# The Future of Work: New Underclass, Dystopian Reality?

Jayakumar, Shashi; Goh, Eugene

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Nanyang Technological University

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# New Underclass, Dystopian Reality?

*By Shashi Jayakumar & Eugene Goh*

## Synopsis

*The dust will take decades to settle on the key issue of precisely how much technology and artificial intelligence (AI) will displace human labour. It is clear the near future will see a sizeable proportion of jobs worldwide threatened and substituted by automation, machine learning, or both. What does this mean for national security?*

## Commentary

IT IS increasingly apparent that jobs commonly reckoned to be "safe" may in fact be candidates for an AI – Artificial Intelligence - takeover, with many knowledge workers themselves candidates for displacement. Research by McKinsey from 2015 suggests that current technologies alone could automate 45% of the paid activities. Some experts believe the effect will be comparable to the industrial revolution. Concurrently, workers are demanding, and companies are offering, greater flexibility in work arrangements.

Unlike the past, when the vast majority of work was full-time employment, bundled with benefits such as pension and healthcare, the future will be much more varied. There will be full-timers, part-timers, freelancers, contract workers, and other forms of relationships between companies and labour. Work hours may be shift-based, flexible, self-determined, or totally undefined, so long as agreed output is delivered timely. Historically, people have moved to new jobs as old ones are destroyed. Some believe this will continue, while others suggest that the outlook is less positive now. We should ponder the future for both the winners and losers, particularly if the intensity of disruption increases.

## The Haves

The future will see a great deal of knowledge work automated. IBM's Watson computer, which won the American TV quiz Jeopardy in 2011, is now being used to devise treatments for some cancer patients in the United States. AI is even making inroads into journalism, with some attempts showing that machines are almost on par with human writers. This does not necessarily spell disaster for humankind.

There will be an elite that manages to ride the AI wave. Individuals in this group will have skills – creativity, abstract thinking, intercultural sensitivity, and the ability to thrive in ambiguity – which AI will take much time to master. There will also be opportunities in tech-enabled growth areas like computer science, robotics, education and healthcare, in particular catering for an ageing population, possibly working alongside AI.

**The Have Nots**

There are two groups of people of concern. First, those who risk seeing their skills become obsolete and have difficulty picking up new skills, which is likely to be more challenging for older and less educated workers. The Singapore Government has put in place significant infrastructure to support training and empowerment through the SkillsFuture programme. This recognises that companies alone cannot be responsible for post-education skill creation in the economy. Instead, individuals must drive their own development.

Secondly, we should also scrutinise the seeming promise of jobs in "the gig economy". It does have its benefits – in supplementing income, buffering against unemployment, and providing flexible work options. More broadly, the sharing economy, enabled through platforms like AirBnB allows the monetisation of assets.

The story in the long run may be different. Companies are turning to services that match employers with freelancers, even as the risk for lower wages and inequality is growing. Most gig economy workers do not qualify for statutory benefits such as paid leave, medical leave and health insurance.

The net effect is a transfer of risk and cost from corporations to individuals. This group – particularly those for whom such gigs are their sole source of income – are badly hit by the combination of volatility in the income stream, and the lack of statutory benefits. Besides these losses, individuals caught in these jobs often have less incentive to upskill themselves.

Guy Standing, professor of economics at the School of Oriental and African Studies, has pointed to the dangers of a coming "precariat", which he defines as an emerging global class with no financial security, job stability or prospect of career progression. Far from delivering utopia, technology and flexibility in how we work could ironically perpetuate an underclass.

**Creating Permanent Underclass**

There may be national security implications. The risk is that the gig economy creates a permanent underclass of people who do not see any way out of it and feel a sense

of anomie. Their futures, from their own vantage point, will be debilitating and uncertain.

At the macro level, it is possible that there will be a permanent strata of groups campaigning in the name of social justice – for those who have been left out of the technologically-enabled future. There are already people arguing for universal basic income. Consider for example recent disruptive protests over local politics, gentrification, and the cost of living that have surfaced in San Francisco, targeting the giant tech companies based in Silicon Valley.

Might we also see a revanche to the Luddites of the 19th century – individuals seeking to wreak revenge on technology? These individuals lived in an era of "reassuringly clear-cut targets—machines one could still destroy with a sledgehammer", notes Steven E. Jones in his 2006 book Against Technology.

But the technology that takes over jobs will not present such clear-cut targets. It is likely that these forces may try to find other targets and ally with other ideologies – even metastasising into violent action. Security officials at present tend to gloss over these possibilities, preoccupied with Islamic State and other "mainstream" forms of extremism.

**Don't Underestimate Tech Threat**

But the threat is real. In 2010, Swiss police intercepted an explosives-filled car destined for an IBM facility. The individuals apprehended were green activists. In 2012, anarchists claimed responsibility for the shooting of Roberto Adinolfi, an Italian nuclear engineering executive.

The faint but growing signals of anarchists returning to the national security radar should concern us. They are not necessarily redundant due to automation, but convinced, perhaps, that existing governments have failed in the high-tech globalised age.

John Maynard Keynes took the view that technology and machines would increase productivity to a degree that an abundance of leisure time would be people's main challenge. That utopia has yet to materialise. He also theorised that as a greater proportion of the population found themselves liberated from the "economic problem" of struggling for subsistence, society might suffer from a "general nervous breakdown", not knowing how to readjust.

A sort of breakdown might come to pass, but not the one Keynes envisioned. Instead, a real issue of our times may be how people involuntarily displaced by technology and unable to adapt respond, and the implications for the rest of society.

*Shashi Jayakumar is head of the Centre of Excellence for National Security (CENS) and executive coordinator, Future Issues and Technology at the Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore. Eugene Goh is chief operating officer of a leading shift-worker hiring and management*

*software startup based in Singapore. A longer version of this piece was published in Channel News Asia Commentaries on 15 October 2017.*
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