

Adapting to the Next Industrial Revolution – Whose job is it to upskill employees?

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Introduction

The concept of the “next” industrial revolution is based on the idea that we are witnessing a convergence of technological innovations such as artificial intelligence (AI), the internet of things, advanced robotics, and so on. Recent developments in AI appear to be a natural progression of information and communication technology. Much current observation on the impact of technological change on the labour market and on business models is articulated against the background of the notion of the next industrial revolution ([Schwab 2016](#)). The demand for advanced information Technology (IT) and programming skills is increasing at a much faster rate than the supply of skilled workforce. The future also holds a high demand for advanced cognitive skills, greater creativity, critical thinking, and complex information processing as well as advanced communication skills.

This revolution brings into our focus the critical issue of the extent to which workers are losing jobs now, how technologies are changing occupations, and the quality of work and skills required. As suggested by ([Bughin et al. 2018](#)) in the next ten to fifteen years, the transformation of the workplace is inevitable as human-machine interaction increases. The question stemming from these changes is whose responsibility it is to assist displaced workers in finding new work in the emerging order of work; and what policies, strategies, and programs should be developed for employment assistance in these circumstances? The aim of this short article is to explore the role of organizations in upskilling employees to adjust to the kaleidoscopic landscape of the next Industrial Revolution.

Automation and the changing landscape of the workforce

Currently, there are several emerging and potentially disruptive technologies that could unexpectedly displace an established technology and modify workplace practices. Some of the evolving technologies that are believed to make the biggest impact in the next five years are 5G technology, unsupervised machine learning, robotic accuracy and automation, intelligent tech revolutionizing security, connected telehealth solutions, and virtual reality. These changes will necessitate an extraordinary transformation in which a sizable portion of the workforce will be

required to seek out and adapt to non-routine employment. The World Economic Forum anticipates that 85 million jobs will be lost, and 97 million new ones will be generated across 26 nations by 2025 ([Future of the Jobs Report 2020](#)). This clearly indicates that new digital and automation technologies are causing a significant industrial transformation and a wide-ranging disruption to people's working lives. Moreover, these innovative technologies will lead to redundancy of employee skills as the tasks previously performed by people can be automated.

This indicates that improving employees' competencies and skills is crucial to adapt to changing needs stemming from technological advancement. The combination of skills required in modern societies is becoming increasingly complex and will continue to change along with the evolution of a workplace increasingly saturated with innovative technology. It is forecast that the workers performing simple manufacturing tasks might suffer from job loss because of automation. The demand for basic cognitive abilities as well as physical and manual abilities will decrease. Also, the future of qualified workers performing complex tasks is uncertain and thus requires them to improve their professional qualifications. The key skills that employees need to develop because of technological advancement are the development of digital literacy skills, the ability for knowledge sharing and cooperation for problem-solving, creative thinking skills, and having an ability for lifelong learning within the framework of early education to upskill future generations ([Bughin et al. 2018](#))

[Ellingrud, Gupta, and Salguero \(2020\)](#) reported that most business leaders indicated their unpreparedness for this challenge, and there are three main barriers they are facing to tackle this skill issue. Firstly, lack of a clear understanding of how future automation and digitalization will affect skill needs. Secondly, they lacked the skills or knowledge to quantify the business case for reskilling. And thirdly, their present HR infrastructure cannot implement a new strategy to meet developing skill shortfalls. To fully use modern technology, the leaders will need to restructure their organizational structures and labour practices. This transformation will necessitate a renewed emphasis on the talent they now possess—and the talent they will require.

Upskilling employees- who is responsible?

Business leaders need to be on the winning side of these changes. They can do that by being the early adopters or innovators or by turning a disruptive threat into an opportunity. Businesses may overcome talent shortages in a variety of ways. According to a survey conducted by [McKinsey \(2020\)](#), one of the most reported tactics around the globe is exploring outside the organization for qualified candidates. However, organizations are also developing skills internally by retraining current employees to prepare them for new responsibilities. This can be done either by upskilling, in which employees acquire new skills to assist them in their existing tasks, or reskilling, in which employees acquire the competencies necessary to take on different or altogether new roles. Alternatively, businesses can employ a hybrid strategy, which includes utilizing skilled contract labour to meet immediate demands while acquiring the required capabilities internally ([Ellingrud, Gupta, and Salguero, 2020](#)).

Upscaling the employees' skills make a lot of sense as it has been demonstrated that hiring from outside the organization costs six times as much as retraining an employee inside the organization ([Joshbersin, 2019](#)). Additionally, employees are interested in upskilling to remain relevant in an ever-changing business – particularly now that unemployment has reached historic lows. Developing the internal workforce is not just a recommendation but a need as it is a crucial step for economic recovery. The good news is that certain reskilling investments are already underway. Organizations such as Amazon (Re: Skill), Google (Grow with Google), Microsoft (through LinkedIn reskilling), and Salesforce (Trailhead) have all made financial commitments and launched new programs to upskill their workforces. They are committed to retaining employees even as recent technologies displace existing jobs. Additionally, this investment and dedication to developing employees acts as an excellent strategy to enhance company image and increase market support, even if it is not done for that goal ([Forbes 2020](#)). Sustaining coordinated efforts and initiatives made by each organization towards their employees' growth will assist us in avoiding the worst effects of the growing economic crisis and ensuring a more resilient and stable labour market.

Conclusion

The next Industrial Revolution presents both opportunities and problems as it will transform the way work is done. The coming wave of technological disruptions has created the need for new business models and the need for significant modifications to the existing ones. The competitiveness of future organizations will be driven by their ability to integrate data-driven and integrated work processes and the capacity to address the skill gaps in their workforces.

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