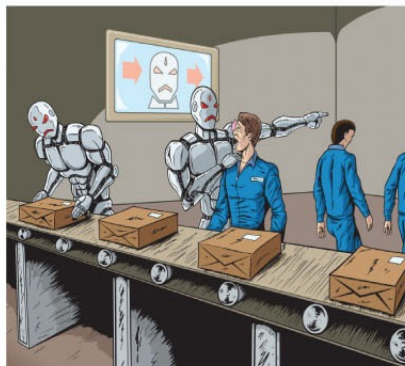


**N→xtBigWhat**

**TECH Of Machines and Humans : Morph or Die**



Robots eating away jobs?

Humans have another competitor in life these days. Machines.

The recent trend of machine learning in the Information Technology (IT) sector, as reported widely in the media, may be a cause for alarm, concern, and uncertainty. Yet, could there be a solid lesson to be learnt by both professionals and students alike? Is there something fundamentally wrong that we are assuming about the knowledge and skills we acquire?

The answer to both questions is a resounding “yes”. That’s why many visionaries propose that we now live in an era of “Digital Darwinism”. The theory of evolution posits that homosapiens are a result of several unlearned processes—the tail is one such—but we evolved biologically over millions of years. Over time, humans also relearned their utilitarian life without tails. In our digitizing world, however, our brains and our practices are evolving in highly compressed time. Disruption is the norm in today’s professions. In the information age we live in, processes, products, and services need the kind of innovative practices that demand each professional to not merely apply prior learning, but to use previous education to develop new disruptions. This means that a professional must be a perennial student, often self-trained to research, think, and innovate. More demanding is the challenge that the skills we learnt must constantly be unlearned.

While not all unlearning needs to be so paradigmatic in nature, unlearning’s fundamental principle is that our existing skills need a re-examination under a new environment. For example, what is the biggest challenge that confronts our IT professionals today? Is it the perceived threat of automation? Yet, for example, if robots are a threat to human endeavour, the opportunities in judgment-based, human interaction-based, and creative components can never be replaced by them.

*Machines understand that we live in a many-to-many, multidirectional transactional world. Many of us humans, though, still operate on a more conventional ‘operating system’ in our minds.*

Gartner’s Digital Trend Spotter in 2017 ranks the most popular trends in learning, applying, and developing, including: Machine learning, intelligent apps, intelligent things (such as robots, drones, autonomous vehicles), virtual/augmented reality, and digital twins (models of physical things). The industries that will grow most tech-enabled are logistics, healthcare, electricity, automotive, and consumer goods. By as early as 2019, 40% of IT projects will create new digital services and revenue streams.

Yet it is human interaction that will prove to be a big differentiator in tomorrow’s professional universe, while using automation for backend work. Take, for example, the verticality of social media marketing. I consider this a quintessential combination of automation and human endeavour—the automated use of big data and their bots-enabled mining triggers the very human skill of storytelling. Storytelling has not been on top of any school’s curricular agenda so far. Yet it reflects the kind of re-skilling that is needed in the market. It is in high demand, with very few takers. We are largely yet to revisit our dormant storytelling skills. On the other hand, traditional storytellers such as journalists, have been forced to shed their conventional skills and adopt new styles of storytelling.

Of course, like all other technology, institutional evolution will precede individual evolution. Investing in new technology and innovating their products and services form the top rungs of businesses’ agendas plays a big role to cope with transformation. A Cisco prediction says 40% of the companies of today will not exist in 10 years from now. According to a KPMG-CEO Outlook survey, more than 50% of Indian CEOs said their organization will be “completely transformed” in the next three years. This is not a surprising survey report: According to the World Economic Forum, 35% of today’s skills will have changed a mere five years from now, given a blurring of human and robotic experiences that are increasingly engulfing us. Yet only 27% of the world’s businesses have a coherent digital strategy that creates value for the customer.

Given the enormity of the challenge, companies are overwhelmed by the immediate need to retrain and reskill their employees, so there is a dire requirement to help companies overcome their need to retrain more than 4 million employees in digital skills of the future. The sustainable solution is to train hundreds and thousands of undergraduate students in digital skills so that they leave campuses equipped with those skills. This is a massive problem that deserves immediate attention and intervention.

Unlearning is not the same as not learning. Learning a skill is a necessary step before unlearning it, akin to the evolution principle. The trouble with learning is unlearning how we think about learning, says Mark Bonchek in his Harvard Business Review article, “Why the Problem with Unlearning is Learning”. This is because, as the fancy ‘learning corporations’ have swiftly realized, unlearning must happen at a deeper level of the fundamental principles on which learning is founded. For example, India is unlearning the earlier socialistic principles after the nation’s economy was liberalized. Another example is the need for re-skilling ourselves to adjust to the new digitized paradigm around us.

The trick to unlearning and relearning is that it must be a constant process—where we must acknowledge that our current skills are merely transient and work towards re-engineering them. While Bill Gates famously predicted most of the current digital and robotic trends back in 1999, he, like most disruptors, would caution us: If technological inventions must survive, humans must evolve to meet and adopt them.

*The Frankensteinian alarm—in popular sci-fi movies and in our real world—that machines may take over our world and our souls may still be a fantasy. Yet, machine-learning is one of the most important professionally employable skills today.*

The irony, if lost on us, can cost us our relevance in the strife of a world that is constantly morphing.

[Written by Rajan Venkataraman, Chief Digital Officer, NIIT Ltd]