



# Transitioning to Workforce 2020

Anticipating and managing the changes that will radically transform working life in the next decade

White Paper



  
CISCO

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## The Future of Work: Where Change and Opportunity Converge

“It is the business of the future to be dangerous,” said philosopher and mathematician Alfred North Whitehead more than eight decades ago.<sup>1</sup> In times of ceaseless change, organizations that do not adapt, that do not challenge the status quo, are in danger of irrelevancy — or worse, extinction. The seismic barrage of shocks and aftershocks that are buffeting societies and economies today are transforming our very concept of modernity. Change is accelerating, uniformity is giving way to diversity, and complexity has become every leader’s biggest concern. As for businesses, globalisation and a rapidly evolving workforce is redefining how we think about competence, creativity, productivity, and the structuring of organizations.

Organizations of all types will probably not find many comfort zones in the years ahead. A confluence of disruptive forces will transform work and working in the next 10 years, most of them involving globalisation. But globalisation would not be possible without information and communications technology (ICT). The sensory-expanding, media-saturated “global village” that futurist Marshall McLuhan first envisaged in the early 1960s<sup>2</sup> has arrived in the form of the Internet and the web. Many workplaces, especially in the developed countries, are turning into physically and temporally dislocated collaborative environments facilitated by digital communications. With the borders of time and space disappearing, markets are attenuating and economies are merging, even as economic centers are disaggregating. Terms such as “multinational,” “localization,” and even “outsourcing” are losing their original meanings as organizations — companies, but also entities such as nongovernment organizations (NGOs) and industry groups — not only cross but also transcend traditional socioeconomic and political boundaries.

By most indications, the world has entered a post-American era, with economies and cultures now interacting on a more level and diverse playing field.<sup>3</sup> And as the world has become “flatter,” so has the workplace. Aspects of Web 2.0 such as collaboration technologies, universal access, and social networking are beginning to transform business as usual, with traditional hierarchies starting to give way to democratized work styles and looser leadership styles that are more collaborative and less authoritarian. Instead of trying to minimize conflict, forward-looking organizations are beginning to encourage a sort of creative friction that is better able to solve problems and deal with risk. These transformations will cause upheavals in the ways that organizations have been accustomed to staff, plan, lead, and invest.

Any exercise in futurism has to start with the current and familiar. As McLuhan observed, “We look at the present through a rearview mirror and march backwards into the future.” Futurists sometimes distinguish between the *probable* future, which will develop from what we already know and have experienced, and the *imponderable* future, which will come about as the result of events, inventions, and social currents that are difficult to predict except in the very near term. We must also be cognizant of what has been termed “black swans,” those outlier events that are completely unforeseen or considered very unlikely, but that cause a disproportionate degree of disruption if they do occur.<sup>4</sup> Examples might include the financial crisis in Asia that followed the devaluation of the Thai bhat in 1997 and the chaotic effect that the eruption of the Iceland volcano Eyjafjallajökull had on European air travel in December 2009.

This paper primarily addresses the probable but also ventures into imponderable territory, if only for the sake of expanding the field of focus. Our focal point is the year 2020, a medium-range chronological target that falls within the purview of numerous observers, some of whom are cited here. The paper synthesizes published research studies and the views of experts, opinion leaders, futurists, and others to give the reader an overview of the global

conversation now taking place about the future of work. We do not attempt to capture every trend or opinion, but rather to illuminate many of the salient — and in some cases, provocative — points currently being debated.

The content is organized into four sections:

- **Disruptive Trends Impacting the Work World:** Socioeconomic trends that are affecting modern employment, including globalisation, demographics, and technology
- **Toward 2020: Transformations in Workers and Working:** Shifting expectations among skilled employees, and changes in job roles, work environments, organizational cultures, and learning
- **Toward 2020: Transformations in Organizations and Leadership:** Organizational and corporate-culture evolution, and the implications for leaders and managers
- **Prospective Action Items for 2020:** A checklist for organizations that are strategizing about how to transform Workforce 2020 transitions into new opportunities for success

In addition, the appendices provide further information about generations in the workforce, the nature of jobs, and important futurist predictions.

We are well on our way to 2020. Here is a preview of what things may look like when we get there.

## Meet Vijay Anand – An Employee Snapshot from 2020

Vijay Anand starts his day early, before the sweltering pre-monsoon heat descends on the central Indian city where he lives. Only a couple of other family members are stirring in the flat shared by three generations of Anands. For breakfast, he makes some chai and heats a packaged lentil dhal burrito in the micro-tandoor — a culinary choice that draws a disapproving glance from his traditionalist mother, who has already started performing her usual sunrise Surya Puja with flowers and prayer.

It's the year 2020, and Vijay is a 23-year-old recent hire at a globally based consumer goods company.

As the staccato-drone of the morning commute traffic builds steadily outside, Vijay glances at his *vadie* (short for *vade mecum*, the “go with me” communications device that he wears on his forearm) to check the messages that have accumulated overnight. As always, it's a mixture of personal and business: text, voice, videos, and snap-animes. In addition to his personal home page, Vijay can easily switch to his professional dashboard, which gives him secure access to company resources ranging from a concierge function with Global Positioning System (GPS) follow-me capabilities to a satellite uplink available through the IP connection.

Of course, it does not much matter what medium the messages use. He can listen to a text message, text back to a voice message, or get an instant transcript of a video. One text, from a coworker in Singapore, has been translated automatically from Malay into English. There are also a few advertisements generated by the public-private consortium that sponsors the metropolitan area wireless network in his part of the city.

Vijay has a choice. He can take a shuttle to his company's district headquarters, located 30 miles away in another district of the city. He can work from home, though that can be distracting when his younger siblings are not at school. Or he can walk to a nearby DigiCenter, which offers an air-conditioned work area and other amenities, including telepresence capsules that provide a wraparound communications experience.

Vijay is a member in good standing of Workforce 2020, a globalized, virtualized cohort of workers whose native environment will be the Internet and whose identity will be shaped by the generational, technical, economic, and social market transitions that are now taking place nearly everywhere.

*(Vijay's story continues on page 13.)*

## Disruptive Trends Impacting the Work World

Several socioeconomic trends have emerged to transform employment as we have known it. Among the most powerful of these forces are globalisation, demographic changes, and technological breakthroughs.

*“We are witnessing the biggest economic, social and demographic shifts in history. Aging and shrinking populations will result in fewer workers, innovators, and consumers while the emerging markets in hypergrowth areas will reinvent how business has been done and revolutionize the workforce of the future. We are now immersed in the fourth phase of globalisation, what I like to call the globalisation of the corporate brain, which is about co-creation and talent for companies. The new workforce will overturn many traditional attitudes about workers, working, and the workplace. But to assess what these changes entail, we need to think globally.”*

—Wim Elfrink, EVP, Cisco Services and Chief Globalisation Officer, Cisco

### Globalisation: Human Interconnections Everywhere

“The simple definition of globalisation is the interweaving of markets, technology, information systems, and telecommunications networks in a way that is shrinking the world from a size medium to a size small,” according to Thomas L. Friedman, author of *The World Is Flat*. “It began decades ago, but accelerated dramatically over the past 10 years, as the price of computing power fell and the world became an ever-more densely interconnected place.”<sup>5</sup> More broadly, globalisation can also refer to a worldwide amalgamation of ideas, languages, and popular cultures. Populations are more mobile than ever before, both geographically and virtually. People can now engage in wide-ranging interactions with a broadly diverse segment of the world’s inhabitants.

Whereas nearly everyone agrees that globalisation is important, the debate continues about whether it should be embraced enthusiastically or approached with caution. For every enthusiast who extolls the rising standard of living in the developing world and the expansion of opportunities everywhere, there seems to be a naysayer who deplores the outsourcing of jobs, the potential for economic and social abuses, and the dilution of traditional cultures. But one thing we can be sure of is that globalisation has advanced well beyond the activities of multinational corporations or the pervasive influence of American pop culture. It is a complex, self-generative force that emanates from many sources and extends to every corner of the planet. In the past it has been companies headquartered in North America, Europe, Japan, and Korea that have ridden the wave of globalisation. But we will soon see firms in China, India, and other developing regions expand their operations and recruiting efforts beyond their accustomed spheres of influence.

*“Today, the number of people living outside their country of birth is larger than at any other time in history. International migrants would now constitute the world's fifth most populous country if they all lived in the same place.”*

—United Nations Population Fund, 2006

**“Globish”: The New Lingua Franca?**

As the world flattens and globalizes, its citizens would benefit from a common language. English is a good candidate. The English language is used, in some form, by roughly 4 billion people worldwide. Only Chinese is more commonly spoken, but even in China an estimated 350 million people know at least some English.

Enter “Globish,” the linguistic offspring of Standard English that is evolving to create a neutral and intelligible common tongue that, as Robert McCrum writes in *Globish: How the English Language Became the World’s Language*, is “a universal lingua franca, a global means of communication that is irrepressibly contagious, adaptable, populist, and subversive.”

McCrumb argues that “the phenomenon of English seems more vivid and universal than ever before. Like a Jackson Pollack of language, countless new variants are adding to the amazing Technicolor texture of the overall picture. The 21st-century expression of British and American English — the world’s English — is about to make its own declaration of independence from the linguistic past, in both syntax and vocabulary.”<sup>6</sup>

Of course, much of the effect of globalisation revolves around money — where it comes from and where it goes. Analysis shows that an increasing share of the world’s financial activity is concentrating in the developing world. According to McKinsey Global Institute, “Our research suggests that global capital markets are entering a new era in which the forces fueling growth have changed. For the past 30 years, most of the overall increase in financial depth — the ratio of assets to gross domestic product (GDP) — was propelled by the rapid growth of equities and private debt in mature markets. Looking ahead, these asset classes in mature markets are likely to grow more slowly, more in line with GDP, while government debt will rise sharply. An increasing share of global asset growth will occur in emerging markets, where GDP is rising faster and all asset classes have abundant room to expand.”<sup>7</sup>

A recent Ernst & Young report looks at international capital flows: “The global financial landscape is beginning to shift as emerging-market countries undergo a period of rapid expansion. Since 1990, cross-border capital flows have grown at a compound annual rate of 14.2 percent (up from 8 percent in the prior 10 years), and have reached their highest levels ever.” But these flows have been uneven, suggesting that globalisation on the financial front is lagging

in the developed world. “The UN Conference on Trade and Development reports that in 2008, U.S. investments overseas dropped 18 percent and those from the European Union plunged 30 percent. By contrast, emerging economies increased their foreign direct investment — in the case of China and India, by a hefty 30 percent in 2008.”<sup>8</sup>

Clearly, globalisation is a complex phenomenon that is no longer influenced exclusively, or even primarily, by the developed world. It is coming from everywhere. And in a globalized world, what are the new rules of engagement for businesses? What is a free market? What is a stakeholder? What is individual productivity? What is added value, and how do you measure it? And how do you balance business success with social obligations on a global scale? These questions and many more will challenge organizations and their leaders over the coming decade.

### China Synchronizes with Globalisation

The Chinese government issued a Medium and Long-Term Talent Development Plan (2010–2020) in June 2010 that calls for developing a highly skilled, more competitive workforce in that country. China plans to transform its labor force by increasing the proportion of workers with advanced educations from 9.2 percent to 20 percent by 2020 and promoting “talents” that include logistics, electronic commerce, law, consulting, industrial design, food safety, and tourism. Although China’s main thrust is still what is termed “socialism modernization,” the country is striving to cultivate creativity and initiative among its young workers with individual incentives such as intellectual property ownership, revenue sharing, and personal recognition for inventions.

### Demographics: A Workforce Mashup

An important trend running concurrent with globalisation is changing demographics and the effects of these changes on the global skilled workforce. In overall terms, the workforces in the United States and Canada have been aging along with the populations in general, the workforces in the most economically developed parts of Europe are aging and shrinking, and the workforces in most of Asia (Japan and South Korea excepted), the Middle East, and South America are growing and getting younger. China, mostly because of its one-child policy, seems to be a special case: Its skilled workforce is growing because of expanded educational opportunities while population growth as a whole is stabilizing. The growth of the skilled-worker sector in much of Africa is improving, but is still outstripped by overall population growth.

In many of the more developed regions of the world, where birthrates have largely stabilized or declined and people are living longer, the average age of the population has increased. However, the average age of the workforce in some of those regions (particularly in the United States) is also increasing, expanding the parameters of what we consider “working age.” There are several reasons for this expansion. Labor-saving tools and a shift to more sedentary, less physically demanding work have certainly played a part. But people will also be working longer as the age requirements for pensions are being raised (most recently in France) and retirement savings have shrunk during the current economic downturn (a problem in countries where pensions are less common, or have been reduced). In addition, the growing availability of part-time, consultative, and work-from-home employment will allow seniors to supplement retirement benefits by staying in the workforce without having to hold a full-time job. As a consequence, diversity in the workforce will be a function of greater age distribution as well as ethnicity, gender, and skill sets.

Demographers have identified some sharp differences among working and soon-to-be-working generational cohorts. However, most of the research has focused on North America and Europe (for a thumbnail summary of generational distinctions in the U.S. workforce, refer to Appendix A: Four Generations of U.S. Workers). One thing for certain is that technology has had a profound influence on the youthful cohort that will begin to dominate the global workforce by 2020. Access to computers and the Internet may still be limited in some countries, but Internet cafes, community data centers, and other publicly available resources have sprung up in even the poorest of slums and rural areas.

Because young people are immersed in cyber culture nearly everywhere, they tend to be more cosmopolitan and globally attuned than their elders. In fact, they may have as much in common with each other as they do with older generations in their own countries.

This sense of generational solidarity should accelerate with the removal of political barriers to open communications, development of sophisticated machine-language translation techniques, and increased use of high-touch collaborative technologies that emulate in-person interactions. We should expect traditional cultural and national differences to start to blur, especially among knowledge workers with international ties and geographically dispersed colleagues. The young “Digital Natives” born in the mid-1990s and after will not necessarily abandon their roots, but rather extend them outward to tap into a wider variety of cultural and economic wellsprings. This will become easier as political liberalization gathers momentum in countries such as China and Russia, and more dynamic economic environments and increased wealth accumulation spur entrepreneurship in developing countries in many regions.



What are the key attributes of these emerging Digital Natives? “Digital Natives are used to receiving information really fast,” according to Mark Prensky, who popularized the term in his article *Digital Natives, Digital Immigrants* (2001)<sup>9</sup>. “They like to parallel process and multitask. They prefer their graphics before their text rather than the opposite. They prefer random access (like hypertext). They function best when networked. They thrive on instant gratification and frequent rewards. They prefer games to ‘serious’ work.”

Technology is evolving so quickly that in the future it may be difficult to distinguish generations except in increments of just a few years. “People two, three, or four years apart are having completely different experiences with technology,” says Lee Rainie, director of the Pew Research Center’s Internet and American Life Project. “College students scratch their heads at what their high school siblings are doing, and they scratch their heads at their younger siblings. It has sped up generational differences.”<sup>10</sup>

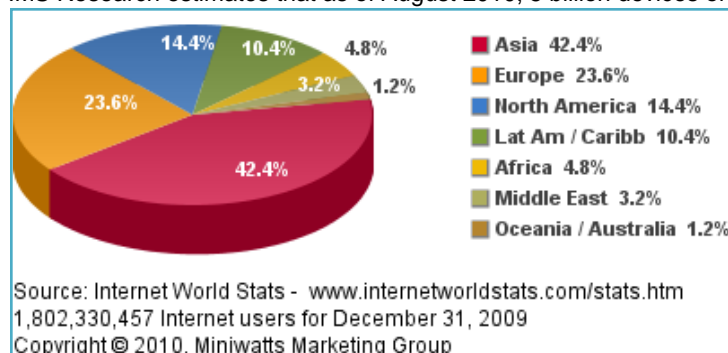
In addition to generational shifts, a gender shift has been building in the global workforce for decades, particularly in the United States and Europe. Women’s economic empowerment is arguably the biggest social change of our times,” notes *The Economist*.<sup>11</sup> A July 2009 report by Inferential Focus states: “In the 1990s, when we were discussing woman as the leading indicator, we noted then that individuals were shifting their interests from what we call ‘communities of wealth’ (i.e., institutions furthering the quantity-of-life model) to ‘communities of meaning’ (i.e., institutions furthering the quality-of-life model). . . .As this transition from quantity of life to quality of life takes place. . . [it] will start affecting what people think about work and money, how they function in the consumer society, and what they seek in their leaders.”<sup>12</sup>

The growing number of women who hold college degrees and have attained influential positions in a variety of organizations is altering the dynamic within formerly male-dominated workplaces. This process will continue as more women attain leadership positions and societies throughout the world realize the economic and competitive advantages of educating girls and making greater use of their talents as working adults. On the other hand, the last few years have not seen a significant change in the number of women at the highest levels of management in the developed world, though women seem to be making inroads into top management in the developing economies.

Global organizations will ignore these changing demographics — and the revolutions in attitudes and work styles that they portend — at their peril.

## Technology: Everyone Is a Networker

IMS Research estimates that as of August 2010, 5 billion devices of all types are connected to the Internet. In 10



years, this number will grow by a factor of four.<sup>13</sup> The Internet effect has spread practically everywhere. It has been estimated that in the late 1980s fully two-thirds of users resided in the U.S., where the Internet originated. But the rest of the world has quickly caught up. Today, perhaps one-eighth of users are Americans, and that share is diminishing (refer to Figure 1).

**Figure 1. World Internet Users Distribution by World Regions – 2009**

Web 2.0 networking technologies — wikis, blogs, YouTube, Skype, Facebook, MySpace, Twitter, Dig, and the like — were either fringe technologies or did not exist a decade ago. Now they are mainstream, and businesses worldwide are rapidly adopting them. Video communications are beginning to replace time-consuming, carbon-intensive business travel, and instantaneous communications regardless of distance are on the horizon. Not only do Hollywood (and Bollywood) movies have their own websites, at least one website now has its own movie: the 2010 film “The Social Network” tells the story of Facebook. If Facebook were a country, it would have the third largest population in the world.

Mobile communications have also been a tremendous force for change. According to the Wikipedia article on mobile phone use<sup>14</sup>, China had more than 842 million cell phone users in October 2010. India, where the per capita income is \$1124, had more than 687 million users, more than twice as many as in the United States. IMS Research projects that in 10 years there will be 6 billion cell phones worldwide, most with Internet connectivity. The effect of the mobile phone revolution is being felt everywhere — from Iran, where election protests were orchestrated by phone, to South Asia, where help lines provide agricultural advice to farmers in remote villages. Among business users and consumers in more affluent regions, sophisticated portable communications devices with Internet/web access and convenient applications are in some instances supplanting conventional computers. This trend should spread to less developed regions as advanced wireless networks proliferate, and competition and commoditization decrease prices.

What all this new technology means for tomorrow’s workforce can be summarized in McLuhan’s dictum, “We shape our tools and thereafter our tools shape us.” People almost everywhere are expecting instant access to information and immediate responses to their messages. Human contact is pervasive and conversations never really end. Boundaries between work and life, between a public and a private face, will continue to dissolve. Because people, particularly younger generations, are accustomed to being engaged constantly, rather than having to go out of their way to initiate contact, chances are good that they will not function as well in a work environment that rations media access and cuts them off from the stimuli that surround them in other facets of their lives. Attention spans seem to be shortening, while tolerance for interruptions is increasing.

In 2010, the success of Apple’s iPad (3 million sold in the first 80 days) suggests that the pad-type form factor may rival laptops as mobile computing devices later in this decade. By 2020, wrap-around technologies, biometrics, and built-in ge positioning capabilities will likely proliferate. Miniaturized video cameras connected to wireless networks and organic LED displays that can be folded like origami could make our current notions about communication appliances obsolete. Employees who carry their communications with them today could be wearing them tomorrow.

### Distracted by Media Bombardment

A Stanford study<sup>15</sup> has revealed that people who are bombarded with several information streams at once do not perform as well as people who prefer to complete one task at a time. After putting about 100 students through a series of three tests, the researchers found that heavy media multitaskers were paying a mental price in terms of their ability to store and organize information. "They're suckers for irrelevancy," says Professor Clifford Mass, one of the researchers. "Everything distracts them."

The study suggests that trying to process the torrent of information available in an always-connected environment may end up scattering the attention and efforts of tomorrow's workforce. One solution may involve sophisticated multimedia filters that help to vet, edit, and serialize the information streams. In addition, organizations and schools may offer classes in how to selectively focus attention in a media-rich environment, similar to the training that professional pilots receive in how to spot critical information amid a profusion of cockpit displays.

However, running counter to quick adoption of new technology is a natural resistance to change on the part of both individuals and institutions. Most people are at least somewhat reluctant to embrace a new technology when they have become comfortable with its predecessor. For example, though many young workers prefer texting to voicemail or email because that is how they usually exchange information outside work, workers in a typical corporation still largely rely on voice messages, email messages, and even "old-fashioned" faxes. Each organization must continually evaluate available technologies, deciding what current mix of tools will best enable its own workforce to increase its efficiency, propagate useful ideas, and contribute to the organization's collective intelligence.

Some potential technological transformations that promise to greatly affect the workforce in the next 10 years include:

- Collaborative tools that extend to stakeholders both within and outside the organization
- Technologies that make it even easier for users to create, upload, and consume video content
- Work environments that become direct extensions of the human senses, including gesture-based interfaces, wearable computers, and universal language translators
- Less emphasis on the types of computing platforms workers use and more emphasis on instantaneous, multiplatform content access
- Multisensory communication techniques that allow workers to multitask without losing focus, enabling them to process simultaneous inputs and be aware of information streams at the periphery of their attention
- Time-shifting technologies that permit workers residing in various time zones to collaborate more easily without losing sleep, and deployment of "follow-the-sun" operations such as call centers in which workers come online around the world as the day progresses
- Knowledge repositories that enable employees to receive advice and best practices from virtual mentoring "avatars" that impersonate experts within the organization
- Mediating technologies that provide timeouts to help workers avoid electronic overload by letting them temporarily disconnect without losing touch

### Cisco's New Platform for Workforce Collaboration

Cisco has launched an enterprise-wide platform called Integrated Workforce Experience (IWE) that is designed to change how the company works by integrating a broad range of communication, collaboration, knowledge management, search, personal productivity, and directory functions into one interface. IWE has been designed to fuse individuals, working communities, and information in order to achieve greater efficiencies and make the best use of intelligence embedded in hard-to-access silos throughout the company.

With IWE, everyone in the company will be able to augment company-defined information with a richer set of data similar to a social networking profile. Employees will be able to find subject-matter experts, locate others to start a work community, and obtain specific information related to a project, question, problem, or task. An on-screen interface called MyView brings all the diverse tools together with a minimum of navigation.

In addition, a variety of unified communications solutions has been aggregated inside the IWE environment, ranging from synchronous tools such as email, texting, and Cisco TelePresence™ collaboration to asynchronous technologies such as wikis, blogs, and forums. Users will be able to transcend the limitations of traditional hierarchical communication structures by monitoring a range of communications streams, locating cohorts wherever they are, and choosing when and with whom to collaborate.

Of particular importance in the IWE universe are “community owners,” catalysts who perform the role of communication nexus points: urging team action, building relationships, tracking projects, and sharing knowledge.

The IWE platform exemplifies the Cisco vision of the human network, enabling broader access to information and people, faster decision making, better work quality, more efficient use of time and resources, and closer alignment to business priorities.

## Toward 2020: Transformations in Workers and Working

Management expert Peter Drucker once observed that “everything must degenerate into work if anything is to happen.” Thomas Edison put a more positive spin on making a living: “I never did a day’s work in my life. It was all fun.” Benedictine monks take yet another view: *laborare est orare* (“to work is to worship”). But however one defines labor, it is becoming increasingly evident that both work and the workforce are in a state of transition. Next-generation workers and new ways of working are joining in a mutually propulsive feedback loop that is already affecting operational infrastructure, corporate culture, talent acquisition and retention, and our notions about what a job is — and what it should be.

(For a brief discussion of what constitutes a traditional job and which aspects of their jobs workers tend to value most, refer to Appendix B: Defining Work and Working. )

Today’s organizations are beginning to regard their employees as not only human resources, but also human capital. Futurists predict that by 2020 the *appreciation* of human capital, in the sense of both building employee value and attaching greater value to each employee, will become not just an organizational aspiration, but also an economic necessity.

In a steadily globalizing world, organizations of all types, in virtually all regions of the world, will need to adapt to a workforce that differs in both attitudes and expectations from workers in the past. For many enterprises, this adaptation will mean reassessing their approach to recruitment, advancement, rewards, and other human resources activities, and it will also involve reexamining their basic employee value propositions and identifying the sometimes unconscious cultural suppositions that underlie their operations. Organizations will need to establish new baselines for developing value propositions and enhancing employee engagement.

Globalisation is no longer simply a matter of establishing dependent field offices, recruiting some employees and partners locally, and making a few superficial product alterations to meet national regulations. Today’s global markets are culturally mixed and sophisticated, requiring organizations to recruit a workforce diverse enough to deal with the subtleties of doing business where multinational companies have traditionally not had a significant presence. This multicultural trend goes well beyond well-established practices such as outsourcing manufacturing and recruiting foreign students studying in the employer’s home country.

This section looks at the employee experience, the evolution of employee expectations, the ramifications for employee retention, and changing work roles and environments.

### Meet Vijay Anand (continued)

Vijay's job is to manage distribution and marketing of household and personal products ranging from toiletries to incense sticks for village-based retailers in his region. (About two-thirds of Indians live in rural areas that lack a developed wholesale and retail infrastructure.) He keeps in close contact with small-business people in dozens of villages, most of whom now have wireless computer connections, but some of whom still communicate solely by cell phone. Not a few of the retailers are women entrepreneurs who sell personal care products out of their homes.

His "vadie" device offers a suite of company-specific applications and a dashboard that gives him instant access to people, resources, and feedback about his work. It also offers a language translation function that he finds useful for communicating with a few retailers who are not fluent in the English and Hindi with which he is most comfortable. He uses the high-resolution video and audio capability on a digital pad to attend virtual staff meetings with "sangha mates," or cohorts, in other regions of the country. The organic LED technology in his pad lets him fold it up for easy transport.

Vijay reports to a manager who acts as his mentor and periodically evaluates his work. But he also collaborates with a group "catalyst" who helps coordinate his work and that of the other members of his workgroup. His workmates contribute to informal performance evaluations that Vijay can access on his personal internal website. He also occasionally turns to a mentor online for advice and counseling.

Today, Vijay's first call is to a colleague at an international nongovernment organization that helps fund small businesses with microloans. He is in the process of adding retailers to his portfolio by arranging capital that they would not otherwise be able to acquire. Taking a role in promoting economic development in his homeland was one reason he took the job. Another major reason was a flexible benefits package that he will be able to restructure in the future as his life circumstances change.

Vijay's employer started recruiting him early, while he was still at university and active in a career club sponsored by the company. When he joined the firm, his orientation consisted of a series of instructional interactive games. He was offered several career growth paths and was able to choose his workgroup from among several possibilities. In a few years, he will have the chance to work "on loan" in the United States, where he hopes to sharpen his marketing skills and expand his cultural horizons.

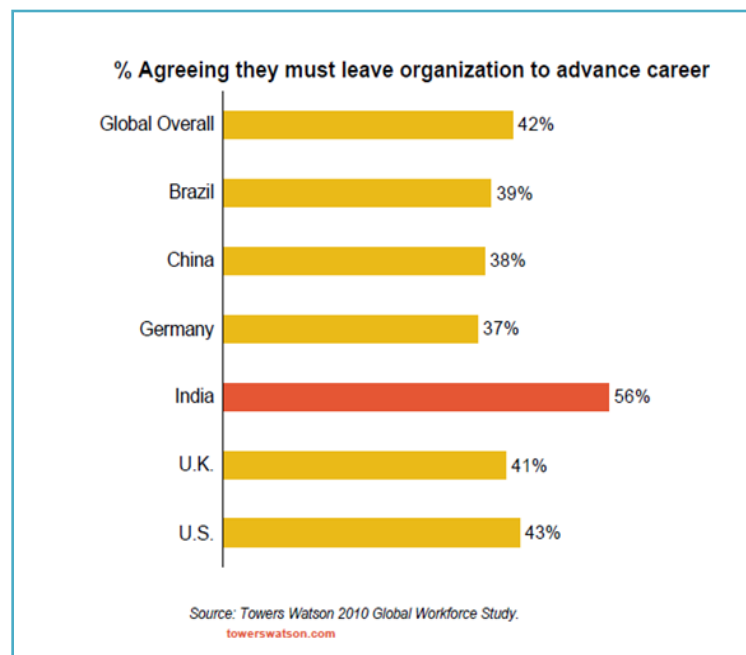
### Ups and Downs in the Employee Experience

The decade 2000–2010 was marked by two economic upheavals: the bursting of the exuberant dot-com bubble that occurred shortly after the turn of the century, and the multi-industry global recession that began in 2007. The financial and psychological effects of these boom-and-bust cycles have contributed to significant job dissatisfaction among skilled employees that many experts think will have a lasting effect on attitudes about the role of work and its value in employees' lives. Workers' discontents derive from a decline in lifetime employment prospects, diminishing advancement opportunities, stagnant or lower buying power, erosion of job benefits such as medical insurance and retirement funds, and the constant changes and dislocations that have shaken many industries and the global economy as a whole.

Verifying this widespread dissatisfaction, the Towers Watson 2010 Global Workforce Study<sup>16</sup> observes that “the [2007] recession has put the final nail in the coffin of the traditional ‘deal’ that underpins the employment relationship.” The study found that:

- Overall job satisfaction is low.
- Security and stability are currently the most important concerns of workers.<sup>17</sup>
- Confidence in leaders and managers is lacking.
- Employees want more freedom and flexibility in their work.
- Many workers think they do not have all the tools and support they need to do their jobs at a high level.

In other words, there seems to be a widening gulf between what skilled employees want and need from their jobs and what employers are offering them. This discrepancy threatens to undermine employee engagement, a situation that in turn can lead to diminished job performance and productivity.<sup>18</sup> Employee *engagement* — that is, workers’ overall commitment to the job and to the organization they work for — directly affects business performance and profitability.

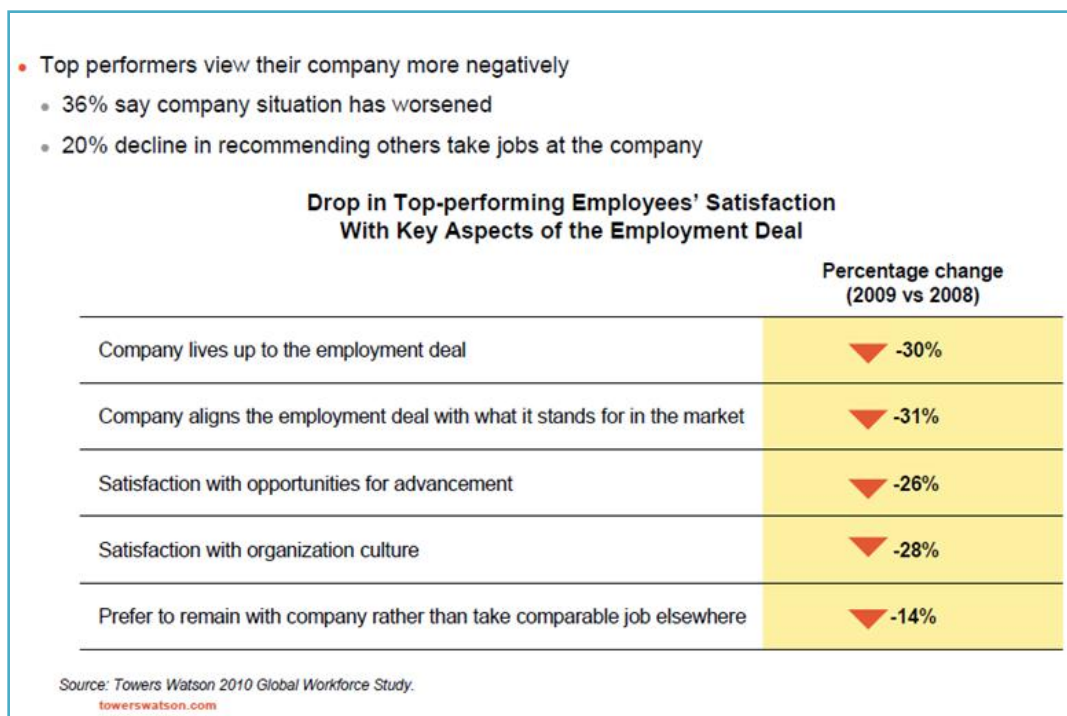


**Figure 2. Advancing Often Means Leaving**

Even in countries where workforces have expanded in spite of the recession, employee job satisfaction is far from high. A Corporate Leadership Council report finds that “retaining employees is one of the key challenges faced by organizations in India, where both local and global employers are competing for talent. In India, despite salary increases averaging more than 15 percent annually in some industries, annual turnover rates among young professionals range from 15 percent to 30 percent”<sup>19</sup> (refer to Figure 2).

In China, a new generation of workers is becoming much more selective about where and with whom they work. According to an Associated Press article in the *New York Times*, “Many younger workers won’t do the sweatshop jobs their parents did. They grew up with greater prosperity in families limited by the one-child policy. They are more used to getting their way.”<sup>20</sup> As population growth levels off and fewer rural workers migrate to urban manufacturing areas to take jobs, the character of the Chinese workforce is poised for significant change. Low-skilled labor will become increasingly expensive, while the most highly skilled workers will likely command salaries and benefits that compare favorably with what similar workers enjoy in regions like North America and Europe. Filling the vocational gap between the elite knowledge workers and the manufacturing and service workers are millions of graduates from second- and third-rank Chinese colleges. They flock to the major cities each year looking for suitable jobs and are having a hard time finding them, according to recent reports.<sup>21</sup> A similar phenomenon seems to be taking place in India and other countries where job growth may be outstripped by a growing population. Such societies offer lots of opportunity, but also create intense competition.

Disturbingly, job dissatisfaction seems to be especially acute among the most highly productive employees (refer to Figure 3). In the U.S., 36 percent of the respondents to the Towers Watson 2010 Global Workforce Study said their company’s situation has worsened, and 20 percent would not recommend their employer to a job seeker. In just a single year, the percentage of respondents who agreed with the proposition that their company is living up to its “employment deal” declined by 30 percent.



**Figure 3. Dissatisfied Top Performers**

With all the social networking tools now available to them, young workers are able to trade information about the organizations they work for to an unprecedented degree. As a result, these organizations are finding that they have less direct control over how they are perceived in the employment marketplace. In the future, employees will serve as important recruiters for their employers — as well as significant obstacles to recruitment if they are unhappy in their jobs. By the same token, employers are turning to social networking sites to gather information about potential employees, raising privacy concerns that have prompted legislation in some countries.

## An Evolution in Employee Expectations

Analysts confirm what many employers have suspected for quite some time: an evolution is underway in what workers expect from their jobs. Based on research from several sources, Table 1 below contrasts job characteristics and employee expectations typical of the past with how Workforce 2020 will view these aspects in the future. Furthermore, research indicates that workers may want different things from an employer depending on their stage in life, career development, or financial situation. The elements that attract them initially are not necessarily the same as those that help retain them or encourage them to fully engage and deliver consistently high performance.

Traditional	Workforce 2020
Security	Flexibility
Salary	Prosperity
Benefits	Opportunities
Prestige	Actualization
Promotion ladder	Career navigation
Taking charge and getting ahead	Nurturing and growing
Personal assistant	Personalized technology
Office productivity tools	Follow-me-and-know-me tools
Vertical	Cross-functional
Multinational	Globalized
Job description	Work portfolio
Organization hierarchy	Intra- and extra-organization networks
Commute	Telepresence
Consent-based decisions	Contingency-based decisions
Employment history	Personal branding
In-person face time	Virtual face time
Annual review	Individual “dashboard”
All-hands meetings	Stakeholder management
Localization	Co-location
Occupational	Holistic
Work-life balance	Work-life integration
Job offer	Value proposition
Business unit	Working community
Managing	Coaching
Developing specific skills	Maximizing potential
Goals and mission statements	Roles and aspiration statements
Company and industry focus	Market transitions and adjacencies focus

**Table 1. Changing Job Characteristics and Employee Expectations**



Organizations will need to account for these new expectations if they want to continue to stay competitive and successful (refer to Table 1). According to a 2007 WorldatWork survey on future workforce needs: “Recruitment and retention will be part of a business’s competitive edge in a hypercompetitive market. Ongoing intensive and strategic efforts will be focused on these aspects. In the near future, an organization’s ability to attract, motivate, and retain will emerge as the primary indicator of fiscal performance and survival. To that end, given the diverse workforce, organizations will be offering more variety in rewards as they try to access the best and the brightest in a seller’s market. The triple bottom line (i.e., measuring organizational success in relation to economic, environmental, and social criteria) will become increasingly accepted (and expected).”<sup>23</sup>

### What Job Satisfaction Will Mean

Not surprisingly, the global recession has resulted in less job hopping and more concern about job security. And in countries that offer less in the way of a social safety net, workers are aware that they need to save more of their earnings for lean times or their later years. Nevertheless, today’s employees are not just looking for stability or high salaries. Based on the Towers Watson study, Table 2 below lists some critical factors of employee retention by country. Note that career development and leadership are valued above pay and rewards in nearly all the countries surveyed (this data is consistent with Cisco’s own internal Cisco Pulse® Survey<sup>24</sup> results.)

Top Drivers of Retention	Global Overall	Brazil	Canada	China	Germany	India	Mexico	U.K.	U.S.
Career Development	1	1	1	1	3	1	1	1	1
Leadership	2	3	2	2	1	2	4	3	2
Pay & Rewards	3	2	4	3	2	3	2	2	5
Empowerment	4	4	3					4	3
Supervision	5			4		4	5		4
Efficiency				5					
Performance Appraisal		5			4	5		5	
Benefits					5				
Diversity									
Competitiveness			5						
Stress, Balance and Workload							3		

Source: Towers Watson 2010 Global Workforce Study.  
towerswatson.com

**Table 2. Top Drivers of Retention by Country**

A particularly important factor in attracting and retaining members of Workforce 2020 is social responsibility. A PricewaterhouseCoopers study of new college hires conducted in 2009 revealed that 86 percent of them would consider leaving an employer whose social responsibility values fall short of their expectations.<sup>25</sup> These values will not only need to be codified and enforced, they will also need to be reinforced through corporate social responsibility (CSR) programs that involve employees in their lives both inside and outside the organization.

Looking to the future, the global workforce will increasingly value factors such as the creative or growth potential of a job, availability of the latest enabling tools, on-the-job learning opportunities, social concerns such as environmental effects, and the employer’s “coolness” factor — brand recognition, status in the industry, and reputation in the community. Employers will need considerable flexibility if they are to successfully balance the expectations and aspirations of Workforce 2020 with their business requirements and institutional values.

Other studies have uncovered more about the job attributes that Workforce 2020 will expect and value. For example, the global business services company PricewaterhouseCoopers surveyed more than 4300 recent college graduates from 44 countries. Respondents were either recent hires of the company or their close acquaintances. The study found that this particular group has some traditional expectations — for instance, they anticipate that they will work mainly in an office and keep regular business hours. But the survey also found that this generation of workers expects a great deal of job mobility, and they want the opportunity to experience overseas assignments. Eighty percent say they would like to work abroad. In addition, they rate training and development as their most highly valued benefit, much higher than cash bonuses. Almost all the respondents say that working with strong coaches and mentors is important to them. In large numbers, they believe that employer social responsibility is critical. And 47 percent envision a world in 2020 where China, India, and Russia will have more economic influence than the United States and Europe (only 30 percent of U.S. respondents disagree with that premise).<sup>26</sup>

PricewaterhouseCoopers summarizes its findings this way: “By 2020, we believe people supply will be the most critical driving factor for business success. Companies may go to extreme lengths in their search for talent, and once they have it, they will take measures to keep people ‘locked in’ to their organizations. Without this talent, they will be unable to compete.”

IBM conducted another interesting study in 2010 to supplement the company’s biannual *Global Chief Executive Officer Study*. Called the *Global Student Study*<sup>27</sup>, this survey asked many of the same questions of graduate and undergraduate students that were asked in IBM’s CEO survey. Some 3600 students in 40 countries responded. More than 90 percent of them were born after 1980. Like the CEOs, the students believe the world is growing more complex. But they are “more confident that information and analysis can be used to better understand even the most complex environments,” according to the study report. “With global thinking and sustainability as necessary responses to the changing environment, many students also recognize that the path to leadership [will] require re-imagining the concept of success at a personal and professional level. And that could require entire organizations to re-invent their values.”

## Changing Work Roles and Environments

We should expect that many of tomorrow’s jobs will be designed as much by the employee as by the hiring organization. Employees will tailor the job to their own strengths and interests, accounting for personal preferences such as level of responsibility, rewards, workload, pace, schedule, and work location — all of which may change over time, depending on factors such as lifestyle alterations and added family responsibilities. Self-customizing the job may also include managing a portfolio of projects that can expand and contract in proportion to the number of hours the employee wants to work, with commensurate adjustments to compensation. Some employers may even want to allow highly prized employees to reduce their workloads so they can slowly transition to other jobs, or pursue career or educational opportunities that are not specifically related to their current work.

In addition to the usual new-employee orientations, some organizations have introduced preemployment programs that make it possible for job candidates to meet with potential managers and co-workers, giving them a say in whom they will report to, whom they will work with, and what projects they will initially work on. This scenario helps ease the employee’s transition into the job and reduces the likelihood of a poor fit. Because teams and teamwork are almost certain to play a growing part in the workforce, and these teams will form and reconstitute themselves as needed, employers should introduce prospective new hires not only to their current cohorts, but also to some of the people who may become their teammates or mentors later on.

To ensure that employees are comfortable in their job roles, organizations must develop the flexibility to shape employee policies to fit diverse global contingencies, and find ways to take advantage of the personal cultural

knowledge of their employees to improve institutional adaptability. Consistent with the imperatives of globalisation, organizations will need to adjust their employment propositions to suit a variety of cultures. But multiculturalism can present difficulties when institutional values do not match cultural norms, and tensions can arise. For instance, company policies supporting gender equality may conflict with local customs that call for separating the sexes. Or as another example, discrepancies between local gift-giving and hiring practices in one country and what is considered corruption or nepotism in another country can put employees in a difficult position. Even differing concepts about time and the importance of deadlines may result in misunderstandings and mistrust. Encouraging the formation of employee interest groups that focus on ethnic, linguistic, or national commonalities is one way to inject more cultural flexibility into the organization.

#### Can Every Knowledge Worker Go Virtual?

Not everyone may be suited to the virtualized workplace. An article in *Business Week*<sup>28</sup> cites research revealing that gregarious people actually do better as virtual workers than less-outgoing people who need a traditional office environment to help them keep in touch. Less effort is needed to maintain relationships with co-workers if they are working in the next cubicle. In addition, a more structured environment aids employees who have problems staying organized.

On the other hand, sophisticated virtualizing technology such as telepresence technology can mitigate the alienation felt by some employees by creating the sensation of physical proximity. "Researchers studying bodily reactions found that coworkers on different continents experienced the same chemical responses as they would in face-to-face meetings," according to the article.

Indeed, Cisco co-workers connected by Cisco TelePresence collaboration links not only attend meetings and have virtual one-on-one conversations, they also take virtual coffee breaks together.

Workplace environments are changing right along with employment roles. Work is becoming more about what employees do and less about where they do it. With a laptop, a Wi-Fi connection, and a mobile phone, knowledge workers can perform their jobs virtually anywhere, making the idea of "going to work" increasingly archaic for these employees.

With the availability of sophisticated collaboration technologies such as telepresence, a growing number of full-time employees will not work in a conventional office at all, but rather meet with their cohorts only occasionally to socialize and reinforce working relationships. On the other hand, in places where large, extended families live in the same quarters, a defined workspace may be preferable to a home office. However, this office may be located in a local telecommute center rather than a corporate facility to avoid the transportation problems often encountered in overcrowded urban centers and megaregions. (Megaregions are population centers that are now home to 18 percent of the world's workers. These regions are said to produce two-thirds of the economic output and nearly 9 of 10 new inventions.<sup>29</sup>)

A major worldwide survey conducted by Cisco in 2010<sup>30</sup> found that 3 out of 5 employees do not believe they have to work in an office to be productive, and 66 percent want flexibility in how they work and would accept a lower-paying job if it meant more flexibility (refer to Figure 4). About two-thirds of the respondents agreed with the premise that company-issued communication devices should be available to them for both work and personal use. The Cisco survey also found that a significant portion of employees are starting to regard working from home as a right, as indicated in the graph below. This preference for flexibility will gather momentum in the years ahead as the wall between work life and home life continues to crumble and young workers resist spending large blocks of their time in a traditional office environment.

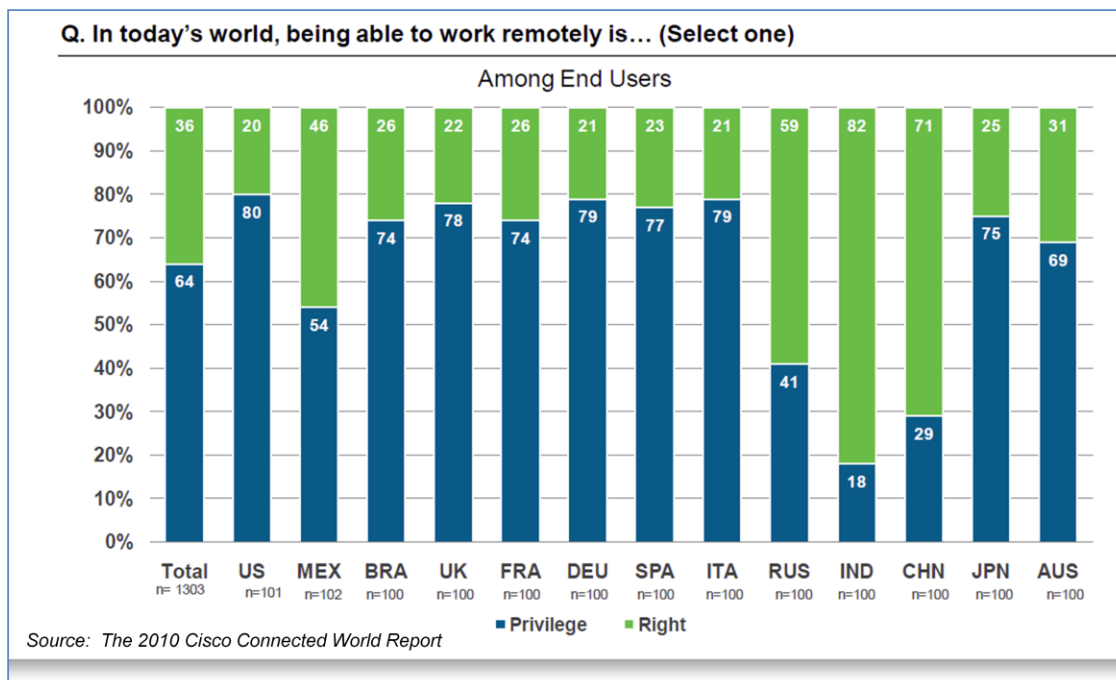


Figure 4. Remote Access: A Right or a Privilege?

## Toward 2020: Transformations in Organizations and Leadership

Today's leaders are having to deal with degrees and shades of complexity that they have never faced before, an enormous problem if their outlook happens to be restricted or confined. For example, how you view the macroeconomic downturn of the late 2000s depends a lot on where you are and what you are looking at. According to a Brookings Institution report based on the International Monetary Fund's latest World Economic Outlook (WEO): "At one end of the spectrum, 71 countries — two-fifths of the total number in the [WEO] database — posted an increase in per capita income in 2009, despite the global economy as a whole undergoing a severe contraction. Among these 71 are three-quarters of the world's low-income countries, who, contrary to fears, fared relatively well through the crisis. At the other end of the spectrum, 39 countries have forfeited at least four years of economic progress."<sup>31</sup>

*Large Western firms have thrived by building scalable operations within their own enterprise and paring their broader partner networks down to a very few key partners. What happens when they try to increase the number of partners... in order to better connect to talent wherever it resides? Most will encounter a sharply increased cost of complexity."*

— John Hagel, John Seely Brown, and Lang Davison, "Talent Is Everything"<sup>32</sup>

So, an economic climate that in the United States has been labeled the Great Recession feels more like an expansion if you happen to live and work in Argentina, China, or India. Conversely, the economy seems more like a full-scale depression if you reside in many parts of Eastern Europe or Iceland. Such discrepancies can undermine traditional attitudes toward wealth creation and can quickly complicate the global competitive environment. Economic uncertainties are exacerbated by new rules of engagement in emerging markets, where governments may underwrite private-sector businesses and customers have different expectations when it comes to products and services. Many globalizing enterprises will have to reexamine their strategies and product lines to compete successfully in these unfamiliar markets.

Further complicating the situation are the workforce transitions that will affect employee relations. Employees will be less commoditized than in the past, and more valued for their individual contributions. For example, many new-style employees who want greater life-work integration will not be willing to routinely put in 60-hour work weeks, no matter how much they are paid. Many organizations will have to be structured to support and value these employees. One way to catalyze change and re-culture the workplace is to place the workforce within a new frame of reference — in effect, “re-culturing” the organization.

### Maintaining the Balance

The will to reform traditional organizations will need to come from the top. It will mean letting go of some immediate control in order to keep the globalizing organization in better balance over the long run. This balancing process will probably involve some or all of these activities:

- **Synthesizing diverse viewpoints:** The democratization of work will require more dialogue and compromise.
- **Recalibrating timing and processes:** Diverse workgroups will work at their own pace, with their own tools.
- **Reforming existing policies:** Transformation does not come without restructuring and some disruption.
- **Integrating new values:** Creativity and innovation will be valued as much as efficiency and productivity.
- **Shifting key relationships:** Lateral will tend to replace vertical, with cross-functional groups gaining traction.
- **Concentrating attention on opportunities:** Unforeseen conditions and market complexity will make focusing more difficult.
- **Engaging new and different stakeholders:** Organizations will reach out more to partners, customers, governments, and communities.
- **Allocating resources:** Flexible approaches will be needed to deal with fast-changing, hard-to-predict business conditions.

In light of rampant complexity and the many disruptive forces acting upon the global economy and workforce, it is not surprising that many observers foresee major changes to organizational structures and cultures in the years ahead. Thomas W. Malone, Thomas Friedman, Gary Hamel, Ori Brafman, Rod Beckstrom, and a host of others have gained a wide audience with predictions and recommendations that focus on the flattening of hierarchies, decentralization, the importance of heterogeneous teams, and greater autonomy for individual workers. In general, the consensus is that organizational and management structures are changing, moving from a hierarchical, compartmentalized paradigm to a cross-functional, horizontal paradigm.

To conduct global operations successfully, businesses will have to develop the flexibility to address new categories of unknowns that are currently outside their experience. What we expect to see is a shift from businesses that are organized to maximize efficiency and output to businesses restructured to emphasize innovation and creativity. Working cultures instilled by the organization and championed by the organization’s leaders will play a critical role in this shift. The corporate culture — the sum of actions, attitudes, experiences, and beliefs that define an organization and its cohort of employees — may well become the key differentiator when businesses go about recruiting the workforce’s best and the brightest. But it is not enough for organizations to create and encourage a viable culture; they must also find ways to recognize and reward employees who exemplify the values of the culture.

The following section examines new ways of organizing work, how knowledge workers will collaborate, new perspectives on employee rewards, innovations in learning, future management styles, and new directions in leadership.

## New Models for Organizing Work

While globalisation makes incursions into national and regional economies, the radically collaborative *virtual organization* model is bringing about revolutions in job functions, management methods, lines of authority, and employee expectations.<sup>33</sup> In cultural terms, discipline in such an organization tends to migrate from the management level, becoming internalized within working groups and peers.

Networking technology has already delivered anytime, anywhere communications and the opportunity for closer interactions and faster cycle times. The virtual organization takes advantage of this technology to create a modular,

fluid infrastructure that can form and reform according to current needs, using contractors, consultants, and vendors located worldwide. It is not uncommon today to encounter virtually aggregated firms in which all the workers are essentially contractors, there is no headquarters or top management, and everyone works “offsite” — wherever that may be.

Will the global workforce be transformed into an army of individual contractors working on a project-by-project basis for small companies or core organizations with few fulltime employees? That scenario is certainly possible, but it will not unfold within a single decade. What *will* come about is the proliferation of decentralized structures in which decisions are not so much delegated downward as they are integrated across three dimensions, among the people who have the direct expertise, authority, and information to carry them out. Lines of authority in such an organization are thus more lateral than hierarchical. This arrangement goes hand in hand with what is sometimes termed “permissioning” — giving individual contributors the power to make decisions and take actions that previously required management approval.

Thomas W. Malone in *The Future of Work* points out the weaknesses in traditional hierarchical organizations: problems tend to be broken into parts and addressed by the wrong people, critical nodes create bottlenecks when overwhelmed with information, one important decision maker with inadequate information can veto an initiative, and there is little sense of autonomy among employees. He anticipates that organizations will move from command-and-control to coordinate-and-cultivate, requiring new management techniques and skills. In such an organization, cross-functional teams will not be tied to specific knowledge silos, but rather will tap into various reservoirs of expertise. It is likely that large organizations will not only decentralize, but also “multicentralize” to take advantage of global talent and pursue market opportunities. Organizationwide talent pools will be allocated among business units, with an emphasis on multifunctional working arrangements.

*“The art of progress is to preserve order amid change, and to preserve change amid order.”*

—Alfred North Whitehead<sup>34</sup>

Malone argues that decentralization makes organizations more attractive to workers because it gives them more freedom. “When people make their own decisions about how to do their work and allocate their time, they often put more energy, effort, and creativity into their jobs. Studies of research-and-development (R&D) projects, for instance, have found that when the members of project teams feel more freedom and control over their work, they become more innovative.”<sup>35</sup>

Decentralizing global businesses must find ways to integrate diversity into their work structures. However, for many organizations, diversity is still more of a buzzword than a fact. A recent Ernst & Young report, based on a major globalisation survey, reveals that the boards of many global companies do not embody the diversity that these companies will need in the future. “One of the key findings was that most companies fall short on the diversity of thought and culture needed to handle global business. Nearly 40 percent of the businesses surveyed obtain more than half their total revenues from global markets; in three years’ time, 54 percent of respondents expect to do so. But boards of directors seldom reflect the global reach of their businesses. Almost half of the companies operating in 25 or more countries admitted that they had at most only a couple of foreign nationals on their boards.”<sup>36</sup>

### Swarming and Pattern Sensitivity

Technology research firm Gartner has identified a nascent work style called “swarming” characterized by a flurry of collective activity: “Teams have historically consisted of people who have worked together before and who know each other reasonably well, often working in the same organization and for the same manager. Swarms form quickly, attacking a problem or opportunity and then quickly dissipate. Swarming is an agile response to an observed increase in ad hoc action requirements, as ad hoc activities continue to displace structured, bureaucratic situations. In swarms, if individuals know each other at all, it may be just barely, via weak links. Weak links are the cues people can pick up from people who know the people they have to work with. They are indirect indicators and rely, in part, on the confidence others have in their knowledge of people.”<sup>37</sup>

Gartner has also identified a trend the company refers to as pattern sensitivity: “The business world is becoming more volatile, affording people working off of linear models based on past performance far less visibility into the future than ever before. Gartner expects to see a significant growth in the number of organizations that create groups specifically charged with detecting divergent emerging patterns, evaluating those patterns, developing various scenarios for how the disruption might play out, and proposing to senior executives new ways of exploiting (or protecting the organization from) the changes to which they are now more sensitive.”

### A Revolution in Collaboration

The prized employees who spearhead innovation in the future workforce will most likely gravitate toward organizations that give them more flexibility and decision-making power. According to a recent international survey of 479 executives conducted by the Economist Intelligent Unit, 78 percent of the executives think that decision making responsibilities are a critical factor in attracting prospective employees, but only 40 percent believe their own companies actually encourage employees to make independent decisions.<sup>38</sup>

Flat, nonhierarchical organizations provide employees with greater responsibility than traditionally structured organizations, even very early in the employees’ careers. Taking on the contours of virtualization, the members of Workforce 2020 will feel comfortable operating within modular human infrastructures made possible by collaborative technologies. Currently available technologies such as teleconferencing, telepresence, mobile communications, and groupware applications have already gone a long way toward opening up organizations and helping employees collaborate across time and distance. These and new technologies yet to be invented are poised to facilitate the amorphous “information spillover” that will animate collaboration, diffuse good ideas, and encourage innovation in the future.

To promote collaboration, multifunctional, multilevel work teams made up of both innovators and pragmatists will be able to form and reform according to current needs, drawing “internal freelancers” from across the enterprise as well as bringing in contractors, consultants, and vendors. Reducing job compartmentalization will

allow the organization to use its human capital more wisely. On the other hand, employees will not want to broaden their horizons to the degree that they lose sight of their own principal roles or value propositions. Subject-matter experts and specialists are important assets in any enterprise, and they must be identifiable and available so they can readily share their knowledge.

In addition, organizations need to nurture and recognize the contributions of workers who act as what Ori Brafman and Rod Beckstrom in *The Starfish and the Spider* call “catalysts” — that is, facilitators who bring collaborators together and help direct collective work efforts. Even if they are not in traditional positions of authority, catalysts create crucial forms of group cohesion that do not emanate from centralized management.

Brafman and Beckstrom describe how hierarchical managers differ from catalysts in terms of their powers and personalities: “Because CEOs are at the top of the pyramid, they lead by command and control. Catalysts, on the other hand, depend on trust. CEOs must be rational; their job is to create shareholder value. Catalysts depend on emotional intelligence; their job is to create personal relationships. CEOs are powerful and directive; they’re at the helm. Catalysts are inspirational and collaborative; they talk about ideology and urge people to work together to make

the ideology a reality. . . .Want to figure out an innovative way to promote a new product, expand into a new market, build a community around your company, or improve employee relations? By all means, bring in a catalyst.”<sup>39</sup>

Extending collaboration outward, employees are starting to interact much more closely with other types of stakeholders. Traditional distinctions, such as those between employee and customer, are blurring as employees engage more frequently with customers inside their organizations and customers have more input into product design and service offerings. This sort of environment will favor employees with a facility for social networking and a knack for thriving in heterogeneous environments. And it will benefit organizations that are structured to best support these employees.

Also, because of the greater emphasis on collaboration among stakeholders, organizations in the future will want to strengthen stakeholder management functions, defining stakeholders in broader terms and reaching out to them in ways both proactive and interactive. The stakeholder community associated with a globalized organization may include employees, customers, investors, government institutions, communities, partners, suppliers, and entities ranging from industry groups and NGOs to social responsibility advocates and watchdog groups. This expanded community of interest will spark institutional social engagement as the borders between company and community become more porous.

### **Rewards Tailored to the Individual**

In the organization of the future, rewards packages will need to be more flexible to suit a broad range of workers, each of whom will want to customize the suite of offerings based on personal values and lifestyle choices. We should expect that rewards and opportunities will be tied closely to the “what, how, who, where, when, and why” of the employment proposition itself (refer to Appendix B: Defining Work and Working).

As an example, rewards could be offered to employees in the form of a menu, with choices based on the employee’s individual aspirations, proclivities, and life situation. This approach also allows the organization to get the most value from its investment in employees by continually updating the rewards menu so that it stays aligned with organizational goals. For instance, if a job candidate puts a high premium on security, the employer might guarantee the job for a certain length of time and provide additional health and retirement benefits, but in turn ask the candidate to make concessions with regard to salary, workplace, or hours. Ambitious younger employees might want to take maximum advantage of tuition subsidies and skill-building opportunities to further their careers, whereas older, well-established workers might choose additional vacation time or a more comprehensive healthcare package instead. The original menu choices should be subject to periodic review to make sure they continue to fit evolving personal circumstances and organizational strategies.

To retain the best workers, employers should provide performance feedback and incentives at more frequent intervals than they typically do now. Employees will expect that feedback to more closely map to their real-world responsibilities and activities, rather than to fixed goals that may not represent their accomplishments. Because workers will take on responsibilities that are not within the purview of a single department or direct manager, methods will need to be adopted to evaluate all facets of an employee’s contribution while engaging in cross-functional working arrangements, including developing ways to measure an employee’s creative contributions as well as that person’s work output. In other words, in the era of Workforce 2020 it will be as important to reward behaviors as it is to reward results.

In today’s world, expertise has a notoriously short shelf life, especially in fields closely associated with technology. But no matter what field they are in, young workers say they expect to be able to sharpen their skills and add to their professional credentials while on the job. Many employers already offer subsidies and time off to pursue advanced degrees and attend job-specific classes and seminars. Such formal training both outside the organization and



inhouse will be augmented by community learning networks that provide informal and self-paced training, mentor circles, best-practices sharing, and other resources. Employers will want to set up and nourish these communities with an eye toward aligning the organization's talent pool with organizational goals and changing business environments.

### **Making Games Part of the Work Experience**

Employees who grew up playing online multiplayer games such as World of Warcraft and Second Life in their free time are inclined to welcome gaming into their work life, too. Some experts predict that Workforce 2020 will use sophisticated gaming technology to convey information, learn new skills, and even perform major aspects of their jobs — for example, forming temporary teams, collaborating across functions and distance, and distributing decision making.

While researching role-playing games and gamers, Byron Reeves and J. Leighton Read found that “gamers already perform every category of information work imaginable, from grind-it-out drudgery to sophisticated analysis and teambuilding, all in the course of a digital day. . . . Gamers organize, categorize, analyze, evaluate, diagnose, invent, buy, sell, lead, and follow.” They predict that “some people will soon do their jobs inside a game, and many more will thrive inside information environments that have features borrowed from today's best games.”<sup>40</sup>

The majority of Workforce 2020 will likely be less responsive to getting their information through speaker-dominant, linear cognitive modes such as Microsoft PowerPoint and more receptive to the holistic information transfer typical of computer gaming. PowerPoint conveys information through a single sequence of contextual relationships spread across multiple visuals. Such presentations are not interactive, do not lend themselves to side-by-side comparisons, and generally reduce the information to discrete bullet points and static charts, with perhaps a touch of animation.

With gaming, the audience absorbs facts within a multidimensional context of continuous play. They learn by participating in instructional situations that are much more involving and stimulating. And they have the opportunity to access information in a nonlinear, branching fashion, learning on their own time and at their own pace.

### **Innovative Learning Modes**

Today, formal education can become obsolete before it is even completed. We may find that traditional educational goals such as mastering a major subject or earning a degree that provides a narrow entryway to a particular profession or job will be deemphasized, while broader preparation that is more attuned to a globalized economy may predominate.

Many jobs in the future will likely combine divergent disciplines — say, engineering and biochemistry, linguistics and marketing, or liberal arts and entrepreneurship. Even specialists will need to cultivate an interdisciplinary viewpoint if they are to collaborate effectively in cross-functional groups and stay current with fast-emerging ideas and technologies that could end up taking their specialties in new directions. The workplace will increasingly need to function as a classroom, and the classroom as a passageway to the working world.

By some estimates, 80 percent of all corporate knowledge transfers now take place through on-the-job interactions with peers, experts, and managers. This trend will continue, although increasingly these interactions will be virtual get-togethers made possible by technologies like telepresence. The organization's culture should strive to promote and sustain these interactions.

Mentoring and coaching will play a critical role in tomorrow's workforce, mostly in the form of situational, short-term mentoring relationships but also as part of formal mentoring programs. These mentors need not be managers, nor even fellow employees. With youthful employees more comfortable with new technology than older workers, bottom-up mentoring in which junior employees share what they know with more senior co-workers may also become common.

Some organizations are also experimenting with “anonymous mentoring” schemes in which the organization matches employees with experienced mentors from outside the organization using personality testing and background reviews. The anonymity helps ensure that the mentors have an agenda-free interest in the mentee's professional development. Anonymity also promotes candid exchanges in much the same way anonymous posting, social networking, and gaming activities spark knowledge sharing and other beneficial online interactions. Keep in mind,

however, that high-potential employees also need conspicuous mentors who can act as sponsors as well as coaches, and that these sponsors must have significant clout in the upper management ranks to be effective advocates.

### **Cultivating Future Networking Talent**

Cisco Networking Academy® represents a public-private education ecosystem that not only prepares students for Cisco technical certifications, but also delivers a range of technical and business skills that can support students in the future as they further their educations, prepare for work outside the ICT industry, or start their own businesses.

Cisco partners with schools, governments, businesses, and community organizations to offer these students opportunities. Propagating networking skills worldwide helps sustain Cisco as a business, and also gives students the practical knowledge they need to contribute to their local economies and communities. The program also helps Cisco cultivate a global pool of talent from which to recruit future employees.

The Cisco Networking Academy is Cisco's largest CSR education program, and may be the largest e-learning program in the world. In fiscal year 2009, Cisco Networking Academy offered 14 courses to more than 800,000 students. Cisco has invested more than US\$350 million in the program to date.

In the Cisco Networking Academy program, students encounter a comprehensive and consistent learning experience based on and delivered through 21st century technologies, while also acquiring the fundamental skills required for designing, building, and managing networks. The curricula include instructor-led, web-based course content, sophisticated online skills assessments, hands-on labs, and cutting-edge simulations.

Public-private partnerships are the wave of the future for education improvement in the 21st century. Companies will increasingly partner with schools and colleges to train employees and prepare students for employment after they graduate. Multi-stakeholder educational partnerships accelerate transformation and innovation by allowing private-sector organizations to take over roles traditionally assumed by public institutions. Businesses can complement, supplement, and extend the services provided by the public sector by increasing available resources and providing flexibility and a practical market orientation. And all the entities involved can achieve their own goals by engaging in a mutually beneficial partnership.

### **Managing in a Flat Organization**

As organizational structures flatten and become more cloud-like, the successful manager is one who “metamanages” rather than delegates or micromanages. The ability to cognitively assimilate diverse human and organizational elements will be as critical, if not more critical, than traditional managerial or supervisory skills. The new-style manager will value team building and coaching as much as, or more than, taking charge, commanding loyalty, and inspiring the troops.

The role of the middle manager is changing right along with the flattening of hierarchies. These managers will devote much less time

to providing upper-level management with business data and transmitting messages from the top down, because these functions can now be carried out by information technology. Rather, their value will be in exercising their relationship and networking skills: forming and re-forming teams, coordinating among teams, and acting as both vertical and horizontal “transmission belts” in the organization — sharing information, diagnosing problems, raising concerns, coordinating efforts, and identifying possible initiatives and transition points.

Researchers at The Conference Board identify “ability, engagement, and aspirations” as critical managerial dimensions, with ability now including not only intellectual and technical skills, but also emotional or social intelligence. They recommend instituting corporate-level programs that test these qualities and link personal objectives to the organization's plans for growth, rather than to standard competency models, and that focus more on future potential than on current accomplishments. They also advise organizations not to shield top talent from difficult assignments or bury them in limited roles as part of a rigid job rotation scheme.<sup>41</sup>

## Meet Peer Sturlasson – A Managerial Snapshot from 2020

Peer Sturlasson is a middle-aged executive at an NGO based in the United Kingdom and specializing in “second-generation” environmental concerns associated with climate change and oceanic sustainability. The organization works closely with both the public and private sectors, and has employees and volunteers in about 60 countries worldwide. A Norwegian trained as an engineer, Sturlasson previously held positions in a large European medical technology company and a start-up that was acquired by a competitor. He speaks three languages fluently and has lived in several countries.

Embarking on a second career, Sturlasson looked for a job that would satisfy his passion for environmentalism and still provide a livelihood for his family, including a wife currently caring for an elderly parent and two children still in school. The chief strength that he brings to the organization is experience working in a flat, multigenerational business environment characterized by virtual collaboration and a permeable internal/external workforce. His personal blog on this subject has attracted a considerable following over the years.

Sturlasson set out to restructure the NGO by deemphasizing titles and organizational pecking orders and creating an internal “auction house” for ideas. Task forces made up of both managers and staff members form and re-form according to needs and circumstances. A network of experts is accessible to any stakeholder anywhere in the world. Some of the experts are employees, whereas others volunteer their services or are paid for their contributions on a piecemeal basis.

To harness the energies of a global youth contingent, Sturlasson launched a grassroots social networking initiative led by facilitators who were identified using “bots” searching the Internet for kindred spirits. The organization is building on its international reputation as a thought leader to attract talent and raise awareness among young people. The ultimate goal is to develop a community of stakeholders that can come together virtually, collaborate effectively, and act quickly anywhere in the world.

Sturlasson brokered an agreement with the organization that allows him to consult part time to augment his income. This flexible arrangement works well with the organization’s infrastructure, in which teams predominate and decision making is not concentrated at the top.

Executives who took part in the Economist Intelligent Unit’s global survey cite local knowledge and a global perspective as two of the most important qualities for modern managers. “They see localization, coupled with short-term international movement [overseas assignments], as critical to establishing an integrated global culture. . . .It is this unified culture that will define successful global companies.” The survey report goes on to note that managers sent out from the home office to instill business practices in other countries can demoralize the local managers by making them feel peripheral. The report predicts that “there will be more short-term assignments, with reins handed over to local managers within a year. There will be movement of managers not only from headquarters to local markets, but the other way around, and between different local markets as well.”<sup>42</sup>

The global trend away from lifetime employment has meant that many organizations have concentrated as much on hiring managerial talent away from competitors as they have on nurturing talent within the ranks. But other current trends indicate that management development may become as important as financials when evaluating executive performance. Progressive organizations have begun to cultivate their most promising employees with innovative programs that use action learning techniques, anonymous mentoring, and online development monitoring to impart knowledge and build management skills.

But despite all the programs aimed at identifying and developing high-potential management talent, this segment of the workforce is not immune to the employee engagement gap. Researchers at the Corporate Executive Board who studied 20,000 employees in 100 organizations deemed “emerging stars” found that a third of them felt disengaged from their companies, 40 percent lacked confidence in co-workers and senior managers, and 12 percent were looking for new jobs. According to a summary of the research in *Harvard Business Review*, “nearly 40 percent of internal job moves made by people identified by their companies as ‘high potentials’ end in failure.”<sup>43</sup>

To retain critical talent and preserve their talent-development investment, organizations will need to keep an acceptable balance between the aspirations of employees and the needs of the business. Management training may have to be shortened into smaller units to make it more cost-effective and adaptable. “Stretch” assignments can provide earn-while-you-learn opportunities. And even if a manager leaves the organization, an open-door policy makes it possible for that person to return on a permanent or consulting basis without prejudice.

### **Leading by Nurturing a Collaborative Culture**

Throughout the coming decade, leadership roles will evolve to reap the benefits of the radical changes occurring in workforces and organizational structures. Leaders will concentrate much more of their energy on cultivating a culture that functions as the organization’s collective consciousness and underlying value system. Such a culture maximizes human potential by providing workers with the supportive, immersive environment they need to collaborate, make decisions, and take action without the intervention of a command-and-control management structure. The new-style leader will act as “chief catalyst” responsible for creating and propagating a strong culture — essentially an intangible infrastructure that parallels the organization’s tangible infrastructure — that is aligned closely with strategic goals. And the leader will also serve as an ambassador, championing the culture both inside and outside the organization.

To establish a powerful, viable culture, leaders will first have to build a collaborative infrastructure facilitated by pervasive communications. Everyone must be able to communicate with everyone, wherever they are, whenever necessary. The organization must have the means to bring individuals together constantly, not only to convey information but also to mutually share that information across the whole range of workgroups that continually materialize and dissolve in response to business requirements. The culture supports these interactions by enabling employees to internalize the policies, practices, processes, experiences, behaviors, and expectations that make up the organization’s core DNA. Cultural precepts encode the rules of engagement for the business, and also provide the peer-oriented discipline that used to be enforced through lines of authority by hovering supervisors.

*“One core attribute of leadership in the future will be to bring smart people together to think in more fluid, dynamic ways, and to solve problems that have never been solved before. Leaders will need to architect creative cultures that can constantly produce new ideas and new skills.”*

—Annmarie Neal, VP of Talent Management and Development, Cisco

Tamara Erickson, who has authored several books and articles on generations in the workforce, points out that “what we’ve thought of as leadership skills — setting direction, having the answers, controlling performance, running a tight ship — are less relevant in an environment of constant change. Increasingly, leadership is about creating a context for innovation and inclusion in the face of ambiguity and the unexpected.”<sup>44</sup> In addition, centralized authority projected from headquarters is becoming a thing of the past. Those leaders who are able to work across a broad range of global cultures while at the same time propagating a coherent organizational culture will have the best chance of achieving success.

IBM's 2010 global survey of 1500 CEOs highlights the impact of global integration and other stress points on today's executives. "Our interviews revealed that CEOs are now confronted with a 'complexity gap' that poses a bigger challenge than any factor we've measured in eight years of CEO research. Eight in 10 CEOs expect their environment to grow significantly more complex, and fewer than half believe they know how to deal with it successfully. . . . Better performers manage complexity on behalf of their organizations, customers and partners. They do so by simplifying operations and products, and increasing dexterity to change the way they work, access resources, and enter markets around the world. Compared to other CEOs, dexterous leaders expect 20 percent more future revenue to come from new sources." Creativity is the most important leadership quality, in the opinion of the CEOs surveyed. "CEOs now realize that creativity trumps other leadership characteristics. Creative leaders are comfortable with ambiguity and experimentation. To connect with and inspire a new generation, they lead and interact in entirely new ways."<sup>45</sup>

The IBM survey also found that many CEOs "felt overwhelmed by data while still being short on insight. They believe a better handle on information and mastery of analytics to predict consequences of decisions could go a long way in reducing uncertainty and in forging answers that are both swift and right." IBM's Global Student Study found that "future business leaders indicated they will need to lean more heavily on data analysis to reach their strategic and operational goals. And as fact-based decisions begin to prevail, they may well need to pioneer an entirely new management style — one that continually enriches personal experiences with new sources of insights based on 'fact checks' rather than 'gut checks.'"

Sophisticated technologies now being developed that incorporate business analytics will help leaders discover correlations and patterns that enable them not only to make better financial decisions, but also to make more discerning decision about their human capital. We should also expect to see systems that employ probabilistic inference — a technique that combines the probability algorithms used in applications such as voice recognition and Amazon's book recommendations with logical inference engines developed for artificial intelligence — to support strategic decisions in high-uncertainty environments.

Another important attribute for future leaders is a knack for bringing a wide spectrum of individuals into the ongoing process of defining the culture. Employee surveys, cross-functional workshops, interest groups, virtual all-hands meetings, and informal get-togethers can help create a dialogue and keep the conversation going. The idea is to get employees to think like owners, instead of like tenants.

In addition, leaders will need to make sure that their organizations' rewards and career opportunities reflect the culture and its values. In other words, organizations will have to become more creative and responsive in how they structure human-resource activities such as career building, skills development, knowledge transfer, and benefits offerings. Promotion processes will have to be adjusted to account for flatter organizations, teams in which responsibilities and credit are shared, and less tangible contributions such as mentoring and multicultural expertise.

## Prospective Action Items for 2020

What we know for certain is that the global workforce and the ways in which work is structured and rewarded are undergoing fundamental changes. Some of these transformations are generational and cultural. Others are the result of globalisation, new technology, market shifts, and altered perceptions about the roles that jobs play in the lives of individuals and communities. In the next decade, organizations of all kinds will need to adapt to new workforce realities or face the prospect of losing or failing to attract top talent.

Following is a checklist of prospective workforce action items for the coming decade:

### Workers and Working

- **Hire the person, not the function:** Many of today's companies already describe themselves more in terms of the solutions they provide than the products and services they build or render. In the same way, employees in flat, decentralized companies will take on roles that are not necessarily consistent with a job title or a position in an organizational hierarchy, suggesting that employers should look at potential new hires in holistic terms, not just in terms of their job experience, skill level, professional contacts, and formal education. What unique cultural knowledge might they offer? What personal interests could they take advantage of on the job? What nonprofessional connections might they be able to use to bring the organization and the community closer together?
- **Be imaginative about recruiting:** Colleges and graduate schools have always been fertile ground for recruiting talent, and in developing countries these institutions have become especially rich in female talent — for example, women make up 65 percent of college graduates in the United Arab Emirates and 60 percent in Brazil.<sup>46</sup> Some organizations target potential employees at an even earlier age by sponsoring curriculum modules, contests, career clubs, and other activities in secondary schools that help capture students' mindshare. Social networks such as Facebook, YouTube, and Orkut (the latter is very popular in Brazil and India) have become good places to attract millennial-age recruits, even if they are not currently looking for a job. By 2020, many other social networking resources will doubtless be available. In addition, to help globalize their operations many organizations will want to shift recruitment responsibilities to regional offices and make more hiring decisions at the local level.
- **Help employees build networks:** Personal networking comes as second nature to a workforce immersed in Web 2.0 technologies, so employers would be well advised to strengthen commitment and engagement by helping employees build identity-based networks within their organizations. Companies will increasingly use internal systems resembling LinkedIn or Plaxo to build connections among employees who may not know or work with each other. Such networks offer role models and mentoring opportunities to younger employees, and also provide a sense of belonging for employees who may be working outside their native countries and cultures, or who want to connect with like-minded cohorts by forming global communities of interest. Professional networking has proved to be particularly beneficial for women, and organizations will want to encourage this solidarity internally in order to promote retention and develop new leaders. These networks can also be useful for extending ties to customers, clients, and communities. And because many members of the workforce relate as much to their industry peers as they do to their employers, organizations will need to make industry affinity groups an integral part of the organizational framework. Cisco Employee Resource Groups exemplify a network of employee organizations that are recognized and supported by the company. Groups are based on generation and/or seniority, ethnicity, gender and/or sexual orientation, disability awareness, and other affinities.
- **Encourage personal branding:** Self-reliance and self-actualization will be watchwords for Workforce 2020. Employees will seek to establish themselves as individual brands, rather than deriving their professional identity from their employer or job title. They should be encouraged to distinguish themselves as individuals within the organization — for instance, by blogging, or by creating a comprehensive online résumé or curriculum vitae (comparable to a LinkedIn or Plaxo profile) that can be viewed by co-workers tasked with building cross-functional teams. Likewise, organizations will want to differentiate themselves by making their employees and other stakeholders an intrinsic part of their institutional brand, thereby assisting them in hiring the most compatible people.

- **Enable work-life integration:** To retain and motivate the workforce of the future, organizations will provide more ways for employees to blend their professional expertise with their outside interests. CSR initiatives within local communities will increasingly rely on the participation of individual employees. Many companies encourage affinity groups that focus on community aid and economic development projects in the countries where the employees work or were born. Such groups not only enhance the company's reputation, they also contribute to organizational solidarity and globalisation efforts. Many forward-looking organizations already offer programs to help employees balance their professional and personal lives, ranging from onsite childcare facilities and fitness centers to personal crisis support and finance seminars.
- **Make mentoring a priority:** Formal and informal mentoring programs will proliferate in the organization of the future. Mentors can be recruited both inside and outside the organization. Studies show that women especially benefit from mentoring, especially when the mentors also act as career "sponsors."
- **Emphasize social responsibility:** As companies continue to integrate CSR into their core business strategies, detailed reporting and third-party assessments are becoming widely available to the public. These organizations will need to be forthright about what they are doing to promote sustainable growth and improve community life, or risk alienating customers and potential employees, particularly the younger generations. Moreover, CSR efforts can help differentiate the organization in the marketplace and during recruiting. Organizations should undertake CSR initiatives that take advantage of their institutional expertise, and have an infrastructure in place that enables accurate progress assessments and reporting.
- **Promote learning and development:** ICT will be critical to connecting learners and disseminating instructional materials. Employers will also need to look at providing younger workers with some of the same one-on-one coaching benefits they now provide managers and executives. However they accomplish it, companies will need to close the gap between the personal development aspirations of their younger workers and the reality of where those companies typically spend their development and training money today.
- **Rethink performance reviews:** In the future, performance reviews will need to become more inclusive, based on information from a variety of sources, including metrics captured through advanced technologies. Managers will still have significant input, but so will teammates, partners, and customers. Teamwork in particular must be acknowledged and rewarded more often. A personal electronic dashboard may allow employees to solicit and receive feedback about their performance year round. Assessments will not only be used by management to evaluate performance for purposes of pay increases and promotions, but also to suggest new assignments that can make the best use of the employee's demonstrated talents. The personal goals set during a performance review may undergo constant reassessment to keep pace with fast-changing business environments.
- **Personalize the career process:** Career opportunities may come to resemble university major subject requirements. That is, the prerequisites for advancement will take the form of a list of choices, with the employee able to choose personalized career paths, milestones, and skill-building endeavors. Organizations can reinforce engagement and commitment by creating transformational, career-enriching opportunities for employees. For example, a manager could offer a position to a younger employee who is not qualified for the job in the usual sense, but who has experience and perspectives that will benefit a cross-functional team.
- **Use gaming to engage people:** As the technology evolves, "serious" games will increasingly resemble the sort of virtual environments depicted in science fiction films. Complex, immersive simulations will allow users to interact with information structures and manipulate them in ways that mimic and extend real-world interactions. Games can even be used to gauge employee performance, with point systems that resemble game scores.
- **Foster entrepreneurship:** Many of the brightest young people enter the workforce looking for opportunities to practice their entrepreneurial skills in start-up companies or in their own enterprises. These achievers will be lost to larger organizations that appear monolithic, bureaucratic, or resistant to new ideas. One way to avoid this impression and capture the enthusiasm of youthful job candidates is to give them considerable autonomy in what they work on and whom

they work with. Rather than offering traditional bonuses, organizations may want to consider allowing high-value employees to share in the economic rewards of any inventions or innovations they and their team generate.

## Organizations and Leadership

- **Adopt a management innovation agenda:** Management will need to re-orient itself, moving beyond 19th and 20th century precepts. In a seminal article entitled “Moon Shots for Management”<sup>47</sup>, leading business thinker Gary Hamel makes several recommendations for management innovation consonant with workforce and organization transitions: make hierarchies less formal, create internal markets for ideas and talents, disaggregate organizations into more malleable units, take advantage of diversity and globalisation, develop holistic employee performance measures that emphasize personal passions and innate talents, expand employee autonomy and create a democracy of information, and reinvent strategizing and decision making to minimize generational, cultural, and personal biases.
- **Champion human potential:** As virtualization progresses and hierarchies loosen, organizations can begin to supplant traditional mission statements and capabilities lists with inventories of their potential that emphasize the unique nature of the organization’s human capital and the flexibility and responsiveness the employees bring to their jobs. Organizations will be more motivated to conserve the institutional DNA or memory that resides in their most valued employees and partners, even if that means re-tailoring the existing institutional structure to accommodate them. For instance, rather than terminating an employee whose full-time services are not needed during a business downturn, organizations might agree to pay that person a retainer to be available for a certain interval on an as-needed basis. With respect to business partners, organizations will progress from a supply-chain paradigm to a value-chain paradigm that places an emphasis on the value added to the business process by everyone concerned.
- **Decentralize and multi-centralize:** Organizations are finding that it is difficult to globalize from a single headquarters. We tend to export what we know and how we think, and import only what we believe we need. To foster globalisation that is not simply an extension of the organizational status quo, multinational organizations will decentralize by multiplying their major centers of operation. One fruitful approach may be to establish centers of competency, each of which focuses on a particular organizational strength (such as software, manufacturing, or R&D), and aggregate appropriate talent at these locations, including executive-level employees either recruited in the region or willing to relocate there. Organizations should offer incentives for relocation by, for instance, making first-hand global experience a prerequisite for advancement.
- **Decomartmentalize:** A cross-functional team structure not only levels the hierarchy, it also decompartmentalizes team members so they can undertake responsibilities that do not come under their boss’s oversight. Furthermore, breaking down the institutional walls that separate functions creates more opportunities for employees to excel and grow in their jobs without having to move to a new business unit or leave the organization. Deploying strategic knowledge by building an *expert network* function into the organizational infrastructure — a dynamic system providing access to multimedia learning resources and people — can help employees acquire practices and skills quickly. For example, a knowledge repository about a particular industry market might include video Q&As, impromptu success stories, and links to experienced colleagues who can act as coaches.
- **Innovate around collaboration:** The possibilities for collaboration across organizations have expanded exponentially in just a few years, now extending to disciplines where traditional forms of collegiality are particularly well rooted. For example, scholars in the humanities “have begun to challenge the monopoly that peer review has on admission to career-making journals and, as a consequence, to the charmed circle of tenured academe,” according to the *New York Times*. “[These academics] argue that in an era of digital media there is a better way to assess the quality of work. Instead of relying on a few experts selected by leading publications, they advocate using the Internet to expose scholarly thinking to the swift collective judgment of a much broader interested audience.”<sup>48</sup> Even the venerable *Shakespeare Quarterly* is currently experimenting with this form of scholarly “crowd sourcing.”



- **Accommodate diverse cultures:** Organizations should expect to encounter culture clashes. For example, nonhierarchical, team-oriented working “democracies” made up of employees with different experience levels and pay grades may be easier to establish in countries where the workers are less culturally inclined to defer to their senior colleagues. This reality, of course, does not mean that organizational cultures that place a high value on seniority cannot also be highly collaborative. Employees can broaden their cultural horizons by working outside the headquarters country, but those who do so should be provided with relocation packages that make it easier for them to establish residence and acculturate. In addition, executives should be encouraged to return to their native countries to recruit and mentor employees who might find it easier to identify with a compatriot who speaks their native language and is conversant with their local or national culture.
- **Take advantage of social entrepreneurship:** Because work life and personal life are increasingly intertwined and the workforce has become more socially aware, CSR will be an important tool for reaching out to communities where the organization has a presence. Local employees can become involved on both individual and group levels, going well beyond charity and fund drives. For example, employees who involve themselves in local education efforts not only contribute to community welfare, but also can identify and help recruit talented students. In developing countries, formal community assistance programs such as free lunches in schools create good will and help attract socially conscious hires.
- **Create public-private partnerships:** According to the World Economic Forum, “One of the key leadership challenges of our time is to find new ways to harness the innovation, technology, networks, and problem-solving skills of the private sector, in partnership with others, to support international development goals. And to do so in a manner that makes sound business sense and does not replace or undermine the role of government.”<sup>49</sup> For instance, companies can build partnerships with universities and colleges beyond the usual job fairs, recruiting trips, and summer internships. These consortia can funnel talent into the organization, conduct research valuable to both parties, and help dissolve tensions between corporation and community.
- **Make rewards more flexible:** Rewards packages in the future may resemble the menu choices that many American companies now provide for health insurance, retirement offerings, and similar benefits. Employees could pick from an extensive menu of base, variable, and other incentives, allocating a “weight” for each component based on company guidelines. Employees would have the opportunity to update this menu every year or two.
- **Localize benefits:** The whole concept of employment benefits may need to be revisited within some organizations as they expand to new regions. For example, private healthcare, childcare, and pension benefits are important in the United States but largely irrelevant in much of Europe, where these services are covered by government programs. Generous family benefits may be more important in developing countries, where large extended families often depend on a single earner. Special services for employees may be offered in localities where these services are uncommon, inconvenient, or expensive.
- **Involve upper management in leadership development:** In the future, executives and executive committees will need to work more closely with human resources to develop and bring focus to the leadership attributes that are most important to the organization, initiating leadership programs that target those attributes. Managers throughout the organization will need to be held accountable for identifying and helping to train future executives. This training should include not only instruction and mentoring, but also a constant feedback loop to ensure that long-range leadership goals are being met.
- **Globalize management talent:** True globalisation requires that leaders not just go, but also live where the action is. But, typically, many more executives live in an organization’s headquarters country than anywhere else, meaning that perspectives are formed and decisions are made in a single locality and cultural environment. Many executives in globalizing companies have concluded that even in an era when virtual collaboration is becoming widespread, organizations must maintain a physical, human presence in the regions that are critical to their operations. Distributing managers globally has the effect of distributing their diverse capabilities, values, and experience — thereby benefitting employees throughout the entire organization. And fostering diversity and multiculturalism in Beijing or Bangalore is just as important as it is in Boston or Brussels. Consequently, globally based organizations will need to be aggressive in

recruiting external management talent from outside their home region and also provide substantial incentives for executives to accept relocation assignments.

- **Welcome catalysts:** The people who catalyze collaboration in decentralized organizations often emerge spontaneously. They should be recognized and rewarded based on their contributions rather than their job titles. And after they have helped pull together a team and accomplished the objective, they should be allowed to move on to other challenges.
- **Allow employees to elect leaders:** Jeanne C. Meister and Karie Willyerd in *The 2020 Workplace* predict that “companies that encourage employees to elect their leaders will be seen as employers of choice, especially for team-oriented Millennials and Gen 2020s [also known as Digital Natives; refer to Appendix A]. Members of both generations have grown up with a collaborative mindset through their heavy usage of social networks and highly interactive video games. . . .Some companies are taking this a step further by experimenting with giving employees more influence in electing leaders.”<sup>50</sup> These elections can be based on polls or rankings, or employees may informally “elect” a leader by volunteering to follow a catalyst or team builder who gains influence through social networking.
- **Increase commitment with sponsorship.** Mentoring is universally regarded as an important contributor to female advancement, but a recent article in the *Harvard Business Review* points up an interesting distinction. “All mentoring is not created equal, we discovered. There is a special kind of relationship — called sponsorship — in which the mentor goes beyond giving feedback and advice and uses his or her influence with senior executives to advocate for the mentee. Our interviews and surveys alike suggest that high-potential women are over mentored and under sponsored relative to their male peers — and that they are not advancing in their organizations. Furthermore, without sponsorship, women not only are less likely than men to be appointed to top roles, but may also be more reluctant to go for them.”<sup>51</sup>
- **Make every employee a star:** The days of the CEO superstar who far outshines every other employee in the company may be numbered. In a virtualized organization where web values predominate, all ideas compete equally and thought leaders emerge from the ranks as they are needed. Gary Hamel foresees a time when “every employee will have a leadership score.”<sup>52</sup> In *Moon Shots for Management*, Hamel insists that “the traditional organizational pyramid must be replaced by a ‘natural’ hierarchy, where status and influence correspond to contribution rather than position. Hierarchies need to be dynamic, so that power flows rapidly toward those who are adding value and away from those who aren’t. Instead of a single hierarchy, there must be many hierarchies, each a barometer of expertise in some critical arena.”<sup>53</sup>

## Appendix A: Four Generations of U.S. Workers

Any attempt to capture the essence of a generation made up of millions of individuals can easily degenerate into stereotype and oversimplification. Nevertheless, demographers and social observers have discerned traits that characterize each of the four generations that will make up the U.S. workforce in 2020. Most studies have focused on the American population, but parallel generational affinities may be found in other countries as well, particularly in the economically developed parts of the world where similar historical and social factors are in operation.

Three generations dominate the U.S. workforce today. The Baby Boom Generation (born approximately 1946 to 1964) has assumed most senior-level positions from the retired and retiring G.I. (World War II) Generation and Silent Generation that came of age in the 1930s to early 1940s, and in the late 1940s to early 1960s, respectively. Some demographers find significant differences between the group of older “Boomers” who defined the youth experience of the late 1960s and a younger wave of Boomers who reached maturity in the mid-1970s and later, particularly the so-called “Tweener” group born in the early 1960s.

In addition, Generation X (born approximately 1965 to 1980) and the Millennial Generation, also known as Generation Y (born approximately 1981 to 1995), make up a major portion of current workers, and will constitute most of the full-time workforce by 2020 as the Boomers retire. And emerging as a labor force to be reckoned with will be the youngest group, commonly referred to as the Digital Natives (also known as Generation Next and Gen 2020, born after 1995), who have been immersed in wireless and Web 2.0 technology since childhood.<sup>54</sup>

In a recent *Harvard Business Review* article, Silvia Ann Hewitt, Laura Sherbin, and Karen Sumberg summarize the main differences, as well as some rather surprising similarities, among the three current working generations. The authors conclude that, “The combination of Generation Y [Millennials] eagerly advancing up the professional ranks and Baby Boomers often refusing to retire has, over the course of a few short years, dramatically shifted the composition of the workforce; each of these generations is roughly twice the size of Generation X, which lies between them. More important, Boomers and Gen Ys are together redefining what constitutes a great place to work. . . . They tend to share many attitudes and behaviors that set them apart from other generations. These shared preferences constitute a new center of gravity for human resources management.”<sup>55</sup>

Many observers predict that businesses will need to undergo dramatic transformations as Boomer executives give way to Gen X executives and the workforce fills with Millennials and Digital Natives who have their own values and ways of looking at the world. These businesses will also need to reformulate some of the cultural “glue” that holds them together. For example, Millennials and their younger Digital Native cohort are not so much suspicious of authority as they are oblivious to it. They tend to take their cues from those who gain influence through a process of group interaction, rather than from traditional leaders who accumulate power through organizational ladder-climbing. And what may look like a disruptive technology to a Boomer (that is, disruptive to the status quo) is likely to be part of a Digital Native’s natural environment. So, for example, organizations that think they are offering exciting state-of-the-art tools and resources to their employees may elicit yawns from young recruits who have already been using the same technologies for years.

## Appendix B: Defining Work and Working

Although there is much room for debate, most of us would characterize a traditional job in terms such as these:

- **Predefined:** In most organizations, a job is usually defined by its title, duties, and how it compares with similar positions in other organizations. New hires essentially assume the working roles created by their employers.
- **Hierarchical:** Jobs are slotted into hierarchies, represented graphically by organization charts, which emphasize reporting and status relationships. Control, discipline, and strategy typically flow from the top of the hierarchical structure to the bottom. Work *sharing* largely takes place laterally, among peers, whereas work *allocation* moves from the higher to the lower echelons.
- **Departmental:** Employees focus on their manager's agenda. To undertake responsibilities that do not come under the boss's purview, the employee often must either move to another slot in the organization or leave.
- **Local:** Most jobs are still tied to a physical location. If an employee works from home, the residence is usually located within reasonable commute distance of the primary work location.
- **Goal-oriented:** Employers gauge job performance according to how well the employee measures up to fixed goals set at predetermined intervals. Holistic elements such as personal attributes and informal contributions do not usually play a decisive role in the evaluation, nor does the ability to switch goals in midstream to meet unexpected challenges.

This traditional job profile has not really changed since the beginning of the Industrial Revolution, and most of its salient elements were in place long before that. However, numerous trends and historical forces are converging to create a "perfect storm" of change that is sweeping the global labor market. As a result, many of the attributes described previously are being questioned.

Is the traditional job becoming obsolete? To answer that question, we need to look at the elements that constitute a job from the point of view of a job candidate. Table B1 presents these elements in terms of the "what, how, who, where, when, and why" that job candidates consider when seeking a position.

What	How	Who	Where	When	Why
<ul style="list-style-type: none"> <li>• Title</li> <li>• Responsibilities</li> <li>• Influence</li> <li>• Prestige</li> </ul>	<ul style="list-style-type: none"> <li>• Personal expertise</li> <li>• Tools</li> <li>• Interactions</li> </ul>	<ul style="list-style-type: none"> <li>• Manager</li> <li>• Coworkers</li> <li>• Immediate reports</li> <li>• External contacts</li> </ul>	<ul style="list-style-type: none"> <li>• Primary location</li> <li>• Workplace environment</li> <li>• Travel obligations</li> </ul>	<ul style="list-style-type: none"> <li>• Hours or days worked</li> <li>• Vacation or time off</li> </ul>	<ul style="list-style-type: none"> <li>• Remuneration</li> <li>• Benefits</li> <li>• Job security</li> <li>• Challenge or creative potential</li> <li>• Promotions or career advancement</li> <li>• Learning opportunities</li> <li>• Benefits to society</li> </ul>

**Table B1. Aspects of a Job**

Complicating the picture, researchers find that the degree to which job candidates consider and value these factors tends to vary according to their age, background, industry, and nationality. But even though security and stability have reemerged as major concerns during the current economic downturn, traditional inducements such as base salary, benefits, potential for career growth, and various status markers have already given ground to lifestyle-oriented preferences such as location, workstyle, free time, and travel obligations. However, employees in some cultures may still deem titles and status-enhancing promotions important if they are heavily influenced by the traditionalist expectations of their elders and neighbors.

## Appendix C: What the Futurists Think

In a 2007 review of futurist literature<sup>56</sup> sponsored by WorldatWork, an organization with nearly 30,000 members in more than 100 countries, the authors identified eight critical factors that will affect the ability of organizations to attract, motivate, and retain workers in the future. They found a “remarkable consensus” among the futurist authors they surveyed:

- Successful organizations will excel at acquiring, organizing, and strategically deploying global resources.
- There will be increased global connectivity, integration, and interdependence in the economic, social, technological, cultural, and political spheres.
- Technology will advance at a more rapid pace than in previous decades.
- There will be continuous, dramatic changes in the labor force.
- Human capital will become an even greater source of value.
- The way work is organized and performed will evolve and change continuously.
- Outsourcing will increase.
- Self-paced, self-directed, individualized virtual learning will dominate business training.

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## End Notes

- <sup>1</sup> "It is the business of the future to be dangerous; and it is among the merits of science that it equips the future for its duties." Alfred North Whitehead, *Science and the Modern World*, 1925.
- <sup>2</sup> Marshall McLuhan (1911–1980) was a seminal figure in media studies and has been called "the father of the electronic age." He coined the phrases "the medium is the message" and "global village." Refer to *The Gutenberg Galaxy: The Making of Typographical Man*, London: Routledge & Kegan Paul, 1962; "The new electronic interdependence recreates the world in the image of a global village." See also McLuhan, *Understanding Media: The Extensions of Man*, McGraw-Hill, 1964; and McLuhan and Quentin Fiore, *The Medium Is the Message: An Inventory of Effects*, Bantam Books/Random House, 1967.
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- <sup>15</sup> The study was published in the *Proceedings of the National Academy of Sciences*, August 24, 2009. A summary is available here: <http://news.stanford.edu/pr/2009/multitask-research-release-082409.html>.
- <sup>16</sup> A summary of the study is available at <http://www.towerswatson.com/global-workforce-study>.
- <sup>17</sup> By way of confirmation, a Gallup Poll in April 2010 showed that the percentage of U.S. respondents who believe they have relatively strong job security is at its lowest level since Gallup began asking the question in 1975. "Evidently, the downturn in layoffs has not been good enough to make many Americans feel secure in their present jobs." <http://www.gallup.com/poll/127511/in-U.S.-Fear-Job-Loss-Double-Pre-Recession-Level.aspx>.
- <sup>18</sup> Regarding disengagement, refer to "Maintaining the Employee Value Proposition," *Business Week*, July 31, 2009: "Employee disengagement continues to be a critical issue across a wide variety of organizations as they work through the economic downturn. One out of four employees was disengaged at the end of the first half in 2009, according to a survey of over 61,000 employees by The Corporate Leadership Council, a program of the Corporate Executive Board. One of the main causes of this disengagement is directly linked to the massive change employees have experienced when it comes to their employment value proposition (EVP) — or the value that employees gain by working for a particular organization. Eighty-two percent of employees indicated that their EVP has trended downwards quite dramatically in the past six months due to reasons such as layoffs, organizational restructurings, and shifts in managers."
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- <sup>22</sup> Byron Reeves and J. Leighton Read, *Total Engagement: Using Games and Virtual Worlds to Change the Way People Work and Businesses Compete*, Harvard Business Press, 2009.
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