Automation, remote workers, and the resulting new technology requirements are creating large skills gaps in enterprises today, forcing organizations to rethink what skills their employees will need in the future. This paper discusses the growing need for personalized digital upskilling and associated new technologies to improve training.

The Business Value of Workforce Upskilling

June 2021

Questions posed by: PwC

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Q. Why has the need for digital upskilling become such a hot-button topic for most companies today?

A. The pace of change in the world of work has increased dramatically, especially during the pandemic. Two main factors are driving this acceleration: emerging technologies that can supplement human skills driving automation and new role requirements and the need to provide new skills training to existing and incoming employees to serve individual and organizational needs. Aligning talent skills with organizational goals will drive business success.

Several dynamics are at work in the current enterprise environment. Technology adoption continues to increase to meet the needs of home-based workers. Workspace automation is also on the rise as more employees are working remotely, partially in an office (hybrid), or "from anywhere." As we emerge from one phase of the pandemic, the war for talent is heating up just as the need for new organizational skills reaches a fever pitch.

As a result, we're seeing a huge gap between the skills needed to run an organization and the number of workers who have those skills. According to *IndustryWeek*, as many as 2.4 million jobs will likely go unfilled over the next decade. This could jeopardize as much as $2.5 trillion of economic input during that time.

These skill shortages span all industries, but manufacturing in particular is seeing a tremendous deficit of technical skills. People in existing roles often don't have the necessary skills to do the more modern work their industry now requires. Manufacturing executives are already feeling the impact of the talent shortage and anticipate that the skills gap will increase as much as threefold over the next three years, largely due to the time required to fill skilled positions. It's difficult to use open market services, and it's expensive to find qualified people.

Over half the respondents in IDC's recent *Future of Work Survey* said it is very or extremely hard to recruit top talent with critical skills. These skills include both short half-life technical skills and more difficult-to-master human skills such as critical thinking, collaboration, creative thinking, and communication. According to the World Economic Forum's *Future of Jobs Report 2020,* the challenges to finding top talent will become only more pressing. This talent crisis suggests it's better to be able to "build your own bench" by training current employees in all needed skills; the industry refers to this as "upskilling."

Q. What are the biggest challenges companies have in closing skills gaps, and why haven't organizations started their journeys?

A. The emergence of automation and new job requirements is making companies realize they need workers with new skill sets. In this "Fourth Industrial Revolution" — where we're seeing a much more comprehensive fusion of the human, physical, and digital worlds — it's really hard to determine the required skills. In the *Future of Jobs Report 2020*, the World Economic Forum estimates that by 2025, as many as 85 million jobs could be impacted by a shift in the division of labor between humans and machines. But the report also predicts that 97 million new jobs might emerge that fit this new division of labor.

Most major companies are spending millions annually looking for qualified people. But they don't really understand the scope of the problem. If you don't know what skills you need, how can you begin? You need to identify where the biggest gaps are in critical positions, understand what resources and skills you already have, and then figure out what you need to add to achieve business goals.

It's critical for organizations to know what they need and then determine whether to hire new talent or upskill current employees. Research shows that it's more effective to train the talent you have. IDC's Digital Resiliency Framework shows high levels of correlation between training and actual business performance. We also found that a culture of continuous learning — with an emphasis on upskilling built into the flow of work — helps organizations prepare for the current business environment. Unfortunately, only 14.3% of organizations globally feel "very prepared" to meet the required continuous learning needs.

Q. What functions and roles of an organization are being impacted by digital upskilling?

A. Virtually every job has some digital component, so the need for digital upskilling affects all positions, roles, and functions throughout an organization. Technical and STEM skills are in highest demand. According to the job posting forum Indeed, 12 of the top 20 desired skills for 2021 are technical. These skills include expertise in cloud computing, artificial intelligence (AI), analytics, mobile app development, audio and video production, and industrial design.

As technologies such as AI, machine learning, and natural language processing become more ingrained in everyday work life and system development, organizations will need to determine what human skills are required to take full advantage of these new solutions. For instance, AI can create a tailored, personalized employee journey for a worker, but if management doesn't know how to read the analytics created or interpret results to understand organizational and individual trends, then the organization won't benefit from the additional information.

By empowering staff to use these new technologies, companies can manage their data better, streamline their internal operations, make data-driven decisions, and improve delivery to their customers.

Q. Where do most solutions today fall short in delivering on the upskilling promise?

A. As organizations realize they need new skill sets, they're looking into how to train their workers. According to IDC's annual *HR Executive Survey,* more than 70% of organizations plan to increase their use of virtual learning to emphasize upskilling. However, many of the selected or planned solutions to deliver skills training are basic learning management systems (LMSs) or learning experience platforms (LXPs) that push out course content for employees on demand. Successful upskilling programs should identify a personalized approach that enables workers to build on their existing skill sets for specific roles. Offering content is great, but organizations need to identify where their biggest skills gaps exist within their workforce and what business-critical roles they need to fill.

Newer technologies use machine learning and AI to scan the workforce and external sources to understand what is needed in the organization to align existing and needed skills with business objectives. They identify where the gaps are and which individuals might be interested in adopting more skills and then push the curated personal upskilling path to the individual. Instead of a rudimentary "hunt and peck" approach to learning initiated by the employee, the accumulated insight into employees, industries, and technology trends can be used as a strategic tool that does more than just feed information to workers. Leadership teams and staff can take a more holistic view of training and employee progress. These solutions also can enhance the work experience itself by providing learning relevant to both individuals and the enterprise. It's a win-win.

More specifically, a skills-based approach uses algorithms to enable a personalized, relevant experience for leaders, administrators, and learners. Such a platform can deliver precise skills mapping that enables robust, individualized learning pathways that empower employees to learn the skills that can elevate an organization's digital acumen. When organizations can identify skills gaps, they can start to close them with highly tailored learning paths that guide employees through upskilling. The experience can leverage content and courseware relevant to their function, providing employees with opportunities to increase their skills and earn credentials.

In addition to content and courses, business leadership should also provide protected time not just for content consumption but also for practicing newly acquired skills. Opportunities to earn credentials can be a part of those efforts. This approach adds value for both the employee and the enterprise. People learn relevant skills they can apply to their everyday work, and employers benefit from their staff's boosted digital acumen. When employees choose programs that offer practical application experiences, the entire organization can reap the benefits.

Q. What are the benefits and ROI that companies can achieve if they are successful in upskilling their workforce?

A. A basic learning management system just serves up content that you might ask for, but a skills-based approach knows what you and the company need and provides the required tools to meet those needs. The benefits associated with this approach are part of the employee experience and correlate to organizational resilience. Workers feel good when their company invests in them, and education and training is one way an organization can demonstrate that investment. Such investment often translates to more loyalty, trust, and commitment to the purpose and mission of the organization. Employee education and training is not just a feel-good exercise; when people are engaged with their employer, they are happier at work and tend to perform better, with increased productivity. A stronger organizational culture that maximizes employee development and skill enrichment improves employee retention and overall performance and has a huge positive impact on customer satisfaction.

A culture of mutual trust lowers turnover and talent acquisition costs — and the price of turnover is high. According to the Society for Human Resource Management (SHRM), the cost of replacing a skilled employee is 1.5 times to 2 times the employee's annual salary, so it makes good business sense to strive for retention. Further, IDC research shows that loyal employees typically plan to stay with their employers 6–10 more years than other employees. The result is an upskilled, loyal workforce that better meets the needs of the business.

About the Analysts

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