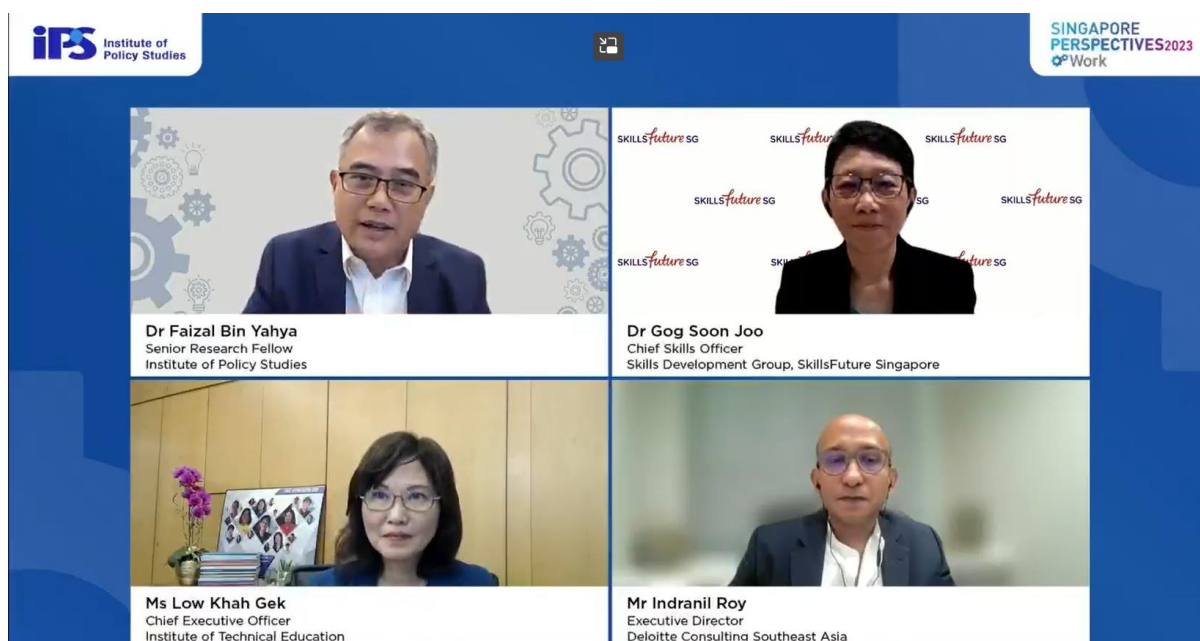


Singapore Perspectives 2023: Work Panel 3: Identifying and Addressing Longer-Term Work Trends: Role of the State and Educational Institutions

By King Yu Yen and Sophy Tio

The Institute of Policy Studies' annual flagship conference, Singapore Perspectives, seeks each year to engage thinking Singaporeans in a lively debate on the country's policy challenges. The theme for this year was "Work", with discussions focusing on how disruptions and trends in technology, socio-economic developments and Singapore's demographics would shape the future of work.

Panel 3 explored the best ways in which Singapore can identify future economic trends and potential areas for job growth, as well as how our educational and training institutes can translate these foresights into strategic labour plans. The panel featured Dr Gog Soon Joo, Chief Skills Officer of the Skills Development Group at Skills Future Singapore; Ms Low Khah Gek, Chief Executive Officer of the Institute of Technical Education; as well as Mr Indranil Roy, Executive Director of Deloitte Consulting Southeast Asia. The Q&A session was moderated by Dr Faizal Bin Yahya, Senior Research Fellow at the Institute of Policy Studies.



Caption for photo: The panellists and moderator for Panel 3 sharing their closing remarks for the virtual session.

Addressing the Skills Needs of Our Economy — A Whole-of-Nation Initiative

Dr Gog Soon Joo, Chief Skills Officer of the Skills Development Group at SkillsFuture Singapore (SSG), shared how SSG monitors global skills demand and supply trends and validates their findings with local industry leaders on a quarterly basis, to ensure that the skills gap is not widening. Based on this data, SSG releases regular and ad-hoc publications with targeted advice, tools and data to help local enterprises and workers make informed decisions. Beyond sector-focused approaches, SSG also takes a pan-economic view in their analyses to help identify common skills across sectors.

Dr Gog also discussed what individuals, industry partners and enterprises can do, given that the success of developing a competitive workforce and economy relies on the whole nation.

Dr Gog highlighted four main points for individuals to build capital for career versatility in an increasingly volatile, uncertain, complex and ambiguous (VUCA) world. First, individuals should grow their careers and learn simultaneously. Second, individuals should establish transformative and productive personal assets, i.e., skills and capabilities that broaden one's exposure. Third, individuals should take a longer-term view to restructure their career goals over their lifetime. Finally, individuals can also build skills by providing career-learning guidance and coaching to others.

Enterprises should embrace skills-based recruitment where they assess potential hires based on their skills, attitude and aptitude, rather than their credentials, as employees can be trained on the job. Enterprises should also provide workplace learning for all their employees' capability development, so that workers can be both upwardly and laterally mobile in their careers.

As enterprises' demand for skills-based training grows, training partners are key in supporting enterprise transformation as well as individuals' career mobility. These partners have to develop programmes tailored to the specific needs of the enterprises. Training partners also have to innovate different models of learning to cater to multi-generational learners in the workforce.

Enabling Employment, Realising Aspirations and Building Employability Resilience for ITE Graduates

Ms Low Khah Gek, Chief Executive Officer of the Institute of Technical Education (ITE), reflected on how all jobs now require a higher level of skills with industry transformations, digitalisation and redesign of jobs. Hybrid jobs that require employees to activate skill sets from more than one discipline has also emerged. Thus, ITE seeks to arm their students with the right skillsets and mindsets to be future-ready.

ITE reviews their courses and curriculum to ensure that they are industry-relevant, that the skills taught are valued by employees and ITE graduates can transit smoothly into the workplace. ITE also seeks to provide authentic, exciting and motivating training experiences for students. Students have the opportunity to study emerging sectors such as the green economy (e.g., automotive and aerospace hubs, solar panel installation, smart building management); care economy (e.g., healthcare and wellness); and digital economy (e.g., horticulture technology hubs, drone and AI hubs, data centre labs and low-code app development).

Majority of ITE graduates aspire to progress beyond an ITE qualification, either immediately upon graduation or at some point in their work life. Going forward, ITE students will graduate with a higher Nitec qualification, so they have a higher level of skills for their first job as well as have a stronger foundation to pursue further education and skills upgrading.

Technical diplomas and work-study diplomas are alternative pathways for ITE graduates, other than polytechnic diplomas. Technical diplomas are provided by ITE in collaboration with overseas training and education institutions. The work-study diploma adopts an apprenticeship model — 70 per cent on-the-job training and 30 per cent on-campus training.

Employers play a significant role, either by providing inputs for the higher Nitec curriculum, by providing internship opportunities, or by becoming ITE's work-study diploma partners.

The future of work is that people will have many jobs and careers throughout their lifetime. Thus, it is important for ITE to help students develop transferable and horizontal competencies, such as life skills, digital skills and AI competencies. ITE students take cross-disciplinary electives so that they can broaden their perspectives and enhance their openness and readiness to pivot to adjacent or different sectors. Education and career guidance (ECG) is also provided in all three years of study so that students can develop the habit and mindset of analysing jobs, understanding skills demand and identifying skills gaps.

Ten Rules of Modern Work

Mr Indranil Roy, Executive Director of Deloitte Consulting Southeast Asia, discussed how the conditions of future work are changing tremendously: we can anticipate jobs to be disrupted every four years; we have to upskill every four and a half years; and we are expected to experience five to six career turns in a lifetime. He shared how he has devised 10 rules of modern work to help workers become proficient at their work and tap on the expanding ecosystem of expertise outside of the workplace.

The first three rules seek to enhance individuals' sense of control and tackle their feelings of being overwhelmed. First, workers should gain motivation by setting their own goals and pace, developing a sense of mastery for things that matter, and finding their personal purpose. Second, workers should set both long-term and short-term goals as opposed to medium-term goals. This is because medium-term goals create anxiety, while long-term goals provide aspiration and excitement and short-term goals drive action and motivation. Third, workers have to shape their next job pathway while they are at their current jobs.

The next three rules address day-to-day frustrations at work. First, workers should understand that it is the service users and not their boss that will judge their work, because modern work is an open talent market. Second, workers can work in sprints to maintain a cycle of continuous learning and testing, as things change every two weeks. Third, workers should be able to work from anywhere but they should be visible, and they can do so by publishing their work, connecting with people or advocating for causes.

The next three rules of growth serve to reduce workers' anxiety about the future of work. First, workers should dedicate time and effort in evaluating and gaining feedback. Around 20–25 per cent of one's time spent on actual work activities can also double as learning opportunities. Second, workers should develop cross-sector skills (or "cross-skilling") instead of focusing

mainly on upskilling because modern careers are not uni-dimensional. Third, workers should aim to master differences to achieve viability, feasibility, sustainability and desirability in their work.

The final golden rule is to run a side hustle because the best ideas exist outside of one's comfort zone. A side hustle requires a certain level of investment — money, time, status — but would be like a hobby that is closely linked to one's passion, skill development and network-building.

Question-and-Answer Session

Q: Given Singapore's multi-generational and ageing workforce, how can workers build career versatility while managing both employment and learning?

A: Dr Gog responded that beyond mobility within a particular field, versatility to cross over to new areas is essential. Citing research that shows those who made early and bold moves went on to make higher earnings over their lifetime, she urged everyone to be open-minded about change and seize opportunities that arise.

Ms Low added that students should also be mentally prepared and take on projects that push them beyond their comfort zones. She noted that when students have different internship experiences, they can better understand how their courses train them for different job roles.

Q: How can we explore work opportunities outside of our main full-time jobs, given that some organisations do not allow their employees to take on other jobs and many individuals may not have sufficient capacity when modern work requires people to be on call 24/7?

A: Mr Roy suggested that workers can seek non-profit learning ventures such as volunteering in the community, and shared how he created a start-up that uses AI to help students in rural India to gain access to career education services. He also posited that exploring one's passion can provide learning opportunities as well as offer an outlet to relieve stress from a full-time job.

Q: What is the first step that we can take towards continuing education and training (CET) if we feel overwhelmed and anxious?

A: Dr Gog said people could start their reskilling by exploring free, bite-sized or modular courses online that pique their interests, before delving into more structured, longer courses. She also encouraged people to find time to practise what they have learnt before pursuing further certification.

Q: It is often difficult to master technical skills taught in STEM disciplines as well as soft skills taught in humanities education. How does ITE integrate the teaching of technical skills with soft skills such as critical and creative thinking, and communication?

A: Ms Low noted that ITE students learn soft skills even while they work on projects that showcase their technical skills. For example, students practise communication when they make presentations for their projects. ITE also emphasises teaching students to understand current affairs so that they can use both their heads and hands to innovate and solve problems. Singapore Perspectives 2023: Work | Panel 3: Identifying and Addressing Longer-Term Work Trends: Role of the State and Educational Institutions, King Yu Yen and Sophy Tio, *IPS Update*, April 2023

Q: How can one pivot to different disciplines, such as from robotics to psychology?

A: Mr Roy remarked that Singapore's system of streaming students into a science or humanities track at a young age may be disadvantageous for modern work, given that soft skills are built over time and it is important to develop an understanding of sociology, psychology and culture.

Dr Gog commented that Singapore's education system has evolved quickly and being multidisciplinary is coming into the picture, with students now having the option to take multidisciplinary modules as well as different subject combinations.

Q: How would you design inclusive pedagogy and training programmes that can attract diverse learners?

A: Dr Gog discussed the success of the government's CET partners, and how pre-training engagement allows the training provider to tailor the course to each company's needs. She also encouraged employers to send a team of workers with different experiences or workers from different divisions for training programmes, so that cross-learning and fertilisation can help diverse learners.

Ms Low added that the design of pedagogy would depend on the topic or discipline, and that CET providers should also offer different modes of learning to cater to working adults with limited time. For example, training providers should offer both online and offline learning options, and provide some hands-on experience and opportunities for learners to immediately apply what they have just learnt.

Q: Given that most educators stay in the teaching service for a long period of time and generally do not change jobs, how can they be a role model to students and teach them the need to learn, relearn, upskill and cross-skill?

A: Ms Low responded that educators learn about the latest innovations in the industry when they supervise students in their work experience programmes. Thus, educators are able to share these new skills and experiences with their students. She also encouraged educators to demonstrate curiosity to their students by reflecting on how things are dynamic and how they have been challenged to think differently.

Q: Do employees in most modern organisations have the ability to follow Mr Roy's 10 rules? How might the rules apply to employers, schools or the state?

A: Mr Roy acknowledged that his rules are primarily aimed at white-collar workers. He further explained that his rules are tools targeted at individuals because his research has shown that individuals are the most adaptable, while organisations are far less adaptable and government institutions the least adaptable.

Q: Are there enduring skills in today's rapidly changing workplace?

A: Dr Gog clarified that not all skills in all jobs expire quickly, and even in the fastest changing fields like technology, the latest innovation that workers may encounter may not be totally new. She also reiterated the importance and endurance of soft skills, citing how employers in Singapore Perspectives 2023: Work | Panel 3: Identifying and Addressing Longer-Term Work Trends: Role of the State and Educational Institutions, King Yu Yen and Sophy Tio, *IPS Update*, April 2023

partnership with SSG have concluded that the 16 most important skills are all soft skills. She shared that these 16 skills can be grouped into three baskets: the first involves skills to manage oneself, including developing adaptive ability and socio-emotional fluency; the second includes skills for working with people, such as developing a customer centric mindset and influencing others in decision-making; and finally, the third encompasses creative thinking skills and making meaning amidst noise.

Mr Roy agreed that certain skills are more enduring, and highlighted how complex problem solving is a meta-skill that requires people to learn new things, talk to others with better perspectives, and adapt to changes.

Q: Much advice regarding achieving career versatility focuses on developing adjacent skills. Is this contrary to Mr Roy's focus on cross-skilling, or do we need a balance?

A: Mr Roy clarified that cross-skilling is about learning adjacent skills in one domain, and provided examples including marketing and customer behaviour or design thinking, or automation and software development. He stated that mastering differences is about jumping domains, which people may achieve when they have reached a certain level, such as being the head of an organisation or an entrepreneur.

Q: What suggestions or recommendations would the speakers make to policymakers?

A: Ms Low recommended that enterprises practise skills-based recruitment, which is hiring based on skills and competencies and not just based on qualifications. For example, companies can conduct performance evaluation tests in addition to holding job interviews. She noted that currently there are many jobs that require degrees, and these unfortunately exclude ITE graduates with a lot of potential. She shared that ITE students demonstrate their thinking in other ways while doing their projects.

Q: How can more employers practise skills-based recruitment?

A: Dr Gog shared how the public sector is moving towards skills-based recruitment, for example, her team has recruited people from humanities backgrounds to do data analytics. She also acknowledged that the public and private sector can do a lot more to recognise skills and become a successful life-long learning society. She encouraged every leader with the power to do recruitment to be a skills champion.

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