

AI may reshape the labour market, but the deeper disruption is in education

We must relook how students are being formed, not just how workers are being retrained. **BY BEN CHESTER CHEONG**

ARTIFICIAL intelligence firm Anthropic has reignited global debate about the future of work. In their report published on Mar 5, economists Maxim Massenkoff and Peter McCrory attempted to measure not just what AI could theoretically do, but what it is already doing in the workplace.

Their findings are both reassuring and unsettling. There is currently little evidence that AI has caused large-scale unemployment.

But the gap between what AI systems are theoretically capable of doing and what they are actually doing in workplaces remains vast – suggesting the labour market is still in the early stages of adjustment.

The study compares the theoretical share of job tasks that large language models could perform with the share workers are currently delegating to AI tools.

Knowledge-intensive professions such as those in business, finance, management, legal work and administration show high theoretical exposure – in several cases approaching 90 per cent. Yet real-world usage lags far behind.

For now, AI appears to be augmenting human work rather than replacing it. But the trajectory is clear. As capabilities improve and organisations experiment with new workflows, the gap between theoretical capability and real-world usage is likely to narrow.

Singapore recognises this. During the recent Committee of Supply debates, ministers emphasised the profound economic implications of AI and the need for workers and institutions to adapt.

At a legal forum on Mar 6, Minister for Law Edwin Tong observed that as much as 44 per cent of legal tasks could be automated. This is not a prediction that lawyers will disappear, but a signal of deeper structural change ahead.

Across industries, AI is increasingly capable of performing routine analytical tasks that once required trained professionals: analysing data, summarising information, conducting preliminary research and generating reports.

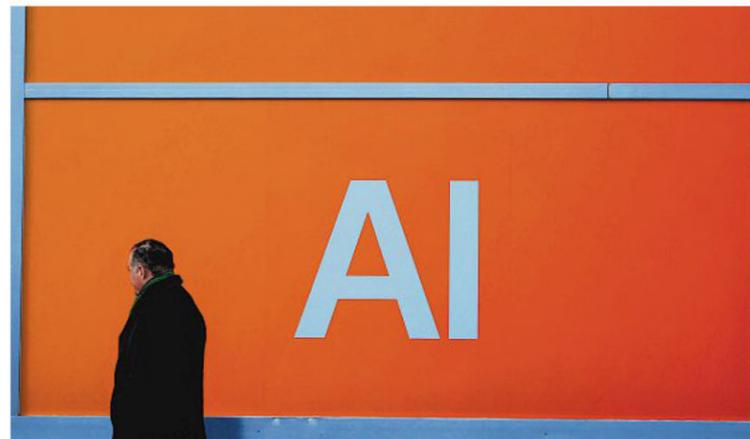
These functions have long formed the foundation of entry-level professional work. A deeper question emerges around how professions reorganise themselves when routine analytical work becomes partially – or even largely – automated.

The cohort that education should worry about

Here lies a tension education systems have not yet fully confronted, one generating serious debate among researchers worldwide. The Anthropic report implies a near-term shift affecting not some distant generation, but students entering university and professional training today. These students were largely educated before AI became ubiquitous. They encounter it now at the threshold of their professional lives, not woven into the fabric of how they first learned to think.

This is a meaningfully different situation from younger children who will grow up in AI-saturated environments and develop their relationship with the technology from the outset (the impact of their learning and cognition is still unknown to us).

The concern is not that graduates will lack knowledge that AI cannot supply. It is that they will lack the judgement to know when AI has supplied it badly – for example, the capacity to



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recognise what is incomplete, mistaken or missing in an output.

That capacity is not taught directly. It is built through the struggle of doing foundational work yourself, accumulating the tacit understanding that makes expertise more than the ability to retrieve correct answers.

The Stanford AI+Education Summit in February surfaced this concern directly. Researchers found that when students rely on AI for foundational work, performance drops sharply once assistance is removed – not merely because they lack the tool, but because they never developed confidence in their own reasoning.

In a Massachusetts Institute of Technology study involving three groups of students writing essays using ChatGPT, a search engine, and nothing at all, researchers found that ChatGPT users had the lowest brain engagement and underperformed across neural, linguistic and behavioural measures.

As Harvard professor Martin West has observed, AI undermines learning precisely when it does the cognitive work of thinking for students rather than supporting it.

Younger individuals show stronger AI dependence and score lower on critical thinking assessments than older cohorts – a pattern that tracks closely with the current university-entering generation.

The risk, then, is not that graduates arrive unknowledgeable. It is that they arrive unable to exercise the judgement that AI supposedly leaves to humans – and therefore unable to do what the next stage of professional life will actually demand: synthesising across disciplines, interrogating outputs and making calls that require more than pattern recognition.

Reimagining the structure of expertise

The longer-term transformation goes deeper. For centuries, universities have structured knowledge into distinct disciplines – law, business, engineering, economics – as largely separate domains.

Yet many modern challenges do not fit neatly within these boundaries. Climate change, digital governance and financial regulation all require legal understanding, technological knowledge, economic analysis and public policy expertise working together.

If AI increasingly handles routine analytical tasks within individual disciplines, the comparative advantage of human professionals may shift towards synthesis: connecting insights across domains, navigating institutional

contexts, and making judgement calls that simultaneously involve legal, technological, economic and ethical considerations.

Universities may then find themselves reorganising programmes around problem domains rather than traditional faculties – digital governance drawing together law, computer science, cybersecurity and ethics; climate transition integrating environmental law, engineering, finance and public policy.

Some institutions have already begun experimenting with interdisciplinary clusters and challenge-based learning.

But this reimagining depends on a prerequisite that current trends put at risk. As Harvard's Chris Dede observed, the task is not to educate people for what AI does well – that is a formula for obsolescence – but for what AI cannot do.

Interdisciplinary synthesis requires something substantial to synthesise. If the current cohort has used AI to bypass building genuine disciplinary foundations, the more ambitious visions for AI-era education may rest on shaky ground.

Thinking upstream

Singapore's investment in SkillsFuture and AI readiness reflects the right instincts. The next frontier is ensuring that thinking extends upstream – into how students are being formed, not just how workers are being retrained.

The deeper opportunity is structural. If AI eventually handles most routine analytical work within individual disciplines, the comparative advantage of the next generation will lie in synthesis – connecting considerations across domains that no single discipline currently teaches together.

Singapore's universities have the quality and the mandate to begin reorganising around that insight.

The labour market will be the first place where these changes become visible. But Singapore has never waited for disruption to fully arrive before reshaping its institutions to meet it.

That same decisiveness, applied to how the next generation is being prepared to think, may prove to be the most consequential education reform of this decade.

The writer is a law lecturer and MOE-Start scholar at the Singapore University of Social Sciences. He is also an associate academic fellow at the National University of Singapore Asia-Pacific Centre for Environmental Law, and a PhD candidate at the University of Cambridge