



# **The 2025 Contextualising Horizon Report**

**Transforming  
ideas into  
impact in higher  
education**

## The 2025 Contextualising Horizon Report: Transforming ideas into impact in higher education

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Contextualising  
**HORIZON**



# Contents

<b>Introduction .....</b>	<b>4</b>
<b>STEEP Trends.....</b>	<b>5</b>
Social Trends .....	6
Technological Trends.....	9
Economic Trends .....	12
Environmental Trends.....	15
Political Trends .....	18
<b>Educational Technology and Practice Trends.....</b>	<b>21</b>
Integrating AI in Curriculum and Systems Responsibly and Inclusively.....	22
Empowering Educators: Digital Literacy and Capability for a Human-Centred Future .....	26
Evolving Valid and Authentic Assessment Practices.....	29
Bridging the Industry–Education Gap.....	33
Balancing Workflows and Wellbeing During Technological Change .....	36
<b>Methodology.....</b>	<b>39</b>
<b>Demographics .....</b>	<b>40</b>
<b>Limitations in 2025 and Future Directions .....</b>	<b>41</b>
<b>Contextualising Horizon Contributors.....</b>	<b>42</b>
<b>References .....</b>	<b>45</b>

# Introduction

As higher education steps into 2026, it does so in a world defined by rapid change, complexity and impact. The ASCILITE Contextualising Horizon team's 2025 scan of current trends highlights how social, technological, economic, environmental, and political forces are converging to reshape the landscape of learning and teaching. These STEEP trends reveal a sector that is both adapting to and generating impact, actively negotiating what it means to teach, learn and thrive in uncertain times.

Socially, institutions are elevating wellbeing and neurodiversity, and confronting the spread of misinformation, even as the public value of higher education is questioned. Technologically, AI (artificial "intelligence") has moved from experimentation to integration, raising new questions about ethics, authenticity, privacy and digital replication. Environmental pressures, from campus strain to climate resilience, are now inseparable from educational design and leadership. Economically, the challenge of rising costs and changing access collides with a labour market transformed by automation and global mobility. Politically, higher education reform, Indigenous inclusion and capacity building are reshaping the sector's direction and priorities.

These trends collectively underscore one message: impact, which is no longer a future outcome, is a present responsibility. Every decision about curriculum, technology, equity and sustainability now carries weight across systems, communities and generations.

At the same time, the educational technology and practice trends identified for 2025 demonstrate how educators are responding on the ground. The focus has shifted from tools to values, towards using technology responsibly, inclusively and for human benefit. Integrating AI into curriculum and systems requires both strategic design and ethical clarity. Empowering educators with digital literacy and human-centred capability ensures they can shape technology rather than be shaped by it. Assessment practices are evolving to become more valid and future focused, reflecting the realities of an AI-infused world. The gap between industry and education is slowly narrowing through partnerships, co-design and microcredentials. And as digital transformation accelerates, institutions are learning that innovation must be balanced with care, protecting the wellbeing of those who make learning possible. Together, these trends paint a picture of a sector in motion, creative, adaptive and deeply aware of its collective impact.

Finally, the ASCILITE Contextualising Horizon team extends sincere thanks to all participants, collaborators and writing groups whose expertise and insight have shaped this report. Your contributions exemplify the very spirit of shared inquiry, reflection and innovation that continues to drive educational transformation across Australasia and beyond.



# STEEP Trends

The STEEP (social, technological, economic, environmental and political) trends provide a lens through which to view the current Australasian higher education context. The defining theme of 2025's Contextualising Horizon STEEP trends is *impact*.

As we move into 2025, the higher education landscape continues to shift under the combined pressure of social expectations, technological acceleration, environmental realities, economic volatility and political reform. These are not isolated forces: they intersect in ways that are profoundly reshaping how education is valued, delivered and experienced. The ASCILITE Contextualising Horizon team's 2025 STEEP scan highlights a single, unmistakable theme cutting across these trends: impact.

Impact is no longer a distant aspiration measured by graduate outcomes or research metrics. It is now an active, daily concern, felt in the wellbeing of staff and students, in the responsible use of AI, in responses to climate and cost pressures, and in the redefinition of education's public role. The 2025 STEEP trends illustrate a sector that is both responding to and generating impact at multiple levels: social, institutional and systemic.

Socially, educators are stepping up to confront misinformation and support neurodiversity and wellbeing, even as higher education's public value is questioned. Technologically, the mainstreaming of AI, privacy challenges and the emergence of digital twins demand strategic and ethical clarity. Environmentally, the sector faces growing campus strain, the ongoing influence of climate impacts and the call for sustainability and Indigenous resilience. Economic forces continue to test access and affordability while reshaping the job market through automation and AI. Politically, higher education reform, skill mobility and Indigenous inclusion signal deep structural shifts in how capacity and equity are built. Together, these trends show a sector in motion, one where impact is not simply measured, but made.

The sections that follow explore in-depth each of the trends for each STEEP category, highlighting the critical issues in the current Australasian higher education context.

## The 2025 STEEP trends

Social	Technological	Economic	Environmental	Political
Elevating wellbeing and neurodiversity	Mainstreaming of AI	Rising costs, falling access	Campus strain	Higher education overhaul
Educators tackling misinformation	Digital twins emerging	Global shifts in education	Climate impacts and Indigenous resilience	Skills and mobility shifts
Higher education's shrinking public value	Privacy under scrutiny	AI reshaping jobs	Sustainability embedded	Indigenous inclusion and capacity building

## Elevating Wellbeing and Neurodiversity

Neurodivergence (ND) has the attention of the higher education sector as a student wellbeing factor. Universities are not expected to manage all student emotional stress or challenges, but it is accepted that ND, including anxiety, dyslexia, dyscalculia, autism, ADHD and physical disability, creates challenges for students (Black et al., 2024) and must therefore be considered across university curricula and support. Recognition of inclusion and diversity is central to how we support higher education students across Australasia, and the sector has been keen to deploy diversity and inclusion policies and procedures.

While the sector has been somewhat tardy in developing comprehensive mechanisms to support ND, and continues to operate largely for the benefit of neurotypical cohorts (Dwyer, 2022), institutions are turning to artificial intelligence (AI) tools such as assistive technologies, chatbots, personalisation platforms, speech-to-text applications, screen readers and virtual assistants to enhance accessibility and inclusivity (Dumitru et al., 2025).

Australian institutions are actively engaged in initiatives through the Australian Disability Clearinghouse on Education and Training and some, for example, the University of New South Wales, are deploying agentic AI, a program called Scout. Ronksley-Pavia et al. (2025) provide a scoping review of generative AI use in K-12 settings, including Australia and Asia, conclusions of which are transferable to higher education. In particular, the review notes caution around an overreliance on AI as a solution to accessibility challenges, including lack of accuracy in AI-generated outputs, poor instructor involvement and privacy and ethical issues.

A recent report (Waldman et al., 2023) of activity in 35 universities in the Southeast Asia region noted that diversity and inclusivity are frequently impacted by cultural, political and historical contexts varying across regions. Encouragingly, though, reforms at student levels can be successfully implemented if local actors take responsibility to do so (Rakhmani et al., 2022): pan-institution reforms take longer and are complex compared to those at local levels. There are various recommendations for the implementation of gender equality, diversity and inclusion (GEDI) actions across Association of Southeast Asian Nations (ASEAN) institutions that will support ND and wellbeing, including the establishment of a joint GEDI research and advocacy centre; critical investment in leadership; robust funding for reform measures; clear application of GEDI in curriculum structures; informed pedagogy and assessment strategies; and mobility approaches that enable reform across ASEAN higher education.

Reports on higher education in Australasia, including Singapore, Malaysia and Thailand, mention increases in mental health issues and student disclosures of ND (Dessauvagie et al., 2021). Universities struggle with the implementing strategies

that fully support students with ND needs in a consistent and scalable way. There is, however, a clear need for inclusive teaching and systemic support that elevates successful outcomes in ND and wellbeing areas. A review of New Zealand higher education websites reveals greater recognition of strategies in support of ND but there remain issues in how ND is accepted and supported, with some advocacy for ND students led by student groups themselves (Crooks & McGuigan, 2022).

***While the levers of change are apparent across the Australasia region, in respect of ND and wellbeing, it is apparent that higher education still has some way to go before it can claim to be effective and to have student wellbeing in hand.***

## **Educators Tackling Misinformation**

Detecting misinformation is important not only for civic participation but to develop the employability skills, such as critical thinking, needed in 21st-century economies. Misinformation (and related phenomena such as disinformation and fake news) has been identified as a serious public issue in areas including health and treatment politics and radicalisation; race and ethnicity; and industrialisation and the environment. Allowing for easy creation and sharing of content, Internet and social media platforms were originally welcomed to democratise information and to amplify marginalised voices (Wirjawan, 2024). Challenges have emerged. Content of varying accuracy, reliability and authenticity now floods the digital environment, consumed not only for entertainment but also for information. Synthetic content (generated using AI) is also rapidly becoming more realistic, producing images, video and audio that are hard to distinguish from genuine sources.

Education, both compulsory and post-compulsory, is seen as a key strategy to address these challenges. Several checklists are in use to help users assess the fitness of information for purpose (Sye & Thompson, 2023): the Currency/Timeliness, Relevance, Authority, Accuracy, Purpose (CRAAP) / TRAAP test or Stop, Investigate, Find, Trace (SIFT) test. Other frameworks include the Māori framework Rauru Whakarare (Feekery & Jeffrey, 2019) and the Source, Understand, Research, Evaluate (SURE) test. New frameworks are also emerging for evaluating output generated by AI, including the Reliability, Objective, Bias, Ownership, Type (ROBOT) test (Hervieux & Wheatley, 2020).

Support comes in a variety of modalities (Rojas-Estrada et al., 2024). Most higher education institutions in Australasia offer for-credit subjects addressing media literacy (wholly or partially), which develop skills across a semester. As a facet of information literacy, university libraries also produce just-in-time content that can be embedded in subjects or self-help resources (Johnston, 2023). Among these are online guides, videos, infographics and digital objects (often built on an H5P platform) such as images with hotspots, checklists and interactive videos. Games practising skills in evaluating sources are less common, but engaging quizzes and games for students and adult learners have been produced by libraries, and educational or government bodies more widely. Other approaches to addressing misinformation include institutional-wide campaigns including creating many useful resources that are readily available. As the production and dissemination

of information continues to evolve, so ongoing review of existing frameworks, pedagogies and platforms will continue to be important.

## Higher Education's Shrinking Public Value

Due to insufficient government funding, Australian universities have increasingly relied on private funding sources such as revenue from international students and investment income. This increased financial strain has led to a more corporate, business-model approach, which raises concerns that profit is prioritised over the educational value (Littleton, 2023). Increased tuition fees are making prospective students rethink the return on investment of student loans, questioning the value of completing a higher degree program.

*There is a critical gap in how higher education addresses financial concerns, equity, trust and digital transformation. To improve public perceptions, citizen- and community-focused approaches may help reconnect universities with social priorities.*

The Asia-Pacific region shows contrasting demographic trends. Countries like Japan and South Korea are facing an ageing population and declining enrolment numbers, while countries like India and Southeast Asian nations are experiencing population growth and increasing demand for tertiary education. This has resulted in a re-regionalisation of higher education characterised by intra-region collaborations and enhanced student mobility (Thérin, 2024). The Economic and Social Commission for Asia and the Pacific (2024) notes ongoing issues with underdeveloped digital infrastructure in remote areas and gender gaps in Internet and device usage. Those most disadvantaged by climate change, who are also digitally marginalised, suffer the most. University leadership must ensure equity-oriented investment in digital technologies and education through purposeful strategies, collaboration and agile frameworks.

The rise of generative AI technologies has also affected the higher education sector, as knowledge is now more widely available and there is concern about assessment validity. This shift challenges traditional ways of learning and contributes to the shrinking public perception of universities' value. The proposed solution calls for collaborative cluster models where universities would cooperate in developing AI systems while providing staff development and a shared governance model alongside equitable assessment redesigning and cross-institutional support frameworks (Liu & Bates, 2025).

# Technological Trends

Kerry Russo, James Tsatsaronis & Helmi Norman

Continuing its disruptive influence, artificial intelligence (AI) remains an existential concern across the landscape of higher education in Australasia and globally. There are numerous indications that AI is rapidly becoming embedded as a core element of many institutions' strategies. This is further complicated by the shift to Industry 5.0, which merges AI technologies with human-centred approaches, offering institutions both significant opportunities and complex challenges (Ali et al., 2025). These institutions are making efforts to leverage technological breakthroughs, some utilising AI, to re-synthesise components of the modern institution in digital formats. However, lingering issues regarding maintaining personalisation, privacy and data security remain a significant concern.

## Mainstreaming of AI

In the years following the public release of ChatGPT, higher education has moved through waves of disruption and resistance to this technology. In 2025, institutions are continuing to adapt to the challenges and opportunities of AI; however, signals that this technology is being piloted for operational and educational services are becoming more common (Kassa & Worku, 2025). Australian universities are partnering with industry, including Microsoft, to pursue ambitious AI-first strategies that aim to offload human resources and information services support to AI assistants (Microsoft, 2024). These strategies are complemented through the implementation of customisable AI assistants, hosted within the institutional infrastructure, to assist with a variety of staff and student tasks (RMIT, 2025). Furthermore, bespoke AI agents are now routinely deployed in learning and teaching environments to fulfill pedagogical roles as educational "stunt doubles" (Hare, 2025). The societal impact of AI in higher education and more broadly is underscored by institutional efforts to investigate how AI can be made equitable, ethical and responsible (University of Sydney, 2025b). These signals collectively illustrate how an increasing number of higher education institutions are embracing AI across the breadth of their operations.

The impact of AI has led to more proactive guidance and governance in some contexts. Australia's Tertiary Education Quality and Standards Agency (TEQSA) assembled information from across the sector into resources to support institutions in meeting quality assurance requirements. This guidance, drawn from a 2024 nationwide request for information by TEQSA on action plans to address generative AI (GenAI), is structured as a toolkit that includes processes, people and practice as dimensions of credible institutional strategies (TEQSA, 2024). Other universities in Australasia are following this trend, with the National University of Singapore policy for AI in teaching and learning encouraging instructors to explore AI usage but to be transparent in its usage and take heed of issues relating to data privacy and equity of access (Loy et al., 2024).

***Integration of AI into educational practice has provoked fundamental questions regarding learning and assessment.***



Recent work examining university generative AI policy illustrates that 20 leading higher education institutions frame this issue as a problem of student originality, with AI being external and separate to student efforts (Luo, 2025). The framing of AI as a tool to circumvent assessment and offload learning has been a recurring theme since the public release of ChatGPT. This issue is exemplified through the viral dissemination of a pre-print from the Massachusetts Institute of Technology showing that prolonged use of AI led to underperformance at “neural, linguistic, and behavioural levels” (Kosmyrna et al., 2025, web abstract). The long-term impact of AI usage on critical thinking skills is unknown and likely to be subject to intense speculation and study into the future.

The mainstream adoption of AI has shifted educational priorities long-term towards developing critical thinking within AI literacies and enhancing soft skills in university graduates. Educators are encouraged to challenge students to use GenAI as a tool for critically analysing and improving their interpersonal skills and human interactions (Lee & Low, 2024). In today’s AI-driven, information-rich environment, the ability to evaluate and critically assess information sources is more vital than ever.

## Digital Twins Emerging

Higher education’s focus on GenAI continues to evolve from concerns about academic integrity, to developing staff and students’ GenAI literacies and capacity, to using AI to create virtual and digital assets to enhance the student learning experience – all while placing strain on the sector to uphold the principles of privacy, authenticity, transparency and accountability. The concept of digital twins in this context refers to a real-time virtual representation or avatar: this is distinct from the traditional definition of a digital twin that models machines, systems or physical infrastructure for engineering and operational optimisation (RMIT, 2023).

A capacity to generate avatars and digital twins presents both opportunities and risks. Avatars and digital twins can transform static case studies into dynamic video formats that bring to life the printed page. Within higher education, digital twins are increasingly used to personalise learning experiences, simulate student engagement and support administrative tasks such as onboarding, assessment walkthroughs and interactive case studies. Digital twins of AI are used to simulate and personalise industrial education by modelling learners’ cognitive, behavioural and performance dynamics through the multi-fidelity digital twin education framework. Meanwhile, digital twins of generative AI are also deployed as personalised tutor avatars that deliver real-time, adaptive instruction tailored to individual learners for Industry 4.0 readiness (Lin et al., 2025).

***Avatars and digital twins can be used, for example, for FAQ agents, chatbots and scenario-based learning tools that enhance accessibility and engagement.***

## Privacy Under Scrutiny

While avatars and digital twins offer creative ways to animate case studies and enhance engagement, the same technologies also introduce serious ethical and legal concerns. Deepfakes, for instance, can exploit personal images to fabricate videos without consent, raising alarm over identity misuse and misinformation. Female educators, students and vulnerable groups are most at risk of deepfakes exploitation (Arantes, 2023, 2024). In response to these risks, in a “groundbreaking move”, Denmark has proposed a landmark copyright reform that grants individuals legal ownership over their likeness, including their face, body and voice (Global Law Today, 2025). Australasia has yet to adopt or even consider similar protections.

In the Southeast Asian context, regional bodies have recognised six core risks of GenAI, with privacy breaches ranking prominently alongside disinformation and intellectual property infringement. Efforts are underway to harmonise personal data protection frameworks through initiatives like the ASEAN Framework on Personal Data Protection and the ASEAN Data Protection and Privacy Forum (ASEAN, 2024, p. 23).

These initiatives aim to establish standard approaches for the handling, sharing and protection of personal information in AI contexts. However, national legal protections remain inconsistent, and many countries rely on non-binding guidelines rather than enforceable standards. The challenges are compounded by cross-border data flows and the diversity of regulatory requirements, meaning that an individual’s educational data or created works may be disseminated, analysed or repurposed beyond national boundaries, often with limited recourse for the original data subjects (ASEAN, 2024).

***As the higher education sector in the region continues to grapple with privacy and digital ethics, the pace of technological advancement is outstripping regulatory clarity. This makes it increasingly difficult to verify the authenticity of video content and to safeguard staff and students from digital impersonation.***

Australia offers a comparatively robust regulatory environment, with recent Office of the Australian Information Commissioner guidelines advocating for “privacy by design”, transparency and explicit consent for the use of personal information in AI development and deployment. The guidelines specifically caution that even publicly available content, if used in the training of GenAI models, must comply with privacy laws, and recommends clear disclosure of AI model limitations. These developments mean that any use of GenAI or digital platforms for learning or research must be scrutinised for compliance with local privacy principles, including restrictions on who can access and use educational data, images and authored content. Universities and educational organisations are now urged to implement comprehensive privacy impact assessments and maintain human oversight over AI-powered tools to ensure that the trust of learners and staff is preserved (Office of the Australian Information Commissioner, 2024). New Zealand follows a similar privacy by design approach, explicitly aligning their privacy and GenAI guidance to the OECD AI principles of respect for democratic values, including fairness and privacy (Digital Government, 2025).

# Economic Trends

Popi Sotiriadou, Audrea Warner & Justin Pierce

## Economic Pressures, Falling Access and Funding Realities

Higher education institutions across Australasia are grappling with escalating costs, stagnant public funding and the imperative to deliver value in an economically constrained environment.

**Inflation and fiscal constraints:** Many in Australasia face persistent inflationary pressures and high interest rates (Reserve Bank of Australia, 2025). This impacts government fiscal policy, potentially limiting investment, even as Southeast Asia sees generally stable growth (Asian Development Bank, 2025). The first quarter of 2025 saw slower growth in some Southeast Asian economies due to trade tensions, impacting potential educational funding (Chang, 2025). Pacific Island nations, heavily reliant on aid and remittances, face unique vulnerabilities to economic shocks and climate change, further constraining domestic education budgets (World Bank, 2025). Dayant et al. (2024) report that official development finance to the Pacific Islands region plummeted by 18% from 2021 levels, with significant falls in grant support. This reduction in aid exacerbates the challenges faced by Pacific Island nations in funding essential sectors, including higher education. Ajay Banga, World Bank President, during his 2024 visit to Tuvalu, emphasised investing in youth skills to address climate change challenges and highlighted that training young people in Tuvalu is crucial for adapting to climate change and for potential migration-induced job opportunities (Needham, 2024).

*The Australasian region is navigating a dynamic mix of global economic instability, fast-paced technological change and evolving societal expectations. These powerful forces are significantly transforming the role, reach and methods of higher education, calling for flexible and collaborative approaches tailored to the region's diverse contexts.*

**Rising sector costs and equity gaps:** In Australia and New Zealand, learners' debt continues to climb, disproportionately affecting disadvantaged groups. Recent trends show millions of learners in Australia working after hours to afford to study (Cann, 2025). Across Southeast Asia, while governments invest in higher education, affordability remains a barrier for many learners. Regional responses to access and equity vary significantly, reflecting diverse socioeconomic contexts and policy priorities. In Australia and New Zealand, governments and universities are exploring fairer loan schemes and increasing targeted support for regional, Indigenous and low-socioeconomic status learners. For example, the Australian Government reduced the Higher Education Loan Program debt (Department of Education, 2025a) by 20%, alongside the Universities Accord's initiatives such as regional study hubs and Commonwealth Prac Payments (Parliament of Australia, 2024). The New Zealand government advocates for increased equity funding for at-risk learners (Radio New Zealand, 2024): from 2025, those learners first starting study or training in 2025 may be able to get Fees Free for their final year of study or final 2 years of work-based training, up to NZ\$12,000. The policy is designed to encourage learners to complete their qualifications or programs by offering incentives and lowering the cost of their education and training (Tertiary Education Commission, 2025).

Many universities in the Australasian region expand scholarships, collaborate with industry for co-funded programs and develop more affordable microcredentials and vocational pathways (e.g., Vietnam's focus on increasing research and development investment and internationalisation for economic competitiveness; Interesse, 2025). Indonesia's Ministry of Higher Education, Science, and Technology emphasises inclusive programs for both public and private universities, aiming for global competitiveness (ANTARA, 2025). In the Pacific Island nations, institutions like the University of the South Pacific (USP) rely on regional cooperation and aid for funding, exploring blended learning to reduce costs for learners. The 2025 Pacific update highlighted the need for Pacific-driven indicators of progress to inform funding discussions beyond purely economic metrics (USP, 2025b). Timor-Leste (East Timor) is expanding access through partnerships with open and distance learning universities like Universitas Terbuka from Indonesia, explicitly addressing limited access in remote areas (Universitas Terbuka, 2025).

## **Workforce Transformation and Educational Adaptation**

The rapid evolution of labour markets driven by generative artificial intelligence (GenAI), automation and the green economy transition demands that higher education systems deliver agile, future-ready skills. GenAI is reforming teaching, learning and administration across the sector. Nair and Chandrasekara (2023) reported the evolving preference for GenAI proficiency over traditional disciplinary expertise, the transformation of information technology degrees and the rise of hybrid skillsets as a hiring preference. Bradley et al. (2024) project that up to 40% of Australian jobs may be impacted by GenAI by the early 2030s. The global transition to a net-zero economy is driving demand for green jobs, highlighting the need for widespread reskilling and upskilling (World Economic Forum, 2025). In response, universities across Asia are embedding sustainability and green skills into their curricula (Fianto, 2025).

In Australia and New Zealand, the sector is integrating GenAI literacy into curricula and research, such as the University of Queensland's guidance on responsible AI use (Institute for Teaching and Learning Innovation, 2025), and expanding green skills programs, exemplified by the University of Melbourne's (n.d.) climate research initiatives, whilst Swinburne University of Technology is advancing microcredentials tailored to digital and design industry needs (Swinburne University of Technology, n.d.). Across Southeast Asia, leading institutions like the National University of Singapore and Nanyang Technological University are integrating GenAI into specialised degrees and research centres. Vietnam has prioritised GenAI, the Internet of Things and big data in national education and research and development strategies (Interesse, 2025). Thailand's Reinventing University initiative aligns university missions with national research and innovation goals (Department of Education, Skills and Employment, 2022), while Malaysia is using scenario planning to incorporate GenAI and Industry 4.0 into its higher education system (Yusoff et al., 2019).

East Asian countries are also taking varied approaches. Japan is expanding access to private secondary education from 2025, which may influence future sector pathways (Asia Education Review, 2025). South Korea's Regional Innovation System and Education initiative decentralises innovation and decision-making to local authorities and enhances global competitiveness and attracts diverse international learners (Kim, 2023). Despite funding pressures, Hong Kong universities continue to

achieve strong global rankings due to strategic leadership and international focus (Parker, 2025), and in the Pacific Island nations, higher education is focusing on climate change and disaster risk education, which are essential for resilience in vulnerable island contexts (The University of the South Pacific, 2025a). Persistent digital divides are being addressed through efforts like the Vanuatu Institute of Technology's adoption of new information management systems (Pacific Community, 2025). Meanwhile, the AI Asia Pacific Institute (2024) is working to guide responsible GenAI development across the Pacific.

***To stay relevant, higher education in Australasia and the region must adapt through agile curricula, stronger industry ties and ongoing teacher development.***

## **Evolving Landscape of Learner Mobility**

Economic factors like national income levels, fiscal policy, employment goals and investment capacity profoundly shape the patterns, opportunities and inequalities observed in the sector's mobility. As the sector is experiencing ongoing volatility, geopolitical shifts and changing learner mobility patterns, these require diversification and strategic partnerships. While Australia and New Zealand have seen partial rebounds in international student numbers, market dynamics are being reshaped by diversification towards new destinations and government policy changes, such as Australian visa adjustments affecting learner numbers (Department of Home Affairs, 2024a, 2025). In response, Australia and New Zealand universities are diversifying through offshore campuses like Monash University Malaysia and expanding online degree offerings, while advocating for balanced policies to support sector sustainability.

Southeast Asian countries such as Malaysia position themselves as attractive education hubs through competitive fees and branch campuses, with Singapore drawing top talent through world-class research; intra-Asian learner mobility is growing due to affordability and cultural proximity (Nash, 2025).

East Asian nations including Japan, South Korea, and Singapore are intensifying efforts to attract international students by relaxing residency rules and offering lower tuition fees, fostering inter-Asian mobility. For instance, South Korea's Study Korea 300K initiative aims to bring in 300,000 international students by 2027, focusing on Southeast and Central Asia, while China encourages international collaboration and supports study abroad and return programs (Nash, 2025). Meanwhile, Myanmar's higher education sector struggles with closures and disruptions following the coup, resulting in a lack of degree programs, credential recognition problems and financial and technical hardships for learners amid the Civil Disobedience Movement (Aung, 2023). Prioritising digital access, lifelong learning and region-specific strategies such as the Laos Higher Education for Accelerated Development project, which aims to enhance academic quality, English language skills and 21st-century competencies (Chanlivong, 2024), will help bridge equity gaps. Embracing foresight and global competitiveness ensures the sector drives innovation and resilience in an uncertain world.



# Environmental Trends

**Charmaine Logan-Fleming, Meg Ivory & Jennifer Boddy**

Creating sustainable, accessible campuses and curricula that address climate change and honour Indigenous knowledges is driving change in design, research and teaching in the Australasian university higher education and technical and vocational education and training (TVET) sectors.

## Campus Strain

Australasian campus issues range from ensuring our campuses are accessible, walkable and carbon neutral, in some wealthy Australian and New Zealand universities, to worrying about permanent loss of land for the Tuvaluan campus of the University of the South Pacific. The breadth of issues does not undermine the good work being done to mitigate potential disasters in privileged areas, but it does give a clear ethical imperative to continue to take responsibility for carbon emissions generated by campuses.

Some universities are doing this through design. For example, the University of Hong Kong, Nanyang Technological University, Singapore University of Technology and Design and the University of Auckland have award-winning sustainable campuses. This vital work increasingly needs to factor in climate impacts, as students need places to escape from extreme weather, and campuses themselves need to ensure they can weather extreme events (Denham et al., 2025). Several Australian and New Zealand universities are explicitly planning and implementing adaptation measures on their campuses, but this work is not yet far reaching or widespread (Jewell, 2024). Increasingly, universities are moving to focusing on adaptation and security of buildings and surroundings, as part of addressing sustainability, but this work is still in its infancy.

Disability activists and other groups are also calling for improved wayfinding and easy access for all students (University of Queensland Union, 2024). Despite progress in many areas, there are still barriers to campus for students. Addressing campus strain and designing campuses that are fit for the future means addressing accessibility and climate adaptation needs, not just building for today's standards.

Many universities are using the United Nations Sustainable Development Goals (SDGs) as a framework to measure their efforts to promote sustainability and address climate change, as can be seen by the number of Australasian universities entering the Times Higher Education (2025) impact rankings for sustainability. In these rankings, Australasian universities take 11 of the top 50 places. Griffith University, Western Sydney University and the University of Tasmania are in the top ten for their work on achieving the SDGs. Papua New Guinea appeared in the rankings for the first time in 2025. New Zealand institutions are similarly well represented in the top 100. Asia, particularly, Southeast Asian countries are also engaging in the rankings and are taking out many of the top 50 places, with Asian universities now making up the majority of all ranked universities. Such efforts demonstrate the desire for the sector to be good citizens and achieve the physical and social changes needed to sustain education into the future.

Addressing campus strain is increasingly moving beyond just meeting minimum standards for sustainability goals and looking to addressing the reality of a changing

climate and the need for campuses that provide accessible, safe and well-used campuses that are built to withstand future climate impacts.

## Climate Impacts and Indigenous Resilience

Climate change continues the colonial legacy of disrupting Indigenous connections to Country. It is compounded by systemic issues such as inadequate infrastructure, exclusion from climate policy discussions and the ongoing marginalisation of Indigenous rights and knowledge. Indigenous and minority communities are often among the first and most severely affected by climate change due to their connection with fragile ecosystems. Many live in vulnerable regions such as small islands, deserts, and high-altitude areas where climate impacts are already disrupting traditional knowledge, farming practices and access to essential services.

However, Indigenous Peoples are not merely passive recipients of climate change impacts, they are also key contributors to solutions. Their deep ecological knowledge and sustainable practices offer valuable insights for adaptation and resilience (Gomez, 2024). To ensure effectiveness and fairness, it is essential that Indigenous voices and knowledge systems are meaningfully included in climate change strategies, decision-making processes and higher education.

***Designing campuses that draw on Indigenous resilience, remove barriers to access and minimise environmental impacts can be seen across the region.***

Increasingly, in Australia and New Zealand (and UNESCO elsewhere), scientific research is recognising and incorporating Indigenous observations and forecasting methods, which are localised, trusted and highly relevant. Further, Indigenous knowledges are being incorporated in curriculum, and some universities are also working with traditional owners to care for the Country their campuses are situated on operationally. For example, in Malaysia, Angit and Jarvis (2024) advocate for leadership models that reflect Orang Asli worldviews. Their work calls for education systems that value Indigenous epistemologies, showing how culturally responsive leadership can dismantle structural barriers and foster inclusive learning. Macquarie University's Centre for Critical Indigenous Studies responded to the Voice referendum (Centre for Critical Indigenous Studies, 2023) by reaffirming Indigenous scholarship as a tool for resilience and resistance, highlighting how academic spaces can support sovereignty and challenge systemic exclusion through Indigenous-led research and activism. The Nature-based Urban design for Wellbeing and Adaptation in Oceania project, led by Auckland University of Technology, embeds Indigenous ecological knowledge into climate adaptation and urban design across Oceania (NUWAO, n.d.). By centring cultural identity and place-based wisdom, it demonstrates how Indigenous perspectives enrich sustainability education and promote community wellbeing.

As Aikenhead and Ogawa argued back in 2007, it is critically important that Indigenous understandings of nature are incorporated in science education. Their pluralistic approach is still relevant today and into the future, promoting respectful engagement with diverse knowledge systems, while also advancing decolonisation and inclusivity in curricula and research.

## Sustainability Embedded in Curriculum

As the climate crisis deepens, and industry expectations increase, higher education and TVET curricula is essential to prepare students as active global citizens capable of achieving the SDGs through Education for Sustainable Development. UNESCO's (2023) Recommendation on Education for Peace, Human Rights, International Understanding, Cooperation, Fundamental Freedoms, Global Citizenship and Sustainable Development calls for a transformation in education to promote peace, human rights, and sustainability. It outlines 14 guiding principles, specific learning outcomes and priority actions to holistically reshape education from policies to teaching practices emphasising not just literacy and numeracy, but also skills such as empathy, critical thinking, intercultural understanding and environmental stewardship.

***The United Nations Sustainable Development Goals (SDGs) are central to this work in reporting and through shaping curriculum.***

Across Australasia, the higher education and TVET sectors are prioritising Education for Sustainable Development to support global climate action. For example, the University of the South Pacific (2024) has created the Centre for Sustainable Futures to build regional capacity in climate change research, policy and leadership, aiming to train Pacific experts to tackle climate challenges. In Singapore, the National University of Singapore and Nanyang Technological University are embedding sustainability in their curricula. The National University of Singapore (2025) emphasises critical thinking around sustainability trade-offs between environmental, social and economic concerns, while Nanyang Technological University (2025b) fosters innovation in sustainability education and research, particularly in resilient urbanisation and ecosystems, enhancing interdisciplinary collaboration and positioning Singapore as a leader in sustainability research.

The University of Waikato in New Zealand has implemented comprehensive sustainability programs that involve student education, research, and community outreach. Their work has led to practical recommendations for local environmental issues. In 2024, the university strengthened its climate commitment by becoming a signatory to the Climate Action Network for International Educators Accord, aligning with global climate goals (University of Waikato, 2025). The education curriculum is evolving to prioritise sustainability, encouraging students to become environmental guardians (*kaitiaki*; Ministry of Education, 2020).

UNESCO's *Education and Climate Change: Learning to act for People and Planet* supports TVET institutions in implementing ESD through a whole-institution approach (Global Education Monitoring Report Team, 2024). Countries like Australia, Singapore, New Zealand, Japan, Korea and Fiji are actively integrating sustainability into their TVET systems. The construction sector is responsible for 40% of global emissions and is under pressure to decarbonise. TVET plays a crucial role in this transition by providing practical, competency-based training aligned with labour market needs, preparing a workforce capable of supporting sustainable construction and the broader green economy. By bridging the gap between industry demands and workforce capabilities, TVET can empower learners with the technical, digital and soft skills essential for sustainable construction. From integrating green principles into curricula to fostering industry partnerships and leveraging cutting-edge technologies, TVET institutions are at the forefront of this green skills revolution (Morley, 2024).

## Higher Education Overhaul

Across the Australasian region, higher education is undergoing significant political and structural reform. Commonly identified themes include financial pressures, equity mandates, public scrutiny and funding shifts, prompting bold policy and institutional responses. Higher-education investment as a share of gross domestic product varies widely, with data showing Australia below the OECD public-funding average, New Zealand and several Pacific states operating with lean tertiary outlays, and Southeast Asian systems spanning tightly targeted subsidies to mixed public-private models: these disparities shape reform capacity and policy ambition (OECD, 2025a; World Bank & UNESCO Institute for Statistics, 2025).

In Australia, the Albanese Government's re-election in 2025 enabled its commitment to the Universities Accord to be renewed with a ten-year roadmap for a more equitable, sustainable system that is underpinned by a managed growth model for Commonwealth-supported places (Department of Education, 2024b), a needs-based funding mechanism for under-represented learners (Department of Education, 2024c) and the Support for Students policy (effective January 2024), which requires universities to identify and support students at risk of attrition and publish policies aligned with national guidelines. Analysts warn these obligations may be difficult to meet without adequate resourcing, especially with funding unavailable until 2026 (Department of Education, 2024d; Norton, 2023). Implementation of the Accord reforms is now underway through new national coordination mechanisms with further structural integration discussed in the following section. Universities across Australia are undertaking significant cost-cutting measures, including major savings targets and restructures at the University of Technology Sydney, the Australian National University and the University of Wollongong (Boyd, 2025; McLaren et al., 2025; Ross, 2025b). Public scrutiny is intensifying: a 2025 Senate proposal to cap vice-chancellors' salaries revived debate on leadership accountability, and a federal report warned institutions failing to address antisemitism may face funding consequences (Department of Education, 2025b; Ross, 2025a).

Across neighbouring systems, funding models emphasise outcomes and accountability. In Singapore, the Ministry of Education continues to fund autonomous universities through negotiated block grants with strong performance oversight and endowment matching, rather than formulaic performance-based funding (Ministry of Education Singapore, 2025a; Ministry of Finance Singapore, 2025). In Malaysia, recent policy signals highlight sustained government investment in higher education, with Budget 2026 committing RM18 billion to the sector and additional funding for research, scholarships, and skills development (Business Today, 2025). The forthcoming Malaysia Higher Education Plan 2026–2035 outlines strategic priorities for digital transformation, inclusivity, employability and institutional autonomy, positioning Malaysia as a regional higher-education hub through stronger international partnerships and industry alignment (Press, 2025).

More broadly, governments across Southeast Asia and the Pacific are aligning international education with workforce needs, while Pacific nations focus on developing climate-resilient, culturally responsive partnerships (ICEF Monitor, 2023, 2024; Ministry for Pacific Peoples, 2023).

New Zealand has paused the Performance-Based Research Fund (Ross, 2024) and redirected the Marsden Fund towards economic outcomes (Ministry of Business, Innovation and Employment, 2024). Te Pūkenga, the New Zealand Institute of Skills and Technology, will be dismantled by 2026, raising concerns about access and viability (Gerritsen, 2024).

## Skills and Mobility Shifts

In Australia, on 1 July 2025, an interim (but fully functional) Australian Tertiary Education Commission (ATEC) commenced. ATEC is tasked, as an “independent steward for the higher education system” to create “a better and fairer tertiary education system that delivers for students and on national economic and social objectives” (ATEC, 2025). The establishment of ATEC is a direct result of a recommendation in the Australian Universities Accord, and the structural reforms it will drive include:

- promoting a joined-up tertiary system between vocational education and training (VET) and higher education
- allocating funding under the new Managed Growth Funding system
- implementing Needs-based Funding with the core funding model
- negotiating mission-based compacts to support a diverse, responsive, and high-performing sector. (Clare & Giles, 2025)

The key here is developing pathways, through portability of credits, between the VET and higher education sectors.

With regards to mobility of international students, while some English-speaking countries, in particular Australia, face policy challenges, study destinations of international students are changing in response, particularly as some (e.g., South Korea and Singapore) are pursuing ambitious internationalisation goals.

In Australia, the Ministerial Direction No. 111 (Order for considering and disposing of offshore Subclass 500 (Student) visa applications MD111) came into effect on 19 December 2024 (Department of Home Affairs, 2024b). Although the Department of Home Affairs states that MD111 is “not a cap, nor does it set the criteria to approve or refuse a student visa application”, it has a set of “indicative allocations” for each provider in both the higher education and VET sectors. This has the potential to significantly shift the mobility of international students in the region to other nations. In October 2023, South Korea launched its Study Korea 300K project, which aims to make South Korea one of the top 10 world-leading countries for study abroad by 2027 (Ministry of Education, 2023). The project is “tied to Korea’s need to fuel its economy with high-skilled workers and to the government’s understanding that the competition for the world’s top international students is intensifying” (ICEF Monitor, 2023, para 1). It will use incentives such as scholarships and lowered visa requirements to create easier pathways to permanent residency for master’s and PhD students, and it aims to diversify its international student population to include more Indian, Pakistani, Polish and United States students, particularly in programs in science, technology, engineering and mathematics (ICEF Monitor, 2023).

The Association of Southeast Asian Nations (ASEAN), consisting of ten Southeast Asian nations and Timor Leste, has been moving towards social and economic integration. “There is general consensus among ASEAN Member States that an enhanced capacity and harmonised HE systems will make for a more prosperous region” (Lim et al., 2023, p. 7). Based on the Kuala Lumpur Declaration on Higher Education, which was adopted in 2025, a roadmap on the ASEAN higher education



space 2025 and its implementation plan were established (ASEAN, 2025b). In line with the United Nations Sustainable Development Goal 4 (United Nations, n.d.), the roadmap is expected to “deliver the mandates and commitments of ASEAN related to boosting intra-ASEAN student mobility by 2025, including the design, ownership, and operationalisation of an ASEAN Branded Scholarship” (ASEAN, 2025b, p. 2). The roadmap includes support for Cambodia, the Lao People’s Democratic Republic, Myanmar and Vietnam on student mobility (ASEAN, 2025b, p. 4).

## **Indigenous Inclusion and Capacity Building**

Indigenous cultural competency has become increasingly valorised in policy and educational contexts in Australia and internationally. Universities Australia, the peak body for the sector, has highlighted the role of Indigenous studies programs in First Nations student retention (Universities Australia, 2017), and the Indigenous Cultural Competency in Australian Universities best practice framework (Universities Australia, 2011) aims to promote Indigenous cultural competency as a capability across the sector. Enabling First Nations student retention requires “creating ‘university places’ that optimise the persistence of Indigenous Australians” (Raciti et al., 2018, p. vi).

Indigenous and Pasifika studies programs and language revitalisation reflect transnational migration, education and employment opportunities. Almost 20% of all Māori now reside in Sydney, Australia. Pasifika comprise approximately 1% of Australia’s total population and the community is growing. Recent higher education policy requirements for Indigenous cultural competency as well as an increased emphasis on transnational Indigenous higher education cultural exchange have fostered a growing international market for Indigenous education. A review of the Indigenous studies research institutes in Australian universities conducted by Randell-Moon for this section indicates a trend towards internationalisation, as in the Centre for Global Indigenous Futures at Macquarie University. The University of Newcastle offers a Bachelor of Global Indigenous Studies with the University of New England and the University of Queensland also making offerings in this area.

In Aotearoa New Zealand, universities place an emphasis on teaching Māori cultural competency and engaging with Pasifika communities as part of bicultural and treaty policy frameworks. The Global North shares these concerns. The University of Calgary (in Canada) includes an International Indigenous Studies course, creating opportunities for cross-educational exchange. UNESCO, the European Commission and the Sustainable Development Goals have increasing relevance for universities engaging in Indigenous studies research and teaching. Government-sponsored education and training initiatives have focused on Cambodia, Laos, Myanmar and Vietnam to participate effectively in regional integration efforts. These initiatives require the provision of technical assistance, policy dialogues and capacity-building programs to address barriers to student mobility and enhance institutional quality.

In an internationalised higher education context, cultural competency is a core skill for knowledge, training, and employment exchange as well as regional efforts related to security and integration. The education market has fostered the need for culturally sensitised education and training programs, including decolonised pedagogies (Randell-Moon, 2024), supported by culturally informed technical assistance.

# Educational Technology and Practice Trends

We present the 2025 Contextualising Horizon Educational Technology and Practice Trends:

- Integrating AI in curriculum and systems responsibly and inclusively
- Empowering educators: Digital literacy, and capability for a human-centred future
- Evolving valid and authentic assessment practices
- Bridging the industry–education gap
- Balancing workflows and wellbeing during technological change

While the STEEP trends outline the forces shaping higher education, the educational technology and practice trends reveal how educators and institutions are responding in practice. In 2025, the focus shifts from simply adopting tools to using them responsibly, inclusively and with purpose.

Integrating AI responsibly and inclusively has become a defining challenge. The sector is moving beyond novelty, embedding AI into curriculum design and institutional systems with a growing awareness of bias, transparency and accessibility. The goal is not just efficiency, but equity.

Empowering educators through enhanced digital literacy and human-centred capability is equally vital. As automation and analytics become part of everyday teaching, educators need the confidence and critical insight to steer technology rather than be steered by it.

Assessment practices are also undergoing a rethink. The sector is experimenting with more valid, authentic, and adaptive forms of assessment, designed to reflect real-world complexity and to ensure integrity in the age of generative AI.

The persistent industry–education gap is narrowing as partnerships, microcredentials and co-designed learning experiences become central to preparing graduates for dynamic, AI-shaped workplaces.

Finally, institutions are confronting the human cost of constant digital transformation. Balancing workflows and wellbeing has emerged as a core capability, recognising that sustainable innovation depends as much on care and culture as on code.

# Integrating AI in Curriculum and Systems Responsibly and Inclusively

Keith Heggart, Lynn Gribble & Dan Laurence

The integration of AI in higher education curricula and systems is evolving beyond basic literacy, emphasising responsible and inclusive adoption across institutions with varying levels of AI readiness. This trend highlights the need for ethical, transparent and culturally aware practices that build staff and student capability in critically engaging with AI tools, while addressing challenges such as equity, environmental impact and the preservation of cultural authenticity. As AI becomes more embedded in educational processes, from personalised learning to administrative efficiencies, institutions must navigate complex issues including regulatory hurdles, staff support and the balance between technological advancement and human-centred pedagogy, all while striving to harness AI's potential to enhance learning experiences and outcomes.

This section integrates Australasia and its neighbouring countries as part of the regional concerns and relevance for learning and teaching. These governments see the potential for AI to drive greater national productivity, and that starts with the universities training their students to use it responsibly and ethically.

## Integration into the Curriculum

This year the focus moves beyond solely AI literacy although the development of foundational literacy should not be ignored. This is because considering how AI may be integrated into the curriculum requires academics to be AI-literate or, perhaps, AI-competent as a starting point, while still recognising that readiness varies with any innovation adoption. Anecdotally, the region still awaits the late majority to “join the party”. Within the region, developed and developing nations face important hurdles in terms of legislative and regulatory processes that are yet to catch up to the fast evolution of AI. As an example, New Zealand has developed a digital strategy and guidance for AI use (New Zealand Government, 2025); however, the law is the minimum, and data and privacy issues can as yet only be considered in terms of what is known versus what is yet to be discovered or explored.

Responsible use remains a complex issue, as many tools that make use of AI are *black boxes* where the user remains unaware of the precise operation and instead is presented with the output. Further, as AI is integrated into the curriculum, issues of equity and inclusivity cannot be ignored, particularly as governments and societies seek to broaden participation within higher education. One core contrast that has emerged is the notion of “human in the loop” (humans always active in the system) versus “human on the loop” (humans supervise, system mainly self-managing). This idea is also related to care pedagogy, where human interaction is a critical part of both how and why learning takes place.

## The CUHK-Jockey Club AI for the Future (AI4Future) project

The Chinese University of Hong Kong (CUHK)–Jockey Club AI for the Future Project (AI4Future; Chinese University of Hong Kong, 2020) developed a pre-tertiary AI curriculum for secondary schools through collaboration between university faculties, teachers, government and industry (Chiu et al., 2021). Co-creation with educators ensured pedagogical relevance and local context, strengthening teacher autonomy and improving students' confidence, motivation and attitudes towards AI.

While focusing on the practical aspects of AI, users have realised that a jagged frontier exists, not just in terms of AI capabilities but also for its users and potential users. It is also necessary to consider the different learning experiences related to AI use. While there are benefits, concerns have also been raised about issues of cognitive off-loading or outsourcing of research. Many institutions are beginning to wrestle with what this might look like in their contexts: for example, Chulalongkorn University in Thailand has committed to the use of AI, noting how it might be used creatively, but also emphasising the balancing act between this and ethical use (Somboon, 2023). Liu (2025) gathers expert opinions which encourage transitioning the conversation to helpful or unhelpful AI use.

## Project-Work Artificial Intelligence Integration Framework (PAIIF)

Researchers at nine universities (Nikolic et al., 2025) have developed the Project-Work Artificial Intelligence Integration Framework to guide the responsible and inclusive integration of AI into curricula and systems. Grounded in the globally recognised Conceive, Design, Implement, Operate model, the framework provides a structured yet flexible evidence-based approach that helps educators embed AI in project-based learning in pedagogically sound ways.

There is also consideration about what students see as acceptable use. Some evidence suggests that, while students are quick to embrace AI (and perhaps quicker to make use of it than they should be), they become unhappy when academics do so. Studies argue about cognitive off-loading and learning gains; however, insufficient time has passed for these studies to be borne out. The debate around whether its presence is inevitable or not means the societal consequences for the longer term are left unclear.

## Using Generative AI Ethically and Responsibly

Griffith University (2024) has developed Using Generative AI Ethically and Responsibly, a student-facing module created collaboratively by library and learning support staff. The resource aims to demonstrate how to integrate generative AI into curricula responsibly and inclusively, building understanding of bias, integrity, privacy and critical thinking while supporting diverse learners to develop ethical AI literacy at their own pace.

Issues persist in considering how AI integration might affect staff, too. Some staff express concern about missing out (“FOMO”, as it is colloquially known) while others express the exhaustion of using it – and discussing it – for a longer period of time. Those who have been experimenting with and integrating AI into their practices have often done so without being given time or resources. It is unsustainable and unfair to expect staff to learn about AI, use it well and make the curriculum changes required on top of their professional or academic workload: instead, these changes require structured time and recognition. The AI dividend also requires attention to balance its use in organisations between reducing overheads against the cost to human capital and a new wave of economic rationalism. Further, educators across the board need support to learn how best to use these tools (or even to not use them) in their context. In many cases, the first step for this is the formation of a committee to explore what this means. For example, Ateneo de Manila University in the Philippines has created a task force specifically to explore how to train staff to “re-construct” the curriculum using AI and teach students to be “humane users of AI” (Office of the President, 2023).

### NTU NALA (AI Learning Assistants)

Nanyang Technological University’s InsPIRE Institute developed NTU AI Learning Assistants (NALA) within the Applications of Teaching & Learning Analytics for Students program to enhance data-informed learning. The generative AI-powered chatbots support large classes by offering personalised guidance and adaptive feedback. In 2025, NALA introduced prompt templates enabling educators to tailor responses and giving students the choice of interaction style that best suits their learning and exam preparation (Nanyang Technological University, Singapore, 2025a).

A further consideration related to responsible use means considering the cost to the planet in terms of water and energy (as per the United Nations Sustainable Development Goals, which most universities are committed to). Originally cited as a significant concern, questions about environmental impact have been more muted recently as proponents of AI have aimed to place the environmental consequences into the context of other practices. From an ethical perspective, responsible use must require awareness of biases within the training data. It must also recognise the challenges of access and equity. From an integrity perspective it would appear that declared use, as students and staff might do in receiving any assistance, is the minimum standard. The sovereignty of First Nations peoples in terms of data and language is also important (Fitch et al., 2023). While the processing power of GenAI offers opportunities in terms of learning, using and preserving languages, it also exposes such languages to the risk of becoming less authentic. This is an issue that has been discussed at length in relation to te reo Māori (Kirkby-McLeod, 2023).



Overall, there is some excitement applied to these affordances offered by AI particularly at an administrative level, accelerating workflows and creating an efficiency dividend that has delivered learning materials often faster and cheaper (Hardman, 2024). Higher education institutions are also rapidly codifying these uses of AI and are establishing processes to deliver larger quantities of “product” in tighter time frames, particularly those higher education institutions less concerned about attribution, copyright and ethical considerations.

As AI input becomes more automated and personalised to an individual’s responses to learning, the judgement of the humans in the loop will become less needed. Along with a trend towards consumer-driven learning design and improving theoretical models of learner behaviour/personas, AI also promises to rapidly analyse user responses and model patterns to then predictively generate appropriate personalised learning designs.

### **Torrino Integration**

Torrens University Australia has integrated Torino, a bespoke AI chatbot, into the Bachelor of Psychological Science to help students develop critical thinking skills. In this activity, students create question prompts focused on workplace mental health and wellbeing, then engage in a reflective dialogue with an AI human resources manager to evaluate their communication approach and professional reasoning (Woutersz, 2025).

Additionally, there have been some more novel opportunities to redefine learning designs in ways that were not previously possible or too time-consuming, examples being the use of AI-supported branching scenarios (Laurence & Patterson, 2024), simulation-based agents that respond and coach students to apply skills in scenarios (Monash University, 2025) and the use of AI agents to facilitate the simple gamification of learning experiences, like tracking and awarding points or a badge for progressing (Ramos, 2025).

While still largely text-based, there are accelerating examples of such applications enriching their offerings with images, audio, virtual reality and video (Cogniti, 2024; University of Melbourne, 2025).

## **Conclusion**

The integration of AI in higher education curricula and systems is evolving beyond basic literacy, emphasising responsible and inclusive adoption across institutions with varying levels of AI readiness. This trend highlights the need for ethical, transparent and culturally aware practices that build staff and student capability in critically engaging with AI tools, while addressing challenges such as equity, environmental impact and the preservation of cultural authenticity. As AI becomes more embedded in educational processes, from personalised learning to administrative efficiencies, institutions must navigate complex issues including regulatory hurdles, staff support and the balance between technological advancement and human-centred pedagogy, all while striving to harness AI’s potential to enhance learning experiences and outcomes.

# Empowering Educators: Digital Literacy and Capability for a Human-Centred Future

**Joan Sutherland, Aseni Warnakula & Nina Fotinatos**

In an era of rapid technological change, empowering educators with digital literacy and capability is essential. This section explores how institutions can support educators in navigating emerging technologies like generative artificial intelligence (GenAI) while fostering ethical, inclusive and human-centred approaches to teaching and learning.

## Foundations of Digital Literacy

Digital literacy is a foundational competency enabling individuals to navigate the evolving demands of work, education and society. As innovations in AI, blockchain, the Internet of Things and augmented and virtual reality reshape global educational environments, these tools are transforming teaching and learning practices across the region (Samala et al., 2024). They support social transformation and reduce inequalities by enhancing flexibility, accessibility and personalisation in digital education.

Digital capabilities now encompass behaviours, attitudes and practices beyond basic information technology skills as it is required for educators to work in digital environments. Sustainable Development Goal 4 highlights the importance of quality education, with UNESCO (n.d.) advocating for digital capability building and equitable access to support international cooperation. Educators are responding to these expectations by personalised, accessible and flexible learning experiences (Zhang & Wu, 2025).

## Policy and Sector Responses

Institutions are responding in diverse ways to emerging technologies, yet stakeholders continue to call for clearer national policies on training and support. In Australia, the Tertiary Education Quality and Standards Agency launched the GenAI Knowledge Hub and published guidance on learning resources (Tertiary Education Quality and Standards Agency, 2025c). The Australian Skills Quality Authority is updating the Standards for Registered Training Organisations with new practice guides (Australian Skills Quality Authority, 2025). In New Zealand, the New Zealand Qualifications Authority (2025b) is providing digital assessment capability building, while the New Zealand Government Tertiary Education Commission is revising achievement standards (Tertiary Education Commission, 2024; Office of the Auditor-General New Zealand, 2024). Member states of the Association of Southeast Asian Nations (ASEAN, 2025a) are reimagining education systems to ensure educators are future-ready. Singapore, for example, is developing digitally proficient, data-literate educators to implement pedagogical innovations (Ministry of Education Singapore, 2025b).

In the South Pacific, countries such as Fiji and Samoa are investing in digital infrastructure and teacher professional development to address connectivity challenges and promote digital inclusion (Chandra et al., 2024). Regional initiatives, including the Pacific Islands Forum's Digital Transformation Strategy, are supporting

capability building and cross-border collaboration to strengthen digital literacy and educational resilience (Pacific Islands Forum Secretariat, 2024; Reddy et al., 2022).

## Building Academic Capability

Academic capability building is a complex and multifaceted process. The World Economic Forum (2025) notes that 39% of workers' skills will be disrupted between 2025 and 2030. This urgency is amplified by the rise of AI and its impact on teaching and learning. Sector commitment to capability building is increasingly visible through the development and adoption of benchmarking tools, the commissioning of open educational resources, and the expansion of communities of practice. For example, the Tertiary Education Quality and Standards Agency has released benchmarking resources (TEQSAgov, 2024) by partnering with higher education leaders such as the commissioned resources from the University of Sydney (GenAI Transforming Higher Education Assessments Video Series) to support digital capability. The Higher Education Research and Development Society of Australasia facilitates communities of practice and peer learning through workshops and special interest groups (<https://herdsa.org.au/special-interest-groups>).

### Technology-Enhanced Personal Learning in Southeast Asia

Universities in Malaysia, Singapore and Thailand are strengthening academic capability through technology-enhanced personal learning, as outlined in Kiran et al. (2025). Initiatives include face-to-face workshops, confidence-building with digital platforms, central repositories featuring video guides and regular knowledge-sharing opportunities.

Academic capability initiatives are influenced by higher education provider leadership stability, institutional readiness, teaching capability frameworks and innovative approaches like virtual coaching (Zimmer & Mathews, 2022). Such leadership is most effective when combined with positive culture and collaboration among academics, third space professionals (Thorpe & Partridge, 2024) and technology experts, a dynamic that is fostering creativity and transforming education. Models of capability building include a range of self-paced, facilitated and blended learning models.

### Blended and Immersive Learning in the South Pacific

The University of the South Pacific and Fiji National University have introduced blended and immersive digital initiatives to enhance educator capability and flexible teaching, detailed in Chandra et al. (2024) and Commonwealth of Learning (2025). These initiatives include online labs, professional development workshops and collaborative programs that expand access to technology-enhanced learning across the region.

## Ethical and Privacy Considerations

A clear trend is emerging across higher education as institutions rapidly evolve their approaches to ethical and privacy challenges posed by new technologies. Recent incidents such as the creation of over 700 AI-generated explicit images of peers without consent in Hong Kong (Aggarwal & Qiao, 2025) and the blocking of the DeepSeek app by Australia's Group of Eight universities (Panagopoulos, 2025) underscore a growing regional commitment to responsible governance and the development of robust ethical frameworks.

Increasingly, higher education institutions are adopting multi-layered, proactive frameworks to guide ethical AI use. These frameworks typically include consent protocols, vendor risk assessments and tool vetting processes aligned with UNESCO's AI recommendations and local standards (McNulty, 2025). In Australia, the eSafety Commissioner plays a leading role in safeguarding online safety and promoting ethical technology use in education, providing national leadership, resources and regulatory oversight for digital safety in schools and universities. Across the ASEAN region, countries are increasingly guided by the ASEAN (2023, 2024) guide on AI governance and ethics, which sets out principles for transparency, privacy, accountability and human-centricity in AI deployment and encourages harmonisation of ethical frameworks across the sector (Fong, 2024).

As these national and regional frameworks evolve, embedding digital capability and privacy protections into institutional decision-making is becoming a critical priority for higher education leaders across the region. This trend reflects sector-wide recognition that ethical and privacy considerations are foundational to the sustainable and responsible adoption of emerging technologies.

## Conclusion

Empowering educators with digital literacy and capability is shaping higher education across Australia, New Zealand, the South Pacific and the wider region. Institutions are responding to rapid technological change through coordinated policy, sector-wide collaboration and the adoption of ethical frameworks that prioritise safety, privacy and inclusion. Continued investment in capability building, governance and cross-institutional collaboration is key to ensure future-ready learning environments where educators and learners thrive.

### Pedagogy Guiding Technology Choice

Academics can be overwhelmed finding the appropriate technology to address their needs. Deakin University launched a teaching and learning tool guide that aligns technology and pedagogy to learning activities, see <https://dteach.deakin.edu.au/tl-tools/>. The resource helps academics identify appropriate tools to enhance learning design and build confidence in technology selection and integration.

### Pedagogy-Led GenAI Capability Building

RMIT Online has developed a pedagogy-led, context-sensitive capability-building program that supports staff in engaging with GenAI. The program, Generative AI Lab for Education, has increased academic confidence, curiosity and practical application of AI in learning and teaching contexts. GAILE: <https://www.rmit.edu.au/about/educational-ai>

### Immersive Professional Learning Spaces

University of Technology Sydney TechLab (<https://techlab.uts.edu.au/>) adopts a human-centred approach to professional learning, providing immersive environments for educators to test and see new technologies. Through innovations as motion platform and mixed reality, the lab supports adaptive, practice-based learning experiences that bridge pedagogy and technology.

# Evolving Valid and Authentic Assessment Practices

Mathew Hillier & Erika Spray

## Context

The disruption to the validity of assessment is continuing. The latest wave of concern has been driven by the advance of generative artificial intelligence (GenAI) such that students can now readily use the technology to produce many types of assessment responses with little input from themselves. Some students do this as part of their standard practice while others make little or no use of emergent technologies (Henderson et al., 2025).

Strategic responses to assure integrity in learning and assessment are complicated by continued demand for flexible and online delivery, institutions seeking efficiency in response to income constraints, staff seeking to manage workload and the need for assessment to authentically represent students' professional and personal capabilities. A growing body of work addresses the need for assessment reform, such as the *Assessment Reform for the Age of Artificial Intelligence* report from the Tertiary Education Quality and Standards Agency (TEQSA, 2023), followed by Lodge's (2024) advice for action, a GenAI toolkit for higher education (TEQSA, 2024) and an implementation resource that explored assuring learning at the program and unit level (TEQSA, 2025b). Ultimately, a broad paradigm shift is required, to reflect the evolving purpose of higher education in a world where complex knowledge and tools are readily available to anyone with a computer and internet connection.

Higher education institutions across the region have released statements and policies addressing GenAI, including in Japan (Fujimaki, n.d.), Singapore (National University of Singapore, 2024), the Philippines (Vergara, 2024), Australia (University of Newcastle, 2024) and New Zealand (Massey University, 2025). While a focus on assessment is not new for many researchers and practitioners, the rise of GenAI has brought renewed attention on assessment practices from a much wider audience. Weng et al.'s (2024) scoping study of the impact of GenAI in higher education teaching and assessment covered 34 papers from regions including Australia, China, Singapore, Taiwan and Malaysia. This trend is also evident in the continued growth of regional special interest groups (SIGs) such as ASCILITE's Transforming Assessment SIG (<https://ascilite.org/get-involved/sigs/transforming-assessment-sig>) and the Higher Education Research and Development Society of Australasia's Assessment Quality SIG (<https://herdsa.org.au/special-interest-groups>) as well as a renewed focus in the academic literature such as the recent call for papers for the special issue "Advancements in Technology-Enhanced Assessment in Tertiary Education" from the *Australasian Journal of Educational Technology* (Agostini et al., 2024).

## Assessment Design

It is expected that the evolution of assessment validity frameworks will continue over the forecast period. The evident trend is a shift away from traffic light (Blakemore, 2023) or discursive definitions of assessment tasks towards distinguishing tasks

by structural characteristics (Corbin et al., 2025). This is exemplified by the evolution of the University of Sydney's now well-known "two lane approach" (Bridgeman et al., 2024), initially centred on a discursive approach, into the current Sydney Assessment Framework (Bridgeman & Liu, 2025) focused on structural characteristics – the dividing line being between tasks that are observed by an assessor versus tasks that are unobserved, the former being suited to higher stakes summative purposes.

## Structural Assessment Framework in the Age of GenAI

The University of Sydney's Assessment Framework (Bridgeman & Liu, 2025) redefines assessment design in response to GenAI. It distinguishes between observed and unobserved tasks, where AI use can be controlled in the former and assumed in the latter. This structure preserves integrity in observed assessments while enabling authentic, discipline-relevant exploration of GenAI in unobserved tasks.

Longstanding principles of assessment continue to underpin high quality tasks. They must be valid measures of authentic outcomes, yet, as Hillier (2023) outlines, tensions exist between such competing requirements as viability (time, cost, workload, scalability), authenticity (typically more complex) and assurance of learning (valid and secure). A diversity of assessment methods is therefore important to address a range of modalities and to balance the inevitable weaknesses of individual task designs. Examples include the use of e-portfolios to compile a triangulated picture of student performance, live interactive oral assessments, presentations, in-person practical assessments, studio-based assessment and digital examinations carried out under observed conditions. As the need for authenticity in assessment continues to evolve, learning outcomes are likely to require the assessment of increasingly sophisticated use of GenAI in preparation for professional practice. One example is the framework by Verhoeven and Hor (2025), which provides a model of how GenAI tools can be thoughtfully integrated into pedagogy and curriculum.

A further trend is the increasing attention being paid to programmatic approaches (including program-level and program-wide designs) that aim to systematically assess student capability across a whole program of study instead of just summing isolated tasks. The TEQSA white paper (2023) was a turning point for programmatic approaches to gain wider attention in the region. This approach has been reinforced with a specific "enacting" guide from TEQSA (2025b), which focused on program-level assessment. The application of programmatic approaches is increasingly occurring beyond the original discipline of medicine into less structured programs, and this will see a diversification and localisation of concepts such as program-level design or program-wide assessment as outlined by Bridgeman et al. (2024). Examples of work underway across the region were showcased at the first Australasian Symposium on Programmatic Approaches to Assessment in September 2025, hosted by Transforming Assessment and HERDSA Assessment Quality SIG (2025).

## Programmatic Approaches to Assessment

The 2025 Australasian Symposium in Programmatic Approaches to Assessment provides several examples of assessing across the curriculum in a programmatic or program-wide manner at the institutional level and across multiple discipline areas at the school level.



A particularly clear trend is the increasing use of interactive orals (Lim & Lim, 2023; Logan-Fleming, 2025). This method fits well within a programmatic approach, including for groups up to 1000 students (Logan-Fleming, 2025). The logistical groundwork required for smooth operation has been recently highlighted by Lodge et al. (2025), but this effort is offset by the advantages of achieving high quality assessment and replacing management and marking of extended written work. Recent discussion around near-future threats to integrity, such as the use of AI-generated student doppelgangers controlled by a third party (Logan-Fleming, 2025), may yet have implications for institutions that rely on fully online assessment. This may play out over the forecast period.

The use of a two-camera protocol to invigilate online assessments may be required, as was explored by Macquarie University for online exams during the COVID-19 pandemic (Hillier & Whitehead, 2022).

### Interactive Oral Assessment

Interactive oral assessments provide a robust, authentic and valid way to assess student capabilities across diverse disciplines. Widely adopted in Australia, New Zealand and Singapore, they foster integrity, inclusivity and employability.

The use of simulation in assessment may see wider adoption given the capability for GenAI to serve as a general simulator development platform. The award-winning Cogniti application (University of Sydney, 2025a) enables educators to create simulated characters with which students can interact. This can be done with less expertise and resourcing than was needed in the past to develop custom simulations. Such simulations have the potential for use in both formative and summative assessment, with interactions able to be marked asynchronously by evaluating transcripts of dialogue (Scott-Curwood et al., 2024). However, caution is still advised given the inherent risks of using large language models where factual output is required (Hicks et al., 2024), and that any required use of GenAI exposes students to potential ethical risks (Hagendorff, 2024).

### Marking and Feedback

The tantalising prospect of offloading the workload of generating feedback on student submissions to GenAI needs to be approached with caution. The principles of integrity and validity apply equally to staff marking and feedback as to student submissions. The sector will need to consider how the quality of marking and feedback can be maintained where institutions deploy GenAI tools to offer students support with or feedback on their work. On the positive side, Henderson et al. (2025) found that students valued self-use of GenAI generated feedback because it was quick, accessible, understandable and less emotionally risky than seeking feedback from teachers. However, the same study found students were worried about reliability, lack of context and discipline-specific expertise. While using GenAI to generate rapid and large-scale feedback may be attractive from a workload and efficiency perspective, Henderson et al.'s findings reiterate the risks of using prediction-based tools such as large language models where factual outcomes and accuracy are important. Further, effective feedback is not simply information but needs to be a conversation between learners and educators, and that requires humans to remain in the loop. Educator engagement with feedback is also essential to inform ongoing teaching and curriculum revision.

## Summary

There are now signs that the evolution of assessment practice may be starting to coalesce around some key concepts. These include distinguishing task designs by structural characteristics for validity purposes, the move towards programmatic approaches and the use of interactive oral assessments. However, some areas remain at a nascent stage, such as using GenAI for simulation and in marking and feedback. There is uneven adoption of assessment reforms across the higher education sector and across the region. It remains to be seen how these ideas will be converted into practice across countries, institutions and disciplines, and whether, in a sense, we will be able to “draw the rest of the owl” (Dawson, 2025).

# Bridging the Industry–Education Gap

**Danielle Logan-Fleming, Michael Sankey & Dhayani Kirubaharan**

The accelerating pace of technological change, particularly with the advent of generative artificial intelligence (GenAI) and AI more generally, is reshaping industry expectations and placing increasing pressure on higher education providers to align graduate capabilities (outcomes) with emerging workforce demands (Jaskari, 2025). A phenomenon across the Australasian region, and globally, bridging this gap is no longer optional, with graduates now required to also be digital fluent, more adaptable, whilst also acquiring professional literacies and higher order thinking skills to thrive in rapidly evolving environments (UNESCO Bangkok & UNESCO Institute for Statistics, 2024; Varsik, 2025).

Thus, universities are now expected to place a greater focus on preparing graduates for a labour market fundamentally transformed by AI. For example, a recent study by the Digital Education Council (2025) found only 3% of employers believe higher education institutions are adequately preparing graduates for an AI-driven workforce. This notion is not lost on regulators, with the the Tertiary Education Quality and Standards Agency (TEQSA) observing that graduates entering the workforce are often not adequately prepared to work alongside AI-driven systems, leaving employers with significant upskilling responsibilities (TEQSA, 2025a). Similarly, a GenAI capacity study from Jobs and Skills Australia (2025a) highlights that AI is more likely to augment than replace work, necessitating skills in collaboration, critical thinking and AI governance. Hence, as higher education pivots (albeit slowly) to emphasise lifelong, transferable capabilities, including ethical reasoning, data fluency, and human-centred problem solving (OECD, 2025b), some examples of good practice are beginning to emerge.

Aligning curricula with current and future industry needs is more than just updating course content and adding in ad hoc subject-based job placements. Proactive curriculum integration and system-wide partnerships with industry stakeholders can ensure learning experiences remain relevant and responsive (Jobs and Skills Australia, 2025b; UNESCO Bangkok & UNESCO Institute for Statistics, 2024). Typically, industry consultations are limited to senior-level consultations every few years when the institution's curriculum is reviewed prior to reaccreditation. Instead, institutions may be better served by involving alumni, professional bodies and current students as partners in ongoing curriculum design and review. For example, advisory boards, when reimaged as active, ongoing forums for exchange, can be particularly effective, as seen in initiatives such as the work-integrated learning (WIL) Joyful Work, Joyful Learning project run by Torrens University Australia in collaboration with Hotel Etico (Scerri & Manfreda, 2025). This is also a good example of the strengthening of learning pathways between secondary, technical and vocational education and training (TVET or VET), and higher education, which remains a priority for many governments in the region.

## Inclusive Hospitality Training Partnership

Torrens University Australia and Hotel Etico, Australia's first training hotel for young people with disability, have co-designed an innovative program that integrates real employment experience with long-term skill development. By blending hospitality training with independence-building support, the partnership demonstrates how industry collaboration can drive equity-focused and sector-responsive education. (See Hotel Etico, 2024; Scerri & Manfreda, 2025.)

To remain current, educators may also engage with industry, not only as observers but as co-developers and co-learners (Jaskari, 2025). This is seen in the recent recommendations (19 and 22) from the Australian Government's inquiry into the use of generative artificial intelligence in the Australian education system (Parliament of Australia. Standing Committee on Employment, Education and Training, 2024, p. xxi), which actively encourages universities to include "training in AI literacy in their degrees, including built-in industry-practice". A nice example of this is seen at the National University of Samoa who have recently developed an additional major in IT Security into their computing program, with integrated AI (awareness & responsible use of productivity tools). The core AI concepts are also being integrated into their undergraduate subjects, designed to meet the emerging needs of industry and the workforce in Samoa (see Exemplar).

## AI-Integrated Computing Programs in Samoa

The National University of Samoa has introduced a new major within its IT Security and Computing programs that integrates AI awareness and the responsible use of productivity tools to align with workforce needs. AI has also been embedded into postgraduate IT audit courses and open digital learning offerings, ensuring strong industry relevance and practical application. (See Mow et al., 2021.)

The rapid pace of AI innovation means that many professionals in the workforce were never trained in the tools now reshaping their sectors (Jobs and Skills Australia, 2025a; OECD, 2024). Higher education institutions can thus act as capability hubs for both students and industry through joint professional development, microcredential offerings and WIL. These approaches position universities as vital contributors to national AI capability and to innovation ecosystems more broadly (UNESCO Bangkok & UNESCO Institute for Statistics, 2024).

Evident also is the re-emergence of more Socratic methodologies, through the increased use of oral and multimodal strategies in learning, teaching and assessment (Shah, 2025); there is also a notable strengthening of problem-based and project-based learning (Chen et al., 2024). This is linked with a rise in the evidencing of learning outcomes through e-portfolios at the program-wide level (Zhang et al., 2025). Not surprisingly, three years in, much of this is now being done in partnership with AI, rather than avoiding its use, primarily to boost productivity and to evidence students being job ready. This is designed to augment the more traditional, yet still very effective, practical campus-based WIL approach, such as the use of tax clinics, psychology clinics or dental clinics, which have students

dealing directly with the public, thus becoming an integral part of the community, addressing the application of real-world skills.

Crucially, TEQSA in Australia is shifting from offering guidance to setting clear regulatory expectations for the responsible integration of AI into curriculum, assessment and governance, as are other governments in our region, for example, the New Zealand Qualifications Authority (2025a); the Malaysian Ministry of Science, Technology and Innovation (Malaysian Science and Technology Information Centre, 2024); and South Korea's Ministry of Science and ICT (2025). This evolving stance means that education providers will soon need to demonstrate how AI considerations are embedded in their offerings, particularly in course accreditation and reaccreditation processes. As noted in a recent webinar with the National AI Centre, "the best time to start embedding AI in your curriculum was two years ago; the next best time is now" (TEQSA, 2025). Institutions lagging in this area may face challenges in meeting future quality assurance benchmarks.

### Curriculum Co-creation with Industry

The University of Auckland integrates GenAI and industry engagement to reshape knowledge production and curriculum design. Moving beyond traditional, discipline-based approaches, the model embeds industry professionals as active partners in co-designing assessments and pedagogical strategies through an iterative, collaborative process that offers a replicable model. (See Muthupoltotage & Walsh, 2025.)

Clearly, adequately funded support structures are needed to embed these practices institutionally (Selvaratnam et al., 2024), as relying solely on individual academic effort is unsustainable. Centralised support through learning and teaching units, industry engagement offices and digital capability teams can provide coordination, training and quality assurance (Jobs and Skills Australia, 2025a; Varsik, 2025). This is especially important in tracking curriculum alignment to workplace needs and in assessing employability outcomes through improved data collection and graduate feedback mechanisms, although there are some notable examples being seen across the region. Of particular note, the *Sustainable Development Goal 4 Midterm Review* highlights uneven progress across the region, predominantly in secondary and technical education, and recommends stronger alignment between education and labour market outcomes (UNESCO Bangkok & UNESCO Institute for Statistics, 2024). This requires coordinated institutional action rather than reliance on individual academics. In Singapore, for example, the Singapore University of Technology and Design (2025) has established the Office of Artificial Intelligence and Digital Innovation (to embed AI across teaching, research and enterprise); through global partnerships, it will foster innovation and support a growing ecosystem of startups, testbeds and ventures centred on design AI.

Ultimately, bridging the industry-education gap in the AI era demands sustained collaboration, system-level agility, and a shared commitment to preparing learners not just for today's jobs, but for the challenges and opportunities of tomorrow. Institutions that can build flexible, equitable and responsive models of graduate preparation will be central to national innovation, economic resilience and social cohesion.

# Balancing Workflows and Wellbeing During Technological Change

Neil Martin, Selene Martinez Pacheco & Simone Poulsen

As tertiary institutions within our region continue to navigate the disruptions brought on by generative artificial intelligence (GenAI), platform consolidation and service outsourcing, a new imperative emerges prioritising the psychosocial sustainability (Cambra-Fierro et al., 2025; Fraboni et al., 2023) of technological efficiency with staff and student wellbeing. This trend reflects a growing awareness that sustainable change must be both inclusive and human centred.

## Understanding Wellbeing in the University Context

Wellbeing is a multidimensional concept that can be understood through two key models. The hedonic model (Diener, 1984; Ryff et al., 2021) focuses on the experience of positive and negative emotions, while the eudaimonic model (Ryan & Deci, 2017) emphasises living with purpose, meaning and continuous flourishing.

These dimensions of wellbeing are present across life domains, including work, and are increasingly relevant in the context of tertiary education, where rapid technological change can challenge both emotional wellbeing and a sense of purpose. It should be noted that themes related to staff and student wellbeing have been clearly identified in the last three Contextualising Horizon Reports.

GenAI intensifies these pressures by augmenting or replacing tasks traditionally performed by humans. Staff may experience anxiety, uncertainty and a perceived loss of professional identity, while students may struggle to find purpose in a system that feels increasingly automated and presents risks to obtaining graduate employment (Whitson, 2025). The risk is that universities, in pursuit of efficiency, may inadvertently undermine the very human connections that underpin learning and teaching.

However, GenAI also holds significant potential to support wellbeing, if implemented thoughtfully. When used to reduce administrative burden, streamline communication or personalise support, GenAI can free up time and cognitive resources for more meaningful academic and relational work. AI-powered chatbots can answer routine student queries, allowing staff to focus on higher-value interactions (see Exemplar). Similarly, students can benefit from timely, personalised feedback that enhances their learning experience and sense of efficacy, all in an academically safe space.

## AI in Education: University of New South Wales's Digital Twin Approach

At the University of New South Wales, Associate Professor Lynn Gribble has created a digital twin, an AI-generated version of herself, to enhance student engagement and streamline teaching. By integrating AI as a co-teacher across courses, she reduces administrative load, fosters deeper learning and models meaningful, human-centred use of emerging technologies (Gribble, 2025).

The impact of GenAI on wellbeing is therefore not inherent to the technology itself, but shaped by how it is introduced, governed and communicated. Institutions that frame GenAI as a tool for human augmentation can help staff and students feel empowered rather than displaced. This requires clear messaging, inclusive



consultation and a commitment to values-based leadership that places people at the centre of technological change. In this light, wellbeing is a strategic opportunity. By aligning GenAI implementation with relational pedagogies and inclusive design, universities can foster a culture of trust, collaboration and purpose. For example, Torrens University Australia's wellbeing initiative invites staff to explore inclusive practices through a pedagogy of kindness (Denial, 2024), underpinned by empathy, care (Noddings, 2002), and compassion (Lemon, 2025).

### Human-Centred Wellbeing During Technological Change

Torrens University Australia's initiative integrates wellbeing into digital transformation through the Staff Wellbeing Program and Wellbeing Summit. Focusing on mental health, connection and compassionate leadership, it embeds psychosocial safety and empathy into digital workflows, reframing technological change as an opportunity to build trust, resilience and sustainable performance. (internal access only)

## The Dual Imperative and Ethical Dilemmas

Universities are navigating a dual imperative: the need to innovate and find efficiencies while remaining true to their mission of providing high quality and transformative education that leads to graduate careers. The rise of GenAI presents ethical dilemmas that challenge the sector's values and long-term sustainability, as well as the wellbeing of their communities.

One such dilemma is the tension between preparing students for a workforce increasingly shaped by automation, while simultaneously adopting practices that may reduce human roles within the university itself. Entry-level graduate jobs are increasingly automated, and, in cost-conscious environments, there is a temptation to replace staff with AI systems that promise faster and more efficient performance. This contradiction, educating students for meaningful work while devaluing human contribution within the university, risks undermining the university's social contract, raising questions about the future of work and the university's role in preparing students for it, creating tension between educational goals and labour market realities.

Addressing these dilemmas requires more than technical solutions. It demands a commitment to human-centredness, inclusiveness and sustainable change. Human-centred approaches ensure that technological decisions are guided by the experiences of staff and students, in addition to operational metrics. Inclusive practices invite diverse voices into the decision-making, particularly those most affected by change, from project planning to communications and implementation. Sustainable change prioritises long-term wellbeing and institutional resilience over short-term gains.

Institutions that foreground wellbeing in their change agendas are more likely to retain talent, foster trust and build cultures of collaboration. By framing GenAI as a tool for human augmentation rather than replacement, universities can empower staff and students to thrive alongside technology as co-agents (Satyanarayan & Jones, 2024) and maintaining humans-in-the-loop (Mosqueira-Rey et al., 2022). Transparent communication, values-based leadership and a clear and explicit articulation of how technological change aligns with the university's educational mission are paramount not only for their implementation rate but also for staff wellbeing. Being a wellbeing-conscious workplace is key to supporting sustainable innovation and change.

## Shaping the AI-Enabled Future

Universities must not leave the shaping of an AI-enabled world solely to government or business. As knowledge institutions, they hold a wealth of interdisciplinary expertise (see, for example, University of Canterbury, 2025). Historical insights, such as those drawn from the Industrial Revolution (Walden, 2024), can inform how we think about the social and economic impacts of AI and technology today. Institutions should advocate for a future in which graduates are not replaced by AI, but instead work alongside it, as co-agents, to solve problems and create value. This vision requires deliberate leadership and a commitment to human-centred design, which includes keeping humans-in-the-loop (Mosqueira-Rey et al., 2022).

## Leadership, Culture and Human-Centred AI

Values-based leadership places staff and students at the centre of decision-making and communication. This approach goes beyond psychosocial risk management frameworks to embrace a deeper understanding of wellbeing as a driver of culture and productivity. AI, like all technologies, has the potential to be deployed in ways that demonstrate clear human benefits, as in the chatbot example above. When used appropriately, these tools can enhance student learning, reduce staff anxiety and contribute to a healthier organisational culture. The use of AI in education is not without its challenges (Tiwari, 2023). AI has the potential to motivate and scaffold learning through personalised approaches and simulated contexts. Yet, this must be guided by relational pedagogies, principles of autonomy such as those found in self-determination theory (Ryan & Deci, 2020), and, most importantly, human oversight.

## Finding Meaning in Change

As roles and systems evolve, universities are positioned to help their communities find meaning in change. This involves fostering critical reflection and ethical understanding of AI across the whole university community, as well as using storytelling to explain transitions. Narratives that incorporate diverse cultural perspectives can enrich our understanding of technological change and support inclusive approaches to innovation.

Ultimately, balancing workflows and wellbeing during technological change is a cultural challenge. It requires universities to reimagine their staffing models, workflows and pedagogies in ways that emphasise human connection, foster collaboration and promote sustainable, values-driven innovation.

### Normalising Help-Seeking Through Peer-Led Wellbeing at National University of Singapore

The National University of Singapore's Health and Wellbeing program combines trained peer supporters with confidential professional services to help staff manage workload and wellbeing. Supported by the Kind Mind campaign, it normalises mental health conversations in a country working to reduce stigma around mental health and wellbeing (Tan et al., 2020), modelling a leadership-endorsed, values-based approach to wellbeing across the university. (See <https://www.nus.edu.sg/hwb/>.)

# Methodology

*Contextualising Horizon* uses a combination of virtual person workshops and survey research to identify the core issues facing the Australasian higher education sector and the educational technology and practice trends likely to be important in the near future.

## The 2025 STEEP Trends

For the 2025 iteration of the initiative, the first set of workshop sessions took place on 19 and 21 February 2025. Through these workshops, participants identified the social, technological, environmental, economic and political (STEER) trends impacting the higher education sector in the region. Following the workshops, participants electronically voted on the identified trends to identify the three top trends in each category. The resulting STEER trends are shown in the table below.

Social	Technological	Economic	Environmental	Political
Elevating wellbeing and neurodiversity	Mainstreaming of AI	Rising costs, falling access	Campus strain	Higher education overhaul
Educators tackling misinformation	Digital twins emerging	Global shifts in education	Climate impacts and Indigenous resilience	Skills and mobility shifts
Higher education's shrinking public value	Privacy under scrutiny	AI reshaping jobs	Sustainability embedded	Indigenous inclusion and capacity building

## The 2025 Educational Technology and Practice Trends

A second set of online workshops, held on 18 and 21 March 2025, invited participants to identify the educational technology and practice trends likely to have the most importance in the higher education context defined by the STEER trends. Workshop participants initially identified 18 educational technology and practice trends; however, as there was some overlap, these were condensed to 11 topics. Using the Qualtrics survey platform, participants then voted for what they considered the top five trends, with voting open from 1 to 8 May 2025. Participant votes were weighted according to relative rank. The final voting scores are summarised in the table below.

Nominated Educational Technology or Practice	Score
Balancing workflows	71
Empowering educators	66
Integrating AI	56
Bridging the industry–education gap	53
Evolving authentic assessment	49
Equity access and inclusion	48
Affective computing and emotional intelligence	28
Strategic partnerships	28
Enhancing engagement in hybrid learning	27
Embracing OER	17
Expanding XR	7

The top five educational technology and practice trends as voted above were:

- Balancing workflows and wellbeing during technological change
- Empowering educators: Digital literacy, and capability for a human-centred future
- Integrating AI in curriculum and systems responsibly and inclusively
- Bridging the industry–education gap
- Evolving valid and authentic assessment practices

## Demographics

The map below indicates the representation for the 2025 Contextualising Horizon panel, including Australia, Indonesia, Brunei, Malaysia and New Zealand. Each year, as the project team, we aspire to reflect observations and insights from across Australasia and neighbouring countries. As such, participants voluntarily provide demographic information to demonstrate the regional representation involved in the identification of the annual trends and report.

**Map: Section writers – location**



The next map shows where the exemplars for the educational technology and practice trends originated.

## Map: Exemplars - location



## Limitations in 2025 and Future Directions

*Contextualising Horizon* continues to refine its processes through iterative design. As with previous iterations of the report, *Contextualising Horizon* maintains strong representation from Australia and New Zealand with smaller representation from other countries in both Australasian and neighbouring countries. This project will continue to attempt to work with connections across the broader region to capture a fuller and comprehensive view of the potential trends emerging. We look forward to continuing to grow country representation in future years.

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## About ASCILITE

The Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) is the pre-eminent organisation for technology-enhanced learning research and practice in the Australasian region. With more than 2200 members, ASCILITE contributes to the international progression of educational technologies and practices to enhance learning and teaching. ASCILITE is pleased to sponsor Contextualising Horizon and to support the aims of benchmarking and identifying those technologies and practices of strategic importance today and into the future. To find out more about ASCILITE, visit [ascilite.org](http://ascilite.org).

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