



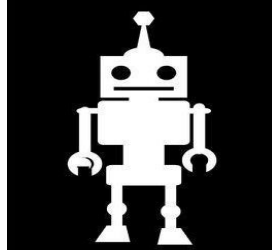
The Future of Work

Tampines Meridian Junior College
JC1 General Paper
2023

Changing Work Trends & Impacts on Society



IDEAL CANDIDATE



Artificial Intelligence



The Gig Economy



Talent Wars



An Ageing Society



Singapore's Top Rising Skills



Based on Future of Work 2019 Report, these are the top three rising skills in Singapore.

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• An Overview •

Unit Title: The Future of Work		
Inquiry question: What is the future of work?		
Unit Strand 1: Changing Workplace Trends	Unit Strand 2: Changing economic realities	Unit Strand 3: Demographic shifts
Conceptual lens: Change & Balance	Conceptual lens: Change & Balance	Conceptual lens: Change & Balance
Concepts: Disruption, Innovation, Quality of Life	Concepts: Disruption, Innovation, Quality of Life	Concepts: Quality of Life, Sustainability, Competition, Social Cohesion
Topics: Remote working Work-life balance Equality	Topics: Gig economy Upskilling for workers in traditional economies	Topics: Migration Ageing population Talent wars
Generalisation:	Generalisation:	Generalisation:

Inquiry Question:

What is the Future of Work?

At the end of this section, students should be able to: Understand changing workplace trends and evaluate its impacts on the businesses and workers.

• Changing Workplace Trends •

Reading Set 1

Article 1: Future Of Work: The 5 Biggest Workplace Trends In 2022

Forbes, Nov 22, 2021, 12:04am EST

Much has been written about the huge changes in our working lives during the past two years – driven of course by necessity and concerns for safety. In 2022, the pandemic is very much still a fact of life for many of us. However, it is fair to say that we've learned to adapt to new behavioural patterns and expectations as we do our jobs. If we are among the millions of “knowledge workers” who find ourselves with more freedom to choose when and where we work, then hopefully, we are making the most of the opportunity to strike a better balance between home and working life.

These are the 5 Biggest Workplace Trends In 2022

Hybrid working

When it comes to where we work, there will continue to be three main models – centralized workplaces, decentralized remote organizations, and the hybrid “best of both worlds” approach. What is likely to change in 2022 is that it's more likely that we, as workers, will have the choice rather than being forced to align with whatever model your organization has chosen out of necessity.

Organizations are clearly undergoing a change in their relationship with the idea of a centralized workplace. At the height of the pandemic in 2020, 69% of large companies expected an overall decrease in the amount of office space they would be using, according to research by KPMG.

Hybrid structures will range from companies maintaining permanent centralized offices with hot-desking to accommodate the fact that staff will more frequently work remotely, to doing away with offices entirely and relying on co-working spaces and serviced meeting rooms to support the needs of a primarily remote workforce.

A report recently commissioned by video messaging platform Loom found that 90% of employees surveyed – including workers and managers – are happier with the increased freedom they now have to work from home, suggesting that this is likely to be a trend that is here to stay as we move into 2022.

AI-augmented workforce

The World Economic Forum predicts that AI and automation will lead to the creation of 97 million new jobs by 2025. However, people working in many existing jobs will also find their roles changing, as they are increasingly expected to augment their own abilities with AI technology. Initially, this AI will primarily be used to automate repetitive elements of their day-to-day roles and allow workers to focus on areas that require a more human touch – creativity, imagination, high-level strategy, or emotional intelligence, for example. Some examples include lawyers who will use technology that cuts down the amount of time spent reviewing case histories in order to find precedents, and doctors who will have computer vision capabilities to help them analyse medical records and scans to help them diagnose illness in patients. In retail, augmented analytics helps store managers with inventory planning and logistics and helps sales assistants predict what individual shoppers will be

looking for when they walk through the door. Marketers have an ever-growing range of tools at their disposal to help them target campaigns and segment audiences. And in engineering and manufacturing roles, workers will increasingly have access to technology that helps them understand how machinery works and predict where breakdowns are likely to happen.

Staffing for resilience

Pre-pandemic, the priority was generally to have been to hire staff that would create efficient organizations. Mid and post-pandemic, the emphasis has shifted firmly in the direction of resilience. Whereas built-in redundancy or overlaps in skills might previously have been seen as inefficient, today, it is seen as a sensible precaution.

This certainly encompasses another sub-trend, which is that employers are coming to understand the critical importance of building employee healthcare and wellbeing (including mental health) strategies into their game plan. Many are now trying to take more responsibility for helping their workforce maintain physical, mental, and financial wellbeing. A challenge here that companies will come up against in 2022 is finding ways to do this that hit objectives without being overly intrusive or invasive of employees' privacy and personal lives.

Less focus on roles, more focus on skills

Gartner says, "To build the workforce you'll need post-pandemic, focus less on roles – which group unrelated skills – than on the skills needed to drive the organization's competitive advantage and the workflows that fuel this advantage."

Skills are critical because they address core business challenges, with the competencies needed in a workforce to overcome those challenges. Roles, on the other hand, describe the way individual members of a workforce relate to an overall organizational structure or hierarchy. By focussing on skills, businesses address the fact that solving problems and answering their core business questions is the key to driving innovation and success within information-age enterprises.

From the worker's point of view, focusing on developing their skills, rather than further developing their abilities to carry out their role, leaves them better positioned to capitalize on new career opportunities. This shift in focus from roles to skills is likely to be a key trend for both organizations and workers during 2022.

Employee monitoring and analytics

Controversial though it may be, research shows that employers are increasingly investing in technology designed to monitor and track the behaviour of their employees in order to drive efficiency. Platforms such as Aware that allow businesses to monitor behaviour across email and tools such as Slack in order to measure productivity, are being seen as particularly useful by managers overseeing remote workforces. Of course, it seems that it would be easy for companies to use these tools in a way that would be seen as overbearing or intrusive by their workers, and in my opinion, that would clearly be a recipe for disaster. If it is the latter, it's unlikely to end well for the companies involved. However, for better or worse, it seems likely that this kind of technology will play an increasingly large role in the workplace during 2022.

Article 2: Remote working: A blessing or a burden for women?

UNLEASH, March 9, 2022

Why You Should Care Four women share their insight into the remote working experience around International Women's Day.

80% of women ranked remote working as a top job benefit – this figure drops to 69% for men.

The 'return to work' conversation is still very prevalent in the UK after COVID-19 restrictions have been removed once again, and **Britain's business secretary Kwasi Kwarteng has even encouraged people** to get back to the office in a bid to "get back to some degree of normality".

However, it seems that the way we work has changed for good – and **79% of business leaders** believe that people will never return to offices at the same rate as pre-pandemic.

For women in particular, the ability to work remotely and flexibly has had a significant impact. The pandemic started fresh conversations about childcare, for example, a responsibility disproportionately taken on by women. **80% of women** also ranked remote working as a top job benefit – this figure drops to 69% for men.

While remote working can support women to balance other responsibilities, there is also a concern that being away from the office might result in an 'out of sight, out of mind' culture – leading to fewer promotions and salary increases for women and it could widen the **gender wage gap**.

With this in mind, four female technology experts discuss their experiences of remote working, gender equality and advice for other women navigating the changing world of work.

The benefits of remote working for women

The sudden move to remote working during the pandemic led to a shift in priorities for many employees. "What I see as its greatest benefits are flexibility, sense of freedom, and being able to manage personal time more effectively", said **Aleksandra Majkic**, IT business development professional.

"I am not only referring to hours spent commuting, but also long meetings, sometimes imposed work dinners. To me, the ability to make my own plans, spend time with my family, support kids as they've both started school, and having that sense of freedom is irreplaceable."

Design strategist **Cecilia LeJeune**, who moved from a flat in the suburbs with almost two hours of commute per day to a house with a garden and zero commute, agrees with finding this sense of freedom: "Remote work also means freedom to organize your day as you wish, to focus on deep work when you want, or to work at unusual hours."

These benefits of remote working may also be a retention tool for many businesses going forward. As **Alice Meredith**, senior HR professional and culture strategist, argued: "It allows employees the opportunity to learn new skills, better integrate work and life responsibilities and gives employees increased autonomy in their day-to-day work responsibilities."

With the '**Great Resignation**' underway, people are looking for job roles that offer flexibility and more opportunities. The ability to work remotely whilst balancing work and personal lives will likely be a big draw for many female employees.

Closing the gender gap

Remote working can also help level the playing field between genders. **Shelley Benhoff**, Sitecore MVP, explains that "a woman's presence in person tends to be diminished in comparison to men. But when you're remote, your physicality isn't really in the equation."

LeJeune echoed this, saying that “remote work allows for depersonalization in interactions. Judgments and bias introduced by your look and clothing are erased, which can count as a benefit for a lot of women.”

Meredith, a mother juggling six children and a full-time career, also highlighted how remote working will continue to help balance the caregiving workload between parents. “A father who works remotely can take on more responsibility and vice versa. In addition, this opportunity to better balance family responsibilities can create more time and availability for career pursuits for both parents, regardless of their gender.”

Remote working does also pose a potential risk to women's career progression. Majkic says that remote workers are sometimes perceived as “out of sight, out of mind” and are more likely to be overlooked for promotions, raises and bonuses than on-site employees.

She continues: “There is already a new term – Zoom ceiling (coined by Elora Voyles, people scientist) that has become the new ‘glass ceiling.’

“To overcome this, remote working policies need to be formalized and leaders must ensure equality for all meetings – for example, by making sure remote attendees can dial-in to in-person meetings with a quality camera and audio.”

Article 3: We the millennials are not lazy, we just work smart

Give us autonomy and growth, and we will match it with the passion and energy of youth. Just because someone values work-life balance does not mean that person is not prepared to work hard, says the writer.

THE STRAITS TIMES, PUBLISHED AUG 7, 2022

During my first internship at a small magazine company a decade ago, I signed up for yoga and kickboxing classes twice a week - not because I was particularly athletic, but because I wanted to leave work on time.

There were only four of us in the office - the editor-in-chief, creative director, one full-time staff member, and me. They routinely worked late, and sometimes, so did I. But at 6pm on Mondays and Wednesdays, I would pack my things and make what I hoped was a discreet beeline for the door.

I always felt somewhat guilty. What I did not yet understand was that I had already begun to draw boundaries, demarcating precious hours of personal time left over at the end of every day.

Later, my generation would become known for this. We, the millennials, the ones who sought work-life balance and were prepared to job-hop if we did not get it. We, the “burnout generation”, who gave up stable corporate roles during the pandemic in search of more purposeful work.

We, who are now contributing to The Great Resignation - a worldwide phenomenon of workers seeking better pay and working conditions, including flexible hours.

These values should not give us a bad rep, but sometimes it does. Less than 20 per cent of people in Singapore think of millennials as disciplined or loyal, based on a 2019 survey commissioned by Dr Janil Puthuchery, Senior Minister of State for Health and Communications and Information.

More recently, public relations company founder Tjin Lee noted a “worrying” trend of people in their 20s asking about “work-life balance” and “flexi-working options” as their first question during job interviews. Her view, that it is increasingly hard to find motivated young people to work, drew flak.

One common theme among irate netizens: Just because someone values work-life balance does not mean he is not prepared to work hard. I wholeheartedly agree - and so did millennials I spoke to.

Be an asker, but prove your worth

Mr Benjamin Chong, 34, who is the founder of digital marketing agency Next Level Singapore, often gets the same question during interviews.

At least half of the candidates ask about working hours and the company's hybrid work policy, compared with one in 10 before the pandemic.

He knows these questions might put off older employers. Even for him, they used to chafe. At his first job in a bank 10 years ago, he started work at 7.30am daily in the Central Business District, in a time when working from home was unheard of.

But he also knows that to deny work-life balance is to lose the company's competitive advantage when it comes to wooing talented hires. To separate the wheat from the chaff, he asks these job seekers deeper questions, such as: "What was the busiest time in your life?"

"It shows how much people can handle, how they keep track of deadlines, how they remain organised," he tells me. "Find someone who is used to being busy and you can trust that if you give them more work, they will find a way to fit it in."

Recently, a 63-year-old newsmaker said that in his early years as an employee, he worked seven-day weeks for months at a stretch. His is a generation more industrious. No wonder they are sceptical of mine.

But I wanted more than an iron rice bowl. When my fresh-graduate energy turned to restlessness, it was time to leave that first job.

The plan was to do some freelance writing while figuring out my next career move. In turn, I enjoyed the pleasures of working from home long before the term made its way into daily parlance. I had more time for family, could write from anywhere in the world, and had the autonomy to decide my own schedule. For all the financial uncertainty, this was the payoff.

Yet more people are choosing the same freedoms these days. The Covid-19 pandemic spurred an increase in gig workers, who made up about 14 per cent of the workforce in 2020, according to the Ministry of Manpower's labour force survey.

Freelancing platforms like Upwork and the home-grown Staffie make this easier. The latter lets gig workers choose their shift and role at food and beverage establishments in Singapore. For instance, a server at La Fez Bakery and Cafe in Siglap could earn \$12 an hour.

It is a different way of looking at employment. We curate our wardrobes, diets and social media feeds. Why not curate the work you want to do?

Integrate work and life

I often tell people I gave up one dream job for another, going from freelancing to my current role as travel correspondent at The Straits Times. The flip side is that I rarely stop thinking about work.

While travelling, even for leisure, I take notes on everything from the queues at airport check-in counters to the ingredients in my cocktail. Actual notes, not just mental ones. Some might call me a workaholic, but I prefer the term work-life integration. It refers to the deliberate blurring of boundaries between work and life, a practice that has gained traction among younger members of the workforce who look for jobs that align with their passion and interests.

The key is to harmonise your personal and professional responsibilities rather than have them at odds, says former venture capitalist Jeremy Ang, 32. During his six years in the role, he says he never stopped networking. After-work drinks might turn an industry contact into a potential investor, or

connect him to an expert in a particular field. "You never know who you are going to meet and what doors are going to open because you are always on the hunt," he says.

I ask Mr Ang, now a global strategy director in a tech company, how younger folks can integrate work and life. "You need to love your work and be willing to make it your lifestyle," he says. As it turns out, the adage of choosing a job you love so you'll never have to work a day in your life only holds partially true. The modern day equivalent seems to be: Choose a job you love so you can work every darn day of your life, and still enjoy it.

Article 4: China steps in to regulate brutal '996' work culture

BBC News Published 2 September 2021

Many young workers in some of China's biggest firms work brutal '996 hours' - 9am to 9pm, six days a week. **Chinese tech tycoon Jack Ma famously said it was a "blessing" for anyone to be part of the so-called "996 work culture"- where people work 9am to 9pm, six days a week.**

Now, China's authorities have issued a stern reminder to companies that such punishing work schedules are in fact, illegal. In a joint statement published last Thursday, China's top court and labour ministry detailed 10 court decisions related to labour disputes, many involving workers being forced to work overtime. The cases covered various scenarios across a wide range of sectors, from tech to the media and construction. The one thing they had in common? The employers had lost.

"Legally, workers have the right to corresponding compensation and rest times or holidays. Complying with national working hours is the obligation of employers," the notice warned, adding that further guidelines will be developed to resolve future labour disputes. But will China's clearest warning yet pave the way for real change for some of its overworked citizens?

Tipping point

According to China's labour laws, a standard work day is eight hours-long, with a maximum of 44 hours a week. Any work beyond that requires extra pay for overtime. But this has not been well enforced. In many of the country's biggest firms - particularly in the thriving tech sector - employees often work far longer hours and are not always compensated.

Employees have grumbled about their brutal schedules over the years, and some have even tried to fight back. In 2019, a group of programmers made headlines when they launched a campaign on code-sharing platform Github, blacklisting start-ups that overworked staff from using their open-source code.

Yet, gruelling 996 culture has carried on, with the government taking a hands-off approach. After all, this same work ethic has also been credited as the driver of success for these firms, some of which have since become incredibly prominent on the world stage. Like Mr Ma, who founded online retail giant Alibaba, e-commerce platform JD.com chief Richard Liu has previously defended this culture, hitting out at "slackers".

But public anger means authorities can no longer turn a blind eye, experts told the BBC. "It has reached a tipping point, and there's a real sense of urgency for the officials to get this message out now - especially after the very high-profile worker deaths," said Dr Jenny Chan from Hong Kong Polytechnic University. Earlier this year, two employees at e-commerce platform Pinduoduo died weeks apart - a young worker collapsed on the way home after working long hours, while another died by suicide. And in January, a food delivery driver set himself on fire after he was allegedly denied \$770 (£559) in overdue wages, just one month after a worker had died while delivering meals for online platform Ele.me.

It is unclear if the cases were directly linked to overwork, but they caused outraged netizens to debate 996 culture and the "dark side" of working at some of the country's most acclaimed firms.

Many delivery workers in China say they are underpaid and overworked. Numerous threads went viral on social media as other workers came forward to say they regularly worked more than 300 hours every month - far surpassing legal limits. And for many workers who are pulling in longer hours than ever amid the pandemic, enough was enough. "I am so tired. I can't remember when I last saw daylight. Meanwhile, big companies are just getting richer. How is this fair?" one user wrote on microblogging platform Weibo.

'China needs its workers to stay competitive'

The widespread backlash has not sat well with Beijing, which strives to maintain social stability - all the more crucial given the sheer number of people working in the digital economy. "Whether it's the knowledge workers in internet businesses or the blue-collar workers at delivery platforms - both employ millions of workers, and many are most likely working 996 hours," Dr Song Zhaoli, of the National University of Singapore, said.

With grievances rising among workers, some are mobilising collective action. According to Hong Kong-based NGO China Labour Bulletin, 131 cases of food delivery worker protests were recorded between 2016 and 2021. "The government cannot sit still and let this blow up. They want domestic peace," Dr Chan said.

A move towards better labour protection also comes as the attitudes of many young Chinese have changed, experts say. Unlike their parents who believed that hard work pays off, there has been a growing sense of dissatisfaction among exhausted youth who see little reward in doing the same. Some are so disillusioned that the "tang ping" movement - literally meaning to "lie flat" - has gained traction in recent months, referring to the idea that people should not overwork and instead be content with more attainable achievements.

"Young people have seen other possibilities and they prefer more flexible lifestyles," Dr Song explained. Some of China's youth want out of the rat race

But this is a concept that worries authorities as the country grapples with a shrinking labour force in the years ahead. In May, China's once-a-decade census revealed its **slowest population growth in decades**. "This is of big concern for the government because it needs these workers to keep the economy going," Dr Chan said. "That's why it is now trying to create an employment system that seems more humane for young workers - to make work appealing to them. China needs them to remain competitive."

Going forward

On social media, general reactions to last week's state notice were cautious, with many wondering if it would truly improve their working lives. But experts are more optimistic. As China continues its **crackdown on some of its largest firms** to stem their influence, companies will not dare to cross lines, they say. "The court cases were set as examples in a clear message to employers - if you don't treat your workers well, you will lose," Dr Chan said.

And it seems to have started working. Last Saturday, smartphone maker Vivo said it would scrap its "big/small weeks" practice, where workers alternate five and six-day working weeks. "From now on, we are people who will have full weekends! Let's work towards creating a happy and progressive environment for our workers," it said in an online post.

Workers may now also feel more emboldened to take their bosses to court. "I expect more workers will likely invoke their rights under the labour laws when they feel they have been mistreated," said Angela Zhang, a law professor from the University of Hong Kong.

"Following the guidance from the Supreme Court, lower courts in China will also be more likely to support the stance of the workers in similar labour disputes."

Application #1: Changing Work Trends

<p>Article 1: Future Of Work: The 5 Biggest Workplace Trends In 2022</p> <ul style="list-style-type: none"> • What are the current workplace trends and what brought them about? • How have employers and employees been responding to the changes? • Are these changes for better or for worse? (Consider different perspectives: Society, Employers, Employees) 	<p>Article 3: We the millennials are not lazy, we just work smart</p> <ul style="list-style-type: none"> • What are the attitudes that millennials (the new generation of workers) are bringing into the workplace? • How have employers and employees been responding to the changes? • Are these changes for better or for worse? (Consider different perspectives: Society, Employers, Employees)
<p>Article 2: Remote working: A blessing or a burden for women?</p> <ul style="list-style-type: none"> • What are the positive and negative impacts of remote working? • How have employers and employees been responding to the changes? • Are these changes for better or for worse? (Consider different perspectives: Society, Employers, Employees) 	<p>Article 4: China steps in to regulate brutal '996' work culture - BBC News</p> <ul style="list-style-type: none"> • Why has there been a change in attitude towards the gruelling 996 culture? • How have employers and employees been responding to the changes? • Are these changes for better or for worse? (Consider different perspectives: Society, Employers, Employees)

Discussion Question:

'People today do not work as hard as they did in the past.' How true is this of your society? (GCE2018Q7)

Inquiry Question:

What is the Future of Work?

At the end of this section, students should be able to: Understand how the rise of artificial intelligence and the gig economy are key drivers of said workplace trends via changing business models and disrupting employment opportunities.

• Changing Economic Realities •

Reading Set 2

Article 5: Three Ways Disruptive Technology Will Impact the Future of Work

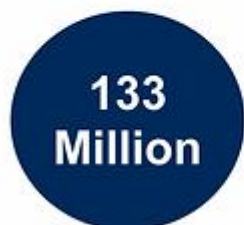
Timothy Laku, December 19, 2019

Everyone wants to know whether we are facing a future with less jobs or more jobs. Technology has not only disrupted business models but is also already disrupting different occupations.

The idea of a single education, followed by a single career, finishing with a single pension is over. The *Future of Work* is filled with exciting new opportunities, disruptive change, and risks. Here are the three ways disruptive technology will impact the future of work

The Jobs Landscape in 2022

emerging
roles,
global
change
by 2022



Top 10 Emerging

1. Data Analysts and Scientists
2. AI and Machine Learning Specialists
3. General and Operations Managers
4. Software and Applications Developers and Analysts
5. Sales and Marketing Professionals
6. Big Data Specialists
7. Digital Transformation Specialists
8. New Technology Specialists
9. Organisational Development Specialists
10. Information Technology Services

Source: World Economic Forum 2018 Future of Jobs Report

Opportunity

According to the *World Economic Forum 2018 Future of Jobs Report*, 133 million new jobs will be created by 2022. These will be in emerging specialist roles in Big Data, AI, Machine Learning, Software, Apps, and IT Services.

Technology has created and will continue to create exciting new opportunities when it comes to work. A research done at MIT shows that since 1980 about 50% of job growth came from brand new job titles. We can think of a lot of jobs today that didn't exist 10 years ago - *Mobile App Developer, Zumba Instructor, Social Media Intern, UI/UX Designer, Cloud Services Specialist, and Digital Marketing Specialist*.

Demand for *Data Analyst* is growing. When we think about *AI* and what it's able to accomplish today, then we start to see brand new opportunities in the future for work that we can't even conceive of today.

These new opportunities in the future will typically require a great deal of new skills, education, and adaptability.

Change

Technology has not only disrupted business models but is also already disrupting different occupations. From transportation (with *Uber*), to retail (with *Amazon*), to medicine, to construction. There are very few career fields that won't be touched in some way by technological change.

For some workers, what this means is more work with emerging technology. Imagine a Radiologist who's going to have to learn to work with robots and that is going to have to be part and parcel of what they do at work.

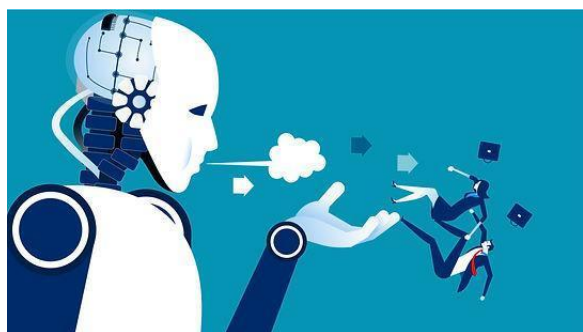
For other workers, technology will mean more work with people – when all the routine work has been handed over to automation, the people component of the job will still be done by other people.

There was a time when the ATM machine was thought as the replacement to bank teller jobs. What happened was that bank teller jobs changed because of the introduction of the ATM machines. Before the ATM machines, the teller jobs involved a lot of routine work, processing cheques, and dealing with cash. This role evolved to a much higher value-added customer service-oriented position.

For some workers, their jobs are going to pivot to a higher-skilled and a more people-facing role.

For a lot of workers, technology is going to take some of the chore out of work and make them even more productive in very exciting ways. Taken together though, change for many workers will be over whelming.

Looking out into the future, the idea that you will have a fixed skill set or a fixed occupation or even a stable career, that idea is more and more going to be a thing of the past. The *half-life* of our skills is shortening. People will be expected to constantly up-skill, relearn, and switch jobs.



"Automation may pose a threat to jobs, but it also puts an added psychological pressure on staff who have to keep pace with the robots." Source: Raconteur

Risks

There is this worry about what is going to happen in terms of displacement of jobs. This is certainly not the first time that technology might have a negative impact on specific occupations. Manufacturing tells a story that we will see across lots of occupations in the years to come.

Since 2000 there are five million fewer manufacturing jobs and the bulk of those job losses are in routine lower skilled positions. Over the same period, there has been an increase in the manufacturing jobs that require higher education. The sort of tasks that involved more routine welding and assembly of machinery – those tasks that don't require advanced education – jobs in these areas have gone away as these tasks have been handed over to automation.

The biggest trend in terms of who is going to be most negatively impacted by technology – *automation* and *AI* – is lower skilled workers such as fast food servers, cashiers, retail sales people etc. These are low skilled jobs that don't require any preparation in advance. These jobs are at the highest risk of automation.

Another cluster at risk are jobs that are older and primarily done by women working in back office functions such as HR, Payroll, Administrative Assistants, and those doing clerical work - these are at a very high risk of automation. These are primarily female positions and older workers.

From that perspective, the real risks in terms of displacements is highly correlated to low-wage low-skilled and low-education and routine work. This poses a huge challenge because for most occupations that are similar, say for a young person with a high school education, a lot of the jobs that they would apply for are at risk of automation.

The big question then becomes what or who is going to fill those roles and how to up-skill those workers to be eligible for some of the exciting opportunities.

Everyone wants to know whether we are facing a future with less jobs or more jobs. It's hard to predict the answer. How much the job creation will be offset by the job losses is everyone's guess. We are not prepared for most of the questions around job redistribution and risks associated with these disruptive changes.

There is no city today or country or government that has policies or the programs in place to help workers adjust to these changes and make sure that they are prepared for that opportunity. It's about time that we engage all stakeholders in this conversation if we are to proactively address the risks and better manage the change that is soon going to impact the workforce.

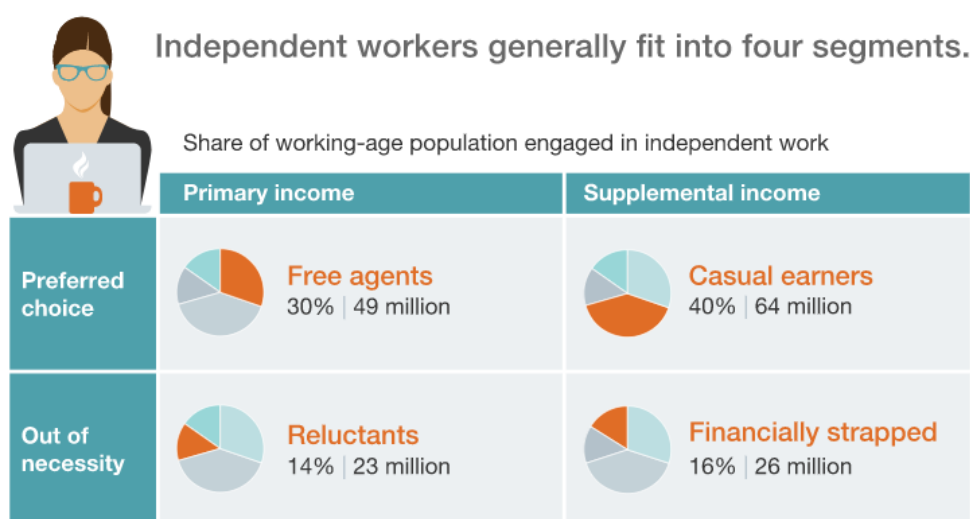
Article 6: What is the gig economy and what's the deal for gig workers?

World Economic Forum, May 26, 2021

The gig economy uses digital platforms to connect freelancers with customers to provide short-term services or asset-sharing. Examples include ride-hailing apps, food delivery apps, and holiday rental apps.

It is a growing segment, bringing economic benefits of productivity and employment. But it also raises questions about levels of consumer and worker protection. The challenge is to balance innovation with a fair deal for workers. A global debate is raging about independent workers or the so-called gig economy. But what is it? And how important is what's happening?

For millions of people, working nine-to-five for a single employer or being on the payroll is no longer a reality. Instead, they balance various income streams and work independently, job-by-job.



Source: 2016 McKinsey Global Institute survey of ~8,000 US and European respondents

McKinsey&Company

What is the Gig Economy?

If you've ever used an app to call a freelance taxi driver, book a holiday rental, order food or buy a homemade craft then you've probably participated in this segment of the economy. The "gig economy involves the exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and customers, on a short-term and payment-by-task basis," according to the UK government.

It is in focus not just because it is growing, bringing economic benefits in terms of productivity and employment, but also because it raises questions about levels of consumer and worker protection and labour-market policies.

While gig-economy workers often eschew the rights offered to employees on the payroll, in February in the UK a court found that drivers for a car ride-hailing app are entitled to benefits including paid holidays, a minimum wage and a pension.

Sector	Description	Sub-Sectors Included	Example Platforms
Asset-Sharing Services	Digital platforms that facilitate short-term P2P rentals of one owner's (or "freelancer") property to another individual	Home-sharing, car-sharing, boat-sharing, parking space-sharing, P2P equipment sharing	HomeAway, Airbnb, TURO
Transportation-Based Services	Digital platforms that require a freelance driver to complete the requested transport service	Ride-sharing, carpooling, restaurant delivery, and goods delivery	BlaBlaCar, Careem, Doordash, Uber
Professional Services	Digital platforms that connect freelancers directly with businesses to complete projects	Business work, microwork, design, tech/coding, writing/translation, administrative	Upwork, Catalant, Guru
Handmade Goods, Household & Miscellaneous Services (HGHM)	Digital platforms for freelancers to sell homemade crafts or offer on-demand services for household-related tasks	Home-services, babysitting, handmade crafts, tutoring, pet services, and misc. (DJ, events, etc.)	Care.com, Airtasker, Etsy

So far, gig-economy platforms' share of total employment is modest – ranging between 1% and 3% of total employment, according to the OECD, which also says the share is growing fast.

Global gig-economy transactions are forecast to grow by 17% a year to around \$455 billion by 2023, according to a report from Mastercard.

Projected Gross Volume of the Gig Economy (Billions USD)

The Gig Economy is projected to grow to \$455B by year-end 2023 in Gross Volume transactions.



A growing gig. Image: Mastercard Gig Economy Industry Outlook and Needs Assessment

And as the market grows, and the companies at the top of the chain get larger, the challenge for policy-makers and officials is to balance the innovation that creates jobs against the need to ensure the companies are offering workers a fair deal.

Independence and flexibility were cited as the main aspect that people working in the gig economy were often satisfied with, according to a UK government survey. Respondents were less satisfied with work-related benefits and the level of income, with one in four saying they were very or fairly dissatisfied with those aspects of their work.

For students who want to earn an income while studying, or primary carers who want to fit work around school or daycare hours, these companies can offer flexible working patterns.

Who works in the Gig Economy?

Generating additional income and having work flexibility are the most common motives to work for gig economy platforms, according to the OECD paper.

"Overall, most gig workers are satisfied with their job and working for gig economy platforms appears to reflect mainly voluntary choices rather than the lack of other options," that paper says. "However, a significant minority of platform workers – around 20% – uses platforms because they are not able to find work as dependent employees."

A McKinsey study categorized independent workers into four segments.

1. Free agents, who choose independent work and derive their primary income from it.
2. Casual earners, who use independent work by choice for supplemental income.
3. Reluctants, who make their primary living from independent work but would prefer traditional jobs.
4. Financially strapped, who do supplemental independent work out of necessity.

Public policy-makers face the task of keeping all four of these groups in the gig economy happy, which may require adapting policy settings so that they are ready for the digital age. Challenges exist but are not insurmountable, the McKinsey Global Institute report said.

Issues such as benefits, income-security measures, and training and credentials offer room for policy-makers, as well as innovators and new intermediaries, to provide solutions", the authors wrote. "Independent workers and traditional jobholders alike will have to become more proactive about managing their careers as digital technologies continue to reshape the world of work."

Article 7: The Gig Economy Is Here To Stay

Forbes, 01 Apr 2020

No job in Singapore is more misunderstood than that of a freelancer.

Such sentiments towards freelancers are the norm in Singapore, where freelancing is seen as an euphemism for "unemployed" or a stop-gap measure for someone "unable to land themselves a real job". Freelancing, the argument goes, is a stagnant job, not a career with built-in progression and skills training.

Nothing could be further from the truth. If anything, freelancing—and, by extension, the gig economy freelancers operate in—could be a model of how the labour market operates in the future.

Primary workers engage in freelance work as their primary source of income; preferred workers are happy doing freelance work while non-preferred workers would rather be in full-time employment. Source: Labour Force in Singapore 2019, Ministry of Manpower

Numbers back this assessment.

In Singapore, the number of people engaging in freelance work has been increasing across the years, according to the Ministry of Manpower's (MOM) annual Labour Force Reports. In 2016, there were about 200,000 freelancers; last year, the number rose to 211,000. Though it dipped slightly from the high of 223,500 in 2017, overall, the number still displays an upward trend.

More fresh graduates are also heading straight into freelance work, instead of more conventional jobs. Newspaper reports on Joint Graduate Employment Surveys through the years reveal that 2% of fresh graduates were engaging in freelance work in 2017, compared to 1.7% in 2016.

As the years go by, these numbers are only going to get bigger. A research paper on the gig economy, written by two professors of occupational health, concludes that "contingent arrangements are expanding beyond traditional occupations in both private and public sectors ... gig platforms are replacing at least some traditional employment."

In an article on the gig economy, Associate Professor Randolph Tan, an economist from the Singapore University of Social Sciences (SUSS), explains that the main contributor to the rise of the gig economy is technology. Examples that immediately spring to mind are Grab, Foodpanda, and Fiverr—all of which are apps that live in your phone and seamlessly match demand with supply without the need for traditional intermediaries like job interviews, contracts, and so on.

Removing such impediments brings about greater efficiency and lower costs, most of the time. And there is nothing more attractive to a free market economy than these two qualities. Thus, economists and academics recognise that the gig economy is not going anywhere.

For instance, a professor of public policy opines that we, and our government, need to adapt to the gig economy, not avoid it. Likewise, a Harvard Business Review op-ed argues that "universities should be preparing students for the gig economy".

Indeed, universities here are already responding to the seismic changes in our labour force. At SUSS, for instance, courses and workshops on the gig economy are already integrated into the curriculum.

Technology alone cannot explain the rise and persistence of the gig economy. Other economic factors are at play too: uncertainty in the market making companies cautious about hiring full-time staff, or, on the other end of the spectrum, sudden resource crunches that need to be filled quickly.

I don't know enough about the economy to elaborate on these factors; my expertise lies in talking about myself. So I will do just that and try to explain why freelancing can be so attractive to an individual—and, in the process, hopefully dispel some myths about this much-maligned course of work.

For me—and many others, I suspect—the main attraction of freelancing is flexibility free from the rigid temporal and physical confines of a traditional desk-bound job at a physical office.

Flexibility in choosing the type of work was another reason why I chose to do freelance work for a time. Of course, I did not manage to get hired for all the projects for which I pitched or applied, nor did I have the luxury of saying "no" to a job. Nonetheless, I consciously marketed myself as a researcher and creative writer, so I was lucky to find projects relevant to my skillset and interests, which made work more than tolerable.

Which brings me to my next point: in my opinion, freelance work is hardly a dead-end job that cannot be your career. On the contrary, you become your entire company. You get exposed to opportunities and are forced to develop skillsets you never thought you needed such as chasing for payments, managing my working hours and marketing myself.

Indeed, "the gig economy has also paved the way for individuals and small companies to become more entrepreneurial," a professor of finance says in a newspaper article. Thus, even as universities are preparing their students to adapt to the gig economy, they must not neglect entrepreneurship skills.

At this point, one big caveat needs to be made. Thus far, I have been discussing freelancing in the context of rather specialised skills, such as research and editing, or what SUSS Associate Professor Randolph Tan calls "deep skills".

Yet the fact remains that most of the freelancers and gig workers in Singapore are engaged in trades such as transport or food delivery, fields in which most criticisms regarding career stagnation and exploitation are levelled. (According to MOM's 2019 report, there were 23,000 private-hire car drivers, compared to 5,900 media-related workers.)

Associate Professor Walter Theseira from SUSS also describes freelance jobs like driving as having "little hierarchical structure and are fairly simple ... [which] mean that no employer hiring for a permanent career position will take most gig-economy experiences seriously as evidence of fitness for a job that requires significant technical and management skills, or which requires substantial discipline."

Freelance work, in this light, deepens the hole in which underemployed people—individuals whose qualifications or experience outstrip their current job scope—already find themselves in. Freelance work is a trap that will not set free the people who turn to it because they cannot secure full-time employment at a firm.

I don't know if the gig economy is a symptom or cause for scenarios like these. But intervention in these situations is undeniably necessary.

However, we should not forget that some people consciously choose to be a private-hire driver, for instance. Perhaps it's because they want more flexibility in working hours to spend with their children, or they are sick of the corporate rat race.

Sometimes having a particular job is a circumstantial choice. Sometimes it's a personal choice. Why do we need to question it? Why do we need to feel like we're mightier than others when we work in a cushy job and an air-conditioned office, but still have to report to someone of higher authority?

As long as one works hard, sets targets and achieves his goal, any job can be a rewarding one.

In my opinion, we need to stop pegging happiness and fulfilment with corporate success.

And that's what the gig economy is for, and why it has been expanding annually: it gives you the opportunity to choose what you want to do, and, more importantly, choose what you want to prioritise in your life and be happier as a result.

People in Singapore have caught on to the opportunities that the gig economy is conferring.

It's not just full-time freelancers (an irony in terms, but you get what I mean). Students are earning a side income doing writing jobs. Accountants who work on weekends as wedding photographers. Retirees who are bored of staying at home are now transporting people around Singapore—proving true the assertion that the retirement age is becoming a meaningless number today, as Dr Nicholas Sim, Senior Lecturer at SUSS's School of Business points out.

A group of economists from the Organisation for Economic Co-operation and Development (OECD) agree. In a paper on the gig economy, they write: “[the gig economy has] potentially positive effects on aggregate productivity and employment ... Overall, most gig workers are satisfied with their job and working for gig economy platforms appears to reflect mainly voluntary choices rather than the lack of other options.”

Our policies, then, need to catch up with the rate of adoption of freelance work. There are some initiatives already put in place, like the Central Provident Fund's (CPF) contribute-as-you-earn (CAYE) scheme, in which companies will contribute to a freelancer's Medisave account. Currently, it only applies to freelancers working with the government, but may eventually be extended to the private sector.

Because of the uncertain economic conditions caused by Covid-19, the government is also introducing a SkillsFuture scheme that pays all freelancers who attend select courses S\$7.50 an hour.

Aside from these government-led schemes, ground-up movements are also intent on improving the working conditions for freelancers. For instance, in 2018, the Law Society of Singapore published a free legal handbook, Advocate for the Arts, to educate freelancers on their legal rights.

But there are some other areas in which being a freelancer does truly suck. The lack of paid leave and medical coverage are the most pressing issues. Again, I have no economics or public policy knowledge, so I have no suggestions as to how to solve them except: “please sir, can you give freelancers more money and medical insurance”.

Does that diminish the shine of freelancing? Surely. But what we need, I think, is more protections for freelancers, not regulation of the gig economy—which is here to stay.

Article 8: Universities Should Be Preparing Students for the Gig Economy

Harvard Business Review, October 03, 2019

How well do universities prepare students to work independently in the Gig Economy? Today's graduates are joining a workforce where the Gig Economy — including consultants, independent contractors, freelancers, side giggers, and on-demand workers — makes up an estimated 30-40% of the U.S. workforce.

Despite these changes in how we work, universities have yet to integrate the study or practice of the Gig Economy into their curriculum or career services. Instead, they continue to educate and prepare students to become full-time employees in full-time jobs. That approach does a disservice to students who will graduate ill-equipped and unprepared to succeed as independent workers. To better prepare their students for the workforce they'll enter when they graduate, universities can take three important steps:

First, design dedicated courses that help students develop the skill-sets needed. During the past seven years I created and have been teaching the first MBA course in the country on the Gig Economy at Babson College. As far as I know, it's the only one of its kind. This needs to change. Many of the skills required to be a successful independent worker can be taught: how to create a business entity, how to manage a small back office, how to negotiate prices and consulting contracts, and how to develop and execute a marketing and branding strategy. These basic business school skills can be re-framed to prepare students to work independently and entrepreneurially to build a portfolio of gigs. The students in my class have learned these skills and gone on to make significant changes in the way they work.

Second, expand career services to offer gigs. University career services focus on matching students with full-time jobs and, so far, have ignored the rising incidence, and importance, of independent

work in the Gig Economy. I regularly hire independent workers to help with projects that involve research, writing and editing, as well as marketing and social media. I post those opportunities on a variety of platforms, from Upwork, to Craigslist, to LinkedIn. University Career Services must do a better job of helping students find work, not just jobs.

There are nascent signs of change. For instance, the University of Texas at Austin and Wellesley career services have begun educating students about the Gig Economy. The DePaul School of Music uses a student app called The Gig Connection to help students find gigs throughout Chicago, and Boston University has developed a Quick Job board, which includes short-term opportunities that range from raking leaves, to assisting in medical research studies, to developing a web site. Dedicated platforms and apps like these that help students find short-term projects, assignments, and gigs are still rare, but the ones that exist illustrate what the future of career services could look like.

Third, teach what they practise. It's paradoxical that some universities are active and enthusiastic participants in the Gig Economy, yet only prepare their students to work as traditional employees in full-time jobs. Universities need only turn the mirror on themselves to see the work world their students must be ready to enter. Their own business models and practices are a case study about how employers are changing work and their workforce.

Universities rely on independent "gig" contractors. Like Google, universities have already built blended, flexible workforces made up of more independent workers and fewer full-time employees. This is most evident in the growth of adjunct lecturers, who make up 50% or more of the teaching staff at many universities. If universities are part of the trend of hiring significant numbers of independent workers, they should prepare their students for that future, too.

Most professors have side gigs. Universities expect and allow their full-time tenured professors to have side gigs such as consulting and advisory work, paid research, Board positions, and speaking engagements, to elevate their brand and augment their income. "The Tenured Entrepreneur," who hustles for work on the side, is the university faculty norm – not the exception. Even among traditional liberal arts professors of English and History, for example, writing books, contributing to literary and popular magazines, and speaking are popular, and paid, side gigs.

The Gig Economy is disrupting the way companies work, and the way they hire. To succeed, students need to learn how to be self-employed, entrepreneurial, and how to run a small business, because increasingly, that's what each of us is and will do for at least some part of our careers. By teaching their students what they themselves already practise, universities can do a much better job preparing their graduates for the increasingly independent workforce of today, not the traditional jobs of yesterday.

Article 9: How Artificial Intelligence Impacts the Future of Work

AIBees, Aug 08, 2022

While no one knows how artificial intelligence impacts the future of work, we can all agree on one thing: AI is one of the world's most essential technologies today.

Artificial intelligence is already at work in our daily lives, influencing everything from our search results to our online dating chances to how we shop. According to data, using AI in several commercial areas has increased by 270 percent in the last four years.

But, in the future, how will this technology affect work?

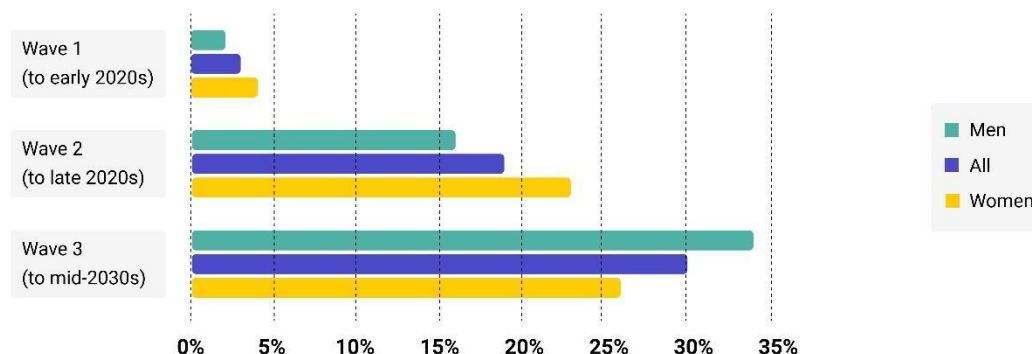
Will it result in a permanent underclass of people who cannot find work because their jobs have been automated?

Will super-intelligent computers take over the planet one day, leaving the humans who built them with little use?

Will robotic servants bring in a golden age of human leisure and prosperity, or will they get an era of peace and prosperity to humanity?

According to PwC research, by the mid-2030s, one-third of all employment will be at risk of being automated. The workforce segment most likely to be affected will be individuals with a low level of education.

% OF EXISTING JOBS AT POTENTIAL RISK OF AUTOMATION

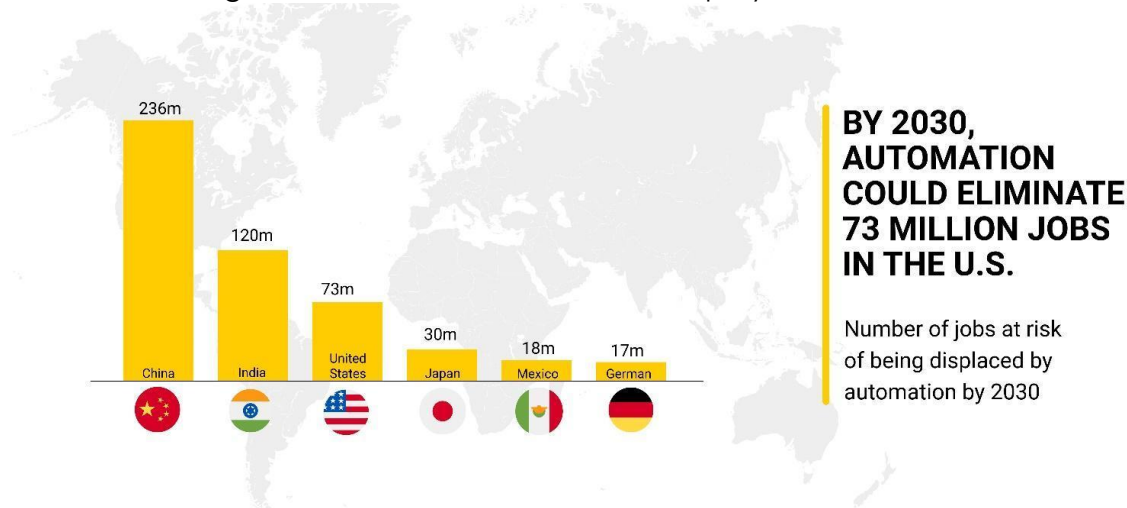


Anxiety about employment losses induced by greater use of machines has existed for centuries. With each breakthrough, someone's livelihood or quality of life was at risk of being irreversibly altered.

How Artificial Intelligence Impacts the Future of Work

As firms go from survival mode to figuring out how to operate living-with-the-pandemic, the replacement of humans by computers may pick up speed in other industries. According to a recent report by economists [Daron Acemoglu](#) at MIT and Boston University, robots could replace 2 million more employees in manufacturing alone by 2025.

According to McKinsey, many Black and Latino Americans work as cashiers, food-service workers, and customer service representatives, among the 15 jobs most endangered by automation. Their continuous march might cause the loss of 73 million employees in the United States by 2030.



Is AI the Future of Work?

Humanity has fretted for millennia from weavers to mill workers that technological growth will lead to a society without employment. The way the media has portrayed artificial intelligence, notably in some of our favorite sci-fi blockbusters, it's understandable that this has spurred anxieties that AI would one day render humans obsolete in the workplace.

For example, as technology advances, many tasks once handled by human hands have been mechanized. Artificial intelligence advances seem to be ushering at the end of work as we know it, and it's understandable why people are concerned.

On the other hand, human workers are unlikely to become obsolete because of AI. Robots are not likely to take over your employment anytime soon to ease your anxieties.

The [MIT Task Force](#) recently released a report titled "Artificial Intelligence And The Future Of Work," which looked at AI advancements and their implications for the workplace. The paper paints a more positive view of the situation.

Rather than calling for the extinction of human labor, the research predicts that AI will continue to drive considerable innovation, resulting in new jobs. AI will power many existing enterprises and have the ability to develop many new ones.

There are still significant limitations to AI's ability to recreate human intelligence's usefulness in performing specific tasks. A standard limit of AI algorithms is that they cannot do over one job and can only solve one problem at a time. They are frequently stiff, unable to respond to changes in input or perform any "thinking" outside of their pre-programmed parameters.

On the other hand, humans have "generalized intelligence," which includes problem-solving, abstract thinking, and critical judgment skills that will remain valuable in the commercial world. Human judgment will be necessary, if not in every work, then at least at every level and across all industries.

Many other problems could limit AI's rapid growth. AI frequently causes "learning," which might include large volumes of data, raising questions about the availability of the correct data, as well as the requirement for categorization and privacy and security concerns. There are also computer and processing power limitations. The electricity alone was estimated to cost \$4.6 million for one supercharged language model AI.

Another significant restriction to be aware of is that data could be biased due to the designers' social imbalances or implicit biases. The AI will likely be biased if the data used to train it is biased.

According to the [MIT CCI research](#), we are still a long way from AI being on par with human intelligence, and it might theoretically replace human employees.

AI can create more employment, not fewer, if there is an investment in all sectors—anywhere that focuses on training and upskilling workers. Instead of "people or computers," the question should be "humans and computers" involved in sophisticated systems that progress industry and wealth. 90% of the world's most successful companies are already investing in AI. More than half of these companies that have used AI-driven technologies say they have increased productivity. We expect the following industries to be significantly impacted by AI:

1. Finance

ATMs did not immediately reduce the number of bank tellers. They resulted in more teller jobs as the convenience of cash machines drew customers to banks. Banks expanded their locations and hired tellers to handle jobs ATMs couldn't accomplish.

2. Hospitality and tourism



Humanoid robots in Tokyo's newest café are another example of how robots make life easier. The Dawn Avatar Robot Café in Nihonbashi, Tokyo, employs [robot waiters](#) to serve guests. You might think that people will lose their employment because of these robot servers, but the story behind them is heartwarming.

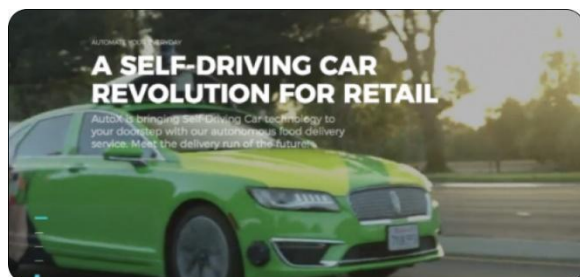
The robots are operated by real people, including disabled workers who cannot leave their homes due to physical limitations, seniors who cannot work long hours, and single parents who require at-home child care assistance.

Kentaro Yoshifuji, the company's co-founder and CEO, came up with the idea for the remote-controlled robots after being bedridden for three years himself. The goal of these robots is to close the gap between disabled individuals and society by providing them with additional career opportunities in which they may readily participate at their own pace.

They're controlled remotely over the internet using eye movements and gestures, and they've taken on the role of an avatar for the workers who use them.

3. Medical

The potential benefits of artificial intelligence in medicine are actively being researched. The medical industry has a large amount of data that they may use to construct healthcare-related predictive models. In some diagnostic scenarios, AI has proven more effective than physicians. The [lung cancer AI system](#) below, for example, can provide a very early warning of the disease.



4. Automotive

With the introduction of autonomous vehicles and autonomous navigation, we're already seeing the impact of [AI in the automotive industry](#). AI will significantly affect production, particularly in the automotive industry.

5. Cybersecurity

Many corporate leaders are concerned about cybersecurity, especially given the expected increase in cybersecurity incidents in 2020 and 2021. During the pandemic, hackers targeted those who worked from home and less protected technological equipment and Wi-Fi networks.



In cybersecurity, AI and machine learning will be critical technologies for detecting and anticipating threats. Given its ability to analyze vast volumes of data and forecast and detect fraud, AI will be a crucial tool in financial security.

6. Job Search

Artificial intelligence (AI) can significantly impact the job search process. An automated application tracking system can reject up to [75% of resumes](#) before a person goes through them.

A while back, recruiters had to spend a significant amount of time sifting through resumes to find qualified applicants. According to LinkedIn data, recruiters can spend up to 23 hours reviewing resumes for a single successful job.

On the other hand, AI-powered systems are increasingly doing resume scanning. In 2018, [67 percent of hiring managers](#) said artificial intelligence (AI) made their work easier.

Employers may use artificial intelligence (AI) to process your application, such as [HireVue](#). As a result, there's no reason why you shouldn't take advantage of similar technology like Jobscan, Jobseeker, and Rezi.

AI and machine learning are on many lists of the most important skills in the job market. Jobs that require AI or machine-learning skills are expected to expand by 71% in the next five years. To adapt to new changes, look into some excellent free online course alternatives that focus on AI skills.

The Final Note

The key to success in the AI future will be a systematic approach to workflow integration with machines, fine-tuning processes, and reskilling employees. As a result, companies will be in a powerful position to grow, develop, scale, and succeed.

AI will be here to stay. But you should not be frightened. Being attentive and adapting to new technologies, particularly AI, is the most excellent way to move forward.

Article 10: Post-pandemic world will be different, but Singapore's fundamental goals don't change: Lawrence Wong

THE STRAITS TIMES, JUL 27, 2021, 11:12 PM SGT

SINGAPORE - As different as the post-pandemic world may look, Singapore's fundamental goals - staying valuable to the global economy and building a fairer and more inclusive society - remain the same.

This was the message Finance Minister Lawrence Wong sought to get across on Tuesday (July 27), in his speech wrapping up nearly five hours of debate on the Government's latest support package for businesses and workers affected by the Covid-19 restrictions.

Life will be different from what it used to be, with greater uncertainty and volatility to be expected, Mr Wong told the House.

"So, we must continue this important work of transforming our economy, and equipping our people with the skills they need in an age of change," he said.

"As we transition to this new normal, we must go beyond support measures towards building strength and resilience for the future. We must continue to invest in growing our economy, strengthening our society and greening our home."

He was responding to suggestions and views after 25 MPs spoke on two rounds of support measures, announced in May as well as last Friday, to help workers and businesses cope with two rounds of tighter restrictions that were imposed following spikes in Covid-19 infections.

At present, several emerging global trends threaten Singapore's value proposition as a hub economy, Mr Wong said. Countries are moving to reshore their production activities, while a growing consensus on a global minimum tax rate is likely to blunt the impact of Singapore's own tax incentives for foreign firms.

Like Venice after the Middle Ages, these external developments could spell decline for Singapore, he warned.

Mr Wong, who visited Venice earlier this month for a Group of 20 finance ministers meeting, recounted how the Italian city had once been a vital trading hub, but failed to adapt to changes in the wider world. With the invention of ships that could sail for months without ever making landfall, traders bypassed Venice and the city-state fell into decline.

"What happened to Venice can happen to Singapore, too, if we are not careful," he said. "We must never take our hub status for granted. We must continue to stay open and double down on our connectivity as a trusted hub for commerce, trade and talent."

As rapid technological change causes waves of disruption, Singapore must continually strengthen its value proposition of being a gateway to Asia and the wider world, he added.

To do this, it will work to anchor more start-ups and nurture innovation here. At the same time, existing companies will have to relook their business models.

For instance, Singapore is currently considered an established base for the aviation industry in terms of engine maintenance, repair and operations. "But we cannot assume that this lead is going to be with us forever," Mr Wong said.

With the industry shifting towards sustainable fuels, the country must actively pursue new opportunities for growth and help its small and medium-sized enterprises (SMEs) develop the capabilities to partner larger firms in the aviation ecosystem.

"This process of restructuring and transformation is vital to keeping our economy vibrant and strong," Mr Wong added. "And so the focus of our support measures will over time shift from providing pain relief, as we are now, to building deep capabilities for companies to innovate and transform."

Acknowledging criticisms that such government schemes can be difficult for companies to navigate, the minister said Enterprise Singapore will take all feedback seriously and work to improve things.

On the employment front, Mr Wong assured Parliament that more jobs will be created as the economy recovers and demand for workers goes up.

"I understand the concern amongst those in temporary jobs, because they're worried that once Covid-19 is over, they may not have jobs," he said. "We are monitoring this carefully, to ensure that those in temporary jobs now will be emplaced into permanent positions."

The country is also working to equip Singaporeans with the skills needed for jobs of the future, he added.

"Singapore will never be a large market or the cheapest place to do business," Mr Wong said. "But what has made Singapore an attractive value proposition for investors is our overall system's competitiveness."

This includes elements such as the rule of law, strong intellectual property protection and an innovative and skilled workforce, he added.

With Covid-19 having revealed vulnerabilities in the social fabric, work must also be put into building a fairer and more inclusive society, Mr Wong said. This involves strengthening social safety nets for the unemployed, as well as boosting support for caregivers and those in the gig economy.

"We want to progress not individually, or for our own families, but for all in our larger Singapore family," he stressed.

But efforts to build such a society must go "beyond redistribution and the provision of social assistance", the minister added. "We must put maximum effort to help every worker earn a fair wage and be accorded due respect for their contributions."

This is why the Government, unions, and employers have been working to raise wages and enhance the employability of lower-wage workers, he said.

A tripartite workgroup looking into issues faced by such workers is also studying how Singapore can move faster on this front. This includes increasing the number of workers covered by the progressive wage model (PWM) and offering progressive wages to workers in occupations not covered by the mandatory PWMs.

The authorities are also reviewing the Workfare Income Supplement scheme, which tops up the wages of lower income workers and helps them save for retirement.

Mr Wong pledged to continue protecting the livelihoods of the most vulnerable workers, adding: "We all have a part to play to ensure social mobility, opportunity, and importantly, dignity, for every worker."

Application #2: Changing Economic Realities

<p>What are the impacts of the Gig Economy and AI on work and society?</p>	<p>What can be done to mitigate challenges of said disruption?</p>
<p>What has been the Singapore experience in terms of impact and future directions?</p>	

Discussion Question:

In an age of rapid technological advancement, is a single career for life realistic? (GCE2018Q3)

• Demographic Shifts •

Reading Set 3

Inquiry Question:

What is the Future of Work?

At the end of this section, students should be able to: Understand how, apart from largely tech-driven changes such as Artificial Intelligence and the Gig Economy, demographic shifts also greatly impact the future of work. They will also learn about the steps that countries need to take to mitigate and adapt to these changes.

Article 11: 4 Global Economic Issues of an Aging Population

Investopedia, August 09, 2021

The social and economic implications of an aging population are becoming increasingly apparent in many industrialized nations around the globe. With populations in places such as North America, Western Europe, and Japan aging more rapidly than ever before, policymakers are confronted with several interrelated issues, including a decline in the working-age population, increased health care costs, unsustainable pension commitments, and changing demand drivers within the economy. These issues could significantly undermine the high living standard enjoyed in many advanced economies.

KEY TAKEAWAYS

- Many industrialized nations are realizing the effects of an aging population, such as a decline in the working-age population and a surge in health care costs.
- Over 20% of the population of 17 countries consists of persons 65 years or older.¹
- The decline in the working-age population results in a supply shortage of qualified workers.
- Nations with a large senior population depend on a smaller group of people to pay for higher health costs, pension benefits, and other publicly funded programs.

Advanced Industrialized Societies Are Growing Older

In 2020, there were 727 million people aged 65 or older. This number is expected to more than double by 2050.

The Decline in the Working-Age Population

A rapidly aging population means there are fewer working-age people in the economy. This leads to a supply shortage of qualified workers, making it more difficult for businesses to fill in-demand roles. An economy that cannot fill in-demand occupations faces adverse consequences, including declining productivity, higher labor costs, delayed business expansion, and reduced international competitiveness. In some instances, a supply shortage may push up wages, thereby causing wage inflation and creating a vicious cycle of price/wage spiral.

To compensate, many countries look to immigration to keep their labor forces well supplied. While countries such as Australia, Canada, and the United Kingdom are attracting more highly skilled immigrants, integrating them into the workforce can be a challenge because domestic employers may not recognize immigrant credentials and work experience, especially if they were obtained in countries outside of North America, Western Europe, and Australia.

Increase in Health Care Costs

Given that demand for healthcare rises with age, countries with rapidly aging populations must allocate more money and resources to their health care systems. Healthcare spending as a share of gross domestic product (GDP) is already high in most advanced economies; one challenge that advanced economies face is to ensure that when they increase spending, healthcare outcomes actually improve.²

Additionally, the healthcare sector in many advanced economies faces similar issues, including labor and skills shortages and increased demand for at-home care. All of these cost escalators can make it more difficult for existing systems to handle the increased prevalence of chronic diseases, while also addressing the needs of large and growing senior populations.³

Increase in Dependency Ratio

Countries with large elderly populations depend on smaller pools of workers in which to collect taxes to pay for higher health costs, pension benefits, and other publicly funded programs. This is becoming more common in advanced economies where retirees live on fixed incomes with much smaller tax brackets than workers. The combination of lower tax revenue and higher spending commitments on health care, pension, and other benefits is a major concern for advanced industrialized nations.

Changes to the Economy

An economy with a significant share of seniors and retirees has different demand drivers than an economy with a higher birth rate and a larger working-age population. For example, rapidly aging populations tend to have greater demands for health care services and retirement homes. Although this is not necessarily negative, economies may face challenges transitioning to markets that are increasingly driven by goods and services linked to older people. As advanced economies become older over the next 15 years, it remains to be seen whether immigration will fill the voids in sectors left by aging populations or whether the broader economies will have to adjust to changing demographics.

Article 12: An ageing workforce isn't a burden. It's an opportunity

World Economic Forum, 3 Jan 2019

Our world is changing constantly and at an increasingly rapid pace. We're at a unique time in our history when increased longevity is converging with unprecedented technological innovation to disrupt ageing in ways previously unimaginable – empowering us to choose how we want to live as we age.

We live in a world where people age 60 and over will soon outnumber children aged five and under. Demographers predict that in countries that are ageing well, more than half the children born today will live to 100 – and some researchers believe that the first person who will live to the age of 150 has already been born.

Yet, global ageing is about much more than demographics. Advances in research and technology are driving innovation in virtually every field that affects our ability to live well as we age. Science is making longer lives possible – and as people live longer, they are continuing to learn, to be productive and to contribute to society.

For many people, that means continuing to work. A key part of the retirement model that most of us have grown up with is freedom from work. Today, a key part of extended middle age is the freedom to work. More and more, people want to keep working past traditional retirement age because they want to continue to contribute to society and find meaning in their own lives – and work does that for them.

Despite these exciting developments, most conversations around ageing still view it as a problem to be solved. And the solutions are all an effort to avoid the “international crisis” that is global aging.

It's a premise that is absolutely and fundamentally wrong, and millions of people are proving it wrong every day. The conversation can't be about how to avoid a crisis; it needs to be about how to take advantage of the opportunities we have so that we as individuals, organizations and nations can thrive.

This is especially true in the workplace. The five-generation workforce is an emerging reality. In order to maintain economic growth, employers and governments must recognize the productive opportunity of older workers. One of the biggest challenges they face is addressing the issue of ageism.

What are some of these negative stereotypes and misperceptions? Older workers can be seen as poor performers, difficult to get along with, untrainable, unable to use technology, resistant to change and too expensive to keep around. They are often seen to lack marketable skills or perceived to have less potential to progress.

But we've also learned that when we fight ageism and challenge outdated beliefs and stereotypes an age-diverse workforce can be a strength. Each generation – including older, experienced workers – has different ways of working and putting their skills to use. Mentoring and reverse mentoring can boost morale and productivity. Older workers can bring institutional knowledge and perspective, social maturity and stability, and can pass on critical knowledge or business relationships to younger workers. Younger workers can bring a more collaborative mindset and can help older workers to become more digitally literate.

An age-diverse labor force also leads to better performance. According to a study by AARP and AON Hewitt, the 50+ segment of the workforce continues to be the most engaged age cohort across all generations. They demonstrate the emotional and intellectual involvement that motivates employees to do their best work and contribute to an organization's success. Moreover, it only takes a 5% increase in engagement to achieve 3% incremental revenue growth.

Combating ageism also means changing the outdated perception of older people as technophobes. AARP's latest research on technology adoption among people 50 and over shows a lot of promise – it's now prevalent across all 50+ age groups. Seventy per cent own a smartphone – and are on social media. Text messaging is also gaining in popularity. There are still some issues around trust and privacy, but signs are promising overall.

We can't think about the workplace without thinking about the marketplace. In the US, for example, the 106 million people aged 50 and over comprise a Longevity Economy that accounts for over \$7.6 trillion in annual economic activity. By 2032, that number is expected to rise to over \$13.5 trillion. This Longevity Economy is now larger than that of any country except the **United States** and China.

The US is not alone in this. National Seniors Australia estimates that total household spending **among older age groups?** in Australia will grow from \$4 billion in 2016 to \$11 billion in 2035. And, they found that if they could increase the labor force participation of people over 50 by 10%, it would add \$16 million in spending to their economy.

But, just as myths and misperceptions about older workers hinder employers' efforts to retain, hire and manage an age-diverse workforce, the myths and misperceptions about older consumers also hinder companies' and other organizations' ability to effectively market to and provide products and services to this growing and increasingly influential market.

This ties in directly with the contributions of older workers in the workforce. After all, how can you reach and serve this market effectively if you don't have at least some people like them – who understand their wants, needs, and lifestyles – in your workforce?

So what can we do to better manage and nurture a five-generation workplace? There is a role for everyone in this – what I call the 3Ps:

- 1. Personal** – Individuals have a responsibility to keep themselves employable.
- 2. Private** – Employers have a responsibility to provide opportunities for older workers to remain on the job, to learn and to grow, to not limit recruiting only to younger workers, and to implement policies and procedures that are fair and address the needs of all employees, regardless of age.
- 3. Public** – Governments at all levels need to enforce policies against age discrimination, look at policies around unemployment, and job retraining to ensure that older workers who lose their jobs get the skills and help they need to find new ones.

Most importantly, we need to change the mindset – change the conversation around growing older – to recognize the value and potential contributions of an ageing population to address our broader economic and societal objectives.

The five-generation workplace is an emerging reality. We can't change the demographic trends, but we can change how we respond to them. By embracing the five-generation workplace, we can turn these disruptive demographics into productive possibilities for employers and employees alike.

Article 13: Countries must compete for migrant workers to boost their economies

The Conversation, May 13, 2018 9.38am BST

Politicians and the media expend inordinate amounts of energy debating migration, often using nativist, populist and xenophobic rhetoric. This is despite the fact that, as of 2017, only three out of every 100 people – a mere 3.4% of the world's population – have left their home nations to migrate to a new country.

The message from people like US President Donald Trump and the UK's "Brexiters" is that migrants should be kept out at all costs to "save" their economies. Yet many scholars have argued that attracting and keeping migrants is essential to economic competitiveness in a globalising world. Some countries are responding positively to such arguments, embracing the benefits migrants can offer to their economies. Others – African countries among them – are far behind the curve.

Many developing countries are immigrant-sending countries which can have some negative effects. In 2017, 74% of all immigrants were of working age. It makes sense that losing this vital demographic can damage a country's economy – and that gaining these workers can help grow another's. This is borne out by history, too: in the 19th century, migrant-receiving countries like the US grew faster than migrant-sending countries like Italy and Ireland because these migrants added to their host country's workforce and left their home countries with fewer workers.

In my research on migration I have found that countries like Vietnam, India and China are actively trying to recruit people from their diasporas – those living outside the region where they or their ancestors were born – to help build their economies.

My research focuses on frontier migration: the movement of people, technology, ideas and capital from a "developed" to a "developing" economy. Among them are increasing numbers of frontier return migrants who were born and raised in one country, leave it for some time but are now opting to return home. Researchers used to assume that once people migrated to the West, they and their children would stay there. But this is increasingly not the case.

Globalisation has spurred increasing numbers of all types of frontier migrants. One of the unexpected consequences is that developed countries might lose out as more and more frontier migrants set their sights on emerging market economies.

The US is losing out

The world's most powerful country and its largest economy, the US, was until recently known as a country of immigrants.

Since 2017, the Trump administration has championed a number of measures to keep immigrants and refugees out: building a wall on the country's southern border with Mexico, limiting refugees and even deleting the phrase, "nation of immigrants" from an official mission statement. But this shift didn't begin with Trump: it started in earnest after the events of 11 September, 2001.

Migration and tech researcher Vivek Wadhwa has warned for years that putting up barriers to immigration will reduce the US's innovative, technological and economic edge. After all, many US businesses are started by immigrants, and just over half of the country's one billion dollar startup companies had at least one immigrant founder.

Wadhwa's research among STEM (science, technology, engineering, mathematics) graduate students who came to the US to study for advanced degrees revealed alarming shifts. Before 2001, most of these sorts of graduates would remain in the US after completing their degrees. After 2001, hostile immigration policies "pushed" them to become frontier return migrants, going home to countries like India and China.

The US was forced to change policy to counter the trend towards STEM students' return migration.

India and China, meanwhile, have also realised the value of attracting their own diasporas back home, and drawing talent from elsewhere in the world. They've developed several new policies to make this easier.

For example, China recently changed its visa policy so that "overseas Chinese" can have multiple-entry visas valid for five years instead of just one. A number of other initiatives have also been introduced to entice skilled migrants to China.

Robin Li, the billionaire entrepreneur behind the internet company Baidu – often referred to as China's Google – is one of those who've pointed out that the US's loss could be his country's gain, saying *this is a good time that China stand up and say, 'Hey, come to us, we welcome immigrants...'*

China and the US are in a battle over which nation will dominate the 21st-century technologically and immigration is at the heart of this battle.

However, it is not only technology migrants who add value to an economy. Workers with all different skill sets are necessary. For example, US agriculture largely relies on foreign workers and Japan, a highly industrialised country with an ageing population, will need to bring in more and more young foreign workers to survive.

Policy benefits for Africa?

African countries are not seizing the opportunity presented by the migration-economic nexus. Only a handful of African countries – among them Liberia and Ethiopia – have actively worked to bring in more migrants.

I have found that people in general and people of African descent in particular, both in Africa and the West, are particularly interested in moving to South Africa to work. This is because South Africa has a well-developed infrastructure and offers what many migrants refer to as "lifestyle" – a good quality of life.

South Africa is trying to position itself as the gateway to the African continent and needs a strong economy to do so. The country would therefore benefit tremendously from a more migrant-welcoming policy.

Building a robust economy has always required migrant workers of all types. That's not going to change any time soon. The country with the most open immigration policy will be best positioned to succeed in the global economy.

Article 14: Japan's Self-Destructive Immigration Policy

Criminalizing asylum seekers and stigmatizing immigration is only worsening Japan's demographic crisis.

The Diplomat Magazine, January 04, 2022

In early 2021, 33-year-old Sri Lankan student Wishma Sandamali died while in a Japanese detention centre. Sandamali, who came to Japan in 2017, had sought protection from domestic violence, only to be arrested and incarcerated for overstaying her student visa. While in the Nagoya Regional Immigration Services Bureau, a stress-induced stomach condition contributed to her losing 44 pounds. Sandamali was vomiting blood before she died, reportedly of emaciation.

Punitive approaches to managing immigration are damning from a human rights standpoint. But in Japan in particular, criminalizing asylum seekers and stigmatizing immigration is also contributing to an existential crisis comprising a fast-aging population, declining fertility, and a shrinking economy.

Japan's Asylum Problem

Since the end of World War II, when Japan shifted from being a multi-ethnic empire to a nation-state with a supposedly homogeneous population, foreigners have been subject to disciplinary regimes of persecution, deportation, and incarceration.

In the 1950s and 1960s, for example, Japanese police targeted Japan's long-term resident Koreans, who numbered 650,000 at the time. Tokyo branded Koreans unassimilable. Ethnic Korean schools were forcibly shuttered, Korean men and women were subjected to stop-and-search practices, and the government pressed Korean families to self-deport for North Korea. Many who left for Kim Il Sung's DPRK were never heard from again.

Sandamali's death, which made her the 18th foreigner to die in Japanese immigration detention since 2007, continues a historical pattern of institutionalized malign neglect toward unwanted foreigners. Tokyo's immigration policies are now characterized by the prolonged detention of asylum seekers (over a year in many cases) and woefully low asylum acceptance rates (0.4 percent of claims in 2019).

Japan's Demographic Time Bomb

Japan is experiencing a crisis. With a median age of 48.4 years, its population is the oldest in the world. In stores across the country, adult diapers now outsell baby diapers by 2.5 times.

It's also a shrinking country, with its population of 127 million expected to contract by over a quarter by 2065.

These demographic shifts will have dramatic social and economic impacts. Fewer Japanese will be able and willing to work. Those who continue in the workforce will likely be older, less productive, and will hold tight to jobs that might otherwise be yielded to younger workers.

An aging population also means a larger percentage of society dependent on elder care. Specialized geriatric nursing is costly. Japan is already dependent on migrant workers to staff its agricultural, manufacturing, and caregiving sectors – jobs unappealing to young Japanese. As the

need for healthcare grows, so will the demand for low and semi-skilled caregivers, medical technicians, and nurses. Inevitably, the demand for workers to fill undesirable jobs will need to be met by increasing migrant labor.

So, how long can Japan hold off providing the solution to its demographic crisis?

Certainly, Tokyo doesn't yet appear ready to resort to migrant workers at the level required to make a difference to the lives of elderly Japanese. Policymakers are pursuing alternatives that include encouraging women to enter the workforce in greater numbers. It's possible that more women working jobs previously dominated by men will boost tax income and encourage economic growth. But it's also possible that more women in breadwinning roles may further contribute to the country's low fertility rate and long-term economic decline.

Another possible solution is the introduction of robot workers to do basic care-giving roles for geriatric patients. But while early studies report robots may relieve some loneliness in older adults, they are not designed to replace human carers who are capable of a range of important caregiving tasks besides basic entertainment.

Which takes us full circle. Without distinct policy level changes, Japan's super-aging society is likely to continue its economic decline and demographic contraction. What this means for the future of the country is yet to be seen, but experts warn of a ticking time bomb counting down to financial collapse.

How these demographic shifts will impact national security is also unclear, with some predicting a "security renaissance," comprising a more robust, capable military. Others note that a shrinking and aging populous will inevitably reshape security strategies; Tokyo has missed its military recruiting targets every year since 2014.

The contradictions are laid bare when, for example, Tokyo announces measures designed to attract young, low, and semi-skilled workers to the agriculture, construction, and hospitality sectors in rural Japan. At the same time, men and women like Wishma Sandamali are subject to treatment more suited to criminals than someone trying to escape an abusive relationship.

Never Again?

Ultimately, future policy solutions will need to encourage a shift in social attitudes toward immigration. Whether it's international students, low skilled labor migrants, or asylum seekers, the long-term detention of foreign nationals facing deportation should not be acceptable.

On December 5, the day that would have been Sandamali's birthday, mourners gathered at Myotsuji Temple in Aichi Prefecture to celebrate her life. Holding Sandamali's remains, her sister Poornima lamented, "If she were alive, today would have been a happy and enjoyable day. I'd like for something like this to never happen again."

Migrants' human rights must be protected, and migrant deaths in state care must not be considered business as usual. But with asylum applications likely to rise as the pandemic recedes, and no firm changes on the horizon with regard to Japanese refugee policy, there's no guarantee that Sandamali's will be the last death in custody.

Article 15: Competitive workforce key as competition increases: Edwin Tong

While Mr Edwin Tong understands Singaporeans' concerns about the influx of immigrants, he points out that reverse immigration is way more worrying.

THE STRAITS TIMES, Feb 24, 2021 06:00 am

With its open economy and a safe multiracial society, Singapore is attractive to foreign nationals looking to settle down in a new country or to build a career.

But this has stirred up anti-immigration attitudes and anti-foreign worker sentiments, which the Covid-19 pandemic has exacerbated.

In an interview with The New Paper, Minister for Culture, Community and Youth Edwin Tong said: "This is a visceral problem for many and also a political one that we have to solve."

Mr Tong, who is an MP for Marine Parade GRC, said he has met residents who are worried about their jobs. He tells them Singapore needs foreign nationals to complement the local workforce and keep the economy robust.

He said: "It is not difficult for the Government today to say we will look after Singaporeans only, in a very narrow way. But what will that do for us in the long term?"

"We can be very insular and put all our resources into looking after Singaporeans and Singapore companies. But if we do that, what is going to happen to our long-term competitiveness?"

The need to remain competitive is vital, he said, as Singapore's competitors and developing countries such as Vietnam and Cambodia are catching up.

There is also the issue of Singapore's ageing population.

"In 2030, the number of people aged over 65 in Singapore will double, and that is a staggering prospect. It means our effective workforce will decline.

"Any time someone in the family loses a job, Singaporeans look around and even if they can't verify it scientifically, they see foreign-born Chinese, foreign-born Indians, foreign-born Caucasians here working and they get upset."

This is a problem that needs to be solved, he added.

"This is a political challenge, to have to mediate the differences between the different groups, at the same time setting a clear eye on what the long-term target must be. Otherwise, we will suffer."

To help his constituents who have lost their jobs, Mr Tong tries to give them a leg up towards new employment.

Last year, a partnership between Parkway East Hospital and Joo Chiat Citizens' Consultative Committee was announced to help needy residents with employment.

Through Jobs Connect @ Joo Chiat - an agency managed by volunteers that provides career advisory and support to residents - those interested in joining the healthcare sector can apply a week before the vacancies are made available to the public.

Mr Tong reiterated his belief that the nation needs to ensure its economy remains open and competitive by referencing a point made by the late Mr Lee Kuan Yew.

"In one of his last few National Day Rally speeches, Mr Lee said the one thing that is more worrying than immigration is reverse immigration," Mr Tong said .

"The day might come when our workforce, our business environment, are too weak to attract new innovation and new multinational corporations and it would be more lucrative for young people to migrate.

"That is going to be the start of a decline for us. We must always bear this in mind when we look at our immigration policies."

Application #3: Demographic Shifts

What are the impacts of an ageing population on work and society?	What are the challenges involved?
What can be done to adapt and mitigate said challenges that an ageing population presents?	

Discussion Question:

To what extent does the migration of people have a positive effect? (GCE2008Q6)

• Essay Questions on Work & Demographics •

The Future of Work

- a) To what extent is artificial intelligence replacing the role of humans? (2019)
- b) 'People today do not work as hard as they did in the past.' How true is this of your society? (2018 - Q7)
- c) In an age of rapid technological advancement, is a single career for life realistic? (2018 - Q3)
- d) 'Practical ability is just as important as intellectual skills.' How far is this true in your society? (2017 - Q10)
- e) 'People who do the most worthwhile jobs rarely receive the best financial rewards.' To what extent is this true of your society? (2016 - Q8)
- f) Consider the view that some careers are better suited to one gender than the other. (2014 - Q12)
- g) How far should firms be allowed to limit their workers' rights when profits are at stake? (2014 - Q2)
- h) Consider the view that most work these days could, and should, be done from home. (2010 - Q1)
- i) 'The family has suffered at the expense of career in Singaporean society.' Is this a fair comment? (2003 - Q12)
- j) Do you agree that city life is becoming increasingly unattractive (2002 - Q9)
- k) How far can prosperity and uncontrolled population growth go hand in hand? (2020 - Q12)
- l) 'Longer life expectancy creates more problems than benefits.' Discuss. (2016 - Q3)
- m) To what extent does the migration of people have a positive effect? (2008 - Q6)