As Disruptive Forces Reshape the Workplace, Leaders Must Collaborate to Build Workers’ Future Skills

By Leslie A. Miller, Ph.D., PHR

Global connectivity, smart machines, and new media are just some of the factors reshaping how we think about work, what constitutes work, and the skills we will need to be productive contributors in the future. Mobile devices and cloud computing have freed workers from their desks and allow many to work in virtual environments where they may never see their colleagues face-to-face. Massive amounts of data are now available for mining; an estimated 281 exabytes, or 281 billion gigabytes, of data were created in 2008, compared to 161 exabytes in 2006 (Gantz et al., 2008). User-friendly platforms allow consumers to easily produce and distribute various forms of media, including websites, blogs, videos, photography portfolios and animated films—creating the expectation that employees will be proficient in such forms of communication. Advances in telecommunication means that corporations have become truly transnational: a firm may perform its research and development in one country, its manufacturing in another, and its business operations in a third. Smart machines now perform many jobs that once consisted of network or manual labor; in the absence of these repetitive tasks, employees are now increasingly required to develop their more uniquely human capacities.

These trends combine to produce disruptions that will significantly redefine the skills workers will need to remain competitive in the future. The landscape of work is changing, and individuals, educational institutions, industry leaders and policymakers should consider how to adapt quickly in response.

**Research Pinpoints Future Job Skills**

To better understand future work skills and the implications for workforce development, the University of Phoenix Research Institute sponsored research by the Institute for the Future, a nonprofit research group with more than 40 years of forecasting experience, to identify emerging disruptive forces and what these drivers of change portend for the skills that will be critical for workforce development. The institute co-hosted an expert workshop where futurists in such areas as technology and social media, together with thought leaders from Stanford University, IBM, Disney, Right Management/Manpower and other organizations, discussed emergent trends in their fields and the skills workers will need to thrive in a changing workplace. Based on the workshop outcomes and the Institute for the Future’s Ten-Year Forecast—an annual research program that anticipates the big disruptions and innovations of the next decade—the Institute for the Future developed a report outlining six drivers of social and industrial change and the 10 skill areas that will likely be most relevant to the workplace of tomorrow.

The report identified six drivers, or disruptive shifts:

- **Extreme longevity.** Americans are living longer, retiring later, and adopting new career paths in middle age. Meaning education is now important throughout the lifespan.
- **The rise of smart machines and systems.** In many professions, new technologies are making rote tasks and manual labor obsolete. To remain employable, workers will need to develop higher-order thinking skills.
- **A data-driven world.** The increase in computers’ processing power has made it possible to access and analyze massive amounts of data. Once-hidden patterns in such phenomena as diseases, weather and traffic congestion are now visible.
- **New media.** Visual, audio and virtual media are beginning to supplant traditional text based media.
- **Superstructured organizations.** New technologies and social media platforms have opened the way for collective intelligence based on virtual social connections.
- **Globalization.** The United States and Europe no longer hold a monopoly on job creation, innovation and political power. Developing countries, especially China and India, are rapidly expanding their technological and research capacities.

“As these forces reshape our expectations of workplace success,” says Dr. Tracey Wilen-Daugenti, Vice President and Managing Director of the University of Phoenix Research Institute, “lifelong learning will no longer be merely a choice, but a necessity to remain employable in the future.” The research identified 10 skills that will be critical for success in the workforce:

- Sense-making: determining the deeper meaning or significance of what is being expressed
- Social intelligence: connecting to others in a deep and direct way and responding to their emotional cues in a thoughtful and sensitive fashion
- Novel and adaptive thinking: creating new solutions and ideas beyond that which is rote- or rule-based
- Cross-cultural competency: operating effectively in different cultural settings
- Computational thinking: translating large amounts of data into abstract concepts
- New-media literacy: critically assessing non-text-based media and developing new-media content for persuasive communication
- Transdisciplinarity: understanding and communicating across multiple disciplines
- The design mindset: becoming adept at recognizing the kind of thinking that different tasks require and making adjustments to the work environment to enhance workers’ ability to accomplish tasks
- Cognitive load management: sifting large amounts of information to eliminate “noise” and focus on what is most pertinent
- Virtual collaboration: working productively with others who are not physically present

The Future is Already Here

The drivers identified in the report are already having an effect on the workplace. Many recruiters and human resources professionals realize it is no longer enough to merely match applicants’ skills and experience with certain jobs, as skill requirements are changing so quickly. Instead, they look for individuals who are cross-functional, innovative and willing to learn new skills. The consulting firm IDEO, for instance, seeks “T-shaped” employees: those with deep skills and knowledge in one area (the shaft of the “T”) and breadth in many others (the crossbar of the “T”) (Wheeler, 2010).

Study Has Broad Ranging Implications

The study findings have far-reaching implications for society. For example, to be successful in the next decade, individuals will need to demonstrate foresight in navigating a rapidly shifting landscape of skill requirements. They may need to continually reassess the skills they need and quickly put together the right resources to develop and update their skill sets.

Educational administrators will need to take future skills into account when resequencing curricula. “Colleges and universities bear a responsibility to adapt to the changing needs of the workplace,” says Wilen-Daugenti. “To best prepare students for the jobs that will be available in the future, educators need to anticipate emerging trends and reconsider the kind of skill development they are promoting.” Some ways educators can help equip students with more relevant skill sets include integrating new media literacy into education programs; including more experiential learning to give prominence to soft skills such as reading social cues and responding adaptively; and placing more emphasis on developing skills such as critical thinking, insight and analysis capabilities. Educational institutions should continually collaborate with businesses to identify next generation skill needs and integrate workplace skills into academic degree programs.

Businesses, too, need to remain cognizant of the changing landscape and adjust their workforce planning and development strategies to ensure alignment with future skill requirements. They may want to reconsider traditional methods for identifying critical skills, enhance development programs to increase employees’ skills in key areas, and partner with colleges and universities to address industry-specific skill requirements, especially for developing a pipeline of qualified workers.

Government policymakers can facilitate the effort to prepare our nation for the future by collaborating with leaders in business and education to identify and achieve tangible goals and outcomes for the U.S. workforce. “President Obama has acknowledged the need for America to produce 8 million more college graduates to meet workforce demands by 2020,” says Wilen-Daugenti. “Now individuals, higher education administrators, business leaders and policymakers must all take a leadership role to make educating our workforce a shared national priority.”

Attend Future Skills Webinar for More Information

On April 27, 2011, the University of Phoenix Research Institute and the Chronicle of Higher Education will host Future Work Skills: 2020. This complimentary webinar will feature an expert panel of researchers and leaders from business and higher education. Register at chronicle.com/webinars/universityofphoenix4.

To learn about current and upcoming studies, visit the University of Phoenix Research Institute at phoenix.edu/institute or subscribe to its newsletter by e-mailing institute@phoenix.edu.

References


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