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|  | **The Launch of The APRU Project Report on “Transformation of Work in Asia-Pacific in the 21st Century”** The Association of Pacific Rim Universities (APRU) brings together 50 major research universities in Asia and the Pacific Rim to collaborate on effective solutions to the challenges of the 21st century.Their recent report on “Transformation of Work in Asia-Pacific in the 21st Century” discusses the uncertainty surrounding human capital development and employment in the age of the digital economy.This dissemination event in Singapore is part of a series held among APRU member universities to create awareness about the project and generate discussion on how industry and society are being impacted by the changing nature of employment.  It reports on recommendations for steering the workforce through the transition to a digital economy, and gives insights into the challenges confronting Singapore in such an endeavour. |  |

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| **The 4th industrial revolution – transitioning to a digital economy*** The shift towards digital automation is essential for continued economic growth.  As automation makes relentless inroads into the workplace, however, it affects not just individual jobs, but also social structures and governments.
* Repetitive physical and cognitive jobs will be gradually automated, leaving workers displaced.  A labour market that is unprepared for this rise in unemployment could see wider income disparity between workers of high and low skill levels, which will have a negative social impact.
* However, as with previous industrial revolutions, digital automation offers new opportunities and creates new jobs — but these require new skillsets, including digital and advanced technological skills, and there may be a shortage of qualified workers.
* In order to reduce unemployment and fully leverage the technological advances for optimal productivity growth, we need to transform work processes and prepare the labour market to meet the challenges of a digital economy.

**Transformation of work: recommendations and challenges*** Workers need to be retrained and equipped with new skillsets so they can be redeployed to fill new jobs that will be created in the digital economy.  Priority should be given to those likely to be displaced first.  Companies should also focus on nurturing staff to fill new positions that will arise in a digitised environment.
* Government involvement is essential for a successful transition.  Government initiatives could include:
	1. Funding retraining programmes, incentivising companies to invest in staff training and encouraging workers to undergo retraining by providing subsidies.
	2. Collaborating with industries and education providers to ensure training curricula respond to actual labour needs, with instructional content staying current with changing labour demands.  Additionally, support should be provided for the professional development of educators to enhance the quality of their teaching.
	3. Encouraging entrepreneurship by providing funding for new businesses and easing regulations on business creations, as new ideas for streamlining business processes and out-of-box solutions are increasingly needed in a fast-paced environment.
* Singapore, being a relatively small country with good economic resources, is in an advantageous position to navigate the challenges of work transformation.  It has good governance and a strong tripartite collaboration among its unions, employers and the government to ensure effective industrial relations.  Even then, preparing for this transformation will be a challenging and ongoing process.
* Due to the diversity of human capital, implementing change is complicated. Findings and recommendations can only provide starting points. The whole process of transformation is a journey, and needs to be responsive to evolving needs.
* Singapore has 23 different sectors with diverse needs and each evolving at a different pace, thus requiring their own Industry Transformation Map (ITM).  While ITMs provide useful frameworks, companies within each sector have their particular needs, and require unique pathways for change.
* For example, while transformation may be clear-cut for sectors such as transport and logistics, it is not so for professional services, where the landscape is too diverse and the types of services provided are too numerous and varied.  This is a concern as professional services account for more than half of our labour force.
* This diversity makes it a challenge for policymakers to address both the broad-based needs and the varied expectations of Singapore employers.  For example, while some employers find the many existing government schemes and grants useful, others find them too specific to be beneficial.  Some sectors urge a more flexible approach of streamlining grants into a few key ones, but allowing their use for more varied purposes.
* Many companies are unfamiliar with business process automation, so the idea of being digital needs to be broken down into bite-sized pieces for them.  Not all companies need high-tech solutions or have people with the skillsets to implement such changes.  They should prioritise for themselves what is required in the short-, medium- and long-terms in a still-evolving landscape.
* Another challenge is to successfully redeploy workers.  Many companies, particularly SMEs, currently have job vacancies that are left unfilled.  This is despite there being displaced workers in want of employment.  Inclusiveness needs to be a foundational tenet in this entire journey of transformation.  It is important that “no one is left behind” in the transition to a digital economy.
* The biggest impediment to a successful transition may be the resistance to change.  It has prevented business productivity and organisational transformation from keeping pace with industry and technological progress.  Human resource professionals need to work with government and industry leaders to look at change, culture development and how the workforce can cope with transformation; unfortunately, many are very traditional in their thinking.  The mindset shift needed to fully embrace new technologies could present the biggest challenge at the end of the day.
* New forms of employment, such as the gig economy, may become more pervasive, partly reflecting changing job aspirations and motivations.  Millennials prioritise doing something rewarding over seeking success through conventional career paths, and many of them opt for the freedom and flexibility of freelance work.  With future reorientations of the workforce, professional services may increasingly be provided by freelancers. Companies will need proper gig economy management to attract talent.  This requires providing essential tools for ease of work and allowing flexible working conditions.
* Driven by their own ideals, millennials also use technology to facilitate collaborative platforms which allow individuals to work together for non-corporate causes. These platforms have given rise to the sharing economy, where businesses such as Airbnb and e-commerce retailers are already making an impact and disrupting traditional industries.

**Educating the future workforce*** An integral part of preparing for the future of work is in ensuring institutes of higher learning (IHLs) produce graduates with the skillsets to meet industry needs.
* Educational curricula need to be revised to address the skills shifts in the job market.  Educational objectives should include fostering critical thinking, empathy and creativity to equip students with the broad-based skills required in the future workplace where repetitive tasks have been automated.  However, many IHLs are still traditionally organised, training students in skills that are very deep but not broad across the spectrum.  Educational models thus need to evolve and adopt a more multidisciplinary approach.
* In the long-term, having a set of core technical skills is insufficient.  As future challenges remain unknown, the only way to prepare the future workforce is to equip them with meta skills because what is essential is not the knowledge workers possess but their ability to use that knowledge well.  Those with good critical thinking and communication skills, and who are able to collaborate well with others, will excel.

**Discussion*** A participant brought up the issue that the government stance to have everyone digitally trained overlooks differing interests and aptitudes of individuals.  Responses to this pointed out that individuals still choose their own areas of expertise.  The recommended digital training only provides foundational competency, allowing one to understand the technological advances in the workplace.  An example given suggested how taking a basic course in coding could enable a person to convey directives better when briefing a professional coder.
* A point was raised about older workers becoming marginalised with the increasing automation of work processes.  The key solution is to redesign jobs and encourage employers to train older workers for new tasks within their capabilities while providing an inclusive work environment.  In the case of lower-skilled older workers, mechanising certain work processes results in the work being done more easily and safely.  At the same time, automation can never fully replace humans in job processes as there may be unstructured job situations or services that require human empathy, communication or creativity.  Another solution is to pair younger tech-savvy workers with older, experienced industry veterans.  This facilitates learning among co-workers and maximises productivity.
* What can be done to effect a successful cultural mindset shift to embrace the digital economy?  Such a transformation is at a systemic level.  It must be driven from the top, and the CEO needs to believe that change is beneficial.  The company then needs a tailored organisational transformation plan that considers characteristics such as company values, staff mindsets, skills gaps and where the company stands in its journey of change.  The plan has to involve a task force comprising staff from all levels to work on a series of projects.  Forming company training committees to engage management level and human resource staff, workers and unionists, can help align objectives with regard to transforming the workplace.  The transformation may take years to be effective, and will involve a lot of communication, learning and persuasion.
* Do current environmental issues impact the transformation of work?  Climate change has made sustainable development a key concern for organisations.  In the future of work, technology becomes more important as it plays an essential part in improving sustainability, as well as in city planning and population control.  New green jobs and technology jobs will require equipping the workforce with the skillsets to handle these new developments.

*The report on “Transformation of Work in Asia-Pacific in the 21st Century” can be founds*[*here*](https://apru.org/wp-content/uploads/2019/03/G18965_final.pdf)*.*   *You are receiving this because you are a member of the IPS Corporate Associates Programme or have been forwarded this by a member. Find out more about the IPS Corporate Associates Programme and its exclusive events*[*here*](https://lkyspp.nus.edu.sg/ips/corporate-associates)*.*    |

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