

Future Workforce - Technology Disruption and Challenges Ahead

Partha Chowdhury

Abstract

We are living through a fundamental transformation in the way we work. Automation and 'thinking machines' are replacing human tasks and jobs, and changing the skills that organizations are looking for in their people. These momentous changes raise huge organizational, talent and HR challenges – at a time when business leaders are already wrestling with unprecedented risks, disruption and political and societal upheaval. The pace of change is accelerating. Competition for the right talent is fierce. 'Talent' no longer means the same as ten years ago; many of the roles, skills and job titles of tomorrow are unknown to us today. How can organizations prepare for a future that few of us can define? How will your talent needs change? This isn't a time to sit back and wait for events to unfold. To be prepared for the future you have to understand it. In the next ten to 15 years, the adoption of automation and AI technologies will as people increasingly interact with ever-smarter machines. These technologies, and that human-machine interaction, will bring numerous benefits in the form of , GDP growth, improved corporate performance, and new prosperity, but they will also change the skills required of human workers. Adaptability of the workforce in the era of technological disruption and innovation is a major challenge to the organization and its people.

Prologue

The future of work as well as the workforce is facing tremendous challenge driven by technology, automation, artificial intelligence (AI) globalization, demographics, social values, and the changing personal expectations of individuals , in particular the Millennials. The intersection of these forces has already had an effusive impact on the talent landscape, disrupting business models and challenging the business leaders as well as the institutions that support the workforce. The shape that the workforce of the future takes will be the result of all these complex, changing and competing

forces. Some of these forces are certain, but the speed at which they unfold can be hard to predict.

Automation, robotics and AI, Big data Analysis are advancing quickly side by side dramatically changing the nature and number of jobs available. Technology has the power to improve our lives, raising productivity, living standards and average life span, and free people to focus on personal fulfillment. But it also brings the threat of social unrest and political upheaval if economic advantages are not shared equitably.

Partha Chowdhury, Life Member, NIPM, Kolkata. E-mail:partha8000@rediffmail.com

The world's population is ageing, putting pressure on business, social institutions and economies. At the same time our longer life span will affect business models, talent ambitions and pension costs. Older workers will need to learn new skills and work for longer. 'Re-tooling' will become the norm. The shortage of a human workforce in a number of rapidly-ageing economies will drive the need for automation and productivity enhancements.

The rapidly developing nations, particularly those with a large working-age population, that embrace a business ethos, attract investment and improve their education system will gain the most. Emerging nations face the biggest challenge as technology increases the gulf with the developed world; unemployment and migration will continue to be rampant without significant, sustained investment. The erosion of the middle class, wealth disparity and job losses due to large-scale automation will increase the risk of social unrest in developed countries.

Demographic upheavals have made the workforce younger and older, as well as more diverse. Millennials now make up more than half the workforce. They expect a mobile work environment, are fueling the new "freelance economy," and will spend no longer than two years with any employer on average. This "loyalty challenge" is driven by a large variety of factors. Millennials feel under utilized and believe they are not being developed as leaders. They bring high expectations for a rewarding, purposeful work experience, constant learning and development opportunities, and dynamic career progression.

Digital technology is now everywhere. Technologies such as smart mobile devices, 3D printing, sensors, cognitive computing, and the "Internet of Things" are changing the way companies design, manufacture, and deliver

almost every product and service. In parallel, digital disruption and social networking have changed the way organizations hire, manage, and support people. Further, the rise of social networking tools and apps leave companies more transparent and open to its stakeholders. The rate of change has become so fast tracked that requires companies to be more agile as well as ready to be embraced to change in a much faster pace that ever thought of in the last decade. Rapid business-model innovation from companies such as Uber, Amazon and others are forcing organizations to respond and reposition themselves quickly to meet new challenges and to survive in the competitive environment. The virtual model of employment is gradually evolving. Innovative business models are being created and are getting success.

One significant change being seen as a result of the "internet of everything" is the increased number and use of contingent freelance workers (people who make a living working without any formal employment agreement) Today, more than one in three US workers are freelancers-a figure expected to grow to 40 percent by 2020. One of the drivers for this is cost (with some companies opting to pay purchase orders instead of salaries), and another is talent supply, with people not wanting to relocate or travel for work or simply preferring to be engaged remotely or temporarily. There is also a generational shift taking shape as the concept of once looking for the career ladder or career trajectory is fast giving way to the Millennial's desire for the "career experience." Loyalty to one long-term employer is a long gone concept.

Era of Social Contract ? Enter Gig Economy!

A new social contract is developing between companies and workers, driving major changes

in the employer-employee relationship. The days when a majority of workers could expect to spend a career moving up or across the corporate ladder at one company are over. Young people anticipate working for many employers and demand an enriching experience at every stage. This leads to expectations for rapid career growth, a compelling and flexible workplace, and a sense of mission and purpose at work. In addition, contingent, contract, and part-time workers make up almost one-third of the workforce, although it is worth noting that many companies lack the human resource/talent practices, culture, or leadership support to manage this new workforce.

Understanding the impact of the gig economy, robotics, and cognitive technologies and their impact on education, skills, and career development will be crucial to ensuring countries are able to manage risks and opportunities presented by workforce dynamics for inclusive economic growth. Businesses will need to focus on and articulate the capabilities and skills they will need, now and into the next five to ten years. Government, business, and society need to work together to support a dynamic workforce who will be able to adapt quickly to reskill and upskill, unlearn and relearn. This means revisiting education, career models, and approaches to life-long learning and work, regardless of geography, and innovating public-private partnerships.

Business Implications

Companies are struggling to understand of whom (and what) their workforces are composed and how to manage today's incredibly diverse combination of employee types, including employees on and off the balance sheet as well as part-time, contingent, and virtual workers. Across all organizations, industries, and geographies, a new work and social contract

is emerging. New regulations that mandate pay for overtime, increase the minimum wage, and tighten rules for part-time status are becoming more important than ever, with a growing public policy debate over how to regulate and measure new labor models. Many human resource teams struggle to translate these new realities into attractive and cost-effective workforce practices that comply with government regulations.

Lifelong learning and serial careers, while not yet the norm, are taking off. Many organizations are struggling to adapt to these challenges, although high performing companies are seizing the opportunity to promote a new culture of learning, upending traditional models and transforming how employees learn. These organizations are adopting new mind-sets, fundamentally rethinking what "learning" and "development" mean in the context of their business. They place the employee at the center of a new architecture and new vision that treats learning as a continuous process, not an episodic event, and as a company-wide responsibility, not one confined to human resource departments.

Looking ahead, future businesses will need more skills, including digital knowhow, management capability, creativity, entrepreneurship, and complex problem solving.

Role of Business Leaders

In the age of artificial intelligence (AI), business success will increasingly depend on people and machines collaborating with each other. AI will elevate people's capabilities as workers help intelligent machines to learn and improve. This will not only drive efficiencies, but create new forms of growth and innovation. To succeed, organizations must reimagine work, pivot their workforce to new growth models and 'new skill' their people to do more valuable work. In the future, leaders might not, metaphorically

speaking, be able to 'touch and feel' the workforce or have the ability to monitor the way they work on a daily basis. They might operate entirely remotely, using even more advanced technology and demand to be judged on their contribution rather than the process of doing work or how many hours of facetime they put in.

Business leaders should consider the following steps to create a future workforce in which the humans and intelligent machines work together to improve productivity, innovation and growth.

A. Reimagine work

- ✦ Assess tasks - not jobs. Allocate work to machines and people, balancing the need for automation and augmentation.
- ✦ Create new job roles. Free people from function roles and build agile, project-based teams.
- ✦ Map skills to new roles. Assess internal capabilities required for new roles. Then match to existing skills or source new talent.

B. Pivot the workforce

- ✦ Pivot the workforce to new business models. Orientate teams to support new customer experiences.
- ✦ Recognize the business case. Use automation to fuel growth by reinvesting savings in the future workforce.
- ✦ Organize for agility. Create flexible processes; manage the workforce to support both the core business and the new.
- ✦ Foster a new leadership DNA. Cultivate leaders at all levels to help pivot the workforce to new growth models.

C. Scale up new skilling

- ✦ Prioritize skills for development. Strike the

balance between technical, judgment, and social skills.

- ✦ Target 'new skilling.' Cater to different levels of skills and willingness to learn.
- ✦ Go digital. Use VR, AR and AI to accelerate the speed and scale of effective training.

Attributes of the future workforce

We foresee that our working future will see boring tasks increasingly automated, leaving workers to take on more stimulating jobs that require more thought and attention. An exciting prospect, but one that demands an up-skilled workforce to deliver on this prediction. For hirers, this means innovation and invention around recruitment, resourcing and retaining staff.

The rise of the freelancer - We could foresee that more of us could be freelancing or contracting for multiple employers in the future, moving away from honing a particular skill set. We can also presume that our working life will consist of multiple careers and multiple job changes.

Disruptive innovation - will continue to change the way existing industries operate; like how Uber, Airbnb and Amazon have disrupted their respective sectors. Technology will make work more transactional and employees will need to embrace change and become more entrepreneurial. Those who do may find themselves freed from the traditional working structure as jobs will move away from the Monday to Friday, 9-5 model.

Soft skills - Soft skills, or interpersonal skills, will gain importance. Skills like empathy will allow us to be flexible. We also need to focus on increasing our management, HR and organizational behavior skills and paying more attention to how we interact with those around you.

A flexible attitude to training - Employees will need continual and self-driven training to ensure they keep abreast of changes in their industry and technology.

Technology dependent - Unsurprisingly, jobs will become more technology dependent. All of us need to embrace upon computer literacy & Technology updation to ensure we stay on top of these changes to survive in the competitive environment.

More interesting and specialized work - As technology advances and our computers relieve us of the repetitive tasks associated with our jobs, we will be freed to do more interesting and specialized work. This can only be a positive, as we know satisfaction and loyalty increases with deeper job engagement.

Conclusion

While concluding, we are seeing paradigm shifts impacting the future of the workforce. The gig economy and robotics and cognitive technologies are changing the structure of how labor is accessed by companies, and organizations are moving to include sources of talent beyond those on the balance sheet. The nature of jobs and work itself is changing at the same time robotics and cognitive technology is

creating a world where many employees will work with and collaborate with robots and learning machines. The major development will be the need for lifelong learning and serial careers. Key to this is the criticality of new learning models and institutions, which are catching up with technology, and the morphing and changing of careers by employees.

We are seeing a heightening of tension between globalization and protectionism, which impact the movement of people and therefore skills needed to service economies. The context for the future may be diverse, but it is far from certain. Lastly this all leads to societal implications that extend to culture-ways of living, hours spent at work, income distribution- and we must be aware of these implications and avoid fueling greater inequality within our economies.

The shape that the workforce of the future takes will be the result of complex, changing and competing forces. Some of these forces are certain, but the speed at which they unfold can be hard to predict. Regulations and laws, the governments that impose them, broad trends in consumer, citizen and worker sentiment will all influence the transition toward an automated workplace. The outcome of this battle will determine the future of work in 2030.



"Every good conversation starts with listening."

Tom Haak