	32	e-Learning	n/a
<b>Total potential value<sup>1</sup></b>		730		

1. Not exhaustive.

NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

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### Advertising

Based on our discussions with experts and review of projections for the adoption of Internet-connected television receivers, we conclude that the available market for “social” advertising is virtually all online marketing and a significant percentage of TV advertising. We therefore use both online advertising (\$78 billion annually in 2011) and TV advertising (\$175 billion in 2011) to calculate potential global social technology advertising revenue of \$253 billion annually.<sup>174</sup> This figure assumes that Internet-connected TVs become standard. Advertising media such as print, radio, and outdoor (billboards, etc.) are not currently addressable by social technology providers and were therefore not included, although we realize that this may change with technology (e.g., QR codes) that would turn these “broadcast” media into interactive media.

173 Dave Thier, “Twitter to sell your old tweets,” *Forbes*, February 29, 2012.

174 *Global advertising forecast*, Magnaglobal, December 2011.

## E-commerce

To estimate the revenue potential in the e-commerce category, we aggregate two types of content sales, physical and digital. Starting with physical content, we assume all physical items currently sold online can benefit from social input (e.g., recommendations from friends, using data from social sites to evaluate products, connecting with other buyers), although social sites would account for a small share of online sales; we estimate that by 2022, 20 percent of sales that are influenced by social input will go through social providers who sell products directly to consumers and 80 percent of transactions will be completed on third-party platforms (e.g., eBay, Amazon) that are enabled with social features. For direct sales, we apply 20 percent to the average 2011 global online retailing market of \$449 billion, resulting in direct revenue potential of \$90 billion annually.<sup>175</sup> In addition, we take the average fee charged by third-party platforms such as Amazon and Ebay (14 percent) and apply it to 80 percent of global online shopping to arrive at \$52 billion in potential annual fee revenue. Therefore, the total e-commerce physical goods revenue potential equates to nearly \$142 billion.

Next we estimate the revenue potential of digital goods, including online gaming, virtual goods (such as game weapons and avatar clothing), and digital video and music sales by aggregating global annual revenue of each. Global online gaming revenue was taken from DFC Intelligence's projections of PC, console, and mobile online gaming from 2010, using a 12 percent compound growth rate to reach 2011 figures. From this we subtracted virtual goods to avoid double counting. To estimate global revenue for virtual goods, we used In-Stat's statistics. Finally, for digital video and music, we used Worldwatch Institute's projection of global media consumption, adjusting to count online digital download sales only. The total potential of digital goods equates to \$62 billion in revenue annually.

## Payments

We size the total potential value for social technology-based payments by using PayPal and Bill Me Later fees as a proxy for alternative payment transaction revenues. We determine the overall PayPal fee charged by estimating the cumulative amount of payments processed by PayPal and Bill Me Later and divided this by PayPal's annual revenue to reach an average 3.5 percent markup (i.e., gross fee) on transactions. This is then multiplied by 100 percent of global online sales and 10 percent of global offline sales—the potential market that social technology payments could capture in 2020—to reach payment potential of \$45 billion in revenue annually.

## IT software and services

We based IT software potential on IDC's Worldwide Software Market Forecaster estimation of global software revenue across 19 software categories.<sup>176</sup> Industry experts forecast the proportion of software within each of the 19 software categories that could become socially enabled (system infrastructure and middleware were not included). Since social technology is often an added feature within software, to estimate what portion of software revenue across categories

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<sup>175</sup> Global online shopping revenue derived by averaging 2011 estimations from two sources: Euromonitor and Forrester Research.

<sup>176</sup> "Worldwide Software Market Forecaster," International Data Corporation, June 2009. ERP software used for comparison included SAP, QAD, Infor, Epicor9. See also Koenraad Adams, Eric Piazzoni and In-Saeng Suh, "Comparative analysis of ERP vendors: SAP, Oracle and Microsoft," Indiana University, South Bend School of Business Economics, Fall 2008.

is “social,” we compared per-seat costs of three popular social technologies (Yammer, Jive, and Chatter Plus) with per-seat costs of popular ERP and CRM software suites, leading to a global IT software potential of \$27 billion annually.<sup>177</sup>

Next, we used Gartner’s March 2012 estimates of the global IT services market across six major IT services categories.<sup>178</sup> Again, using industry experts we used predictions of socially enabled software sales to estimate the service support revenue associated with those sales (i.e., consulting, system design and implementation, and maintenance of social technology software). We stress-tested this by evaluating social technology potential across six IT service categories and compared the software services multiple reached with similar known multiple comparisons.

In addition to IT services, organizational transformation support is critical for creating the type of company culture that will embrace social technology. We believe social technology providers are positioned to capture some of this market share, given their unique experience in applying social technology solutions within enterprises. To estimate the size of the organizational transformation service market, we created a weighted average of the proportion of organizational consulting in five management consulting firms. We then adjusted this ratio to only include work focused on organizational change and transformation. This was then applied across the management consulting market.<sup>179</sup> Finally, we applied the same ratio used for IT services to determine the proportion of assignments that would apply to social technology change transformations. As a result, we estimate that the social technology IT services and change management industry potential could reach \$67 billion.

### **Value-added services**

We estimate the revenue potential for the social technology recruiting market at \$85 billion by sizing the current global recruitment market less revenue from temporary staffing.<sup>180</sup> The global e-learning market size was estimated by Ambient Insight Research at \$35 billion annually. Finally, the social technology potential for marketing analytics was sized using current global revenue of the 25 largest market research players (\$20 billion in 2011).<sup>181</sup> These comprise 63 percent of the global market research market, valuing this market at \$31 billion. We believe 100 percent of the current marketing analytics market can be captured through social technology.

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