

Salary premiums could be at risk as use of ChatGPT, other AI tools grows

Afraid AI will take away your rice bowl? Here are four ways workers and policymakers can rise to the challenge.

Terence Ho

The launch of artificial intelligence (AI) chatbot ChatGPT in November 2022 has stoked longstanding fears of technology displacing jobs.

This time, it is not just white-collar workers performing routine tasks who seem at imminent risk. With AI now able to compose stories, songs and artwork with human-like sophistication, members of the creative class – writers, artists and musicians – are suddenly in AI's crosshairs.

A report published by investment bank Goldman Sachs in March suggests that such content-generating AI for "generative AI" could replace 300 million jobs worldwide, but its likely impact ranges from automating 46 per cent of tasks in administrative jobs to just 4 per cent in maintenance jobs.

Still, there is little doubt that AI, described by Bill Gates as the most important technological advance since the graphical user interface ushered in the Windows era in the 1980s, has tremendous potential to improve lives.

THE NUB OF THE PROBLEM

Like any major new technology, the latest advances in AI are likely to make some jobs redundant, transform others and create new ones.

The history of innovation since the first Industrial Revolution suggests new technologies will create winners and losers.

For instance, according to Oxford economist Carl Benedikt Frey, the introduction of Global Positioning System (GPS) technology and platforms such as Uber have depressed the earnings of incumbent drivers by rendering their knowledge of the road system less valuable.

Existing skilled workers may forfeit jobs long accustomed to, along with the salary premiums they previously enjoyed, as skills acquired over many years are made redundant.

There could be an increase in structural unemployment as workers take time to retrain in new areas. They may have to adjust their salary expectations and adapt to work of a different nature, such as an office manager taking up a role in healthcare or food services.

Sufficiently large numbers of disgruntled workers could turn this into a political problem, fueling nativist policies that seek to cast blame on foreigners.

On the other hand, generative AI has introduced new jobs such as prompt engineers, and will likely create other new and rewarding jobs in the coming years.

DEVELOP FOUNDATIONAL, INTERPERSONAL SKILLS

For a worker, the best insurance against redundancy is to develop foundational skills in literacy and numeracy that enable one to pick up new skills more easily later.

Technical skills are important, but integrative skills will be even more so. Today, hard coding skills are not a prerequisite to create beautiful Web pages, but Web designers bring critical skill sets to the table including design and psychology to optimise the user experience.

Likewise, generative AI will make the man-machine interface more intuitive, placing greater control over content generation in the hands of those without deep programming skills.

To thrive in this new era, software developers and other professionals must be able to pull together content and expertise from different domains to deliver turnkey solutions to their clientele. For instance, a podcast developer could create unique value by using ChatGPT in tandem with other AI tools to generate ideas and content, based on a good understanding of her audience as well as the AI tools' respective capabilities and limitations.



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Such integrative skills are best honed by working on actual problems and projects. Schools and institutions of higher learning would do well to give students similar exposure.

Finally, interpersonal skills – such as connecting well with stakeholders or providing service with warmth and empathy – will increase in value as appreciation grows for the human touch in a world replete with automation and AI.

HONE THE EFFECTIVENESS OF LEARNING, RESKILLING

Beyond foundational skills, people must make informed bets on how to invest their time in job-specific skills, bearing in mind how technology may shape the demand for jobs and skills in the future.

Personalised career and training guidance could help individuals make more informed decisions, factoring in projected demand for skills, along with their own aptitude and interests. Such specific investments in human capital could pay off in large salary premiums, although these, too, could be at risk from future technologies.

The lifelong learning and reskilling system will be at the heart of any strategy for future employability and human capital formation. It should seek to bolster learning and instructing – informed by data and research on the most effective ways to acquire and impart skills for the target group of working adults. This could involve formal instruction in classrooms, on-the-job training or a combination of both, depending on the sector and job in question.

Studying what works, both in Singapore and other countries, can help SkillsFuture Singapore and partner agencies to develop a best-in-class, future-ready system of lifelong learning and reskilling.

PROFESSIONALISATION AND APPRENTICESHIPS

Given any worker, including professionals, managers, executives and technicians (PMETs), may be forced by technological change to take up a job with less differentiated skills requirements such as food delivery and similar forms of gig work, it is all the more important to ensure that all jobs are good jobs.

This means decent pay, work injury protection and adequate savings for retirement. The recommendations of an Advisory Committee on Platform Workers are a promising start to address the needs of this group of workers.

There is also a workforce

sustainability imperative for essential services such as cleaning and healthcare, which are less easily replaced by AI or automation. Such jobs will have to be made attractive to younger, local workers, who must be assured of career pathways and prospects for skills deepening and wage growth.

Even if our workers cannot command a skills premium vis-a-vis counterparts elsewhere with comparable skills, they should still be able to enjoy a location premium in Singapore where manpower is relatively scarce and there is a concentration of wealth and capital.

Enabling them to command such a premium is also necessary for an inclusive society. To this end, the expanding coverage of progressive wages has a key role to play.

Beyond the group of lower-wage workers assisted through the Progressive Wage Model, the National Trades Union Congress (NTUC) is now seeking ways to improve career prospects and pathways for plumbers, mechanics and those in other tradesmen jobs.

Yet, while professionalising jobs can boost pay, stipulating high standards in skills or experience may also raise the bar for entry into these jobs. This benefits incumbents but could hamper entry and job mobility.

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One way to overcome this is through apprenticeships, where a newcomer to the job can be paired with an experienced hand, so that the apprentice can acquire skills and knowledge on the job under the guidance of a mentor. The latter would be responsible for the quality of deliverables, and should be appropriately recognised and rewarded for his or her developmental role. This is common in countries such as Germany, where formal apprenticeships cover a range of sectors from manufacturing to information technology and finance.

COMPLEMENT RE-EMPLOYMENT SUPPORT WITH JOB GUARANTEE

The shortening of technology cycles and its impact on jobs have prompted policymakers around the world to think about how to strengthen unemployment protection, including in Singapore, which has thus far viewed full employment as the best form of social welfare.

Recently, Deputy Prime Minister and Finance Minister Lawrence Wong raised the possibility of "re-employment support" to provide a temporary financial cushion for displaced workers who may need time to retrain for new jobs.

Designing such support is, however, not easy. Any form of re-employment support or insurance would have to be funded by some combination of the Government, employers or workers themselves, affecting fiscal spending, business cost or take-home pay.

For PMETs, the financial support would have to be high enough to be meaningful, but this has implications for fiscal sustainability as well as equity vis-a-vis non-PMETs. Furthermore, generous support without corresponding obligations on the part of the worker could erode incentives to get back into employment.

A potential solution may be support in the notion of guaranteed jobs for the unemployed, which was discussed by Straits Times associate editor Vikram Khanna in a recent Straits Times op-ed, "A pathway to (really) full employment", on March 15.

Job guarantee schemes have long enjoyed intellectual traction but have seen only limited adoption around the world. Mr Khanna alluded to some of the challenges, among them the potential mismatch between the skills of the unemployed and the skills required in many socially valuable jobs. The public sector, too, may be understandably hesitant to take on the role of "employer of last resort", obliged to hire any jobseeker regardless of aptitude or ability.

Yet, there is surely meaningful

work that the public sector could do if it had access to more manpower resources. Additionally, by mobilising jobseekers for such roles, these workers would have the opportunity to earn more than the basic re-employment support in a way that reinforces the work ethic, consistent with the principle of "reward for work; work for reward" – a key Singapore Government tenet.

It should be possible for a public agency or NTUC to curate a list of meaningful short-term opportunities spanning a range of policy and operational roles, both within the public sector and in other participating organisations, similar to what was done during the Covid-19 pandemic.

Short of guaranteeing every jobseeker a job, these opportunities should be designed with low barriers to entry. The system should also avoid penalising those who need to devote their full attention to job search or training.

It would, of course, take time to build up a repository of suitable jobs, and effort is needed to curate and manage such roles.

However, if done well, these short-term opportunities could serve as internships that help jobseekers discover their strengths and gain valuable experience.

Some roles may require greater investment in training, which can pay off only if a worker stays in the job for long enough. These could include a number of public healthcare roles.

However, if simple tasks could be carved out in such a way that a temporary worker could provide useful assistance to full-time staff, it could be a win-win for all. It would get more people familiar with essential service jobs which are in perennially short supply, such as nurses. Some short-term hires may decide to take up healthcare as their next career after gaining exposure to the work, while others may benefit from second-skilling in areas such as aged care with wide applicability in home and community settings.

ChatGPT has done us all a favour by focusing minds on the urgent task of future-proofing jobs and skills, at the level of individual workers and the system as a whole. If this can be done well in Singapore, we can look forward to the benefits of this new technology and the opportunities it will bring, while insulating ourselves from the downside risks.

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