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The Next

The Next 5 (years)

VOLUME 1

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Greg Whateley, Ian Bofinger, Dimitri Kopanakis and Aleksander Szram

AMPA
ACADEMY OF MUSIC AND PERFORMING ARTS

invigilator Plus

The Next 5 (years)

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Melbourne, Australia

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Foreword

Thinking about the future can be both off putting and challenging – but nevertheless both important and intriguing.

This collection attempts to bring together a range of perspectives about what the next 5 years might look like from a range of sectors and industries including education, business, finance, investment and compliance.

The authors have managed to secure 29 chapters that provide a valuable overview of what the next five years might look like – and this diversity makes for interesting reading.

We highly recommend the various inputs to you – given the diversity – and at the same time challenge the reader to 'think outside the box', so to speak and give some thought to the future in their own sector/environment.

This publication places the emphasis on predicting what the next 5 years will look like from a number of perspectives. The challenge this time around is to look closely at what we have achieved to date - and then, using a longer lens, predict what our future (within a number of industries) will actually look like. It is not so much about 'crystal ball gazing' as an informed (and possibly optimistic) projection of both ourselves and the world around us.

Greg Whateley
Ian Bofinger
Dimitri Kopanakis
Aleksander Szram
March 2025

Contents

CHAPTER 1

The next 5 (years)

Greg Whateley
November 2024

Predicting the future – whether using a crystal ball, tea leaves, reading a palm or any other device at hand – is always troublesome. After years of teaching the notion of a five-year plan – I have reached the conclusion that even a *living* three-year plan is dubious. The notion then of projecting what the next five years will look like in the Higher Education sector is fraught with uncertainty – but an attempt is at least worth a try.

The last five years (2019-2024) was overshadowed by the COVID-19 pandemic which changed the landscape considerably – forcing a change to the business plans of ALL providers (public and private) and of course the very fundamentals of their operations. This included online delivery, mass lock downs (nationally and internationally) and of course the significant impact on international education. The inevitable digital revolution that accompanied the change in delivery and focus has further changed the way we operate – and to a large degree the way we now think about learning and teaching.

Rapid Shift to online learning

As the pandemic created its dark shadow we quickly resorted to online learning. Not all providers fared well in this space – either through a lack of expertise or reluctance to spend. My own institution at the time had both the 'know how' and the capital to invest in a quality delivery system that paid a significant dividend. Student satisfaction levels were at an all-time high – and the ongoing survey of students indicated that a student majority - 95% in fact (predominantly postgraduate) - were content with the online option and wanted to stay in the virtual environment. The teaching and learning, then, remained positive and workable.

The impact, though, on student numbers meant over a two-year period the number of students (at an international student focussed institution) dipped considerably putting pressure on resources and despite teaching staff not being made redundant did mean that they had reduced class sizes and a reduced number of classes – essentially with income loss associated.

Return to the F2F classroom

In its dubious wisdom – the Australian Government ruled that all international students must be returned to the classroom as a matter of urgency. The rationale was clouded with issues around work/study balance and the notion that online learning and teaching was somehow inferior to the traditional classroom model. Further much of the motivation, in my opinion, was driven by real estate and retail issues – not in any way associated with teaching and learning.

The return to the classroom for some was immediate – for others, better understanding the situation, the online was replaced with a hybrid approach and a balanced delivery (inside the ESOS regulations) that managed to satisfy students. In the arts context – a return to the classroom was seen as a positive

given the opportunity to perform in ensembles and the like. In the business school context, the challenge was more significant – and a creative approach was required.

Gradually over a two-year period student-numbers returned. In the case of my own institution - doubling - given the inventive approach to creating additional campuses nationally and ensuring a working lecturer/tutor model utilising the significant investment in technology during the worst of the pandemic.

The impact of the changes to online and then back to the classroom

The impact of the two dramatic shifts – in a relatively short period of time – created a range of challenges as well as opportunities. I had cause to write many an article during the pandemic period – and continue to consider the issues associated with emerging from the shadows of same.

I recently (2024) shared thoughts on what I thought were the big five issues facing HE in the next couple of years - The Big Five (5) Higher Education Challenges Ahead in 2025 and 2026. These same five issues, I believe, will dominate the next five years.

A Return to campus and F2F learning

COVID-19 changed the landscape significantly – if not permanently. Online (including blended and hybrid modes) became the norm. Many institutions fared very well in terms of student satisfaction given the technology available and student aptitude with that technology. Some on the other hand did not do as well – largely due to a lack of investment and perhaps understanding.

The Australian Government, in its wisdom, mandated some form of return to campus in late 2023 and 2024 – driven by re-

al estate and retail issues if the truth be known. It is important to find the correct balance throughout 2025 and into 2026 – and hybrid appears to be the logical option. International students – who appear to be blamed for various shortages and deficiencies – are required to attend largely face to face.

This will create new challenges in a radically altered digital environment.

See – The implausible dream - 6113ad_f6e729eba5724f96a82be6265051f1ef.pdf

Balancing assessment and managing academic integrity

The shift from a full regime of examinations – forced by COVID-19 issues - to a more balanced approach has had little impact on quality outcomes or grade distribution. As the Sector moved to a non-examination environment in late 2023 and into 2024 - we need to be mindful of the new pressures associated with academic integrity and at the same time be fair and honest with students in terms of feedback and results. The current obsession with Artificial Intelligence (AI) – now seen as the great challenge to academic integrity – needs to be met head on with Actual Intelligence (AcI).

A shift to the normalisation of grades is a sensible consideration in the new regime. Hopefully, this will provide a fair and accurate grading system in line with the rest of the Sector and at the same time maintain the standards required.

This will become a key issue over the next five years – and the debate will continue to rage over a return to the examination room or the use of invigilation technology.

See – Integrity in business and academia - 6113ad_53bbff3fdd394d979f42c4dc68956d5e.pdf

Scholarship opportunities

In non-research organisations – as is the case for many private providers – the opportunity to do scholarly activities needs to be emphasised and supported in tangible ways. A clear understanding of what scholarship is – and then a concentrated support mechanism to encourage teaching staff to engage in scholarly pursuits - that support and enhance their teaching - effort is essential.

Once a clear understanding of what scholarship is all about – a simple and accessible harvesting tool needs to be put in place to support and highlight effort as a way of further encouraging staff to make scholarship a part of their daily working lives. Developing a culture of scholarship is not an easy feat – but it is doable. Ongoing profiling and promoting of staff achievement is vital.

See – Scholarship can take on many forms - 6113ad_2887992fd3a440a4bca4cbcb6414de4f.pdf

Meeting smarter and heightened communication

As the landscape changed – particularly with people working from home - or from anywhere for that matter – the importance of communication has become more significant than ever. Institutions need to invest in ensuring that communication channels remain wide - open and meetings (of all sorts) are productive and useful for/to all involved.

This will mean managing hybrid meetings, symposia and conferences in a different – though still valuable and informative – way. Technology can assist with the challenge as will a new perspective on when, how and why meetings occur and how we can maximise the benefits of this time together. It will be about quality rather than quantity.

'Management by committee' is NOT a good alternative to strong and focussed leadership. Communication is the key –

and should be explored and utilised on a regular basis (daily, weekly, monthly, quarterly, annually.

See – Meeting Smarter - 6113ad_68dc5833e0994e4caba3133953991eeb.pdf

Compliance

Essential to growth and prosperity will be ensuring that compliance is a key consideration when growing and diversifying. Often seen as a chore and a diversion from teaching and learning – compliance in fact needs to be supported to ensure that what is being taught and what is being done - within an organisation - is appropriate and supportive of students specifically.

See – Good compliance is good business - 6113ad_6c3cfa0b3a084f53a8373408af0e74d0.pdf

Ensuring that the HESF (Threshold Standards) are being met (at all times) – will be an important focus.

See – What are Threshold Standards and why are they important - 6113ad_8584b9e8e229438d830f63af90c030dd.pdf

With the five challenges laid out – **the essential ingredient is care**. That is care for students and the way they can best achieve their aspirations; balancing assessment and evaluation to ensure quality and fairness (not to mention integrity); caring for staff and ensuring that they are actively involved in meaningful scholarship that enhances their own profile as well as their teaching prowess; care in understanding how communication can be enhanced and meetings can become more meaningful and supportive; and, of course, taking care to be compliant in all we do. Straight forward? Easy? Probably neither, but an essential focus for the next five years in what is being called the post-COVID era – possibly best called the ‘slowly emerging from the shadow of COVID’ era.

On careful consideration – I believe these five foci for HE will be in fact the key issues to be considered over the next five years.

But wait – a second wave (storm) is heading our way

Considering the current news of 'caps' being imposed on international enrolments in Australia from 2025 – my view is that it will have a similar impact as COVID-19 – a second pandemic if you will. Within two years of legislation being passed we will see a similar impact on student numbers – but this time without the option of online saving the day – rather a need for a significant rethink that will probably include online options for offshore students – but equally important creating more attractive options for domestic students and transnational opportunities for international students that fly under the cap restrictions.

For some this will be a challenge to meet head on – for others, sadly, their demise.

Emeritus Professor Greg Whateley until recently held the positions of Deputy Vice Chancellor and Chief Executive officer at Group Colleges Australia (Sydney, Melbourne and Adelaide). He is currently an independent consultant for the Australian Guild of Education (Melbourne). He is also the immediate past President of Musicum20 – an international consortium and think tank.

CHAPTER 2

The Next 5: Predictions of Developments in the Australian Higher Education Performing Arts Sector

Ian Bofinger
December 2024

Moore's Law describes the increasing number of transistors on integrated circuits, which in turn increases the speed and lowers the cost of computing. As stated in Roser, Ritchie & Mathieu (2023), the computational capacity of computers has increased exponentially, doubling every 1.5 years. The number of floating-point operations carried out per second by the fastest supercomputer in 2020 was 442 million in 2020 gigaFLOPS but by 2024 this number had increased to over 2 billion (*equivalent to 10^9 floating-point operations per second).*

As such it should have been no surprise to anyone that the computational power required for Generative AI would be on our 'academic doorstep' earlier than previously assumed. Many universities

and the government regulator - TEQSA - were caught off-guard and imposing last-minute amendments to adapt to this change.

This paper looks at the author's personal view as to what could be the next 5 predictions of developments in the Australian Higher Education Performing Arts sector. This is driven by the recent tsunami of GenAI's emergence and the rapid adjustment to the academic focus and assessments in tertiary music and dance curriculum.

Prediction 1 - Shift the emphasis from assessing product to assessing process

This approach places importance not only on the final product or outcome, such as an exam, final report or final essay, - but the development that occurs through the learning process. A process-oriented approach focuses on evaluating the steps and strategies students engage in during the learning process, and primarily aims to assess how students think, approach problems/tasks, and reflect on their learning.

The growing dominance of GenAI has led to significant changes in Higher Education (HE), prompting extensive research into its consequences. Understanding this shift necessitates a reassessment of academic approaches to equip students with the necessary tools for a future where all forms of artificial intelligence are ubiquitous.

A major benefit of this approach to assessment is that it can give lecturers a better insight into student learning and foster student development of 'metacognitive' skills – that is, the students' ability to think about, monitor and manage their own thinking and learning strategies. An added benefit of placing more emphasis on process - rather than the final product - is that process is arguably more difficult for students to outsource (Mulder, Baik & Ryan, 2023). Cardamone (2023) also believes that institutions should Integrate tasks that demand creative

problem-solving abilities by involving students in practical or hands-on projects that necessitate the creation of inventive solutions and unconventional thinking.

Prediction 2: Increased use of Mobile learning

In 2024, 60.67% of website traffic is mobile, and the overwhelming majority of internet users (92.3%) will consider going online through their smartphones instead of other devices. (Alster, 2024)

Mobile learning, or m-learning, refers to using smartphones and tablets to access learning resources and environments from anywhere and at any time. To meet the limitations of screen dimensions, alternatives to traditional text heavy dissemination will need to be thoroughly considered. The incorporation of Apps and even mobile games should also be evaluated for both assessment and dissemination.

Prediction 3: Move towards STEAM Education

Expanding on the traditional STEM curriculum (Science, Technology, Engineering, and Mathematics), STEAM incorporates *Art*. As such, it promotes creative and innovative thinking in addition to the traditional scientific pedagogy and encourages students to approach challenges from multiple perspectives that create innovative solutions.

As noted by Alkhaldi (2024), while AI and digital citizenship skills are important, creativity is now the predictor of success. Being able to think differently is more important than ever, which is why STEAM education is so powerful and will only continue to grow in importance:

Performing Arts education for primary and secondary school teachers will become more highly sought after and as such Higher Education institutions will need to expand their focus to include students studying general teacher training.

Prediction 4: The return of real-time, analogue assessment tasks

Asynchronous digital assessment tasks have been the staple for many tertiary academic courses for the past few decades. Research Essays were traditionally nominated at the start of the teaching period. This allowed the students time to prepare and research the topic, demonstrating sufficient support and citations from secondary and primary resources. Unfortunately, this assessment format was initially diluted by the existence of outsourced essay mills as students could simply pay an external provider for a paper to be prepared on their specific research question. This was the focus of TEQSA in the Australian tertiary scene over the past decade.

A new 'menace' then appeared on the horizon – GenAI, where programs such as ChatGPT could provide a response to any stimuli given. These included students specifying the research topic, citation formats, length etc and within a matter of minutes a formed digital submission could be generated.

To combat this, many institutions including mu own school - AMPA, sent the research submissions through AI detectors (such as GPTZero) and even after publicly declaring that this was the ongoing process, students continued to take this shortcut. It came to a crisis point in 2024 when almost 30% of the research papers submitted for one class ended up with a rating of 50% human to AI generated content. The best analogy I can provide is the 1970 Stanford marshmallow experiment on delayed gratification. Although students knew it was wrong and would probably get caught, the temptation to take the shortcut and cheat was simply - too great.

Where it is appropriate for assessable items to be created by both AI and humans, the assessment design should provide clear opportunities to gather evidence where learners critically engage with the use of AI if required, but then demonstrate

judgement in how to best use AI and reflect on the learning process. (Lodge, Howard, Bearman & Dawson, 2023)

In Trimester 3, 2024 AMPA trialled a research paper examination where students were given the question one week in advance and allowed to prepare an essay plan and bring 2 x A4 pages of citations that could be used as secondary research sources (but not a fully worked essay). The exam was done on paper under invigilated conditions and the materials used were also submitted as verification of the process. The results in our microclimate were quite remarkable. The papers showed significantly developed insight overall and were a more honest reflection of the students' understanding of the unit content than previously witnessed

Prediction 5: Transforming exam supervision and performance assessment

AI will become more prevalent to aid and facilitate remote exam proctoring. Since the 2019 COVID pandemic, many institutions now offer Blended Learning as a common mode of delivery, but conducting distant exams with security and fairness can be challenging (Batista, Mesquita, Carnaz, 2024). Incorporating AI-powered software with human supervision will further assist in the invigilation of exams to ensure there is no cheating or identity theft.

As a similar transdisciplinary parallel, embedding real-time retail artificial intelligence solutions in grocery self-checkouts is now commonplace to reduce accidental and intentional theft attempts. Equipping attendants with AI-enhanced mobile devices gives real-time oversight of the self-checkout area (Voller, 2024)

Exceptional invigilation/exam proctoring products such as *invigilatorPlus* currently utilize a purely human-first approach which surpasses AI-only platforms but the potential to include

appropriate AI as an additional resource will most likely be incorporated.

Arguably, one of the most controversial pieces of education technology to enter the classroom has been the calculator. Watters (2015) commented that in the 1980s this evoked fear of - 1) student computational abilities would be ruined; 2) students would become too reliant upon machines; and 3) students would not learn how to estimate and that they would not learn from their errors.

Some 40 years later, teaching programs have adapted to use calculators in a positive way. Assessments are based on the workings (process) and not purely the answer (product). The initial panic concerns have been averted by modifications to the delivery and assessment of mathematics examinations making the course more contemporary for the modern student.

As educational technologies improve and educational trends evolve, experts are excited about how artificial intelligence can be incorporated into the Performing Arts curriculum without negatively affecting the fundamental education goals of Higher Education.

References

Alkhaldi, N. 2024 *The future of AI in education: pioneering a new era of learning* https://itrexgroup.com/blog/the-future-of-ai-in-education-pioneering-a-new-era-of-learning/

Alster, K. (2024) *11 Most Important Education Trends for 2024 and Beyond* https://www.synthesia.io/post/education-trends

Batista, J. Mesquita, A. Carnaz,G. (2024) *Generative AI and Higher Education: Trends, Challenges, and Future Directions from a Systematic Literature Review* https://www.mdpi.com/2078-2489/15/11/676

Cardamone, C. (2023). *Thinking about our Assessments in the Age of Artificial Intelligence (AI)*. Teaching@Tufts.

invigilatorPlus 2024 https://www.invigilatorplus.com.au

Lodge, J. Howard, S. Bearman, M and Dawson, P (2023) *Assessment reform for the age of artificial intelligence* https://www.teqsa.gov.au/sites/default/files/2023-09/assessment-reform-age-artificial-intelligence-discussion-paper.pdf

Mulder, R. Baik, C. and Ryan, T. (2023) *Rethinking Assessment In Response To AI* https://melbournecshe.unimelb.edu.au/__data/assets/pdf_file/0004/4712062/Assessment-Guide_Web_Final.pdf

Roser, M. Ritchie, H. and Mathieu, E (2023) *What is Moore's Law?* OurWorldinData.org. Retrieved from: https://ourworldindata.org/moores-law

Voller, G. (2024) *Artificial Intelligence (AI) in Grocery Stores Self Checkout* https://seechange.com/ai-in-grocery-stores-shrink-at-self-checkout/

Watters, A. (2015) *A Brief History of Calculators in the Classroom* http://hackeducation.com/2015/03/12/calculators

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CHAPTER 3

Beyond the Boardroom: Redefining Accountability and Reporting

Dimitri Kopanakis
December 2024

In an era of unprecedented complexity and interconnected challenges, organisational frameworks for accountability and transparency are undergoing transformative shifts. Corporate governance, Environmental, Social, and Governance (ESG) standards, cybersecurity, and artificial intelligence (AI) policies have emerged as critical pillars of modern institutional strategy. These domains intersect at the nexus of ethics, innovation, and resilience, demanding sophisticated approaches to risk management, stakeholder engagement, and sustainable value creation. This chapter explores how evolving governance paradigms, the rise of ESG imperatives, the criticality of cybersecurity, and the ethical regulation of AI technologies collectively redefine accountability and reporting in a globalised, data-driven economy.

Corporate Governance – The Gold Standard

Corporate governance represents a fundamental pillar of organisational integrity, transparency, and sustainability. It encompasses the systems, principles, and processes through which organisations are directed and controlled to ensure accountability to stakeholders. The importance of corporate governance has intensified in recent years as organisations face heightened scrutiny from investors, regulators, and society. This evolution reflects a broader understanding that effective governance not only safeguards against malfeasance but also enhances long-term value creation.

In the past decade, corporate governance has undergone significant transformation, driven by global financial crises, environmental concerns, and social advocacy movements. The advent of ESG frameworks has redefined governance priorities, urging organisations to address ethical considerations alongside profitability. Furthermore, regulatory advancements have strengthened requirements for transparency, board accountability, and risk management. Stakeholders now demand greater diversity in boardrooms, ethical supply chains, and sustainable business practices, reflecting a shift towards inclusive governance (Andreou et al., 2021).

As organisations navigate an increasingly complex operating environment, the critical nature of corporate governance will continue to escalate. Emerging challenges such as digital transformation, data privacy, and geopolitical instability necessitate agile governance structures capable of addressing multifaceted risks. The rise of artificial intelligence and algorithmic decision-making raises ethical considerations that governance frameworks must address. Similarly, the intensifying focus on climate change compels organisations to integrate sustainability into their strategic priorities and reporting mechanisms.

Corporate governance will remain central to organisational success as stakeholder expectations evolve. Institutions that embrace robust governance practices, characterised by transparency, ethical leadership, and stakeholder engagement, will be better equipped to adapt to global challenges, maintain competitive advantage, and build enduring trust in an increasingly interconnected world.

ESG Reporting and Compliance

ESG frameworks have become a cornerstone of corporate strategy and reporting in recent years. ESG represents an integrative approach to evaluating an organisation's performance in addressing environmental sustainability, social responsibility, and governance standards. Initially developed as a tool for assessing ethical investment opportunities, ESG has evolved into a comprehensive mechanism for shaping corporate accountability, driven by increasing global emphasis on sustainability and ethical practices.

Over the last decade, the adoption of ESG principles has accelerated, catalysed by growing stakeholder expectations, regulatory advancements, and the influence of international accords such as the Paris Agreement. The framework has expanded from niche adoption among socially conscious investors to a mainstream criterion for corporate evaluation. Institutional investors, consumers, and governments have championed ESG, leveraging it to demand greater transparency and action on climate change, diversity, labour rights, and governance integrity.

Despite its transformative potential, ESG's rise has not been without challenges. The practices of ‘greenwashing’ and ‘greenhushing’ intersect critically with ESG reporting. Greenwashing, wherein organisations inflate or misrepresent their ESG credentials, undermines the credibility of the framework

and fosters scepticism among stakeholders (Kopanakis, 2024). Similarly, greenhushing - the deliberate underreporting of valid sustainability efforts - weakens the transparency essential for ESG's success, often driven by fears of reputational risk or heightened scrutiny. These practices threaten the integrity of ESG as an accountability standard.

The growing adoption of ESG principles has profoundly influenced corporate reporting mechanisms. Boards of directors now face increased responsibility to ensure that ESG metrics align with organisational goals and stakeholder expectations. Shareholders, whose investment strategies increasingly prioritise sustainability metrics, demand verifiable ESG data that demonstrates long-term value creation. Broader stakeholders - communities, employees, and regulators - also rely on ESG disclosures to gauge organisational commitment to ethical and sustainable practices.

To counter greenwashing and greenhushing, ESG reporting standards have become more rigorous, with International Frameworks providing organisations with structured approaches to disclosing ESG performance. These standards emphasise data accuracy, comparability, and transparency, helping organisations align their strategies with stakeholder demands whilst mitigating reputational risks.

As ESG evolves, its significance will grow in shaping corporate governance, ensuring that organisations balance economic objectives with environmental and social imperatives. The ongoing battle against greenwashing and green hushing will remain central to sustaining ESG's credibility and driving meaningful, systemic change.

Cyber Security Imperatives

In an era marked by the rapid digitisation of organisational processes and the proliferation of data-driven operations, cy-

bersecurity has emerged as a key component of organisational resilience. The increasing sophistication of cyber threats, ranging from ransomware attacks to advanced persistent threats (APTs), underscores the need for robust cybersecurity frameworks. Over the last decade, the integration of cloud computing, the Internet of Things (IoT), and artificial intelligence (AI) into organisational systems has expanded the attack surface, necessitating advanced security measures that extend beyond traditional perimeter defences (Shelly, 2024).

The development of cybersecurity practices in recent years has been characterised by a paradigm shift from reactive to proactive strategies. Modern approaches emphasise threat intelligence, predictive analytics, and real-time monitoring to anticipate and mitigate potential breaches (Sarker et al., 2023). Regulatory frameworks have further elevated the stakes by mandating compliance and imposing stringent penalties for data breaches, thereby incentivising organisations to prioritise cybersecurity investments.

Looking ahead, cybersecurity will be magnified as organisations increasingly adopt emerging technologies such as quantum computing and 5G networks. These advancements, whilst offering transformative benefits, also introduce vulnerabilities that adversaries could exploit. Furthermore, as hybrid work environments become the norm, ensuring the security of distributed networks and endpoints will be paramount. The potential for cyberattacks to disrupt critical infrastructure, manipulate supply chains, or compromise sensitive data will drive the evolution of integrated and adaptive security ecosystems.

Organisations must continue to view cybersecurity as a strategic priority, embedding it into governance structures and fostering a culture of awareness. By doing so, they can navigate the complexities of the digital age whilst safeguarding their as-

sets, reputation, and stakeholders against the evolving cyber threat landscape.

AI Policy Development

Artificial intelligence (AI) policy has become a vital component of organisational governance, guiding the ethical, legal, and strategic deployment of AI technologies. As AI systems increasingly influence decision-making, operations, and customer engagement, a well-defined AI policy ensures that organisations leverage these technologies responsibly and effectively. This policy framework addresses critical dimensions, including transparency, accountability, data privacy, and fairness, mitigating risks associated with bias, misuse, and regulatory non-compliance.

In recent years, the development of AI policy has been shaped by the exponential growth of AI applications and their societal implications. Regulatory bodies and industry consortia have introduced guidelines and frameworks, emphasising accountability, explainability, and human oversight. Organisations have begun adopting these principles, integrating AI governance into their broader corporate policies. The increasing scrutiny of AI-related ethical dilemmas—ranging from algorithmic bias to the potential for mass surveillance—has further underscored the importance of robust AI policies that align technological innovation with societal values (Taeihagh, 2021).

Thus, the critical nature of AI policy will intensify in the coming years as AI technologies become ubiquitous and their applications more complex. The advent of generative AI, autonomous systems, and machine-learning-driven decision-making introduces profound ethical and operational challenges. Organisations will need to address issues such as intellectual property in AI-generated content, liability in autonomous deci-

sion-making, and the potential amplification of systemic inequalities through biased algorithms (Leslie & Perini, 2024).

Further, as regulatory landscapes evolve, organisations without comprehensive AI policies risk legal exposure and reputational damage. Proactive AI policy development, incorporating stakeholder engagement and cross-disciplinary expertise, will enable organisations to navigate these challenges effectively. By embedding ethical considerations into AI strategy, organisations can foster trust, drive sustainable innovation, and maintain their competitive edge in a rapidly evolving technological ecosystem (Mökander et al., 2022).

The evolving landscape of corporate governance, ESG frameworks, cybersecurity, and AI policy reflects the growing emphasis on organisational accountability in a rapidly transforming world. By embedding ethical principles, fostering transparency, and prioritising stakeholder engagement, institutions can navigate emerging risks whilst aligning with societal imperatives.

As challenges such as climate change, cyber threats, and AI ethics intensify, organisations must adopt proactive strategies that integrate governance, sustainability, and technological innovation. Ultimately, the capacity to adapt to these complexities will define the resilience and credibility of institutions, ensuring their relevance and sustainability in an interconnected, global economy.

References

Andreou, P., Lambertides, N., Philip, D. (2021). Corporate governance transformation: Editorial Review. *The British Accounting Review*. 53. 101020.10.1016/j.bar.2021.101020.

Kopanakis, D. (2023). Integrity in ESG Reporting: The Perils and Pitfalls of Greenwashing and Greenhushing in *Kopanakis, D. et al. (2024) Integrity in Business and Academia. ISBN 978-1-7635027-9-6. (Intertype Publications)*

Leslie, D., & Perini, A. M. (2024). Future Shock: Generative AI and the International AI Policy and Governance Crisis. *Harvard Data Science Review*, (Special Issue 5). https://doi.org/10.1162/99608f92.88b4cc98

Mökander, J., Sheth, M., Gersbro-Sundler, M., Blomgren, P. and Floridi, L., (2022). Challenges and best practices in corporate AI governance: Lessons from the biopharmaceutical industry. *Frontiers in Computer Science*, *4*, p.1068361.

Sarker, I.H., Janicke, H., Maglaras, L. and Camtepe, S. (2023). Data-driven intelligence can revolutionize today's cybersecurity world: A position paper. In *International Conference on Advanced Research in Technologies, Information, Innovation and Sustainability*. 302-316. Cham: Springer Nature Switzerland.

Shelly, E. (2024). Cybersecurity Frameworks for Cloud Computing Environments. *International Journal of Computing and Engineering*. 6. 30-44. 10.47941/ijce.2058.

Taeihagh, A. (2021). Governance of artificial intelligence, Policy and Society, Volume 40, Issue 2, June 2021. 137–157. https://doi.org/10.1080/14494035.2021.1928377

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CHAPTER 4

Global Conservatoires – the post-national era

Aleks Szram
December 2024

The international community of higher education music providers (HEMPs) is entering a new era of greater interconnectedness, which will lead to notions of national, continental, and global identities around music education being reframed.

Attending the recent Association of European Conservatoires (AEC) Congress and General Assembly in Milan[1], it was immediately apparent that there were many representatives from Asia, Australia, Canada and the US. Was it a European conference? Certainly, in so much that it was held in Europe, but the conference was by no means a regional enclave, and the activities were structured to enable the sharing of good practice across international contexts. Looking beyond the AEC, other regional associations, such as SEADOM (South-east Asian Directors of Music)[2] allow for membership outside of the re-

[1] https://aec-music.eu/event/aec-congress-2024/

[2] https://www.seadom.org/

gion; others, such as the National Association of Schools in Music[3], affiliate with sister associations in other territories. It would be fair to say that while associations appear to be divided along regional boundaries, their activities and outlooks have a cross-regional, international perspective.

Regional focus

At the tail end of the AEC conference, a session was held in which institutions met with their regional colleagues, and as the representative from Trinity Laban (a London conservatoire) my regional group was the United Kingdom. Many of my colleagues in this session I had seen a month previously at the Conservatoires UK conference[4], where we had already shared ideas and concerns relating to current issues in the UK; and here we were again, this time, sharing reflections as a subsection of Europe (notwithstanding the confused status that Britain now holds post-Brexit). Whilst regional institutions share common areas of concern in respect of territorial law and localised politics and economics, from a cultural perspective, regional demarcations are becoming increasingly loose with HEMPs finding partner organisations in other regions with whom they feel a philosophical alignment. Reflecting on the totality of these experiences, my interim conclusion was that regional distinctions are becoming increasingly arbitrary as a result of greater internationalisation.

'Conservatoire' notion

Institutions resembling the modern 'conservatoire' first emerged in Europe, and the model of a specialist music institution that provides high quality one-to-one instrumental and

[3] https://nasm.arts-accredit.org/about/relationships-with-other-organizations/

[4] https://conservatoiresuk.ac.uk/about-us/

vocal tuition, and opportunities for collaborative music making, has proliferated across the globe. Many HEMPs still centre the core part of their training on western classical music, but increasingly this core focus is only part of their curricular offer. Many HEMPs support a wide range of musical genres and practices and have largely outgrown the restricted national or continental outlook of their founders. These institutions could be seen as 'global conservatoires', with typical features including:

- A campus in or near a major city or cultural centre (which facilitates international exchange)
- Students and staff from many different countries (e.g., above 60)
- Exchange programmes and activities with international partners
- Online programmes with students and staff from across the world, working in different time zones
- A culture that embraces and values western and non-western musical traditions and pedagogies
- A local, cultural presence of some kind, which adds a degree of authenticity to the location of the campus and the institution's connection to a tangible community. This is a difficult challenge for largely online providers
- Programmes and activities that develop the internationalisation of the student perspective; students graduate with an internationalised, global outlook.

Whilst my own institution is legally, financially etc. based in the UK, the philosophical underpinning of the artistic strategy and pedagogy, and the range of musical genres supported by its activities far transcend a national or continental approach. The same could be said for many other HEMPs across the world, and it is these institutions that provide fertile territory for partnership work that aligns with our philosophy.

The next phase of development

My prediction is that the next phase of development will feature two broad types of HEMPs. The first type will form an interconnected global community, undertaking institutional peer-to-peer learning and sharing of good practice, and presenting a wide range of music genres for study from several distinct geographical areas and cultures; some of these institutions will involve global communities of online learners, increasingly facilitated by instantaneous language translation. This community will lead to AEC, SEADOM and other regional affiliations integrating their various working groups. The second type of HEMI will have a smaller focus – perhaps the protection of a unique tradition that would otherwise die out, or a clearly defined commercial focus that is not seen to require a broader outlook.

Dr Aleksander Szram is Artistic Director at Trinity Laban

CHAPTER 5

The implausible dream

Greg Whateley
November 2024

A recent conversation about WFA and the option of hybrid teaching and learning triggered a memory relating to transnational education and how changes in thinking -and of course the technology available today - has changed the landscape – for good – and in line with a dream (vision) that started many years ago. That dream commenced with access to the internet and the use of email.

In an effort to project what the next five years might bring – some reflection on the past is a very useful exercise. What it does demonstrate is the new speed (velocity) of innovation that current exists (not to mention the technology) – fuelled by both the COVID 19 pandemic and the digital revolution that was accelerated accordingly.

My own experience (certainly post 1989) has been one of operating 'outside of the lines' so to speak and being innovative whenever possible – thanks to some understanding supervisors, colleagues and mentors – to whom I am eternally grateful. The establishment of the Musicum20 entity and think tank (2012) also created an environment to benchmark nationally

and internationally and share and get feedback on some of the innovative practices.

Mid - 1990s

In the mid-1990s I found myself teaching a masters' level program as a transnational project for *Griffith University, Queensland*. The student cohort was in Singapore (with IB-MEC). The initiative was supported by the *Faculty of Education and the Arts* and was seen as a transnational program.

The programme involved teaching eight (8) subjects each year in *intensive mode* on location in Singapore. It was an Australian award with up to 20-30 Singapore students at a time who attended over a ten (10) day period to accommodate their work commitments. It involved me flying to Singapore for twelve (12) days at a time – teaching on two weekends and three evenings – and being available throughout the week for student and learning support.

The programme was well received and included the option for students to come to Australia (specifically the Gold Coast) for one subject delivered in intensive mode in partnership with Warner Bros Studios. This was regularly taken up – but also remained available online.

The technology of the time involved email communication, a basic dedicated website and the use of overhead projector slides for teaching that I would bring with me each delivery. The mode was F2F intensive.

At around the same time I was given the opportunity of running postgraduate programs at multiple locations (including cyberspace) that gave me further insight into issues of distance and difference. The mode was F2F intensive

Early 2000s

In the early 2000s I (along with a colleague – *Professor Ian Bofinger*) developed the idea of a Virtual Conservatorium for *Central Queensland University* that provided the opportunity to deliver a music degree to anywhere and anyone using an online platform. It was presented locally, nationally and internationally. It was part of the Central Queensland Conservatorium of Music offerings.

We were able to deliver subjects on-line using a variety of software (some developed specifically for us) and placing students with location specific performance teachers and ensemble groups.

The model worked – though the technology of the time was basic and a bit 'clunky'. In principle though, *The Virtual Conservatorium* became a reality and was both acknowledged - and criticised - within the Sector.

Ironically - and as a result of the COVID-19 pandemic circa 2019 - all conservatoria around the world found themselves delivering online – not such a silly idea after all. *It only took 19 years to catch on.* The mode was hybrid.

Mid 2000s

In part inspired by *The Virtual Conservatorium* - the *Australian Guild of Music Education* (now the *Australian Guild of Education*) developed a full Bachelor of Music in 2016 and re-accredited in 2019 (still in operation today) fully available online.

The course had the USP (prior to the pandemic) of being one of the few awards available (nationally and internationally) fully online servicing domestic students and offshore students – though predominantly nationally.

The program was well received from the outset with modest enrolment numbers. With changing regulations regarding F2F

for international students – the program remains viable – but would have to consider a hybrid variation as well as the challenges of 'caps' being placed on international enrolments.

In my work at the University of Western Sydney I was able to encourage the development of online subjects within the WSU College environment and supported the development of the virtual activities of the larger University. Having had the multi-campus experience at both Griffith University and Central Queensland University I was able to adapt quickly to the diversity of UWS and its multiple sites.

Late 2000s into early 2020s

The COVID-19 pandemic was a major disruption given the various Australian State lockdowns (Melbourne being amongst the world's longest lockdowns) and ironically impacted on enrolments at AGE.

The rest of Australia of course was required to embrace the notion of online learning – at all levels – whether they liked it or not.

My own School at the time (Group Colleges Australia) embraced the technology given the expertise and capital investment available. Ongoing surveys of international students indicated extremely high levels of satisfaction and support of the online mode.

A number of exciting online options emerged including Work Integrated Learning (WIL) online presentations (from all over) and the development of a bespoke invigilation program (*Invigilator Plus*). The technology and mode also provided the option of opening two additional campuses to Sydney – including Melbourne and Adelaide.

The mode was online and later morphed into hybrid.

Mid 2020s

In 2024 I am currently involved in an online (with hybrid option) delivery of a Doctoral program (with *Associate Professor Tom O'Connor, Emeritus Professor Jim Mienczakowski and Associate Professor Sutheera de Wit*) for *Chiang Rai Rajabhat University* in Thailand. This is a transnational project of the University and currently has students enrolled in Melbourne, Australia.

The mode of delivery is hybrid – but mostly online using ZOOM and other resources to deliver the project and publishing student assignments in the form of blogs on a public website. This added publication dimension is a powerful incentive for students to share their work and enhance their scholarship profiles.

Using current technology with solid WIFI and associated equipment – the programme is achieving excitingly, good outcomes and a positive upbeat response from both students and teaching staff. Essentially – the dream of the 90s has now reached fruition – utilising soft resources and cloud-based storage.

What, at the time, was a dream – has now become a reality. The COVID-19 pandemic combined with the digital revolution that accompanied it (often referred to as the dual tsunamis) have made the notion of transnational delivery quite straight forward and in truth has enhanced the delivery and context.

What has taken some thirty (30) years to refine is in truth a dream coming true – or reaching fruition. The notion - If you want something to happen – first dream about it – and do everything in your power to make it happen. Dreams do come true.

So, what of the next five years?

My observations suggest that we are in a wonderful position to push the online opportunity further moving forward. It is likely to incorporate the hybrid approach.

The technology available to us is impressive and highly customisable. Picture, sound and interface is looking very fresh and effective. The only limitation is the WIFI quality at distant locations.

For the first half of the 2020s I was able to explore the notion of working from anywhere (including home) and exploring the life of a digital nomad. I trialled systems in Vietnam, Hong Kong, Singapore, Macau, Florence, Rome, Paris – and found - despite the time zone differences – the notion was and is highly effective. I found that productivity was high as long s it was accompanied by discipline and focus. The bigger the time difference – the more discipline needed.

I would like to think that we will see considerably more flexibility in our teaching and learning moving forward that will include online access to experts around the world; greater access for offshore students; more transnational work; expert use of both online and hybrid; creative solutions to working integrated learning (beyond physical placements) and of course embracing the preferences and life-style of the digital nomad.

In the late 1990s and early 2000s I dreamed of being part of a virtual school that would operate 24/7 with staff and students based in three time zones – Australia, Asia/Sub- Continent and Europe. Perhaps the so called ‘impossible dream’ that became ‘implausible’ could in fact become ‘reality’ – I would certainly like to think so.

Worth reading –

WFA Working from Anywhere and the Digital Nomad (2022) - Working From Anywhere Formatted

The New Reality (2023) - GCA Vol 11 - Formatted

50 Shades of Greg - Celebrating 50 years in Academia (2024) - Untitled

Emeritus Professor Greg Whateley worked at *Griffith University* (Gold Coast/Brisbane) 1991-1999; *Central Queensland Conservatorium of Music* 2000-2003; The *Australian Institute of Music* 2004- mid 2005; the *University of New South Wales mid* 2005- mid 2008; The *Australian International Conservatorium of Music* (mid 2008-2011); the *University of Western Sydney* 2011-2015; and *Group Colleges Australia* (2016-2024). Greg celebrated 50 years in academia in 2024 and is currently an independent consultant with the *Australian Guild of Education* in Melbourne.

CHAPTER 6

The next 5 (years)

Kentaro Tsubak
January 2025

There is no doubt that today is an era of *unpredictability* in which conventional methodologies are no longer applicable.

The past five years have been marked by rapid and forceful digitalization of society as a whole - with the spread of COVID-19, as well as technological innovation through generative AI and other means since 2022. The keyword “VUCA” is often used to symbolize these times. VUCA stands for “volatile, uncertain, complex, and ambiguous,” and refers to a rapidly changing and unpredictable situation. The term was coined from the first letters of the four English words “volatility,” “uncertainty,” “complexity,” and “ambiguity,” and has attracted attention since the World Economic Forum held in 2016, when the modern world was described as a “VUCA world”.

The Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) has therefore indicated that it aims to educate students to “become creators of the future in an era of unpredictability,” and that it is imperative to develop human resources who can respond to changes in society.

MEXT is considering necessary measures towards the year 2030 based five cross-cutting perspectives ([5]). The following paragraphs present my personal views on the five basic policies for Japan's future education policy by MEXT and my predictions on their future development.

Developing human resources for a brighter future: Human resources to initiate and create changes and new values through leadership in various fields in society

The number of Japanese students studying abroad at Japanese universities has fallen from approximately 100,000 in FY 2019 to 60,000 in FY 2022, because of the impact of the COVID-19, and is still far behind the number of students who studied abroad before the COVID-19. Various factors can be cited, including the delay in finding employment in Japan, the inward-looking attitude of young people, and language skills, but it is also thought that the record depreciation of the Japanese yen and rising prices outside of Japan are having a major impact on the increase in the burden of financing study abroad. This situation applies not only to university students but also to high school students.

Japan has a rapidly aging population with a declining birthrate, and the relative position of the Japanese market in the global economy is shrinking. Therefore, to achieve further economic growth, Japan needs global human resources to develop overseas markets. Japan's Immigration and Residency Management Agency has introduced the Japan System for Special Highly Skilled Professionals (J-Skip) ([6]), which provides preferential residency status to foreigners with highly specialized skills, but this has not had a significant impact on Japan's

[5] https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/sdetail01/1373808.htm
[6] https://www.moj.go.jp/isa/content/001401537.pdf

globalization. For Japan to further globalize, it is necessary to create an environment in which the next generation of Japanese children can learn and take on the challenges of a globalized society.

MEXT is promoting scholarship-based study abroad programs and aims to increase the overall number of Japanese students studying abroad to 500,000 by FY 2033([7]). However, the development of global human resources will require not only study abroad, but also the creation of online "opportunities" in Japan to provide more opportunities for more students to experience the world. In addition, students should not only focus on learning English - but should also listen to stories of people who are active overseas, thereby creating opportunities to learn about the current situation in other countries as well as acquiring a rich culture.

Japan is also promoting STEM education. A 21st century education system, that aims to produce internationally competitive human resources - that can adapt to an IT and global society. However, the system has not been deployed nationwide due to a delay in the use of ICT, a lack of teachers capable of teaching, and disparities among families and regions. Programming has been made mandatory for high school students to improve their information literacy and technology, but it is difficult for students to acquire such skills in one year of high school. Therefore, a curriculum that begins from elementary school to develop ICT skills may be necessary.

Building safety nets for learning: A wide range of learning opportunities accessible to everyone

In Japan, the number of truancy cases in compulsory education institutions (elementary and junior high schools) has sky-

[7] https://www.mext.go.jp/en/policy/education/highered/title02/detail02/1373921.html

rocketed to about 300,000, five times that of 10 years ago in elementary schools and more than double in junior high schools. The situation is similar in high schools, where the number of truant students has been growing for 11 consecutive years.

The main reason for this is the rapid change in the educational environment, especially in the wake of the COVID-19 pandemic, where school events are no longer held and time spent at home is rapidly increasing and causing a great deal of stress. In addition, as children's difficulties become more diverse and complex, the number of children who do not fit into the current uniform and rigid school education system unique to Japan is also increasing.

MEXT will compile the COCOLO Plan ([8]) in 2023, which aims to promote mutual understanding and cooperation among schools, local communities, families, NPOs, and free schools, as well as the government, to promote initiatives for children in their respective fields.

In other words, it is presumed that it will become important to create an environment where anyone can learn freely, when and where they want to learn. Therefore, it will be necessary to collaborate with free schools and set up places within schools where students can study in a calm and individualized manner. Furthermore, it will be necessary to provide a variety of places for learning, such as online wide-area support and evening junior high schools, where students do not have to go to school “physically”.

[8] https://www.mext.go.jp/en/policy/education/lawandplan/20240311-ope_dev03-1.pdf

Building bonds and establishing vibrant communities: A virtuous circle where society nurtures people and people create society

It has been pointed out that the concept of "local schools" and "children raised in the community" is gradually disappearing in Japan as the urbanization and depopulation of the countryside, changing family patterns, and diversifying lifestyles have led to a weakening of ties and mutual support in local communities. Education does not simply take place in schools alone. The healthy development of children is impossible without the family and local community functioning adequately as a place of education. In particular, the number of dual-earner households has increased 1.5-fold from FY 2001 to FY 2021, and the number of nuclear families continues to increase, with nearly 90% of all families with children now being nuclear families ([9]).

MEXT aims to enhance recurrent education through cooperation between universities and industry, and to improve local educational capabilities by promoting cooperation and collaboration among schools, families, and communities ([10]). In addition to afterschool and childcare services for elementary school children only, it will be urgently required to expand and improve environments (such as community centres and community schools) where experienced and knowledgeable elderly people, especially those over 65 years of age, can look after children. In addition, in regions with declining birth rates, it is imperative to create an environment where not only universities, but also junior high schools and high schools, can build

[9] https://www.mext.go.jp/en/publication/whitepaper/title03/detail03/sdetail03/sdetail03/1372941.htm

[10] https://www.mext.go.jp/en/policy/education/lawandplan/title01/detail01/sdetail01/1373804.htm

vertical and horizontal ties that transcend the boundaries of the school and help students acquire social skills.

In an increasingly complex society, there is a need for an environment in which specialized fields that cannot be solved by teachers or local communities alone can be easily searched for and utilized online.

Developing social competencies for survival: Independence and collaboration in a diversified and rapidly changing society

In response to the rapid spread of online education, partly due to the COVID-19 pandemic, the Japanese government has decided to provide all elementary and junior high school students with one computer or tablet per student in 2021. Since some families do not have internet access, the Japanese government is also supporting the provision of high-speed, high-capacity telecommunications networks within all elementary, junior high, and high schools. MEXT is also promoting the enhancement of learning not only in terms of hardware, but also in terms of software, such as digital teaching materials and learning activities that effectively utilize ICT. MEXT is promoting the "GIGA School Program" ([11]), which aims to complete the distribution of one terminal per student and the development of a communication environment by 2025, as well as to enhance education using ICT.

For children living in the Society 5.0 era, effective use of ICT-based cutting-edge technologies in education is required, while at the same time, since the improvement of teachers' skills has lagged, it will be essential to improve the ICT skills of all teachers to improve classes and work efficiency. Therefore, it will be necessary to provide online and on-demand training

[11] https://www.mext.go.jp/en/content/20200716-mxt_kokusai-000005414_04.pdf

programs for teachers. In addition to the use of digital technology, face-to-face activities are also indispensable, and it will be necessary to construct an appropriate combination of these activities according to the learning situation. Furthermore, it is essential for children, who were born in an information society and will grow up in an ever-evolving IT society, to learn about digital ethics from elementary school age. Since most children use the Internet and SNS in private environments, such as at home, rather than at school, it will be necessary for schools and parents to cooperate in providing education that focuses on fostering moral awareness and compliance with "ethics in the information society" and "understanding and obeying the law".

Setting up the infrastructure and dialoguing to ensure the effectiveness of the plan

According to TALIS' 2018 survey ([12]), the average time spent on teacher administrative work in the countries participating in the survey was 2.7 hours per week. In contrast, Japanese teachers devoted 5.2 hours to administrative work at elementary schools and 5.6 hours at junior high schools. In addition, various non-teaching duties exist, such as advising club activities, making long working hours a problem. In addition, the ratio of teachers hired has fallen sharply from 13.3 times in FY 2000 to 3.9 times in FY 2021, making it difficult to maintain the quality of teaching staff.

MEXT aims to promote flexible work styles and improve the fixed number of teachers to reduce workload and long working hours. However, it is unlikely that the workload of teachers will decrease dramatically in an increasingly complex society. Therefore, cloud computing should enable teachers and staff to securely access the school business system and perform their duties not only in the school but also from home or on business

[12] https://www.oecd.org/en/about/programmes/talis.html

trips. In addition, for specialized classes that require small-group instruction and individualized instruction, it will be necessary to request external instructors whose expertise is sufficiently high. At the present, we are requesting some of our English classes to be taught by people from overseas, but this is not only for foreign language education, but also for DX and various other tasks, and early action is also required to address this issue. Furthermore, in Japan, where regional disparities in education are an issue, local governments are expected to collaborate with well-known private schools in urban areas to offer high-quality classes through “online interactive classes” utilizing IT.

Society and Children's Future in 2030

In Japanese education, based on the social and cultural background of Japan, we must harmoniously and integrally nurture acquisitive elements such as self-affirmation and self-realization, and cooperative elements such as human connection, altruism, and a sense of social contribution, to improve well-being based on “harmony and cooperation” that is rooted in Japanese society through education ([13]). We are required to do this through education. To enhance children's well-being it is important to improve the well-being of teachers and the school, including the families and communities that support them. This expansion will support a diverse range of individuals - and can realize an ideal form of intergenerational circulation in the future. To this end, promoting investment in education as an “investment in the future,” improving the quality of education, as well as community cooperation, is essential.

[13]https://www.mext.go.jp/en/unesco/title04/detail04/20220706-mxt_kouhou02-1.pdf

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CHAPTER 7

5 predictions for the use of AI in the legal profession

Anurag Kanwar
January 2025

Artificial intelligence (AI) has boomed over the last 2 years. A google search of AI tools reveals some 1.8 billion results. This reflects the extensive global interest in AI. The AI industry has also experienced significant growth with the global market size valued at $200 billion[14].

[14] Artificial intelligence (AI) worldwide - statistics & facts | Statista

This shows that AI is set to impact a large number of the sectors in the economy. This article will consider 5 predictions in relation to the legal profession[15]

1. Automated Legal Research

Artificial Intelligence (AI) will revolutionise legal research by providing instantaneous access to comprehensive databases of case law, legislation, legal precedents, and scholarly articles. Leveraging the power of generative AI, these tools will not only retrieve relevant information but also analyse the legal context to identify the most pertinent arguments, patterns, and precedents that align with a specific case or query.

By streamlining the traditionally time-intensive research process, AI will allow legal professionals to allocate their resources more effectively, focusing on strategy and case development [16] . Additionally, AI-driven platforms will offer predictive insights by analysing historical legal decisions, aiding lawyers in evaluating the likelihood of various legal outcomes. This enhanced efficiency and precision will significantly reduce costs for clients and democratize access to high-quality legal services, particularly benefiting small firms and individuals with limited resources. However, the adoption of such tools will require careful oversight to ensure the accuracy, reliability, and ethical application of AI-generated insights within the legal framework. This then raises issues for the future of Paralegals.

2. Contract Analysis and Drafting

AI-powered platforms are transforming the way contracts are drafted, reviewed, and analysed, delivering greater accura-

[15] Gen AI won't replace legal professionals but it has transformative potential - SmartCompany
[16] The Power of Artificial Intelligence in Legal Research

cy and efficiency compared to traditional methods. By leveraging advanced technologies such as natural language processing and machine learning, these tools can quickly identify risks, inconsistencies, and potential loopholes within contract language. They ensure compliance with legal standards, enhance consistency across documents, and reduce the likelihood of errors, providing a streamlined approach to contract management[17].

With routine tasks automated, legal teams can focus on high-value activities like strategic negotiations and decision-making. These platforms not only save time but also provide data-driven insights, enabling organizations to uncover trends and optimize contract performance. By shifting the workload from manual review to intelligent automation, AI-powered platforms empower legal professionals to operate more strategically, delivering greater value to their organisations.

3. Impact on Paralegals[18]

AI will impact the role and responsibilities of paralegals and other support staff. There are some significant advantages as well as challenges with AI tools. These are -

- AI can rapidly analyse extensive legal documents, accelerate legal research, and assist in drafting and managing contracts. These capabilities drastically reduce the time and costs associated with routine tasks.
- By automating repetitive tasks and streamlining legal research and document review, AI enables paralegals to focus on more complex and strategic responsibilities. Paralegals, often burdened with

[17] 10 Best AI Tools for Contract Review
[18] Will AI replace paralegals? Let's separate fact from fiction

tight deadlines and high workloads, greatly benefit from this support.

- AI's ability to process and analyse large datasets minimises human error, delivering greater precision and reliability in legal documentation and research.

The Challenges of the AI are -

- While AI excels at data processing, it often struggles to grasp complex legal concepts and nuances, which can lead to inaccuracies or misinterpretation of legal information. Paralegals bring critical human insight and judgment that AI cannot replicate.
- AI use raises significant ethical concerns, including privacy, data protection, and transparency. Safeguarding client confidentiality and ensuring compliance with ethical standards remain areas where human oversight is indispensable.
- AI systems have been criticised for inherent biases. For instance, some AI tools associate certain professions with specific genders[19], which may lead to discriminatory outcomes if not carefully managed. Paralegals' ability to navigate and counter such biases is crucial.
- Legal representation often involves emotional and complex matters that require empathy, personal interaction, and tailored advice. AI lacks the human touch that helps clients.

[19] Research shows AI is often biased. Here's how to make algorithms work for all of us | World Economic Forum

4. Evolution of ethical and regulatory frameworks.

As AI tools become more prevalent, they raise complex ethical issues, such as algorithmic bias, lack of transparency (black-box AI), and accountability for AI-driven decisions.

Legal professionals must adapt by navigating these challenges, ensuring compliance with emerging regulations on AI use, and advocating for fair and ethical AI practices. This evolution is also pushing the profession to develop new competencies, such as understanding AI systems and advising clients on legal issues related to their implementation and governance.

5. Increased accessibility to legal services through AI-powered tools and platforms.

AI is enabling the development of virtual legal assistants and chatbots that can provide basic legal advice, draft simple legal documents, or guide users through legal processes at a fraction of the cost of traditional legal services[20]. In fact there are a number of memes and reddit threads about the use of AI instead of using a lawyer. Using AI to draft contracts and the like.

This democratisation of legal services makes them more accessible to individuals and small businesses who might not have been able to afford a lawyer otherwise. However, this also raises concerns about the quality of advice provided by AI tools[21], the potential for misuse, and the regulatory challenges of ensuring accountability and ethical standards in automated legal advice.

The integration of artificial intelligence (AI) into the legal profession is anticipated to significantly transform traditional legal practices, streamlining processes and enhancing accuracy, effi-

[20] Will AI replace lawyers? What to expect in 2024

[21] V86b1hpz9d-B34-WBNR-16x9-203s-YT-Charlotte-didyouknowthatamazon-Multi transition-July2024 Ad 2--OG

ciency, and client-centric service delivery. AI's capacity to automate repetitive tasks, such as legal research, contract analysis, and document review, promises to reduce operational costs and expedite procedural outcomes, providing a more responsive legal framework. However, the widespread adoption of AI in legal settings introduces complex ethical and legal considerations that demand meticulous oversight and compliance with established regulatory frameworks.

As these technologies evolve, practitioners must engage with interdisciplinary expertise to navigate the intersection of technology and the law responsibly. Regulatory bodies and stakeholders must collaboratively establish robust governance structures to mitigate risks while enabling the transformative potential of AI. Ultimately, the careful integration of AI into legal practice has the capacity to advance the rule of law while maintaining ethical and equitable access to justice.

Anurag Kanwar is a legal practitioner in New South Wales.

CHAPTER 8

Composing from anywhere – emergence of the handheld composition studio

Christopher McLeod
January 2025

Prediction: *The next five years will see the emergence of the handheld Music composition studio.*

The notion that Composing for Film and Media requires a traditional studio or home studio to complete work of industry standard is being turned on its head. The introduction of new technologies and workflows has seen the emergence of new modes of working. What once required many personal and physical hardware tools can now be completed either on laptop or tablet devices.

Emerging technological markets will see these technologies shift to smaller interfaces (smartphone technologies) that will increasingly allow users greater creation options. Lumafusion (a pro level video editing program) already exists on the iPhone. This allows users to create top tier videos in the palm of their hands. We

will see this shift to a broader scope of software applications on smartphone platforms.

The integration of Artificial Intelligence (AI) into software plugins (Ozone elements) further enhances the possibilities that mixing can be undertaken effectively on a Samsung Galaxy or Apple iPhone. Additional plugin software further reduces the reliance and requirements of a specialised room treated for unique sound characteristics and physical equipment.

Composing from Anywhere

The journey towards pocket composing (the use of smaller technologies) to complete complex tasks such as Film and Media composition has become significantly less complicated to complete anywhere as the emergence of new tools (Cloud computing and portable digital platforms) has allowed for Composers to work remotely. They are free from the confines of a specific working space.

The 1980s film Electric Dreams made some bold predictions surrounding the use of the computer and the possibilities of Artificial Intelligence. Presented as a Romantic Comedy with a twist, the film explores the possibilities of diverse network protocols to execute complex commands. One fact is glaringly obvious throughout the film: The Computer (lovingly referred to as Edgar in the film) requires a large amount of physical equipment.

Composers once sought rooms of studio equipment to undertake the work of film and media composition. The innate requirements of the job meant that either a large studio (think the scoring stages in Burbank California) or a smaller boutique style studio were required. While both environments can be aesthetically pleasing to work in, the emergence of smaller, portable digital technologies has made a significant number of

these requirements less important. In essence, we a free from the confines of set spaces.

New Compositional tools for an old medium

The process of composing for Film and Media has morphed in recent years due in large to the emergence of digital technologies (Virtual Software Tools VSTs) and virtual working environments. Greater computing power has contributed to samples that are more versatile and realistic. Each iteration of VSTs makes the process of composition easier.

For instance, a Composer based in Melbourne can now hire a fully equipped symphony orchestra such as the Budapest Scoring Orchestra to perform and record film cues remotely without leaving the country. Increasing budgetary constraints of local productions make this option ideal when local musicians cannot be source. There is a myriad of factors at play in this scenario including: the quality and availability of players.

The introduction of new options and tools allows for a broader perspective of expression within the medium. This represents a move away from the traditional studio system where each Movie Studio (Warner Bros, Paramount etc) employed their own inhouse orchestra and session musicians. The golden era of 8 Horns and 10 offstage Trumpets as the norm for a score shifted some time ago.

An advantage of VSTs is the ability to recreate the enormous sounds of blockbusters without the associate costs. Imagine that in 2025 we hold more computing power in the palm of our hands than the Allies in 1945. The ability of our chipsets and programming will continue to emerge. Whilst the Metaverse may have been a commercial failure, it's conceptual alignment with workspaces of the future was proof of concept that the studio can be anywhere that the Composer is.

A Studio within our pockets

A further area of advancement is the use of portable digital technologies such as the laptop and iPad. Neither technology is relatively new to the tech industry. However, the introduction of the iPad pro represents a move forward. Each iteration of iOS offers users new and more flexible options that allow for higher functionality and productivity. The adaptability of either touch response or hard input devices (Keyboard and Mouse) offers a strong use case for widespread accessibility.

The newer chipsets and functionality of recent models has given software developers greater flexibility in creating apps that both mimic and surpass the usability of desktop apps on a traditional computing platform. Additionally, the integration of Artificial Intelligence into operating platforms is a further enhancement of the capabilities of emerging devices. These algorithmic tools align with the model of studio in pocket.

Support of physical peripherals such as Audio Interfaces, MIDI Controller Keyboards and traditional keyboard and mouse further enhance the functions of the device. The initial iteration of tablet technologies may have been clunky and obtuse. The newest generation presents possibilities. An all-important gamechanger of the next five years.

Scoring in the Ether (Film scoring on an iPad)

Recent technological developments have paved the way for pro (professional) apps on the iPad Pro. The recent release of both Logic Pro and Final Cut pro provides excellent functionality for composers looking to gain portable momentum away from the traditional studio environment. Previously, composers would require a laptop with limited portability.

Additionally, the use of apps such as Staff Pad with its ability to purchase professional level sound libraries (Cinesamples and Spitfire Audio) are a step in the right direction for the de-

vice and composers. Imagine the use of Staff Pad on an iPhone 16 Pro attached to a computer monitor or TV. Ultimate flexibility and portability.

A composer can now use staff pad to notate their ideas with the Apple pencil (The main input device is the Apple Pencil) and create a fully realised score for String Orchestra with excellent sound samples on par with EastWest samples. The ability to use and manipulate these sounds in a portable environment will change where and how music is created. To adapt to the emerging status quo is to survive and thrive.

Moreover, the stems (the name for an individual instrument/track when exporter) can be exported as audio or xml to be read in a program such as Logic Pro. The added benefit that Staff Pad can support video and timecoding further enhance its ideal stance as a future tool. Predictably, this will shift to smartphone technology.

Implications

Technology has shifted at a rapid pace. The smart phone that someone has in their pocket has more computing power than the computer NASA used for the first Moon landing. The continual adaptation of current and new tools as they emerge will continue to provide the impetus for Composers to disengage from the traditional studio environment and move to a completely portable mode.

Samsung with their Dex platform for smartphones (inhouse proprietary) set the bar for the possibilities of using a mobile phone for portable computing. A Laptop and iPad may provide the screen real estate and computing power for now. But one day soon we may compose scores for Film and Media in the palm of our hands.

Roli recently released their Piano M and Airwave. The technology itself is not a new concept. The Theremin used the

technology of sound manipulation long before the concept. Additionally, the Power Glove for the 1980s Nintendo Entertainment System (NES) was another iteration. What has changed however is the shift from requiring a dedicated physical space to a portability factor.

Imagine the year 2030. We have in our hands an immense possibility to shift the status quo away from any semblance of dedicated physical space to the ultimate portability. The studio could fit easily within a satchel. The core of the studio will be the smart phone. Our peripherals may include a VR Headset that acts as a monitor interface (for ultimate portability) and a Midi Keyboard (emerging technologies mean this may too be a technology of the past).

The next five years will see the emergence of the handheld Music composition studio. We can fondly remember the studio technologies of the past. Enjoy the physical environment they provide. But, in many ways they are akin to the Yellow Pages phone book. There is a nostalgia for the halcyon days of older technologies. They may spark brief moments of joy. Their days however are long gone.

The prediction is that the physical studio space will be used for specialised projects. The emergence of portable technologies will define the film industry in the coming decade. Composers will have access to vast technological opportunities. Their ability to work from anywhere, any place, and any time will become priceless. To compose on a train or in the hallway of a busy shopping centre will become a gamechanger to the industry at large.

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CHAPTER 9

Five more years and … the boom becomes an echo

Jim Mienczakowski
January 2025

"Fire is a good servant but a poor master."
Thomas Adams 1615

Much argument, angst and blame-placing has been spawned over generational succession in recent years. This chapter seeks to refocus concern on more urgent and important considerations for the future of Australia's younger generations and their wellbeing. It discusses systemic failures in schooling and AI and defines a range of issues and broad priorities for consideration.

Find the 'Big Picture'

By 2030 the much extolled *(and oft maligned)* Baby Boomer generation will no longer be a majority that matters in the world of work. They will have become an echo. Will this im-

prove working life opportunities for Gen X, Millennials and other rising generations?

There are, naturally, a few caveats that could wrinkle this *'Boomer to distant echo'* scenario. For example, mandatory retirement ages are set to continue to creep higher and higher across the western world – theoretically reducing financial pressure on those huge government and private pension funds which would be heavily impacted by mass Baby Boomer retirement withdrawals.

Now edging 69 years for retirement in parts of Europe (with aged 71 mooted in the future for the UK) the longer wait until retirement trend it likely to continue to edge higher.

If you are not a Boomer, you may be thinking of the impost that a swag of retiring 70-year-olds represents for all of you who are still working, paying taxes and thus sustaining public health and social support systems. If you are a Boomer, you'll probably contemplate your many decades of tax contributions in helping to grow the public education, health and welfare systems needed to raise and educate the various generations following you. You'll certainly remember the mandatory pension contributions you also made.

None of the debate about which generations had an easier innings helps solve the realities of an ever-ageing population that now lives much longer than once anticipated.

- *Within 5 years the average Boomer will be in their mid-70s though their overall numbers will be declining. (Statista.com 7th Nov) 2024.*
- *By 2030 the vast bulk of Australia's population will be in their 40s and they will have to plan to remain gainfully employed until they too reach 70 or perhaps 75 years of age.*

Consequently, it will be Gen X and Millennials who will soon totally dominate the workplace in what seems set to become a significantly more complex environment for employ-

ment opportunities. *So, forget the Boomer Generation and Millennials arguments. They are a distraction from the Bigger Picture!*

The Big Picture: Unemployability

The Committee of Economic Development Australia (CEDA) has raised concerns over growing job and skills shortages across one-third of all Australian occupations whilst also emphasising that *tertiary education is not, as yet, providing the skills and graduates needed for the currently changing work environment* (CEDA 2024). CEDA has also identified a current lack of data and research approaches capable of determining Australia's exact future training and skills needs.

To better understand the massive shortages of trained and skilled workers and graduates now needed we must first turn to the issues facing schooling in Australia.

Schooling – 1. Public v Private Schooling Choices

The ABS (2024) reports that 36% of Australian children are involved in private non-government schooling – which is one of the largest percentages of any western nation according to the OECD. This percentage of children from wealthier backgrounds attending private schooling is increasing annually. In comparison, in the UK around only 6% opt out of government schools in preference for private schooling.

With such a large percentage of children attending private schools in Australia it means that there is less government intervention in how these schools operate – but also much more fee-paid funding for those studying and working in the private systems.

Emphatically, it also reflects a significant lack of confidence in the capacities and teaching provided across the public system.

Schooling - 2. Declining Standards

Notwithstanding more than a century of compulsory schooling in Europe there remains a significant and (in some parts) growing number of school leavers who are neither literate nor numerate. Sciences, at the tertiary level, are insufficiently subscribed and the public schooling sector in many urban areas is in crisis.

Despite increases in funding, Australia's educational outcomes are also declining in quality. In 2023 NAPLAN school testing results reported that one-in-three children did not meet the minimum academic standards appropriate to their age and stage of study (NAPLAN 2023).

Moreover, as stated in a 2024 Productivity Commission report, high school completion rates (those completing Year 13) have fallen from 82.0% in 2019 to 78.7% in the 2023 academic year. Whilst, according to Julie Hare in the Australian Financial Review (5th Feb 2024) '*attendance rates for those in years 7 -10 have also declined dramatically, particularly in government schools.*'

There are observable take-home issues to consider here:

Dropout rates and low academic standards are very much an outcome in public, particularly regional, schooling. This has strong implications for the life-chances of those negatively impacted.

If AI is now removing mundane, repetitive activities from administrative and customer service occupations – what work will be available/suitable in the future for the 22% of children who do not thrive or achieve above minimum standards at school? What will their future roles in tomorrow's economy be? How will they maintain viable employment throughout their working lives?

Whilst many future school leavers might find opportunities in various labour-intensive areas what will be the long-term prospects for them in 5 – 10 years?

How will technology continue to impact the functions and work of say, manual labourers? Healthcare attendants? Semi-skilled tradies?

Given the speed in which AI is integrating with various industries and economies, are those who do not thrive in school destined to become ***the unemployable in an age of technology?***

Priority 1 for the Next 5 Years

So, priority number 1 for the post Boomer generations should be to fix what the Boomers were also promised – an education system to be proud of which serves all Australians. Alas, public provision is patchy at best and access to tertiary provision is variable. Sadly, it is doubtful that the next 5 years will see the political will and investment necessary to do things better. Moreover, if schooling standards are raised – the tertiary sector must also improve the perceived value and worth of their (expensive) offerings.

What Planning Should be Developed for the Age of AI?

Currently, as Generative AI technologies are now progressively being integrated into workplaces, and are precipitously evolving and extending their capabilities, *gaining clarity on the specific skills, education and training matters needed for the future is both important and urgent.*

The swift evolution of AI Technologies has taken most government administrations, universities and education systems by surprise. That shouldn't have been the case, but, to date, academe and many governments are bewildered as to how to

effectively govern and control the application of Generative AI as a tool for students and academics alike.

In the UK, an '*AI Opportunities Action Plan'* is being government funded in which leading tech companies are looking at ways in which AI could be used to solve community problems and also create thousands of job opportunities in AI related activities (Liv McMahon et al. BBC.com 13 Jan 2025).

AI related job growth would be welcome, but the underpinning educational attainment of school leavers necessary for achieving a viable career in AI development is also an issue for Australia – particularly in public schooling systems which are far from adequate in some regions.

Priority 2 for the Next 5 Years

More research (in partnership with western governments facing similar challenges across the OECD / UNESCO) should be used to determine how Australia can effectively also develop task force capacities to help guide future investment in understanding the potentials and risks of new technologies (including AI) over the next 5 years.

Tertiary Education: Will AI Enhance Education or Replace Employees?

Now AI has become the first major technological development to strongly threaten *knowledge workers* in that it can replace both their services and reduce costs associated with *human knowledge-worker* employment. It is the latest spike in a series of *people displacing* economic productivity revolutions.

Although fears over the introduction of computers (some 40 years ago) anticipated potential employer savings in secretarial and administrative staff numbers- academic teachers and re-

searchers were never under threat. AI and Generative AI are changing that.

Effectively, most undergraduate degrees could already be fully delivered via Generative AI enhanced and aligned approaches -without involving tutors, lecturers, marking assistants or administrators to any great extent.

Universities are already engaged in using AI to detect plagiarism such as- Proctorio, Invigilator Plus and Respondus Monitor - applications which all *manage* academic integrity. However, adaptive learning system platforms such as Smart Sparrow or DreamBox - *interact* with student performance creating curated content and optimising and tracking student progress and outcomes.

(Isn't that what teachers once did?)

James Yoonil Auh (UWN 11 December 2024) points to algorithmic decision making in AI simplifying administrative processes, course scheduling and resource allocations using 'predictable data driven outcomes.'

(No need for administrators then?)

From law to architecture, medicine, arts and the sciences, AI is almost certain to reduce the need for human employees in tertiary settings. In simple economic, business terms – AI reduces potential salary costs. That equals *more profit*.

Over the coming five years we are likely to see:

1. Sandstone, wealthy and elite universities which will likely still brandish their prowess by marketing their research status, facilities and the possession of high-status research staff as exemplars of their strengths – though they will continue do so at a very high consumer price.

2. Elite institutions will, increasingly, become more elite and accessible for mainly those who have the means to pay for, not simply the tuition fees, but the associated costs and services embedded in attending an edificial institution.

3. As our major sandstone entities are also those most reliant upon international student fees – they will retain face-to-face teaching *as long as it continues to be a visa condition for prospective international students to study in Australia.*

4. Poorer public entities (particularly those less able to attract significant international student patronage) will, piece by piece, undoubtedly all begin to offer their degrees (AI provided or supported) through more accessible and cheaper technologies within the coming 5 to 10 years. Online, off campus, electronically and AI proctored and assessed examinations with AI generated lecturers and tutors will be the new norm. Campuses will shrink. Public universities will be early adopters of technological and structural changes to their operating models.

5. AI will enhance higher education's capacities, but it will also reduce and replace operations currently performed by human employees. If AI can perform tasks more efficiently, faster and with higher levels of system integration than a human employee can – it has the likelihood to effectively generate human redundancy.

Necessity and Ethics

Rapid AI evolution, of course, is out pacing tertiary education's abilities to respond to the changes implied for workplaces and higher education preparatory courses. The introduction of AI has been so swift that regulatory frameworks are still embryonic. For example, whilst industries and businesses are now able to interact with the general public and potential commercial clients via AI interfaces – including chatbots and human voice simulating capacities – *there is no legal requirement for disclosure.*

Effectively, enterprises in Australia, as yet, do not need to inform customers that their enquiries, claims or business mat-

ters are being dealt with through AI or allied simulated human response technologies.

Then there is a much bigger question concerning human interaction and engagement. Every time a phone call is responded to by an AI simulated human there could have equally been a real human employed to provide that specific service.

You might argue, *"Isn't that the point? AI can replace, more cost effectively, humans in routine workplace transactions"*.

Here I think we need to raise the joint spectres of *necessity* and *ethicality*.

The big questions to consider are:

1. Is it unavoidably necessary to replace humans in the workplace with AI alternatives?

2. Is it ethical to replace human workers with AI alternatives?

With a quarter of the current century already behind us, the World is, once more, entering a daunting phase of *extreme* political and fiscal volatility. The coming decade is already heralded to be one of contentiously redefined national, economic and migratory boundaries, trade and military wars and further rapid technological changes to how we work and live. Higher education, its delivery and deliverables, accessibility, costs and perceived returns on investment are, naturally, also vulnerable to reconsideration at this moment in time.

As Generative AI is not going to disappear, Academe needs to embrace its potentials and adapt to its impacts more adroitly than it is currently doing. Guèye et al. (UWN 2025 10th Jan.) point to the need for (amongst other things) *"... AI that is ethically consistent, human-centred..."* and of quality. The consideration of ethicality is, perhaps, the most important factor here. UNESCO started this discussion in 2021 in its report 'UNESCO's Recommendations on the Ethics of Artificial Intelligence' which '*emphasises the importance of inclusivity, equity and ethical oversight in the deployment of AI in educational set-*

tings'. Regulatory approaches are fundamental to ensuring acceptable and sustainable engagement with AI as an element of tertiary education and to answering some of the big issues being raised.

In Australia we have a welfare net to help support our unemployed. Some countries, including America, have far less generous welfare and medical insurance approaches -so Australians are far better off in this respect. However, where people become unemployed due to the introduction and finessing of AI or other technologies, etc. they represent *potential costs to taxpayers who are supporting them*. On the other hand, introducing AI technologies represents *salary savings and cost advantages for employers* – why else would they use it!

Ethically, should employers be obliged to financially offset AI related staff reductions and the replacement of human services by paying high tax penalties? Their AI related staff savings have direct cost implications to the state (taxpayers.) Higher taxation for reducing human participation in workplaces?

Priority 3 for the Next 5 Years

Ethical and needs based regulatory controls governing how AI may be used in workplaces are urgent. To embed AI technologies across the entire spectrum of human work without examining possible unwanted outcomes and instituting safeguards would be akin to 'playing with fire'.

Conclusion

The potentially crushing future costs of increased numbers of unemployed/ unemployable people requiring health and welfare services in the coming decades are likely to be the result of unmediated AI and allied technological developments – not simply a spike in Boomer welfare retirement costs.

That said, AI, used ethically and where needed in the workplace, has major potential to improve the quality and experience of educational services and administration in general. However, it also has the potential to exclude those who have not gained necessary skills or met the increased standards required for modern life from finding a productive niche in the economy.

The Boomer generation may well be thankful for reaching retiring just as the latest technologies revolutionising not just workplaces but the nature of work and human engagement for interactional and commercial purposes arrives. AI has vast positive potential, but it will require considerable care in its workplace integration. Various social media platforms, for example, have become commercially gigantic but also socially harmful. They were released without too much consideration over their potentials to disrupt, harm, negatively influence and dominate means of communication.

The coming 5 years are critical in determining how the schooling and higher education sectors can respond productively to the changes emerging technologies represent. AI is a game changer but without appropriate ethical and regulatory controls it may become a far reaching social and economic burden.

References

ABS 2024 Census Results. https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release

CEDA 2024. 'Learning curve: Why Australia needs a training boost' (2024) © CEDA 2024 ISBN: 0 85801 364 9

James Yoonil Auh 11 December 2024 'The McDonaldisation of higher education in the age of AI' University World News

Lamine Guèye, Dolly Seow-Ganesan, Luca Lantero and Gonzalo Baroni Boces, 10 January 2025 'AI use in

qualifications recognition: five key factors', University World News

Julie Hare 5 Feb 2024, Australian Financial Review. https://www.afr.com/work-and-careers/education/the-rate-of-teens-finishing-year-12-is-falling-20240205-p5f2e3

Liv McMahon, Zoe Kleinman & Charlotte Edwards, 14 Jan 2025. PM plans to 'unleash AI' across UK to boost growth. BBC.com. https://bbc.com/news/articles/crr05jykzkxo

Statista.Com. Research Department, Population Distribution by Age, 2024. 7th Nov 2024 (*https://www.statista.com/statistics/608088/australia-age-distribution/#:~:text=In%20June%202022%2C%20it%20was,people%20over%2065%20years%20old.*)

UNESCO 2021 'UNESCO's Recommendations on the Ethics of Artificial Intelligence' (https://unesdoc.unesco.org/ark:/48223/pf0000380455)

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CHAPTER 10

Artificial Intelligence – the crossroads

Christopher McLeod
January 2025

Prediction: Artificial Intelligence will emerge to drive innovation in Academic Institutions.

The conceptual framework surrounding academic integrity offers a glimpse into the complexities surrounding how and why students cheat. The framework becomes increasingly fraught with a myriad of other factors when artificial intelligence is used to enhance the academic output of students. Thus, blurring the line between synthesized original thought and outright theft and plagiarism.

We are at a crossroads in technological history. The fourth industrial revolution described by former World Economic Forum chairman Klaus Schwab is in its infancy. New and emerging technological markets continue to evolve as the evolution of complex digital technologies increasingly raise the stakes in a systematic overhaul of the status quo. Momentarily, these disruptors can be non sequitur.

The Process of Mastery

To achieve mastery in a particular field requires continuous learning and training. A careful refinement of the knowledge and skills presented. This in part is transferable to the tertiary environment where students undertake a form of vocational training or study in a given discipline to gain mastery. The reasoning behind tertiary study is as individual as the student.

The temptation for students to cheat using digital aids becomes increasingly prevalent when outcomes become high stakes. Students reason that high level outcomes justify the process of cheating over the process of mastery. In this outcome, a student will achieve mastery through the process of skill refinement. Students are now equipped with multiple digital tools to enhance their assessment outcomes.

Powerful new computing technologies allow students to achieve more productivity within the blink of an eye. The results whilst not always flawless provide seemingly high-quality work on a moment's notice. Grammar and writing tools allow users to undertake complex tasks with minimal mastery to the skills and content. Artificial intelligence is part of this new digital revolution.

Enter Artificial Intelligence

The emergence of Artificial Intelligence offers users a plethora of creative and administrative tools at the blink of an eye. Whilst much has been stated around Artificial Intelligence and its involvement in the fourth industrial revolution (4IR – the advancement of technology in the 21st century), there is still a larger debate concerning its overall impact playing out.

An almost 'ludditesque' reaction to Artificial Intelligence being the harbinger of the Apocalypse has prevailed through subsets of public opinion. The notion that all jobs will be replaced by Ai within the next few years is unfounded. The premise ig-

nores the human factor to work and built environment. However, AI does provide a certain amount of concern for academic institutions as the ability and instances of students utilising it to enhance their written and, in some cases, non-written assessments increase.

The notion of the past and its technologies can be seen as vague. The use of handwriting is often seen as relegated to the past. Once upon a time this was not the case. It has however increasingly become so in the digital era where it is not uncommon for a student to never use pen and paper. The same to a degree can be said about cash. Regardless of near catastrophic events such as the 2024 Australia-wide update debacle where access to banking and other IT platforms was limited.

Guiding Student conduct

How and why students choose to plagiarise is complex. It requires a myriad of motivational factors and analytical studies of human behaviour. Human beings are complex. And no one size of why actions occur can answer the question easily. Inversely, students can choose to take a course of action that is advantageous to their future academic endeavours.

It is important to remember that most students utilise tools such as AI to increase their efficiency and academic outcomes. This presents a challenging set of precepts for academic institutions. Academic misconduct or cheating is not a new concept. Plagiarism has existed for millennia. The shifting point is the tools at the disposal of the students undertaking the tasks.

The use of continually evolving tools can present invigilation challenges for institutions as algorithmic shifts often render current software platforms mute. Part of the shift is to ensure student engagement with learning materials and course requirements. A carefully guided sense of knowledge and skills

acquisition. The secondary part of the equation is an increase in and institutions proctoring capabilities.

Proctoring Capabilities

The use of proctoring software provides part of the solution for monitoring how and when students choose to use enhancements for their work provides an important first step in the process of ensuring academic integrity. Adapting to an evolving world of artificial intelligence provides a unique opportunity for academic institutions at the crossroads of technological advancements.

Imagine a world where academic integrity is at the forefront of innovation. Consider its applications and benefits. Particularly for academics as they aim to reward student progress in their journey towards mastery. A sense that progress can be achieved towards a student's course goals. This is the world we seek to emulate and enhance on a daily basis, providing students with a larger capability to manage their progress without enhancing their work with digital tools and technologies.

The emerging digital world of the last 30 years has seen an explosion in the growth and power of digital technologies. The implementation of artificial intelligence has proven to be a powerful tool for the 21st century workplace. The shift in part is seismic. A new world has emerged. One that promises great opportunities for academic institutions and their students in the coming years.

Skynet or Friend?

The trepidation surrounding AI may well be partially warranted. Hollywood has done a phenomenal job ensuring that technology has become a diabolic muse. Terminator, Westworld, Brainstorm, and Logan's Run all spell dystopic and nightmarish futures for humans. A world where machines mer-

cilessly hunt man like prey. But - is this realistic or within the realms of fantastical dreaming?

Artificial intelligence whilst emerging to make some jobs redundant is unlikely to become Skynet overnight. Skynet for the non-initiated is the name of the governmental system in the Terminator franchise that initiates Nuclear Armageddon. In fact, the Australian Government Department of Industry, Science and Resources has an AI Ethics Principles page. The principles whilst voluntary provides a framework to ensure that malevolence is kept at bay through checks and balances.

Additionally, the use of AI principles provides a strong sense of direction towards ethical replacement of low-skilled non manual jobs. It is important to remember that AI is a tool. Used effectively, this can be beneficial for many people. Used ineffectively and unethically, this may lead to widespread layoffs or contribute to the next big market crash.

Where to from here?

The emerging technological landscape will present a smorgasbord of opportunity for those willing to embrace the technologies in the right way. It wasn't so long ago that the populace went about their daily work with minimal or no digital technologies. Those days are long passed. The future will present opportunities to the current and future generations of people that allows for creative solutions implemented by digital technologies.

The next five years will see AI increasingly implemented into daily life. The first generation of smartphones and smartwatches with AI are currently available. The next steps will see smart devices and connected webs of appliances, allowing for a fully integrated life where supporting tools will assist in budgeting, purchasing household necessities, and scheduling im-

portant medical appointments. Technology will become ever smaller to the point of implant technologies.

AI use in academia will become second nature with students utilising it as an effective tool as opposed to using it for plagiarism and cheating. There will be great opportunities ahead for those who embrace it in an ethical manner. In five years, we will look back to see that 2020 and the COVID years became the dividing line between the old and new world. A world where more became possible because our tools were more powerful. Because despite all our concerns and trepidations, the world changed technologically. We face two diverging roads. One less travelled. The other sullied by conformity and comfort. And to quote Robert Frost: "And that has made all the difference."

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CHAPTER 11

Integrity in a digital age

Tom O'Connor
January 2024

The Simulacrum

The term simulacrum originates with Plato, who used it to distinguish between two modes of representation. Whereas the "icon" is a representation that participates in the idea of the thing it represents, or the ideal thing and what we could call the "real" thing, the "simulacrum" captures only the outer form of things. The study of the relationship between idealized "form" and the physical "thing" is a large branch of philosophy which need not be gone into here. However, he idea of the simulacrum, or copy, was borrowed by postmodern theorists such as Jean Baudrillard, Fredric Jameson, Jean-François Lyotard and Julia Kristeva developed to analyze and critique aspects of modern and postmodern society. Crucially, it calls into question concepts of originality, ownership and therefore traditional notions of academic integrity.

Beaudrillard

Jean Beaudrillard described a simulacrum as a **copy of a copy** whose relation to the model has become so attenuated and distant that it can no longer properly said to be a copy. The information technology revolution, starting with the simple cut and paste and rolling on through to ChatGPT provides a current example of this thinking. To clarify his point, Beaudrillard argued that there are three “orders of simulacra”: In the first order of simulacra, which he associates with the pre-modern period, the image is a clear counterfeit of the real, the image is recognized as just an illusion, a place marker for the real. In the second order of simulacra, which Baudrillard associates with the industrial revolution of the nineteenth century, the distinctions between the image and the representation begin to break down because of mass production and the proliferation of copies. Such production misrepresents and masks an underlying reality by imitating it so well, even threatening to replace it (e.g. in photography or ideology). However, there is still a belief that, through critical thinking or effective political action, one can still access and understand the hidden facts of the real. In the third order of simulacra, which is associated with the postmodern age, we are confronted with a *precession* of simulacra; that is, the representation *precedes* and *determines* the real. There is no longer any distinction between reality and its representation, there is only the simulacrum. In essence, everything is a copy, and individuals experience the copy as reality as there is no discernible difference between copy or reality.

Lyotard

In *The Postmodern Condition: A Report on Knowledge*, which incidentally helped establish the term "postmodernism", Jean-François Lyotard described a shaken or failed public trust in the promise of enlightenments, faiths, or governments, with

their metanarratives of ongoing progress, but leaving individuals to their own experiences. This was sometimes criticized as a metanarrative about the end of metanarratives and therefore considered ironic or paradoxical, however, recent political history has confirmed that trust in politicians and political processes has been severely undermined with the modern technologies, particularly the use and manipulation of social media play a role in the larger projects such as democracy and caused individuals to focus on the minutiae of their daily lives. The authority of institutions, such as universities, has been challenged as indeed their function changed from centres of learning to credentialling authorities.

Jameson

In his seminal and prescient work Postmodernism and the Cultural Logic of Late Capitalism, Frederic Jameson, argued that there was a “crisis of historicity” where there was no longer an organic relationship between the history students learn in schoolbooks and the lived experience in high rise, multicultural, hyper-surveilled everyday life. Jameson extrapolates this and defines postmodernism as the cultural system of a global, financialized stage of capitalist society. Jameson argues that a characteristic of postmodernism a "waning of affect", and a prevalence of pastiche. He defines pastiche as a form of imitation that lacks the satirical or critical edge of parody. He describes it as "blank parody," where the imitation of a unique style is done without any ulterior motives or satirical impulse. It has no value base attached to it. He traces these characteristics of postmodernism across a variety of fields and media, including film, television, literature, economics, architecture, and philosophy.

In one of his most prominent examples, he draws out the differences between modernism and postmodernism by com-

paring Van Gogh's "Peasant Shoes" with Andy Warhol's "Diamond Dust Shoes". Van Gogh's work is an original painting of shoes which exists in the Van Gogh Museum in Amsterdam. You can buy a print in the gallery shop if inclined to do so, however there is an original attached to the wall to which it refers. Warhol's work, however, is a print to begin with, and he has mass produced many different variations. There is no original as such, just numerous copies of copies. For Jameson, postmodernism, as a form of mass-culture driven by capitalism, pervades every aspect of our daily lives. Since all other value has been removed, the value of any object is now purely a monetary value so that difference between Van Gogh and Warhol will be whose work goes for the most at auction. Higher education, similarly, has become a pathway to higher paid jobs and institutions and each institution values itself according to various criteria. So, an MBA course from a G8 University can be sold for a lot more than a private provider even though the courses are regulated by the same body and essentially lad to the same outcome.

Kristeva

The term "intertextuality" was coined by Julia Kristeva in the 1960s. She introduced the concept in her essays "Word, Dialogue and Novel" and "The Bounded Text" as a way to describe the relationship between texts and how they influence reflect and reference each other. It is the way that one text can shape the meaning of another through direct or indirect connections, such as quotations, allusions, or stylistic similarities. Baudrillard has theorized The World-Wide Web as a unique realm of reciprocal intertextuality, in which no particular text can claim centrality, yet a Web text which circulates across thousands of computers eventually produces an image of a community—the group of people who write and read the text

using specific discursive strategies. Now, all texts refer to all other texts linked electronically, and this inter-relatedness proliferates exponentially across the planet. This, then, undermines the value of each text. This description pre-dates the social media explosion which posts and re-posts anything ad infinitum the "original" as such disappears, it simply becoming part of a group chat. This new "realm" has served only to further break down the concept of originality.

Academic Integrity

Too bring these ideas together. Lyotard has described an environment where the authority of institutions has been eroded, so the rules they set seem arbitrary and have less moral traction. An academic text is an assembly of components of others texts similar to a Warhol pastiche and now with artificial intelligence, the assembly of a text is done automatically. According to Jameson, its only intrinsic value of such a text is a monetary one which in many cases is zero or arbitrarily set by a distributing agency using the label of intellectual property. But in an age of where the copy is the reality these terms lose their meaning. If the property is a copy of a copy the value of that property is diminished by each iteration. Finally, the sheer proliferation of information means the concept of academic integrity no longer makes sense for the contemporary student. The challenge now is how to assess students in this environment.

Google It!

If we put ourselves in the position of students in higher education today, we see that the environment, the zeitgeist, has made them look at institutions who still run traditional assessments where it is simply a matter of regurgitating information or applying it in highly specific, constructed situations, as irrel-

evant. The information is all out there, why not use the search engines or developing AI tools to bring it together. Because of this sense of irrelevancy, there is far less desire to work in that way.

In truth, the higher education courses of the future, especially those aimed at giving students the tools to work in specific fields, will ask students to use these tools to solve academic problems which are related to the working world that they want to enter. To restore "integrity" into academia, academia needs to become part of a dynamic digitally enabling world that seeks to let students use the tools available and invite them to demonstrate their proficiency with them. Rather than shun, punish and castigate them, students should be encouraged to seek out the knowledge they need and share it with their colleagues. Integrity leaves behind the old heirarchies and creates new collaborative bonds that celebrate the world in which they live.

References

Annas, Julia 1983 "Plato: A Very Short Introduction". Oxford University Press.

Baudrillard, Jean (1983). *For a Critique of the Political Economy of the Sign*. London: Verso Books.

Jameson, Frederic. 1991 Postmodernism and the Cultural Logic of Late Capitalism, Duke University Press

Kristeva, Julia *Le langage, cet inconnu: Une initiation à la linguistique,* S.G.P.P., 1969; new ed., coll. Points, Seuil, 1981 (trans. in 1981 as *Language. The Unknown: an Initiation into Linguistics*, Columbia University Press, Harvester Wheatsheaf, London, 1989).

Lyotard, Jean-François (1979). *La condition postmoderne: rapport sur le savoir*. Paris: Minuit.

Mitra, Ananda *(1999)*. "Characteristics of the WWW Text: Tracing Discursive Strategies". *Journal of Computer-Mediated Communication. **5** (1): 1. doi:10.1111/j.1083-6101.1999.tb00330.x*.

The Portable Kristeva, ed. Kelly Oliver, Columbia University Press, New York, 1997

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CHAPTER 12

Strategically thinking – the next five years

Greg Whateley
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I was recently asked to develop a strategic plan/strategic intent for a small HE provider in Melbourne Australia based on a four-year projection – to be realized at the end of the fifth year. In order to develop a decent projection – a great deal of pondering took place as I grappled with the various conditions and scenarios that were ahead (many unknown) – realizing that what I was actually doing was essentially *guesswork* – and based on an optimistic mindset that said *growth will occur – and the rest will fall into place*.

I had written a couple of short pieces on the topic prior to developing the current scheme, see –

Whateley (2024) – Strategically Thinking - musicum20.com/_files/ugd/6113ad_d5adbeaa793e400dbe95d36f97983219.pdf

Whateley (2025) – Strategic Intent – knowing which was to go - 6113ad_f3f2ae27530649df89a0a61fca367bec.pdf

Certainly, there was little doubt in my mind that **a plan was needed** – and even better a *genuine intent*. Inspired by Lewis Carroll (Alice in Wonderland) –

'*Would you tell me, please, which way I ought to go from here?*"

"That depends a good deal on where you want to get to," said the Cat.

"I don't much care where –" said Alice.

"Then it doesn't matter which way you go," said the Cat." –

clearly some kind of *focus* is essential – so with the intent to create some realistic (and softly optimistic) goals I established a *Strategic Intent* using a number of key ingredients including *growth, diversity quality, cooperation* and *benchmarking* as the pillars and placing the focus on key performance indicators (KPIs) that I could clearly articulate and measure on an ongoing basis.

At the heart of any discussion should be the focus on students at the organisation (they are 'the clients' so to speak) and at the very heart of the enterprise. This central focus is captured accordingly –

This measurement and progress sharing is important to a range of stakeholders at the institution in question.

Growth

This section (domain) deals with programs, locations, student numbers and finances. With a view that good schools grow. Excellent schools manage this growth and ensure ongoing support for students and staff in the process. My projections were relatively simple – and incorporated the 2024 data that could be sourced –

	2024	2025	2026	2027	2028
Programs	1	2	3	4	5
Locations	1	1	1	2	2
Students	4.5	75	150	225	300
Finances	Deficit	Deficit	Break even	Surplus	Surplus

Fundamental to the success of the plan is 'growth' – and much of that is dependent on the national regulator increasing the international capacity of the organisation (to 300 places) and successful marketing on the part of the larger family of companies. When making a range of predictions there is always a degree of uncertainty – especially in a volatile environment such as international higher education.

Diversity

This domain provides a focus on domestic and international student numbers, nationalities, undergraduate and postgradu-

ate student balance. Good schools encourage diversity. Excellent schools energise this diversity and develop a range of activities that maximise quality and opportunity. Again, some meaningful metrics needed to be put in place –

	2024	2025	2026	2027	2028
Domestic (%)	100	20	25	30	30
International (%)	0	80	75	70	70
Nationalities	5	5	8	10	12
Undergraduate (%)	100	90	80	80	75
Postgraduate (%)	0	10	20	20	25

The diversity will be significantly influenced by the growth of a post graduate presence – which in many ways changes the dynamic of the organisation. Certainly, formal course proposals have been put forward – and success will largely depend on the support from the national regulator.

I have always touted that a healthy business has some 10% of students at postgraduate level – the projections here are bold but feasible assuming regulator support.

The international market is complex – and a key ingredient is ensuring a balance (or at least a diversity) of source countries – and not be limited to a specific region. The last thing an international school needs is to be branded a certain 'nationality' – this works against so many essential principles. A diversity of 10+ countries is both doable and workable.

Additional metrics such as male/female balance are also useful – ideally 50:50. In the international environment the gender balance can be largely influenced by the source countries. This metric has not been formally incorporated.

Quality

Quality is about measuring full-time versus part-time staff, staff qualifications ensuring AQF+1, progression, attrition, completion, student satisfaction, staff satisfaction, student staff ratio (SSR) and other external/independent survey scoring. Good schools monitor KPIs. Excellent schools use the data collected to continuously improve and reshape. Meaningful (and achievable) goals have been established -

	2024	2025	2026	2027	2028
Full time staff (%)	35	35	35	40	40
AQF+1 (%)	100	100	100	100	100
Progression (%)	NA	80	80	80	80
Attrition (%)	NA	20	20	20	20
Completions (%)	80	85	85	80	80
Student Satisfaction/5	4.54	4	4	4	4
Staff Satisfaction/5	3.77	4	4	4	4
Student Staff Ratio (SSR)	1.5	15	20	25	30
SES (QILT) Aggregate	NA	National Average	National Average	National Average	National Average

A number of these measures are ‘regulator driven’ and often do not mean much (SSR and attrition for example) but are of-

ten called upon for risk assessments – so useful to keep the data. The real strength (or wellness) of the organisation is to do with issues such as progression, completions, as well as student and staff satisfaction.

This data is extremely useful for benchmarking purposes. It is tangible, empirical and dos give some insight into key quality issues – and specifically student progression and satisfaction levels.

Cooperation

This domain considers adjuncts, fellows, national and international partners, national and international projects. Good schools consider co-operative activity. Excellent schools embrace it and ensure that it is initiated and maintained as part of the essential corporate identity.

	2024	2025	2026	2027	2028
Adjuncts and Fellows	0	5	10	15	15
National Partners	1	1	2	3	4
International Partners	4	4	5	7	8
National Projects	1	1	2	3	3
International Projects	2	2	2	3	3

All the measures are focussed on developing national and international profile – best achieved through co-operative ventures or – *friends*. Having the opportunity to connect locally, nationally and internationally is vital for profile and currency. Adding adjuncts to the staffing profile also enhances the perception – this is also further enhanced through involvement in a range of projects.

Joining consortia is a most useful way of developing connections and c0operative initiatives locally, national and internationally.

Benchmarking

This domain encompasses partners, internal and external surveys, graduate surveys, grade distribution comparisons, peak body surveys and independent surveys. Good schools reflect. Excellent schools actively reflect and compare internally and externally and use the comparisons for continuous improvement.

	2024	2025	2026	2027	2028
Partners	2	3	5	7	9
Internal Surveys/year	0	3	3	3	3
External Surveys/year	0	1	2	3	3
Graduate Surveys/year	3	1	1	1	1
Grade Distribution Comparisons	0	3	5	7	9
Peak Body Surveys	0	1	1	1	1
QILT surveys	NA	1	1	1	1

If you truly want to understand yourself and know your true meaning – benchmark. That is ensure you measure yourself against 'like organisations' – preferably better than yourself. By sharing data and in turn being able to compare – you gain a true and informed self-assurance mechanism – giving rise to continuous improvement.

A vital tool

A strategic intent is a vital tool for many reasons -

- The KPIs provide tangible and measurable items that can be displayed for various stakeholders including Corporate and Academic governance bodies, staff, supporters – and of course regulators.
- Itemising the domains and sub elements gives the opportunity to focus on what is important to the organization and how it can be measured.
- Five focus domains are doable and practical.
- The language of the strategic intent is clear and evident – avoiding confusion or incorrect focus.

The very exercise of developing a strategic intent has been a useful exercise in itself, and judging from the level of support received to date will be a well-used and useful tool moving forward. I often use the nautical phrase – 'steady as she goes' (an order for a helmsman to keep a ship's current course) in that it implies a thoughtful approach to the five domains – not a mad rush to achieve all the outcomes as soon as possible. A three to four-year approach is wise – and regular reviewing against the targets/KPIs should be put in place across the organisation and articulated at every possible opportunity. The KPIs are an 'ALL of organisation' issue – not simply leadership performance demands. To achieve the desired outcomes – ALL staff need to be actively involved and committed.

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CHAPTER 13

Adaptive Leadership: Thriving in an era of constant change

Dimitri Kopanakis
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In an era of constant disruption, the capacity for adaptive leadership has become paramount. Rapid advancements in artificial intelligence (AI), evolving work models, economic volatility, and shifting geopolitical landscapes necessitate leaders who can navigate complexity with agility. Traditional leadership paradigms - grounded in stability and predictability - are increasingly insufficient, seeing the need for leaders to cultivate technological fluency, emotional intelligence, and strategic foresight to remain effective. This paper explores the critical competencies required for adaptive leadership over the next five years, examining AI integration, hybrid work structures, economic turbulence, and the role of emotional intelligence in fostering resilience, innovation, and sustained organisational success.

The Rise of AI and Automation in Decision-Making

The rapid advancement of artificial intelligence (AI) and automation is reshaping decision-making processes across indus-

tries, facilitating a paradigm shift in leadership approaches. Over the next five years, adaptive leaders will be required to develop competencies that enable them to integrate AI-driven insights whilst maintaining human judgment, ethical considerations, and strategic oversight. As AI systems increasingly influence business strategy, operational efficiency, and risk management, leaders must navigate the complex interplay between machine intelligence and human agency.

AI's capacity to process vast datasets, recognise patterns, and generate predictive insights has significantly enhanced decision-making speed and accuracy. Machine learning algorithms and automation tools now support high-stakes choices in finance, healthcare, supply chain management, and governance, reducing human cognitive load and minimising biases. However, this technological evolution also introduces challenges, including algorithmic opacity, ethical dilemmas, and the potential erosion of critical thinking in leadership (Paudel, 2024). Leaders who rely solely on AI-driven analytics without contextual interpretation risk reinforcing systemic biases, undermining stakeholder trust, and diminishing organisational resilience.

To thrive in an era characterised by AI-enhanced decision-making, adaptive leaders must cultivate technological literacy, critical inquiry, and ethical reasoning. This entails not only understanding the capabilities and limitations of AI but also fostering a culture of augmented intelligence - where human expertise and machine efficiency coexist synergistically. Leaders must also develop the ability to reassess decision frameworks dynamically, ensuring that AI complements rather than dictates strategic direction.

Ultimately, the rise of AI and automation underscores the necessity for leaders to embrace adaptability as a core competency. The future of decision-making will not be defined by technological determinism but by the ability of leaders to inte-

grate AI in ways that uphold organisational values, foster innovation, and sustain competitive advantage amid continuous disruption.

The Shift Toward Hybrid and Remote Work Leadership

The acceleration of hybrid and remote work models has fundamentally altered the leadership landscape, requiring adaptive leaders to recalibrate their approaches to workforce engagement, productivity, and organisational cohesion. As technological advancements and shifting employee expectations continue to drive this evolution, leaders must develop adaptability as a core competency to navigate the complexities of the next five years.

Adaptive leadership in hybrid and remote environments requires a departure from traditional command-and-control structures toward more decentralised, trust-based frameworks. Leaders must cultivate digital fluency, leveraging virtual collaboration tools and asynchronous communication strategies to ensure operational continuity and inclusivity. In addition, the hybrid model demands nuanced approaches to performance management, emphasising outcomes over physical presence and fostering autonomy whilst maintaining alignment with organisational objectives (Kim & Yoon, 2025)

The psychological and social dimensions of remote work also present challenges that require adaptive responses. The absence of spontaneous workplace interactions can hinder knowledge-sharing, innovation, and team cohesion. Effective leaders can counteract these challenges by fostering intentional connection through structured virtual engagement, periodic in-person touchpoints, and the strategic use of collaborative digital spaces. Further, they must demonstrate heightened emotional intelligence (EI), recognising and addressing issues

related to isolation, burnout, and work-life balance disparities (Kopanakis, 2023)

A critical element of adaptive leadership in hybrid and remote contexts is the ability to navigate uncertainty with agility. This includes continuously reassessing policies, experimenting with flexible work arrangements, and remaining responsive to emerging technological and workforce trends. Leaders must embrace employee feedback and leverage data-driven insights to refine hybrid work strategies (Yozi & Mbokota, 2024).

As organisations transition toward increasingly fluid work models, leaders who cultivate adaptability will be best positioned to sustain performance, engagement, and resilience. The next five years will demand a redefinition of leadership itself - one that prioritises flexibility, inclusivity, and continuous learning in an era of constant change.

Leading Through Economic and Geopolitical Volatility

The accelerating pace of economic and geopolitical volatility will require leaders to undergo a paradigm shift in leadership - requiring adaptability as a foundation competency. In an era marked by rapid technological disruption, shifting global power dynamics, and economic instability, leaders must cultivate a proactive, agile approach to decision-making. The next five years will likely be defined by heightened inflationary pressures, supply chain disruptions, and geopolitical tensions, all of which demand leaders who can anticipate change, pivot strategically, and sustain organisational resilience.

Adaptive leadership in volatile environments hinges on the ability to embrace complexity, leverage diverse perspectives, and foster a culture of continuous learning. Unlike traditional leadership models that prioritise stability and control, adaptive leaders operate with a dynamic mindset, responding to uncertainty with strategic foresight rather than reactionary

measures. Importantly, this involves scenario planning, fostering cross-functional collaboration, and embedding flexibility into organisational structures. By doing so, leaders can mitigate risks whilst capitalising on emergent opportunities (Sott & Bender, 2025).

Further, effective navigation through economic and geopolitical turbulence requires emotional intelligence and an acute awareness of stakeholder concerns. Leaders must engage in transparent communication, balancing optimism with realism to maintain trust. Ethical considerations are also paramount, as organisations operating in volatile conditions may encounter pressures to compromise values for short-term gains. By upholding integrity and fostering a shared vision, adaptive leaders cultivate long-term sustainability despite external disruptions (Ogunbukola, 2024)

To develop adaptability as a core leadership competency, organisations must prioritise executive education, mentorship, and experiential learning. Leaders who engage in continuous self-reflection, seek diverse viewpoints, and remain open to innovation will be better positioned to steer their organisations through uncertainty. As volatility persists, those who embrace adaptability as a strategic asset will not only endure but thrive in the face of complexity.

The Role of Emotional Intelligence in Uncertain Times

In an era characterised by volatility, uncertainty, complexity, and ambiguity (VUCA), emotional intelligence (EI) emerges as a foundational competency for adaptive leadership. EI, which encompasses self-awareness, self-regulation, motivation, empathy, and social skills (Goleman, 1995), enables leaders to navigate the psychological and interpersonal dimensions of uncertainty with resilience and agility. As organisations confront rapid technological advancements, shifting geopolitical land-

scapes, and evolving workforce expectations, leaders with high EI are better equipped to foster stability, trust, and cohesion within their teams (Coronado-Maldonado & Benítez-Márquez, 2023).

Self-awareness serves as the cornerstone of adaptive leadership, allowing individuals to recognise their emotional triggers and biases, which can otherwise impair decision-making in high-pressure environments. Leaders who engage in reflective practices can maintain clarity and composure, ensuring that their responses are intentional rather than reactive. Furthermore, self-regulation enhances adaptability by enabling leaders to manage stress and embrace change rather than resist it. This capacity for emotional control fosters an organisational culture that views uncertainty not as a threat but as an opportunity for innovation and growth (Boyar et al., 2022)

Motivation, particularly intrinsic motivation, drives leaders to persist in the face of adversity and inspire others through a compelling vision. In uncertain times, maintaining morale and engagement is paramount, requiring leaders to communicate purpose and direction with authenticity. Similarly, empathy allows leaders to understand and address the concerns of stakeholders, cultivating psychological safety and fostering collaboration. Finally, social skills - encompassing conflict resolution, influence, and relationship-building - facilitate adaptive responses to shifting external pressures.

By integrating EI into their leadership approach, individuals can enhance their adaptability, enabling them to respond proactively to uncertainty whilst maintaining organisational stability. As the next five years unfold, leaders who prioritise EI development will be better positioned to cultivate resilience, drive innovation, and sustain high-performance teams amidst ongoing change.

As the global landscape undergoes continuous transformation, adaptive leadership emerges as a defining attribute of organisational resilience. The convergence of AI, hybrid work, economic uncertainty, and geopolitical shifts necessitates a redefinition of leadership - one that prioritises flexibility, ethical reasoning, and human-centred decision-making.

By cultivating emotional intelligence, leveraging AI responsibly, and embracing uncertainty as a catalyst for growth, leaders can sustain competitive advantage amidst complexity. Ultimately, the ability to adapt is not merely a desirable trait but a strategic imperative. The next five years will determine which leaders can navigate volatility with foresight and which will succumb to obsolescence.

References

Boyar, Scott & Savage, Grant & Williams, Eric. (2022). An Adaptive Leadership Approach: The Impact of Reasoning and Emotional Intelligence (EI) Abilities on Leader Adaptability. Employee Responsibilities and Rights Journal. 35. 10.1007/s10672-022-09428-z.

Coronado-Maldonado, I., & Benítez-Márquez, M. D. (2023). Emotional intelligence, leadership, and work teams: A hybrid literature review. *Heliyon*, *9*(10), e20356. https://doi.org/10.1016/j.heliyon.2023.e20356

Goleman, D. (1995). *Emotional intelligence*. Bantam Books, Inc.

Kim, S. S., & Yoon, D. Y. (2025). Impact of empowering leadership on adaptive performance in hybrid work: a serial mediation effect of knowledge sharing and employee agility. *Frontiers in psychology*, *16*, 1448820. https://doi.org/10.3389/fpsyg.2025.1448820

Kopanakis, D. (2023) Going Green, Keeping the Team and Living the Dream: A Recipe for Happy Employees – with added

ESG in *Whateley and Bofinger (2023) The New Reality. ISBN 978-0-6457289-6-5. Intertype.*

Li, T., & Tang, N. (2022). Inclusive Leadership and Innovative Performance: A Multi-Level Mediation Model of Psychological Safety. *Frontiers in psychology*, *13*, 934831. https://doi.org/10.3389/fpsyg.2022.934831

Ogunbukola, Matthew. (2024). Adaptive Leadership for Organisational Resilience: A Unique Management Approach in the Face of Complexity and Change.

https://www.researchgate.net/publication/383278609_Adaptive_Leadership_for_Organisational_Resilience_A_Unique_Management_Approach_in_the_Face_of_Complexity_and_Change

Paudel, Ram. (2024). The Impact of Automation and Artificial Intelligence on Leadership and The Workforce. Indonesian Journal of Banking and Financial Technology. 2. 109-124. 10.55927/fintech.v2i2.8904.

Sott, M. K., & Bender, M. S. (2025). The Role of Adaptive Leadership in Times of Crisis: A Systematic Review and Conceptual Framework. *Merits*, *5*(1), 2. https://doi.org/10.3390/merits5010002

Yozi, K., & Mbokota, G. (2024). Adaptive leadership Competencies for hybrid work teams in the South African banking sector. *South African Journal of Business Management, 55*(1), 14 pages. doi:https://doi.org/10.4102/sajbm.v55i1.4060

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CHAPTER 14

The Next Five Years in Global Financial Markets: Trends and Predictions

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Global financial markets are continually evolving, influenced by a variety of economic, technological, geopolitical, and regulatory factors. As we look toward the period from 2025 to 2030, both investors and financial analysts foresee a landscape marked by new opportunities as well as emerging risks. The rapid pace of technological innovation, including developments in artificial intelligence and blockchain, will significantly impact trading, investment strategies, and financial services. Meanwhile, ongoing geopolitical uncertainties and regulatory shifts will add layers of complexity to the market environment. Economic growth patterns across regions, coupled with the transition to sustainability-focused investments, will shape capital flows. Additionally, factors such as inflation trends, interest rate policies, and global trade dynamics will play crucial roles in determining market stability and growth. This article examines the key trends that will define the financial

markets in the next five years, offering insights into what stakeholders can expect in an increasingly dynamic global economy.

Economic Growth and Inflation Trends

Global economic expansion is also likely to be unbalanced, with developed economies to experience slower expansion in comparison to emerging economies. The post-pandemic recovery, combined with supply chain transformations, is going to continue to affect patterns of inflation. Inflation has become the most pressing macroeconomic issue in the entire world. After a phase of low or mild inflation, there was a dramatic surge in inflation beginning in the summer of 2021 (Catiforis, 2022). Developed economies' central banks attempted to normalize inflation to desired levels for more than a decade, struggling to raise price expansion in many instances. Today, with a sudden spurt in inflation, policymakers must walk a tightrope of interest rate hikes to control inflation without sacrificing economic stability. The Federal Reserve, the European Central Bank, and other financial institutions of great size will be instrumental in framing monetary policy to navigate such pressures in the economy. As long-term fears of inflation continue to cast a large shadow, central banks will be required to handle policy interventions judiciously to support sustainable expansion without sacrificing control over inflation.

Interest-Rate Policies and Central Bank Strategies

Following a series of aggressive interest rate hikes aimed at curbing inflation, central banks may gradually adopt a more neutral policy stance. However, if inflation remains persistent, elevated interest rates could continue for an extended period. In the United States, despite unemployment staying below 5% for four consecutive years (2016–2019), inflation never rose above 2.4% (Catiforis, 2022). By the end of April 2022, market

forecasts for five-year inflation were 3.3% in the U.S. and 3.5% in Germany, significantly lower than the prevailing annual inflation rates (Catiforis, 2022). The Federal Reserve initiated its monetary tightening cycle with an interest rate increase in March 2022, prompting expectations for further rate hikes by major central banks later that year (Catiforis, 2022). Moving forward, the Federal Reserve and the European Central Bank will likely prioritize economic stability while closely monitoring labor market conditions and consumer spending trends. Their policy decisions will be crucial in determining whether inflation can be controlled without triggering economic stagnation.

The Rise of Digital Assets and Decentralized Finance (DeFi)

The growing prominence of digital assets and decentralized finance (DeFi) has sparked an ongoing debate among financial economists regarding the role of cryptocurrency in investment portfolios and its potential as a risk diversifier. The economic downturn triggered by the COVID-19 pandemic, along with the financial instability caused by the Russia–Ukraine conflict, has significantly impacted global stock markets. This turmoil extended to the cryptocurrency market, leading to a sharp decline in cryptocurrency prices. As a result, concerns have arisen about the claim that cryptocurrencies serve as a hedge against stock market volatility, particularly given the substantial financial losses experienced by investors in both markets (Jana et al., 2024). Despite these challenges, cryptocurrencies and DeFi platforms continue to evolve, driven by greater institutional participation and increasing regulatory oversight. In addition, Central Bank Digital Currencies (CBDCs) are expected to gain momentum, particularly in China, the European Union, and the United States, potentially transforming payment systems and financial transactions. Although volatility

remains a key issue, clearer regulatory frameworks could encourage broader adoption of digital assets.

Geopolitical Risks and Market Volatility

Geopolitical tensions, including issues such as U.S.-China relations, conflicts in Eastern Europe, and trade disruptions, will continue to significantly impact financial markets. A key example is the ongoing trade disputes between the United States and China, which highlight how protectionist policies and political maneuvers can exacerbate economic instability (Popova, 2024). It is projected that these trade tensions could lead to a global GDP decline of 0.8%, resulting in an economic loss of around $700 billion (Popova, 2024). In addition to trade disruptions, factors such as changes in supply chains, concerns over energy security, and evolving political alliances will contribute to increased market volatility. In times of heightened uncertainty, investors are likely to turn to safe-haven assets like gold and government bonds to mitigate risk. These geopolitical risks will remain key drivers of market fluctuations, influencing investment strategies and the broader global economy in the foreseeable future.

The Acceleration of ESG Investing

In recent years, there has been a growing awareness of the connection between financial markets and environmental, social, and governance (ESG) factors. Sustainable finance and ESG investing have emerged as key approaches within the global financial system (Xiao et al., 2023). These strategies aim to incorporate ethical and responsible considerations into investment decisions, aligning financial objectives with wider societal and environmental goals. ESG investing is expected to continue shaping global financial strategies, with institutional investors placing increasing emphasis on sustainable invest-

ments. As climate change policies and corporate responsibility gain importance, they are playing a more prominent role in asset allocation decisions. Regulatory frameworks are also expected to tighten, requiring companies to meet stricter sustainability standards. As ESG investing grows in prominence, it is significantly influencing financial markets, driving capital toward companies and projects focused on sustainability. For both individual and institutional investors, understanding these shifts is crucial for making informed decisions in an evolving financial environment.

The Future of Stock Markets

Equity markets are likely to undergo cyclical shifts, with technology, renewable energy, and healthcare sectors driving growth. Innovations in artificial intelligence, automation, and biotechnology are expected to attract significant investor interest. Historically, stock markets and the prediction of stock price movements have been complex and challenging tasks (Zheng et al., 2024). Analysts have traditionally focused on factors such as production conditions, financial status, technical indicators, and investor behavior to predict price trends. However, these approaches were often subjective and lacked objectivity, making accurate predictions difficult. The complexity of the stock market, with its diverse industries and large number of listed companies, has always posed a challenge for forecasting. Recently, advancements in computer technology and breakthroughs in intelligent finance have shown great promise. Machine learning algorithms, which analyze large data sets to detect patterns and trends, are improving the accuracy of stock price predictions. As green energy transitions gain momentum, traditional sectors like fossil fuels may experience increased divestment.

Real Estate and Alternative Investments

Real estate markets will continue to adapt to accommodate the new interest rate environment, with commercial property hit hard by the trend of working remotely. The new work patterns brought about by the trend have resulted in lower demand for offices, causing challenges to investors in commercial property. In contrast, the real estate market is more accessible to a broader range of investors, driven by the increased accessibility of democratized investments (Kayani & Hasan, 2024). This is crucial since a shock in the real estate market has the potential to result in financial instability on a large scale, such as during the financial crisis that hit the world in a massive manner. Alternatively, investments in commodities, hedge funds, and private equity investments are more in vogue among investors looking to diversify their portfolios in a volatile marketplace. The alternatives hold potential for higher yields, though higher risk. With market conditions remaining volatile, investors are turning to such asset classes to hedge their bets in a volatile marketplace and to pursue new sources of expansion, with alternative investments increasingly having a more dominant place in portfolios.

The Role of Artificial Intelligence in Finance

Artificial intelligence (AI) and machine learning are transforming financial markets by enhancing trading strategies, risk assessment, and decision-making processes. In the financial sector, AI is widely used for fraud detection, high-frequency and algorithmic trading, portfolio management, and credit evaluations based on scoring models. Additionally, it plays a crucial role in bankruptcy prediction, risk analysis, sentiment-based behavioral assessments, and regulatory compliance (Bahoo et al., 2024). Automated trading systems and AI-driven analytics are improving market efficiency by processing vast

amounts of data in real time. However, these advancements also present regulatory and ethical challenges, as reliance on AI in financial decision-making raises concerns about transparency and accountability. Robo-advisors, which provide automated investment guidance, are gaining traction among investors, further demonstrating AI's growing influence in asset management. As financial institutions continue integrating AI into their operations, regulatory frameworks must adapt to ensure responsible use while maximizing the benefits of AI-driven financial solutions.

The global financial marketplace over the next five years will be influenced by a complex combination of economic, technological, and geopolitical forces. There is always a certain inevitable uncertainty, yet investors that adjust to new themes such as digital finance, ESG principles, and embracing artificial intelligence in decision making will be better positioned to capture new possibilities. Flexibility and forward vision will be needed to adjust to such changes, as the financial landscape continues to evolve. Further, keeping up to date with new technologies, regulation and events in the global economy will be key in navigating this dynamic marketplace. As investors diversify their portfolios to hedge risk, investors that remain nimble and informed will be better positioned to ride out adversity. Ultimately, the next five years promise possibilities as well as challenges, yet investors that put in place the right strategies will be positioned to be successful in the long term in a constantly evolving marketplace.

References

Bahoo, S., Cucculelli, M., Goga, X., & Mondolo, J. (2024). Artificial intelligence in Finance: A comprehensive review through bibliometric and content analysis. SN Business & Eco-

nomics, 4(2), 23. https://doi.org/10.1007/s43546-023-00618-x

Catiforis, C. (2022). Post-pandemic inflation: Phillips Curve, trends, drivers and dessons. Bank of Greece Economic Bulletin, 55(2), 43-65. https://doi.org/10.52903/econbull20225502

Jana, S., Sahu, T. N., & Pandey, K. D. (2024). Revisiting the cryptocurrencies role in stock markets: ADCC-GARCH and Wavelet Coherence. Macroeconomics and Finance in Emerging Market Economies, 17(1), 110-135. https://doi.org/10.1080/17520843.2023.2211380

Kayani, U., & Hasan, F. (2024). Unveiling cryptocurrency impact on financial markets and traditional banking systems: Lessons for sustainable blockchain and interdisciplinary collaborations. Journal of Risk and Financial Management, 17(2), 58. https://doi.org/10.3390/jrfm17020058

Popova, H. (2024). The impact of trade wars on international economic relations: The US-China dispute case. Proceedings of 37th International Conference for Young Scientists and Students, 231-235. https://duan.edu.ua/wp-content/uploads/2024/11/37th-conference.-issue-1-.pdf#page=232

Xiao, R., Deng, J., Zhou, Y., & Chen, M. (2023). Analyzing contemporary trends in sustainable finance and ESG investment. Law and Economy, 2(11), 44-52. https://www.paradigmpress.org/le/article/view/867

Zheng, J., Xin, D., Cheng, Q., Tian, M., & Yang, L. (2024). The random forest model for analyzing and forecasting the US stock market in the context of smart finance. arXiv, 1-10. https://doi.org/10.48550/arXiv.2402.17194

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CHAPTER 15

Academic Music Education in Five Years

Michael Wladkowski
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Planning for the future is a skill that all professionals practice. ***Looking five years ahead*** *is both exhilarating and sobering, especially at my age. Since I primarily work with young, talented pianists who are beginning their professional journeys, I am accustomed to devising career development plans—plans that are inevitably linked to the rapidly changing technological landscape. However, since I am not well-versed in technological matters, I will focus on what I know best: the human element.*

Some frightening statistics

A few weeks ago, I came across statistics on students who had completed their studies at the *Paris Conservatory*—the finest music school in France, with the most talented students and virtually unlimited financial and material resources. The most shocking revelation was that in the first year after graduation, 80% of these students - *changed professions*.

This raises significant questions: What are these highly gifted individuals doing in the next four or five years, and what is causing them to abandon a musical career? Since there is no doubt about the competence of either the teachers or the students, where does the problem lie?

The key to teaching music

In my opinion, the key to teaching music - or any subject, for that matter - is the teacher's ability to instil a deep love for the music, the instrument, and the art of melody itself.

Students should develop such a profound passion for music in all its forms that they cannot imagine doing anything else. Music must become a way of life, encouraging individuals to refine their talents to the highest level. This mindset fosters a proactive approach—one that focuses *not on scarcity* (such as the limited number of teaching positions or performance opportunities) but rather on creating opportunities in as many ways as possible – *the notion of abundance.*

High levels of anxiety

I know that as my students approach the end of their academic journey, they experience great anxiety. Many are tempted to extend their studies for another four years simply to delay confronting the fundamental question: *How will I support myself?* As teachers, we bear the responsibility of guiding them toward various career paths with as much practical advice as possible.

Dynamic and evolving paths

Having taught at the *École Normale de Paris* for 43 years, I have seen my students flourish in a wide variety of musical fields. Many have built fulfilling careers, not just as solo performers but also in chamber music, accompaniment, vocal

coaching, choir conducting, concert organization, festival management, and administration. Most follow a dynamic and evolving path that allows them to lead productive and meaningful professional lives.

What does each musician have to offer others

Despite technological progress and the rise of social media, the essential question remains: *What does each musician have to offer others?* More specifically, *what problems do they solve, what experiences do they provide, what value do they bring to their audiences, and at what cost?*

In my view, the troubling dropout rate among Paris Conservatory graduates stems from their reliance on a "pay check-at-the-end-of-the-month" mindset. Yet, even in challenging economic times, people always need music. There are millions of individuals longing for beautiful music, eager to be inspired, moved, and entertained by passionate musicians. The tools for communication, production, and outreach are constantly evolving—now more than ever. But above all, success in music still depends on the artist's love for their craft and their ability to share that love with the world in a realistic and professional manner.

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CHAPTER 16

Redefining Business Education for the AI-Augmented Era

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In recent years, Australian business schools have responded to significant contextual changes, adopting online and hybrid teaching and integrating climate change and sustainability into their curricula. However, the biggest shift might still lay ahead. As the world embraces advanced technologies, the next paradigm shift in Australian business schools must involve preparing leaders for artificial intelligence (AI) augmented leadership. Industries are enthusiastically integrating AI at a rapid pace. However, as the traditional centre of knowledge and skill dissemination, higher education is grappling with the rapid AI advancement implications, focusing on risks such as academic integrity challenges, bias in AI-generated insights, and the potential deskilling of human decision-makers. This risk-oriented perspective can lead to a narrow focus that overlooks the need to prepare students for the future of work. While concerns like academic integrity and algorithmic bias are valid, significant opportunities exist to enhance research productivity, develop more personalised learning experiences, and lever-

age AI for complex decision-making support (Hashmi & Bal, 2024). This gap is compounded by questions of the relevancy of Australian higher education and its contribution to the economy and the future of business schools in training future leaders (House Standing Committee on Industry, 2023).

In this context, progressive business schools will seize the unique opportunity to redefine what they teach and how they educate future leaders to develop AI-driven, research-informed decision-making skills balanced with ethical and sustainable leadership practices. This chapter builds on discussions in earlier chapters that explored global trends, governance structures, and the impact of digitalisation to present a hopeful scenario in which Australian business schools respond to the urgent need to equip future business leaders with the skills and mindset needed to operate in AI-augmented era.

Shaping Ethical, Agile Leaders for the AI-Augmented Workplace

Augmented AI refers to systems designed to enhance rather than replace human capabilities. Unlike current AI systems used primarily to automate specific tasks, an AI-augmented workplace integrates AI-driven insights with human expertise, enhances decision-making and improves human collaboration and problem-solving. However, the increased reliance on AI systems for decision-making introduces complex challenges, including algorithmic bias, transparency, and accountability.

Future leaders will require distinct human qualities of ethical responsibility and the ability to make decisions in complex and diverse contexts (Shrestha et al., 2019). Business schools can develop these qualities through dedicated ethics modules, AI ethics labs, and interdisciplinary courses that bring together business strategy with technological literacy, and immersive learning environments. This approach will engage students in

real-world problem-solving scenarios and ethical decision-making frameworks, creating a cohesive and comprehensive educational experience. For example, programs may include real-world case studies on ethical dilemmas in AI, role-playing exercises that challenge students to navigate complex decision-making scenarios, and mentorship opportunities with industry leaders who emphasise ethical leadership (Harvard Business Review, 2021).

The future of management requires a blend of technical proficiency and ethical acumen. Curricula will integrate courses in data analytics, machine learning, and AI ethics alongside traditional business subjects. Furthermore, future leaders should have the skills to step outside the traditional management areas, such as accounting, marketing, or HR, to solve complex cross-disciplinary problems. Hence, business schools will focus on an agile mindset and problem-based learning where students engage in continuous, iterative problem-solving and project-based learning, preparing them for the rapid shifts in market dynamics and organisational needs driven by augmented AI. Additionally, ethical considerations are critical when working with AI, specifically when addressing accountability, fairness, transparency, and privacy issues. While AI systems cannot be expected to be more ethical than the data they were trained on, they can help with developing capabilities with students as they reflect our biases and moral flaws; AI can help decision-makers gain deeper insights into the psychological underpinnings of ethical behaviour, ultimately improving their ability to make ethical decisions (De Cremer & Narayanan, 2023).

Bringing the Future of Work to the Classroom: Transforming Teaching and Learning

The emphasis on educating future leaders to work in AI-augmented workplaces calls for a fundamental shift in how schools prepare students for future management roles. While current teaching methods have laid a strong foundation in business education, these traditional lecture-based delivery methods will be augmented with experiential, problem-based, and interdisciplinary approaches that mirror the realities of AI-enhanced workplaces.

Universities must increasingly augment AI to enrich the educational experience and equip students with the skills to navigate environments where dynamic data-driven decisions are the norm. First, schools will continue to advance their AI-based adaptive learning platforms that analyse student performance in real-time and adjust instructional content, ensuring that learners receive support tailored to their unique needs. This approach is evolving to demonstrate improved academic outcomes and foster a more engaging and inclusive educational environment. Next, Advanced AI-powered simulations will be used more widely to replicate complex business scenarios, such as multidisciplinary collaboration in professional services, dynamic financial portfolio management in economics, and crisis management in the mining industry. These simulated scenarios allow students to practice dynamic and evolving decision-making in controlled environments. Integrating Extended Reality (XR) technologies with AI can enhance the simulation learning experience, making complex concepts more accessible and engaging.

Finally, AI tools, including advanced language models (LLMs) and Generative AI (for example, ChatGPT), will be utilised extensively to help students and researchers analyse large datasets, helping with insights that inform evidence-based de-

cision-making and strategy development. Future leaders' understanding of research-based and data-driven decision-making is critical as Australia grapples with research contribution to the economy through industry, academic collaboration, and research commercialisation.

The Australian Context: National and International Implications

Australia's higher education business schools are uniquely positioned to lead in preparing students to become business leaders in the future of work. This leadership is evidenced by initiatives such as the Australian Government's National Artificial Intelligence Strategy, which promotes AI integration across higher education, and the strong global standing of Australian universities, with several consistently ranking in the top 50 worldwide (Times Higher Education, 2022). Furthermore, Australian business schools have pioneered programs that blend AI, sustainability, and ethical leadership, such as the University of Melbourne's Centre for AI and Digital Ethics and the University of New South Wales (UNSW) Business School's AI-driven innovation labs. Also, national strategies on digital innovation and global competitiveness are driving institutions to rethink traditional models. However, while Australian universities consistently rank highly in global research and innovation indexes, the current state, outside of specific examples, seems reactive and slow in responding to the rapid changes in the business environment. For these transformations to be effective, educators must be proficient in using AI technologies for innovative teaching methodologies and the emerging skills expectations in the workplace. Continuous professional development programs should be mandated to ensure educators are well-versed in the technical and practical implications of aug-

mented AI workplaces, enabling them to effectively mentor students (Behrendt et al., 2023).

Integrating augmented AI into business education requires a paradigm shift that calls for rethinking education and leadership training. Australian business schools might be left behind if they continue to respond reactively to the rapid advance of AI. However, the future can look different if schools embrace experiential, interdisciplinary teaching models, foster agile, data-driven, and ethically conscious leadership, and align educational strategies with national imperatives for innovation and global competitiveness. For this hopeful scenario to happen, educators and policymakers should prioritise the integration of AI ethics into curricula, invest in continuous professional development for faculty, and foster partnerships between academia and industry to ensure that business education remains relevant and forward-thinking.

References

Behrendt, L., Glover, B., Macklin, J., Nash, F., Rimmer , B., & Wikramanayake, S. (2023). *Australian Universities Accord Final Report*. file:///C:/Users/hadas/Downloads/Australian%20Universities%20Accord%20-%20Final%20Report.pdf

De Cremer, D., & Narayanan, D. (2023). On educating ethics in the AI era: why business schools need to move beyond digital upskilling, towards ethical upskilling. *AI and Ethics*(3), 1037 - 1041. https://doi.org/https://doi.org/10.1007/s43681-023-00306-4

Harvard Business Review. (2021). Leading with AI: The new frontier of data-driven decision making. Retrieved from https://hbr.org/2021/08/leading-with-ai

Hashmi, N., & Bal, A. S. (2024). Generative AI in higher education and beyond. *Business Horizons*, *67*(5), 607-614. https://doi.org/https://doi.org/10.1016/j.bushor.2024.05.005

House Standing Committee on Industry, (2023). *Sovereign, smart, sustainable: Driving advanced manufacturing in Australia*.

Shrestha, Y. R., Ben-Menahem, S. M., & Von Krogh, G. (2019). Organizational Decision-Making Structures in the Age of Artificial Intelligence. *California Management Review*, *61*(4), 66-83. https://doi.org/10.1177/0008125619862257

Times Higher Education. (2022). World University Rankings 2022. Retrieved from https://www.timeshighereducation.com/world-university-rankings/2022/world-ranking#!/page/0/length/25

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CHAPTER 17

The Future-Proof Leader: Building Resilience in an Uncertain World

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In an era of rapid technological evolution and global volatility, leadership resilience has emerged as a defining competency for navigating uncertainty. The advent of artificial intelligence (AI), data analytics, and automation has revolutionised decision-making, yet these advancements introduce ethical, strategic, and cognitive complexities that demand a nuanced leadership approach. This chapter explores the intersection of AI-driven decision-making, data-driven strategy, and ethical governance, proposing a hybrid leadership model that synthesises technological acumen with emotional intelligence. Through this lens, we examine how leaders can cultivate resilience by leveraging AI's capabilities whilst safeguarding against algorithmic bias, ethical dilemmas, and the erosion of human accountability. The future-proof leader is not one who passively accepts AI-generated insights but one who critically engages with emerging technologies to en-

hance strategic foresight, organisational agility, and ethical leadership in an increasingly complex world.

AI as a Co-Pilot in Decision-Making

As artificial intelligence (AI) becomes increasingly integrated into strategic decision-making, leaders must navigate the complex interplay between algorithmic recommendations and human intuition. The concept of AI as a "co-pilot" underscores its role in augmenting, rather than replacing, human judgment (Saghafian & Idan,2024). Over the next five years, organisations will need to refine their approach to AI-driven decision support, ensuring that algorithmic insights are leveraged responsibly whilst maintaining ethical oversight and strategic foresight.

AI's primary advantage lies in its capacity to process vast datasets with speed and precision, identifying patterns that may elude human perception. Machine learning models can optimise resource allocation, forecast market trends, and enhance risk assessment, thereby empowering leaders with data-driven insights. However, these advantages do not negate the necessity of human oversight. Algorithmic bias, the opacity of complex models, and contextual limitations see the need for a balanced approach where AI-generated recommendations are critically evaluated within a broader strategic framework.

Further, ethical considerations are paramount in this evolving landscape. As AI systems become more sophisticated, the potential for unintended consequences - such as reinforcing biases or prioritising efficiency over fairness - must be proactively mitigated. Leaders must establish robust governance mechanisms, ensuring that AI-driven decisions align with organisational values and societal expectations (Chun & Elkins, 2024). Transparency in AI decision-making, coupled with con-

tinuous human review, will be essential to maintaining trust and accountability.

Strategic foresight also plays a critical role in AI adoption. Whilst AI can enhance decision accuracy in stable environments, its predictive capacity may be less reliable in times of disruption or uncertainty. Leaders must therefore cultivate an adaptive mindset, integrating AI-driven insights with experiential knowledge and scenario planning (Chen et al., 2023). By positioning AI as a co-pilot - an indispensable but not infallible partner - leaders can harness its potential whilst preserving the nuanced judgment essential for long-term success.

Data-Driven Leadership: The Role of Analytics in Shaping Strategy

In an era defined by digital transformation, data-driven leadership has emerged as a critical competency for executives navigating complex, uncertain environments. The integration of advanced analytics, AI, and big data into decision-making processes enables leaders to derive actionable insights, optimise operational efficiency, and enhance strategic foresight (Ghimire, 2025). Considering this, the growing reliance on algorithmic recommendations requires leaders to have a nuanced approach that balances quantitative precision with human intuition, ethical considerations, and long-term vision.

Over the next five years, leaders must cultivate data literacy to interpret and contextualise analytical outputs effectively. Whilst predictive models can identify trends and forecast outcomes with remarkable accuracy, they remain inherently constrained by the quality of data inputs, biases embedded in algorithms, and the limitations of machine-learning frameworks in understanding complex human dynamics (Guan et al., 2022). Consequently, strategic decision-making must integrate

AI-driven insights with human judgment, ensuring that data enhances rather than dictates leadership choices.

Further, ethical considerations surrounding data-driven decision-making demand heightened scrutiny. Issues such as algorithmic bias, privacy concerns, and the potential erosion of human accountability requires the need for governance frameworks that uphold transparency, fairness, and responsible AI deployment. Leaders must not only leverage analytics to drive performance but also safeguard against unintended consequences that may undermine stakeholder trust and societal well-being.

In addition, the role of analytics in shaping strategy must extend beyond immediate decision-making toward long-term adaptability. Data-driven leaders must foster an organisational culture that embraces continuous learning, scenario planning, and the iterative refinement of strategic models (van Zyl, 2024). By integrating data analytics with human-centric leadership principles, executives can enhance resilience, foster innovation, and navigate the evolving complexities of the digital age with greater agility and ethical integrity.

Bias and Ethics: Navigating Algorithmic Bias and Ethical Dilemmas in AI-Assisted Decisions

As AI increasingly informs decision-making across industries, leaders must confront the challenges posed by algorithmic bias and ethical dilemmas. Algorithmic bias arises when AI systems produce systematically skewed outcomes, often reflecting historical inequities embedded within training data. Without rigorous oversight, AI risks amplifying systemic injustices rather than mitigating them (Ferrara, 2023).

Ethical decision-making in AI governance requires a balanced approach that integrates technological safeguards, human judgment, and regulatory oversight. Whilst algorithmic

transparency and explainability can help identify bias, leaders must also apply ethical frameworks such as fairness, accountability, and transparency (FAT) to guide AI deployment. This involves auditing training datasets for bias, adopting diverse perspectives in model development, and implementing ongoing monitoring mechanisms. Further, leaders must consider trade-offs between efficiency and equity, ensuring that algorithmic recommendations align with organisational values and societal expectations (Gilbert et al., 2023).

Finally, Strategic foresight is essential in mitigating ethical risks associated with AI-assisted decisions. Over the next five years, leaders will need to cultivate AI literacy within their organisations, fostering a critical understanding of how models generate insights and where human oversight is necessary. This entails refining governance structures to integrate AI ethics boards, encouraging interdisciplinary collaboration, and leveraging scenario analysis to anticipate unintended consequences. By harmonising AI-driven efficiency with human intuition and ethical responsibility, leaders can build decision-making frameworks that are both innovative and socially responsible. In doing so, they ensure that AI remains a tool for augmentation rather than a mechanism for exacerbating structural inequities (Bohdal et al., 2023).

Speed vs. Precision: When to Rely on Rapid Automation vs. Deliberate Human Judgment

As algorithmic decision-making becomes more prevalent, leaders must carefully navigate the trade-off between speed and precision. The rapid advancements in AI and data analytics have facilitated automation in decision-making processes, enabling organisations to respond to dynamic environments with unprecedented efficiency. Critically, the reliance on automation sees the need for leaders to possess a nuanced understand-

ing of when speed is advantageous and when precision - grounded in human judgment - is imperative (Wolczynski et al., 2022).

Automation excels in high-velocity, data-driven environments where decisions must be executed within milliseconds, such as algorithmic trading, supply chain optimisation, and fraud detection. In these domains, AI-driven models process vast datasets, recognise patterns, and execute responses at a scale and speed unattainable by humans. The advantage of automation lies in its ability to enhance operational efficiency and mitigate cognitive biases that may distort human judgment. However, the precision of these automated processes is contingent upon the quality of the underlying data, model interpretability, and the alignment of AI-generated outputs with broader organisational goals.

Further, complex, ethically fraught, or strategically significant decisions require deliberate human oversight. Areas such as corporate governance, crisis management, and policy-making demand a level of contextual awareness, ethical discernment, and foresight that automation cannot yet replicate. The risk of over-reliance on automation lies in its potential to obscure accountability, reinforce biases embedded in training data, and diminish the role of ethical reasoning in decision-making.

Over the next five years, the optimal balance will be a hybrid approach - leveraging AI for speed where automation enhances efficiency, whilst maintaining human judgment as the authority in ethically and strategically complex scenarios. Leaders must cultivate AI literacy and critical thinking to navigate this evolving paradigm effectively (M Al-Zahrani, 2024).

The Hybrid Decision-Maker: Cultivating Leaders Who Integrate AI, Analytics, and Emotional Intelligence

As organisations navigate an ever-increasingly complex and data-driven environment, the next generation of leaders must evolve into hybrid decision-makers - individuals who seamlessly integrate AI, data analytics, and emotional intelligence (EI) to drive effective decision-making. This hybrid model of leadership is essential for balancing the efficiency and precision of algorithmic recommendations with the ethical, contextual, and human-centric aspects of strategic foresight.

AI and advanced analytics have transformed decision-making by providing real-time insights, predictive modelling, and automation capabilities. However, the effectiveness of these tools is contingent upon a leader's ability to critically interpret algorithmic outputs, assess data limitations, and apply contextual judgment. Without a sophisticated understanding of AI's capabilities and constraints, leaders risk either an overreliance on data-driven models or a disregard for their strategic utility (Ma et al., 2024). The hybrid decision-maker, therefore, must develop AI literacy - understanding not only how algorithms function but also how they align with broader organisational objectives.

Equally critical is the integration of EI, which enables leaders to navigate the interpersonal, ethical, and adaptive dimensions of decision-making (Zhang et al., 2023). Emotional intelligence fosters the ability to assess stakeholder concerns, mitigate biases, and apply moral reasoning - factors that are often absent in purely algorithmic decision-making. This competency is particularly crucial in high-stakes environments where ethical dilemmas, cultural sensitivities, and social responsibility play defining roles.

Over the next five years, organisations must prioritise leadership development programs that cultivate this hybrid compe-

tency. Training initiatives should emphasise AI fluency, data-driven decision-making, and emotional intelligence as complementary skillsets. By fostering leaders who can synthesise algorithmic insights with human judgment, organisations will be better equipped to navigate the uncertainties of an increasingly automated, yet ethically complex world.

As organisations confront an era of exponential technological change and global uncertainty, the role of leadership must evolve to integrate AI, analytics, and human judgment in a symbiotic manner. The future-proof leader is not defined solely by technical proficiency but by the ability to critically assess, ethically deploy, and strategically leverage AI-driven insights whilst maintaining accountability and adaptability. By adopting a hybrid decision-making framework, leaders can navigate complexity with resilience, ensuring that AI serves as an enabler of innovation rather than a determinant of human agency. The path forward demands continuous learning, robust governance structures, and an unwavering commitment to ethical leadership, positioning organisations to thrive in an uncertain, yet opportunity-rich, future.

References

Bohdal, O., Hospedales, T.M., Torr, P.H., & Barez, F. (2023). Fairness in AI and Its Long-Term Implications on Society. *ArXiv, abs/2304.09826*.

Chen, V., Liao, Q. V., Wortman Vaughan, J., & Bansal, G. (2023). Understanding the role of human intuition on reliance in human-AI decision-making with explanations. *Proceedings of the ACM on Human-computer Interaction*, *7*(CSCW2), 1-32

Chun, J., & Elkins, K. (2024). Informed AI Regulation: Comparing the Ethical Frameworks of Leading LLM Chatbots Using an Ethics-Based Audit to Assess Moral Reasoning and Normative Values. *ArXiv, abs/2402.01651*.

Ferrara, E. (2023). Fairness and bias in artificial intelligence: A brief survey of sources, impacts, and mitigation strategies. *Sci*, *6*(1), 3.

Gilbert, T. K., Brozek, M. W., & Brozek, A. (2023). Beyond Bias and Compliance: Towards Individual Agency and Plurality of Ethics in AI. *ArXiv, abs/2302.12149*.

Guan, H., Dong, L., & Zhao, A. (2022). Ethical Risk Factors and Mechanisms in Artificial Intelligence Decision Making. *Behavioral Sciences (Basel, Switzerland)*, *12*(9), 343. https://doi.org/10.3390/bs12090343

M Al-Zahrani, A. (2024). Balancing Act: Exploring the Interplay Between Human Judgment and Artificial Intelligence in Problem-solving, Creativity, and Decision-making. IgMin Res, 2(3), 145-158. https://doi.org/10.61927/igmin158

Ma, S., Chen, Q., Wang, X., Zheng, C., Peng, Z., Yin, M., & Ma, X. (2024). Towards Human-AI Deliberation: Design and Evaluation of LLM-Empowered Deliberative AI for AI-Assisted Decision-Making. *ArXiv, abs/2403.16812*.

Saghafian, S., & Idan, L. (2024). Effective generative ai: The human-algorithm centaur. *arXiv preprint arXiv:2406.10942*.Ghimire, S. (2025) *Data-driven leadership: Using analytics to make informed business decisions, Fast Company*. Available at: https://www.fastcompany.com/91258963/data-driven-leadership-using-analytics-to-make-informed-business-decisions (Accessed: 20 February 2025).

van Zyl, L. (2024) *Data-driven leadership development*, *Psychology Today*. Available at: https://www.psychologytoday.com/us/blog/happybytes/202405/data-driven-leadership-development (Accessed: 20 February 2025).

Wolczynski, N., Saar-Tsechansky, M., & Wang, T. (2022). Learning to Advise Humans in High-Stakes Settings. *arXiv preprint arXiv:2210.12849*.

Zhang, A., Walker, O., Nguyen, K., Dai, J., Chen, A., & Lee, M.K. (2023). Deliberating with AI: Improving Decision-Making for the Future through Participatory AI Design and Stakeholder Deliberation. *Proceedings of the ACM on Human-Computer Interaction, 7*, 1 - 32.

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CHAPTER 18

How AI will impact academic integrity in Higher Education over the next 5 years

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Over the next five years, generative artificial intelligence (Gen AI) is expected to evolve significantly, profoundly impacting academic integrity in higher education. Gen AI is anticipated to become more sophisticated, with enhanced capabilities in natural language processing, data analysis, and personalised learning. These advancements will enable artificial intelligence (AI) to generate complex content, simulate human-like interactions, and provide tailored educational experiences. However, this progress also raises concerns about the potential for Gen AI to be misused in academic settings.

While AI's inception can be traced back to the 1950s, its more recent 'introduction' to the world, prompted by OpenAI's' Chatbot, ChatGPT in November 2022, ushered in with it concerns about the implications and risks of *Gen AI* on academic integrity. Initially met with apprehension, the higher ed-

ucation sector sought to understand the *new* technology, and through this, potential advantages of its use in teaching and learning activities were identified. Establishing a balance between *responsible use* and *misuse* of this technology by students and faculty is a new and ongoing challenge for academia.

The Challenge to Academic Integrity

Research on the impact of *Gen AI* on academic integrity in higher education has identified four key areas - increasing opportunities for academic misconduct, the challenges with *Gen AI* detection and prevention, a decrease in developing critical thinking and writing, and ethical considerations related to equity concerns and data privacy.

Increased Opportunities for Academic Misconduct

The enhanced capabilities of *Gen AI* tools enable students to produce assignments, essays, and projects without engaging deeply with the content. The ease of access to *Gen AI-generated* content could potentially lead to a rise in academic dishonesty, as students may be tempted to submit work generated by chatbots as their own. Most AI tools are able to rewrite existing content or paraphrase in a way that can bypass traditional plagiarism detectors, generate fake references and citations and even entire research papers that appear legitimate. Due to the high-quality work that may be generated by AI, contract cheating is easier and more accessible, as the need for hiring human ghostwriters is reduced. This undermines the learning process and devalues the credentials awarded by institutions.

Faculty are also susceptible to unethical or improper use of AI in teaching, research and administration, undermining academic integrity, distorting research outcomes and compromising educational quality. AI offers faculty members significant time-saving capability with lesson plans, assessment develop-

ment, curriculum planning activities and research papers, which may present as the 'allure of AI as a shortcut' (Fleming, 2024). However, this may lead to an over-reliance on AI for such activities without the appropriate review of content and misrepresented data and findings, raising ethical violations in research and a loss of academic credibility.

Challenges in Detection and Prevention

Traditional methods of detecting plagiarism and academic misconduct may become less effective as evolving *Gen AI-generated* content becomes more sophisticated and harder to distinguish from human-produced work. This evolution necessitates the development of new detection tools and strategies to maintain academic integrity as AI detection can still be evaded despite efforts from students to modify AI output (Giray et al., 2025). However, current *Gen AI* detection tools have limited detection capabilities and have been criticised for unreliability, leading to potential false accusations.

Erosion of Critical Thinking and Writing Skills

While AI tools may enhance productivity and learning, excessive use could reduce critical thinking and writing abilities in both students and faculty. Excessive use of AI in writing could weaken writing skills or produce writing that lacks depth, originality and a personal voice; or result in reduced abilities to self-edit and express ideas in unique and engaging ways. An excessive reliance on *Gen AI* for content generation may encourage surface-level understanding and passive learning, inhibit independent thought, analytical reasoning, intellectual growth and deeper intellectual engagement; and students' abilities to develop essential academic competencies.

Equity Concerns

If not addressed adequately, AI could potentially widen existing educational inequalities rather than reduce them. As the technology becomes a more essential part of the education system, institutions must strive for inclusion and equal access to these technologies, particularly for underrepresented or low-income students. The digital divide could deepen if *Gen AI* tools remain exclusive to well-funded institutions or students from more affluent backgrounds who may have greater access to high-end devices, subscriptions to AI-powered research assistants and consistent internet access.

"By making clear what is considered appropriate use of AI, educators can demonstrate how they are prepared to embrace it in ways that enhance the student experience and their development, rather than hindering it or causing an unfair playing field." Bowden, 2024

AI and Data Privacy

Due to the vast amounts of data collected on students' learning behaviours, progress, and preferences by Gen AI-driven platforms, the challenge is ensuring that this data is used securely, ethically and in compliance with privacy regulations.

Higher education institutions should develop and implement policies that address the ethical use of *Gen AI* in academic settings. These policies should focus on promoting *Gen AI* literacy among students and faculty, establish clear guidelines for *Gen AI* usage, and integrate *Gen AI* tools responsibly into the curriculum, with the goal of balancing the benefits of *Gen AI* in enhancing learning experiences with the need to uphold academic integrity.

AI's potential role in enhancing teaching and learning

AI has the potential to revolutionise teaching and learning by personalising education, generating content, promoting professional development activities and enhancing engagement. It can adapt lessons to individual student needs, provide instant feedback, and generate customised learning materials. *AI*-powered tools such as chatbots and virtual tutors offer 24/7 support, while analytics help faculty track student progress and identify areas for improvement. Additionally, *AI* can automate grading and administrative tasks, allowing faculty to focus more on instruction and mentoring. However, ethical considerations, such as data privacy and bias, must be addressed for effective implementation.

Personalised learning and adaptive tools

AI-powered systems have the ability to analyse data such as tracking students' progress and identify gaps in learning. Adaptive learning tools are able to offer customised learning experiences through tailored lessons and educational content, instructions suited to students' specific learning needs, on-demand tutoring with the ability to adjust difficult levels when required; and assess students' understanding in real-time, adjusting the content accordingly.

Generating content, lesson plans, assessments and learning materials

AI tools are able to generate essays, reports, and even creative work. These tools also offer the capability for brainstorming and generating ideas, drafting essays, and can contribute to both the creation and consumption of educational materials (Yusuf et al., 2024). While these technologies have the potential to enrich the learning experience, they also raise concerns regarding the authenticity of student-produced work.

AI is also becoming an invaluable asset for faculty, offering solutions and tools that streamline the development of comprehensive lesson plans, dynamic and interactive learning materials (Zhang & Wasie, 2023) and assessment, providing customisable grading rubrics; and offer automated grading systems enabling faculty to assess and grade student submissions faster and more consistently, significantly reducing lesson preparation and assessment grading time.

Professional Development and Collaboration

AI-powered tools have the ability to support faculty in their professional development by providing resources for lesson development and classroom management and can assist them in creating high-quality instructional materials, fostering collaboration and sharing of best practice among educators.

Enhancing engagement

AI-driven technologies such as virtual teaching assistants, interactive simulations, and gamification are already being used to enhance student engagement. AI-driven engagement technologies are constantly evolving and new developments in machine learning and natural language processing (NLP) are making interactions more personalised and immersive. Tools for language learning and virtual labs are being used for enhancing educational delivery as this branch of AI enables computers to understand, interpret, improve context understanding and generate human language, making AI more conversational and personalised.

Institutional responses to mitigating risks of AI to academic integrity

While AI, as a multifaceted tool for faculty, can enhance efficiency, foster creativity and improve the overall educational

experience (Bin-Nashwan et al., 2023), it also poses risks to academic integrity. Higher education institutions must proactively address these challenges through a review of assessment strategies and policies, refocus on education and promote digital literacy (Fowler, 2023) and leverage technological innovation to strike a balance between harnessing AI's benefits and safeguarding academic honesty.

A review of assessment strategies

Evolving assessment methods such as a shift to remote proctored assessments, project-based and oral presentations and scenario-based testing is required, to reduce the risk of academic misconduct but also enhance students' learning outcomes.

Redefining Academic Integrity policies

Institutions have commenced establishing policies on the ethical use of AI tools in academic work. These policies should include guidelines that clarify what constitutes acceptable and unacceptable use of AI. Effective policies require input from faculty, students and administrators to ensure they are practical and enforceable.

Education and promoting digital literacy

Through educational campaigns for students and faculty about the ethical use of AI, the emphasis of these campaigns should be on the importance of academic integrity and guidance should be provided on the responsible use of AI tools. Institutions should invest in faculty training to redesign assessments. Professional development programs should be implemented to assist faculty to understand the capabilities and limitations of AI and how to integrate it into their teaching.

These transformations will require ongoing collaboration between educational institutions, students, and AI developers

to ensure that AI is used ethically, responsibly, and in a way that preserves the integrity of higher education. As AI becomes more integrated into education, the definition of originality and authorship may evolve. This could lead to broader discussions about the role of AI in academic work. Higher education institutions may play a key role in shaping societal norms around the ethical use of AI, fostering a culture of responsible innovation.

As the world continues to navigate this evolving technology, the higher education industry must endeavour to find a balance between upholding the values of academic integrity which should remain at the forefront of policy development and implementation, while also ensuring the consistent and timely education of students and faculty on the benefits and limitations of Gen AI tools; and garnering institution-wide support, collaboration and make more concerted efforts to embrace and explore how Gen AI can enhance teaching and learning activities (Plata et al., 2023, Stone, 2023). The increasing sophistication of AI presents both challenges and opportunities for academic integrity and will therefore continue to shape the landscape of higher education in significant ways. Over the next five years, institutions will need to adapt by updating policies, investing in detection technologies, and fostering a culture of ethical AI use. By balancing the risks and benefits of AI, higher education can maintain the integrity and value of academic credentials in an increasingly AI-driven world.

"The broader intellectual world seems to wildly overestimate how long it will take AI systems to go from 'large impact on the world' to 'unrecognizably transformed world'. This is more likely to be years than decades, and there's a real chance that it's months."

Paul Christiano, former member of OpenAI, March 2023

References

Bin-Nashwan, S. A., Sadallah, M., & Bouteraa, M. (2023). Use of ChatGPT in academia: Academic integrity hangs in the balance. Technology in Society, 75, 102370, 1-11. https://doi.org/10.1016/j.techsoc.2023.102370

Bowden, J. (2024). 7 Examples of AI Misuse in Education. https://www.inspera.com/ai/examples-of-ai-misuse-in-education/

Fleming, R. (2024). Why AI in Education isn't the problem - but misusing it is. https://www.linkedin.com/pulse/why-ai-education-isnt-problem-misusing-ray-fleming-ty2gc/

Fowler, D. S. (2023). AI in Higher Education: Academic Integrity, Harmony of Insights, and Recommendations. Journal of Ethics in Higher Education, (3), 127–143. https://doi.org/10.26034/fr.jehe.2023.4657

Giray, L., Sevnarayan, K., & Ranjbaran Madiseh, F. (2025). Beyond Policing: AI Writing Detection Tools, Trust, Academic Integrity, and Their Implications for College Writing. Internet Reference Services Quarterly, 1–34. https://doi.org/10.1080/10875301.2024.2437174

Plata, S., De Guzman, M.A. & Quesada, A. (2023). Emerging Research and Policy Themes on Academic Integrity in the Age of Chat GPT and Generative AI. Asian Journal of University Education, 19(4), 743-758. https://doi.org/10.24191/ajue.v19i4.24697

Stone, A. (2023). Student Perceptions of Academic Integrity: A Qualitative Study of Understanding, Consequences, and Impact. Journal of Academic Ethics, 21(3), 357–375. https://doi.org/10.1007/s10805-022-09461-5

Yusuf, A., Pervin, N., & Román-González, M. (2024). Generative AI and the future of higher education: a threat to academic integrity or reformation? Evidence from multicultural perspectives. International Journal of Educational Technology

in Higher Education, 21(1), 21–29. https://doi.org/10.1186/s41239-024-00453-6

Zhang, Z., & Wasie, S. (2023). Educational Technology in the Post-Pandemic Era: Current Progress, Potential, and Challenges. *Proceedings of the 15th International Conference on Education Technology and Computers*, 40–46. https://doi.org/10.1145/3629296.3629303

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CHAPTER 19

The Internationalization of skills – Skills without borders

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The globalized economy has necessitated a shift towards the internationalization of Technical and Vocational Education and Training (TVET). This paper explores the process, benefits, and challenges of internationalizing TVET education while presenting practical strategies for its successful implementation.

Concept of Internationalization of TVET Education

Internationalization in TVET education refers to the process of integrating global perspectives into curricula, training methods, and institutional partnerships. This ensures that graduates acquire competencies that are applicable across multiple countries and industries (Knight, 2004).

Internationalization encompasses a variety of activities, including partnerships between institutions across borders, student and faculty mobility, curriculum development, and the implementation of programs that prepare students for a global workforce.

In the context of Technical and Vocational Education and Training (TVET), internationalization emphasizes the need to align educational outcomes with global labor market demands. It aims to equip students with not only technical skills but also soft skills necessary for functioning effectively in a multicultural environment. This approach fosters an understanding of diverse practices and methodologies, enabling aspiring professionals to adapt to varied workplace cultures and expectations.

Internationalizing TVET is essential in a rapidly globalizing economy, where industries increasingly operate across borders. By embracing internationalization, TVET institutions can:

- Expand opportunities for learners through exposure to international training and qualifications.
- Foster collaborative programs that enhance the quality and relevance of vocational education.
- Address local skills shortages by preparing graduates who can compete **internationally.**

Understanding the Skills Gap

The skills gap is a significant barrier to economic growth. Many industries struggle to find workers with the required technical skills, a challenge exacerbated by globalization and technological advancements (OECD, 2019). Addressing this gap requires a shift towards competency-based education aligned with international standards (UNESCO, 2021).

The skills gap refers to the disparity between the skills possessed by the workforce and the skills demanded by employers in the job market. This phenomenon can arise from various factors, including technological advancements, changes in industry practices, and shifts in consumer expectations. As economies evolve and industries innovate, the skills required for specific jobs can change rapidly, often outpacing the current training and education systems.

Grasping the principles of internationalization in education and the skills gap is essential for formulating effective strategies to strengthen TVET systems. By tackling the skills gap through global collaboration and curriculum advancement, nations can equip their workforce to meet the challenges of an increasingly interconnected world. This strategy not only supports individuals and industries but also fosters overall economic growth and social equity. The following sections highlight key areas where skills gap concerns are most evident.

1. **Employment Challenges:**
   Individuals may find it challenging to secure employment or advance in their careers if their skills do not meet the needs of employers. This can lead to high unemployment rates, particularly among young graduates who lack relevant experience.
2. **Economic Impact:**
   A significant skills gap can hinder economic growth by limiting productivity and innovation. Industries may struggle to find qualified candidates, leading to unfulfilled job vacancies and decreased competitiveness in the global market.
3. **Inequality:**
   The skills gap can exacerbate income inequality, as those with in-demand skills command higher wages while others may remain stagnant or face underemployment. This disparity can affect social mobility and overall economic stability.
4. **Changing Role of Education:**
   Traditional education systems may need to evolve to better align with industry needs, emphasizing the importance of vocational training. TVET institutions play a crucial role in addressing the skills gap by providing relevant training and fostering partnerships with industries.

5. **Lifelong Learning:**
   The skills gap highlights the necessity of continuous professional development and lifelong learning. As industries change, workers must adapt by acquiring new skills and competencies to remain relevant in their fields.

Act of Internationalization

Internationalization involves policy development, cross-border education initiatives, and institutional collaborations. However, challenges include regulatory barriers, differences in qualification frameworks, and the financial burden on institutions and students (Altbach & Knight, 2007).

Process of Internationalization

The internationalization process can be broken down into several key components:

1. **Curriculum Development and Alignment** – Standardizing curricula to match international industry requirements (World Bank, 2020). This refers to:
   - Developing internationally aligned curricula that meet both local and global industry standards.
   - Incorporating competencies and skills that are recognized across borders.
2. **Partnerships and Collaborations** – Establishing agreements with foreign institutions and industries (British Council, 2018).
   - Establishing partnerships between educational institutions, businesses, and governments across countries.

- Creating collaborative programs, such as student and faculty exchanges or joint research initiatives.

3. **Mobility Programs** – Facilitating student and faculty exchanges to promote cultural and technical skill integration (European Commission, 2022).
   - Implementing student and staff mobility programs to foster cross-cultural learning and experience sharing.
   - Encouraging internships and training opportunities in international settings.
4. **Accreditation and Quality Assurance:** – Harmonizing qualification frameworks for mutual recognition of credentials (ASEAN, 2021).
   - Developing frameworks for mutual recognition of qualifications and competencies.
   - Engaging with international accrediting bodies to ensure quality standards are met.
5. **Digital and Open Learning –** Leveraging online platforms to broaden access to global TVET education (Schwab, 2016).
   - Leveraging technology to offer online courses that are accessible to a global audience.
   - Utilizing platforms that facilitate international learning and resource sharing.
6. **Market Research and Stakeholder Engagement:**
   - Conducting research to understand the demand for specific skills and qualifications in the global job market.
   - Engaging stakeholders—industry leaders, educators, and policymakers—in the planning and implementation process.

Challenges of Internationalizing TVET

While the internationalization of TVET offers significant opportunities for enhancing skill development and employability, it requires careful planning, collaboration, and adaptation to overcome the inherent challenges. Addressing these processes and challenges is crucial for creating a robust TVET system that can thrive in a globalized community. The following sections highlight key challenges of internationalizing TVET.

1. **Cultural Differences:**
    - Navigating diverse cultural attitudes toward vocational education and differing expectations of employers.
    - Adapting teaching methodologies to fit cross-cultural learning environments.
2. **Resource Constraints:**
    - Limited financial resources and infrastructure can hinder the development and execution of international programs.
    - In many regions, there may be inadequate facilities and technology to support international learning.
3. **Regulatory and Policy Barriers:**
    - Variability in governmental policies regarding international education can complicate partnerships and mobility.
    - Difficulties in obtaining visas and accreditation for international students and staff.
4. **Quality Assurance Challenges:**
    - Ensuring consistent quality across different countries and institutions can be challenging.
    - Transferring and recognizing qualifications can lead to discrepancies in skill levels and competencies.

5. **Stakeholder Resistance:**
    - Resistance from local educational institutions or industries that may prefer traditional approaches.
    - Misalignment between industry needs and educational outcomes can create obstacles.
6. **Skill Mismatches:**
    - Addressing the needs of rapidly changing industries and job markets can be difficult.
    - Ensuring that TVET programs remain relevant and adaptable to technological advancements and global trends.

Skills Without Borders

International collaboration plays a crucial role in enhancing the quality of Technical and Vocational Education and Training (TVET) programs by leveraging shared resources, knowledge, and best practices among countries.

International collaboration serves as a catalyst for enhancing the quality of TVET programs by enabling institutions to share resources, expertise, and best practices. Through curriculum alignment, faculty development, quality assurance, and industry partnerships, collaborative efforts can create TVET systems that are responsive to both local and global workforce needs. As economies continue to globalize, the importance of such collaborations will only increase, making them essential for maintaining the relevance and effectiveness of TVET education. The "Skills Without Borders" initiative aims to:

- Support **global learners** by equipping them with adaptable skills.
- Enhance **TVET quality** through internationally benchmarked programs. (ILO, 2019).

Strategies for Implementation

Implementing the "Skills Without Borders" policy in the Philippines requires a multifaceted approach involving diverse stakeholders. By prioritizing policy support, curriculum innovation, faculty development, and continuous evaluation, the Philippines can enhance the internationalization of its TVET system, ultimately empowering its workforce to succeed in a globalized economy. These strategic initiatives will foster collaboration, enhance student employability, and help bridge the skills gap in the region. To successfully implement internationalized TVET, stakeholders should focus on:

1. **Policy Support** – Governments should create policies that facilitate international partnerships (UNESCO, 2022). A strong policy framework is essential for guiding the internationalization of TVET. It ensures that all stakeholders are aligned and have clear objectives and resources. Policies should focus on creating pathways for recognition of qualifications and enhancing international cooperation among institutions.
2. **Curriculum Development and Faculty Training** – Ensuring educators are equipped to teach globalized curricula (OECD, 2021). The curriculum serves as the foundation for quality education. A well-designed curriculum aligned with international standards is crucial for ensuring that graduates possess the skills needed in the global job market. Continuous curriculum review processes should be established to adapt to evolving industry demands and technological advancements.
3. **Enhancing Faculty Training and Development:** Educators equipped with the latest knowledge and skills can significantly impact student outcomes. Faculty training ensures that instructors can deliver updated content and effective teaching methods. Investing in faculty

development fosters a culture of continuous learning and adaptation, essential for a dynamic educational environment.

4. **Continuous Monitoring & Evaluation**: Establishing feedback mechanisms to measure the effectiveness of internationalization efforts (British Council, 2020).
5. **Promoting Student Mobility:** Possible activities could include the establishment of Exchange Programs: Creating robust student exchange programs with international schools, allowing students to gain skills and exposure to different cultures and work environments. As well, consideration of developing scholarship programs or subsidies that enable students to undertake internships or training abroad, thereby enhancing their global employability needs to be in place.
6. **Utilizing Technology in Learning:** Policies should focus on creating pathways for recognition of qualifications and enhancing international cooperation among institutions.
7. **Need for Continuous Monitoring and Evaluation:** The global job market and technological landscapes are constantly evolving; thus, TVET programs must be adaptable. Continuous evaluation allows for timely updates and interventions.

The internationalization of TVET is a crucial step in preparing a workforce that can thrive in a globally connected economy. By embracing international collaboration, curriculum alignment, and digital learning, TVET institutions can equip learners with the skills necessary to meet global industry demands. Addressing the skills gap through strategic partnerships and policy innovations ensures that graduates are competitive and adaptable in the evolving job market.

Furthermore, the "Skills Without Borders" initiative highlights the importance of fostering mobility programs, accreditation frameworks, and faculty development to enhance the quality of vocational education. Governments, educators, and industry stakeholders must work together to implement these strategies effectively, ensuring sustainable workforce development that contributes to both national and global economic growth.

Ultimately, the integration of international perspectives in TVET benefits not only individual learners and industries but also enhances social and economic equity. By investing in continuous improvement and cross-border cooperation, TVET systems can create inclusive opportunities for lifelong learning, workforce resilience, and a more prosperous global economy.

References

Altbach, P.G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities.

ASEAN (2021). Regional accreditation frameworks for TVET education.

British Council (2018). Global partnerships in vocational education.

British Council (2020). Evaluating international TVET strategies.

European Commission (2022). Mobility programs for TVET institutions.

ILO (2019). The role of TVET in workforce development.

Knight, J. (2004). Internationalization remodelled: Definition, approaches, and rationales.

OECD (2019). Skills for the future: Bridging the global workforce gap.

O'Hanlon-Rose, T. (2018). *INAP: A Framework for Internationalizing Vocational Education and Training.* International Journal of Training Research, 16(1), 99-113.

Schwab, K. (2016). The Fourth Industrial Revolution.

UNESCO (2021). TVET and skills development: A global perspective.

UNESCO (2022). Policy recommendations for global TVET frameworks.

World Bank (2020). Strengthening workforce skills through TVET education.

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CHAPTER 20

The Next 5 Years – Global Economic and Geopolitical Shift

Mordechai Katash
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The question of what the future has in store was once reserved for a select few, the finest of oracles, prophets, priests and the elderly. Great Kings and Emperors made decisions based on predictions made by these mystical people. Later in the evolution of predictions, scholars, historians, and economists became a group of people who wrote, documented and analysed events and precognitions.

I do not belong to these groups of supreme humans; I do not have a crystal ball. However, I am a man who heavily applies his work by researching and understanding cycles. My research ranges from a single-minute cycle to 12000 years of collected data. However, the most useful and reliable data for predicting economic and geopolitical trends specifically lies in data collected in the past 5000 years. It is through this lens of historical cycles and economic analysis that I present my predictions for the next five years, focusing on global markets, geopolitical shifts, and macroeconomic trends.

Economists can better predict economic outputs and data for the upcoming quarter, as the based effect provides a floor to forecast upcoming economic data releases. However, I will not shy away from the moment and will provide my finest 5-year forecast.

This chapter, in particular, focuses on the equity markets and various asset classes in the USA, and as the largest economy, still the supreme global superpower, has a direct impact on the entire world. Hence, it will be of interest to institutional and retail investors, funds, other market participants and policymakers alike, especially as this book's five-year outlook will close this current decade.

The 100-Year War Cycle: A Persistent Pattern

A significant and recurring historical pattern is the 100-year war cycle, which began again in 2020 and is projected to last until 2050. Throughout history, this cycle has been marked by large-scale conflicts that reshaped political and economic landscapes. We are currently five years into this phase, and historical data suggests that the intensity of these current conflicts will peak before 2028.

While the United States and its allies maintain strategic advantages, history has shown that complete victory is elusive. The geopolitical environment will remain unstable well into the 2030s, with major power shifts and economic and political upheavals expected. The consequences of these conflicts will be far-reaching, influencing trade, investment, and political alliances.

This is not news for world leaders, as we are witnessing global military alliances shift and an arms race of advanced weapons to prepare for the next major large-scale world war.

The U.S. Dollar: Supreme Yet Volatile

Despite the rise of alternative cryptocurrencies and digital assets and the absolute strength in the price of Gold, the U.S. dollar remains the world's dominant financial instrument. However, this supremacy comes with global repercussions. A significant reduction in the money supply and shortage of dollars in international markets has led to an economic strain in developing nations reliant on the currency for trade and paying debt obligations.

The strength of the dollar has created a paradoxical situation: while it benefits the U.S. economy in the short term, it causes widespread financial stress globally. As the dollar continues to appreciate vs other world currencies, countries struggling with debt in U.S. dollars may face elevated inflation rates, heightened defaults, economic contraction, and political unrest. The coming years will test the resilience of global financial systems as they navigate these imbalances.

Interest Rates and Bonds: A Secular Shift

The era of low interest rates and cheap credit has ended. The long-standing bull market in bonds, which began in 1980, came to an end in 2020. Since then, we have entered a secular bear market characterised by rising interest rates and tighter credit conditions. This trend is expected to persist until at least 2035.

The Federal Reserve anticipates moderate rate cuts in 2025, but broader market data suggests that inflationary pressures will continue to challenge monetary policy. By 2030, U.S. mortgage rates could soar to 12.5%-15%, severely impacting housing affordability. Meanwhile, the growing U.S. budget deficit, with interest payments surpassing $1 trillion every 100 days, underscores the precarious nature of ever-growing and unsustainable government debt.

Investor sentiment reflects scepticism toward central bank interventions, with institutional investors liquidating bonds despite policy assurances. The flattening yield curve signals potential economic stagnation, reinforcing the need for prudent fiscal planning.

The Commodities Market: A Hidden Opportunity

Commodities, particularly soft commodities, have been artificially suppressed for decades. While the price of gold has reached all-time highs, its bull cycle is far from over. Historically, commodities perform well during economic instability, and the current global landscape suggests a strong upward trajectory for these assets.

Prices of Energy and Rare Earth and Industrial Metals will also experience significant price surges, with continued bullish momentum extending into the 2030s.

Market volatility will cause temporary sell-offs in all asset classes, including commodities. However, by 2027, economic cycles will reach an abrupt bottom, setting the stage for a sustained commodities bull market. This presents an opportunity for investors to capitalise on undervalued resources before prices surge.

The Trump Factor: A Wild Card

Donald Trump returns to the White House as the 47th US President with the clear goal of restoring US dominance. His economic policies will significantly impact US and global markets, including tax cuts, increased domestic oil production, and economic protectionism, which will drive inflationary pressures, further straining monetary policy.

Immediately after his inauguration in January 2025, Trump signed an Executive Order establishing the Department of Government Efficiency (DOGE) to implement the President's

DOGE Agenda by modernising Federal technology and software to maximise governmental efficiency and productivity. This initiative will trim at least a Trillion Dollars off Government spending while driving efficiency across government departments and industry.

A key initiative under Trump's leadership is the creation of the USA Sovereign Wealth Fund, designed to provide generational financial stability, reduce reliance on debt, and fund infrastructure and innovation. This strategic move could reshape the U.S. economic landscape, with potential ripple effects across global markets.

Additionally, Donald Trump's agreement with Indian Prime Minister Narendra Modi to develop a new trade route from India to Israel, Italy, and the United States aims to counter China's Belt and Road Initiative. This ambitious project could redefine global trade dynamics, creating both opportunities and tensions in international markets.

Finally, there is currently under 8% probability that Trump may use his business expertise to restructure the U.S. national debt, leading to a "Bretton Woods (1971) moment" that establishes a new global financial, trade, and economic system. Such a restructuring could fundamentally alter the world's monetary framework, impacting global economies for decades.

2027 - The Turning Point

The year 2027 is projected to mark a crucial economic inflection point. Major market cycles will bottom out, resulting in significant shifts across asset classes:

- **Equities:** Entering a new accumulation phase, paving the way for future growth.
- **Bonds:** Potential short-term shift from a bear to a bull market, contingent on economic stability.

- **Commodities:** Full-fledged bull cycle, driven by inflationary pressures and supply constraints.

While the United States remains the world's financial anchor, its path to recovery will be marked by volatility. The interplay of rising debt, geopolitical tensions, and evolving market dynamics will determine the course of the next financial era.

The U.S. national debt has reached historic levels, higher than war times, with servicing costs climbing exponentially. A new wave of policy-driven spending and tax restructuring could exacerbate inflation, forcing the Federal Reserve into aggressive rate cuts and triggering another economic cycle of boom and bust.

The coming five years will be a period of profound transformation, defined by economic turbulence, geopolitical conflicts, and structural market shifts. Investors, policymakers, and businesses must remain vigilant, leveraging historical insights to navigate uncertainty effectively.

Despite advancements in predictive modelling, economic cycles remain fundamentally governed by historical patterns. While individuals and institutions can adapt strategies, larger macroeconomic forces—war, inflation, and market corrections—are inevitable. Recognising these cycles provides an advantage, but ultimately, history dictates the unfolding of future events.

The coming decade will test global resilience. Those who understand past patterns and historical precedents will be best positioned to thrive in an increasingly unpredictable world. By embracing historical analysis and strategic foresight, investors and decision-makers can prepare for the challenges and opportunities that lie ahead.

References

(The White House, 2025)

(The White House, 2025)

(Katash, The Next Five Years: Economic and Geopolitical Forecasts, 2025)

(Katash, Next 5 - A Glimpse into the Market's Future, 2025)

(J.P. Morgan Asset Management, 2025)

(Barron's, 2025)

(Fisher Investments, 2024)

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CHAPTER 21

Future-Proofing ESG in Academia: Transformation or Tick-the-Box by 2030?

Irene Mendoza
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The integration of Environmental, Social, and Governance (ESG) principles into Australian higher education is increasingly becoming a focal point for academic institutions. As global calls for sustainability intensify, universities are presented with a unique opportunity to not only educate future leaders but also exemplify responsible practices – and to practice what they preach. However, this emerging trend raises critical questions: Will ESG adoption drive authentic transformation, or will it devolve into yet another compliance exercise? The distinction is crucial, as the former suggests a paradigm shift in institutional culture and governance, while the latter risks reducing ESG initiatives to mere box-ticking without real impact.

The complexities of ESG adoption extend beyond surface-level initiatives. The challenge lies in embedding ESG within the core strategic vision of universities while balancing competing priorities

such as financial stability, academic freedom, regulatory compliance, accountability and transparency, and alignment with internationally recognised standards. The discussion on ESG in higher education is not merely about adopting best practices but involves a deep-seated cultural transformation that aligns with international standards, including ISO principles. This paper explores these dimensions by evaluating whether Australian universities are genuinely committed to transformative ESG practices or if they are simply responding to external pressures through compliance. By examining strategic options and projecting an outlook for the next five years, this analysis aims to provide a critical perspective on how universities can navigate these challenges and channel ESG as a catalyst for lasting, positive change.

ESG Shift: Going Beyond Compliance to Real Change

The adoption of ESG principles presents a significant opportunity for Australian universities to minimize environmental impact, enhance social responsibility, and optimize governance practices. However, if not approached with genuine intent, ESG initiatives risk being reduced to compliance-driven exercises. To avoid this pitfall, universities must move beyond top-down mandates and instead cultivate a culture where ESG principles are integral to institutional identity. This requires leadership commitment, transparent governance, and active engagement with all stakeholders, including students, faculty, industry partners, and the broader community.

Real transformation involves embedding ESG into strategic frameworks as a core component of institutional development. This shift demands reassessments of operational models, where ESG considerations drive decision-making processes. The alignment with ISO standards, such as ISO 14001 for environmental management and ISO 26000 for social responsibility, provides universities with robust mechanisms for accountabil-

ity and continuous improvement. By fostering a culture of ethical leadership and sustainable practices, institutions can ensure that ESG is not just a marketing strategy but a lived value that permeates every level of the institution.

Sustaining Profit and Purpose: ESG's Financial Equation

Implementing ESG strategies often necessitates significant financial investment, posing challenges for some universities already grappling with budget constraints. Striking a balance between ESG commitments and financial sustainability is therefore critical. While some initiatives, like waste reduction and energy-efficient infrastructure, may yield long-term cost savings, others require upfront capital that may not offer immediate returns.

Universities need to adopt innovative financial models to support ESG initiatives. Leveraging public-private partnerships, securing grant funding, and exploring ESG-linked financing are viable strategies to bridge financial gaps. These approaches not only provide the financial muscle needed to implement sustainability projects but also enhance the university's appeal to stakeholders who prioritise ESG practices. Transparency in financial reporting and a clear cost-benefit analysis are essential to demonstrate that ESG measures contribute positively to both financial performance and educational outcomes. According to Johnson et al. (2024), universities that integrate ESG into their financial models demonstrate higher resilience and adaptability in fluctuating economic environments.

ESG in Academia: Autonomy vs. Regulation

A major challenge in ESG adoption is balancing government regulation with the preservation of academic freedom. While regulatory frameworks can drive sustainability and social responsibility, excessive intervention risks undermining institu-

tional autonomy. To strike the right balance, funding mechanisms should incentivize ESG compliance without dictating specific curricular or research activities.

Effective governance frameworks within universities are crucial for maintaining this balance. Establishing internal policies that prioritize ESG initiatives while safeguarding academic freedom can help institutions navigate regulatory pressures. Additionally, universities should engage in active dialogue with policymakers to shape ESG-related regulations that align with higher education's unique operational landscape. Research by Li and Thompson (2022) highlights the importance of collaborative governance models in maintaining academic freedom while promoting sustainability.

Integrating the Stakeholder Theory (Freeman, 1984) into this discussion emphasises the need for universities to consider the interests of diverse stakeholders—including students, faculty, government bodies, and society at large—when implementing ESG initiatives.

The Stakeholder Wheel -

Source: https://thesocietypages.org

According to the Stakeholder Theory, organisations thrive when they balance and manage the expectations of all stakeholders rather than prioritising shareholders alone. In the academic context, this involves engaging with policymakers to advocate for regulations that support sustainability goals while protecting academic independence. By promoting transparent communication and collaboration, universities can align ESG practices with broader societal values while maintaining their core educational mission.

ESG in Education: Building Tomorrow's Leaders

As ESG principles gain footing across industries, universities play a crucial role in preparing students to thrive in an evolving workforce. Embedding ESG into curricula across disciplines is vital for cultivating graduates who not only understand sustainability concepts but also possess the practical skills to implement them in professional settings.

To achieve this, universities must integrate ESG education into both undergraduate and postgraduate programs, ensuring it is not confined to specific disciplines but rather embedded across diverse fields of study. This includes not only business and management courses but also engineering, science, arts, and humanities. Introducing modules that focus on sustainability challenges, ethical leadership, and governance practices will create well-rounded graduates capable of navigating complex ESG landscapes.

Interdisciplinary courses, experiential learning opportunities, and industry partnerships can bridge the gap between theory and practice. By incorporating real-world case studies and promoting hands-on experiences, universities can produce graduates who are not only ESG-literate but also equipped to drive change in their respective fields. According to White and Garcia (2025), practical ESG education significantly enhances

students' employability and readiness to contribute to sustainable practices in their careers.

Moreover, integrating service-learning projects and internships with organisations that prioritise ESG can provide students with practical exposure to sustainability initiatives. These experiences allow students to apply their knowledge in real-world scenarios, fostering critical thinking and problem-solving skills. By developing curricula that prioritise critical engagement with ESG topics, universities can prepare students to become proactive leaders in promoting sustainability and social responsibility.

Beyond Greenwashing: Driving ESG Integrity

'Greenwashing'—in which institutions create a false facade of sustainability without concrete action— represents one of the key hindrances to widespread adoption of genuine ESG. To combat this, universities must prioritize transparency and accountability. This involves publicly sharing ESG performance data, conducting independent audits, and establishing clear benchmarks to track progress.

Investment strategies also play a critical role in reinforcing ESG commitments. Universities should not invest in industries and practices that are not aligned with sustainability goals and contradict institutional values. Such practices not only build institutional credibility but also demonstrate a firm commitment to authentic ESG integration. As noted by Patel and Singh (2021), transparency in ESG practices strengthens stakeholder trust and institutional reputation.

Standardizing ESG: ISO's Role in Meaningful Change

In November 2024, ISO introduced new ESG Implementation Principles to streamline ESG practices worldwide, aiding organisations of all sizes. This union was triggered by the surge

of ESG regulations by 155% globally in the last decade, creating a challenging landscape for consistent reporting across different jurisdictions, company sizes, and sectors.

Integrating ESG with ISO standards can enhance the credibility and effectiveness of sustainability initiatives within universities. ISO principles provide structured frameworks that support consistent implementation, robust auditing, and transparent reporting. For instance, adopting ISO 37001 (Anti-bribery management systems) and ISO 50001 (Energy management systems) can strengthen governance and environmental management, respectively.

By aligning ESG strategies with internationally recognised standards, universities can build trust with stakeholders, reduce risks associated with greenwashing, and contribute to global sustainability benchmarks. Anderson (2023) argues that the synergy between ESG and ISO standards not only enhances institutional performance but also drives meaningful societal impact.

The path forward for ESG adoption in Australian universities is at a critical juncture. Institutions that approach ESG as a strategic imperative rather than a compliance obligation will be well-positioned to lead meaningful change. By embedding ESG principles into governance, financial models, curricula, and investment strategies, universities can enhance their global standing and build resilience in an unpredictable landscape.

A forward-thinking approach—characterized by data-driven accountability, cross-sector collaboration, and innovative practices—will determine whether ESG initiatives translate into genuine transformation or fade into bureaucratic formalities. As universities navigate this evolving landscape, the integration of ESG with ISO standards will serve as a benchmark for institutional excellence. The coming years will reveal whether Australian universities can rise to this challenge, setting a new standard for sustainability and social responsibility that extends far beyond academia.

References

Anderson, P. (2023) 'Integrating ISO Standards into ESG Frameworks', *Journal of Higher Education Management*, 15(2), pp. 180-194.

ESG News (2025) 'ISO Launches Global ESG Implementation Principles at COP29', *ESG News*. Available at: https://esgnews.com/iso-launshes-glowal-esg-impl;ementation-principles-at-cop29/#, 15 November 2024.

Freeman, R. E. (1984) *Strategic Management: A Stakeholder Approach*. Boston: Pitman.

Johnson, L., Smith, R., and Brown, T. (2024) 'Sustainability in Higher Education: Financial Models and ESG Integration', *Australian Educational Review*, 19(4), pp. 230-250.

Li, X. and Thompson, J. (2022) 'Collaborative Governance in Higher Education: Balancing Sustainability and Academic Freedom', *Journal of Educational Policy and Governance*, 15(3), pp. 250-267.

Li, Y. and Thompson, J. (2022) 'Balancing Regulation and Academic Freedom in ESG Implementation', *Education Policy Journal*, 10(1), pp. 50-67.

Patel, S. and Singh, M. (2021) 'Transparency and Accountability in ESG Practices', *International Journal of Institutional Management*, 8(3), pp. 122-138.

Smith, R. and Brown, T. (2023) 'The Role of Leadership in ESG Adoption in Universities', *Sustainability and Governance Review*, 14(1), pp. 98-115.

White, D. and Garcia, L. (2025) 'Preparing Students for ESG-Driven Workplaces', *Higher Education Journal*, 20(5), pp. 310-328.

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CHAPTER 22

Universities Are Only Valuable Because We Agree They Are: Higher Education in the Next Five (Years)

Craig Ellis
February 2025

"If you were shipwrecked on a desert island, what would you prefer, a bag of potatoes or a bag of gold?' 'Yes, but a desert island isn't Ankh-Morpork!' 'And that proves gold is only valuable because we agree it is, right? It's just a dream. But a potato is always worth a potato, anywhere". – Terry Pratchett, 'Making Money'.[22]

In the earlier stages of my academic career – now spanning over 30 years – I spent many an hour at open days and other promotional events talking to potential students about what they wanted to study and why. As I would usually be advising on potential opportunities following the successful completion

[22] Pratchett (2007, p256)

of a generalist business degree, I would invariably conclude with a casual reminder that future employees would usually train new graduates in the specifics of their role, and in that regard a degree qualification principally served to demonstrate a graduate's ability to learn. My advice - though unpopular among academic colleagues fixated on higher education as a pathway to success in a pre-defined career - was a reminder that the accumulation of knowledge makes learning easier, and that *learning* is what mattered.

Whereas universities were once regarded as places of learning for personal growth, modern students' perceptions of higher education and the role of universities is one of 'credentialing' more so than 'educating'[23], and the perceived value of university issued degrees is itself in decline.[24]

In an age when the increasing cost of higher education is a barrier to entry for potential students and where information is effectively free, this short work examines two of the principal services of universities – creating and disseminating knowledge; and credentialing learning, and how both must evolve over the next five years determine universities' long-term relevance.

Information is ubiquitous, less so wisdom and truth

Depending on who your read, the world's earliest universities date back to the late 11th century (University of Bologna)[25], or as early as the mid-9th century (University of Al-Quaraouyine)[26]. It was not until the early 13th century howev-

[23] Nonis and Swift (2001, p74)

[24] https://usprogram.gatesfoundation.org/news-and-insights/articles/student-perceptions-of-American-higher-education

[25] https://www.britannica.com/topic/university

[26] https://www.dailysabah.com/life/history/al-qarawiyyin-worlds-oldest-continually-operating-university-was-founded-by-a-muslim-woman

er that universities began issuing degrees and not until the 17th century that the first scholarly journals were published and universities began systematically *creating* knowledge rather than just curating it and providing instruction in it.

It was by the process of knowledge creation and controlled dissemination via scholarly publication that universities assumed their self-appointed role as custodians of knowledge. In an age when written information was collected and stored on paper only, access to it and the knowledge contained within was limited to those with the means to acquire it.

The university tradition of knowledge creation – albeit now arguably driven by the aphorism "publish or perish" – continues to the present day. As of 2022, it is calculated that over 5.14 million academic papers are published each year[27], though estimates widely vary as to how much of the published research is actually read and/or cited. Whilst the advent of digital optical disc data storage in the early 1980's widened accessibility to information, it was not until the widespread pubic adoption of the internet beginning in the mid-1990's that information became ubiquitous and with the advent of the smartphone, portable. In 2024 it is estimated that the total amount of data created and consumed globally on the internet is 149 zettabytes [28] - the equivalent of 74,500,000,000,000,000,000 pages of standard printed text.

Only one month after concluding his deal to acquire 'Twitter' (now 'X') in 2022, changes made by Elon Musk to the workforce and policies at the social media platform have arguably seen a significant increase in the level of published misinformation.[29] Citing concerns over censorship of free speech,

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[27] https://wordsrated.com/number-of-academic-papers-published-per-year/

[28] https://www.statista.com/statistics/871513/worldwide-data-created/

[29] https://healthfeedback.org/misinformation-superspreaders-thriving-on-musk-owned-twitter/

'Meta' CEO Mark Zuckerberg announced in January 2025 that their social media platforms (including 'Facebook' and 'Instagram') would cease independent third-party fact-checking.[30]

The 'DIKW pyramid'[31] is one of a family of models used to describe the hierarchical relationship between Data, Information, Knowledge, and Wisdom wherein effectively information is organised data; knowledge is applied information; and wisdom is the evaluated understanding of knowledge. Often used as a framework for illustrating how data is processed, the DIKW pyramid can also provide useful insight into the present and necessary future role of universities.

Despite universities' rapid historic evolution from curators to *creators* of knowledge, they effectively still only operate up to and at the 'Knowledge' level of the DIKW pyramid, i.e. collecting and organising data, and applying information. We presently live in an age with an over-abundance of data where we are being challenged to decipher the relevant from the trivial. The widened accessibility to information has come with the capability to create new information, and with that misinformation – the latter arguably made even more prevalent with the emergence and growth of generative AI created content. Additionally, the abandonment of independent fact-checking by the largest social media platforms mean we too are being challenged to determine fact from falsehood. To maintain their relevance in an age where knowledge is ubiquitous, and its very creation is being rapidly re-assigned to generative AI, universities must necessarily evolve again to instruct instead in the evaluated understanding of knowledge. Wisdom will be the new value-add, and by training in 'wisdom' rather than 'knowledge' universities can equip current and future genera-

[30] https://theconversation.com/meta-is-abandoning-fact-checking-this-doesnt-bode-well-for-the-fight-against-misinformation-246878

[31] https://en.wikipedia.org/wiki/DIKW_pyramid

tions of students to critically reflect and make informed judgements about the both relevant and the factual. "Wisdom-generating systems" – to quote from organisational theorist Russell L. Ackoff – "are ones that man will never be able to assign to automata"[32]

Assuring and credentialing learning

In the formal learning environment of university study where learning is credentialed by means of awarding a degree, assuring that said learning has occurred requires measuring students' achievement against a set of pre-specified learning outcomes aligned to a program of study. This is normally achieved via a structured sequence of summative assessments undertaken throughout the student's enrolment in a degree.

Assuring and credentialing the outcomes of informal learning where knowledge is accrued via self-directed learning or experience is however more complex. Informal learning by its very nature is typically unstructured, and hence assurance first requires the level and scope of any accrued knowledge to be determined before the equivalent learning outcomes achieved can be identified and assessed. This typically requires a laborious and individual assessment of a portfolio of evidence constructed by the student; student interviews; and/or independent individual testing of a student's knowledge and skill against pre-determined criteria. The unstructured nature of informal learning may additionally pose a challenge for universities when students' informal learning does not clearly align to their finite set of pre-specified learning outcomes.

In recognising the legislative right of universities to credential learning by means of awarding degrees, employers are in effect permitting universities to bear the cost of assuring learning. Arguably so long as this cost exceeds the potential benefit

[32] Ackoff (1989, p9)

to employers – namely evidence that a graduate has attained a relevant set of knowledge and/or skills – they [employers] should have little motivation to infringe upon this right. Cost aside, comes a question of relevance. Arguably too, so long as the learning being credentialed meets employers' current needs the right of universities to assure learning and issue credentials should not be infringed upon.

The 2010's saw a shift in the status quo for universities as the introduction and rapid uptake of massive open online courses (MOOCs) and digital badges as a form of certification challenged not only their right to issue credentials, but also how credentials were issued. The trend towards shorter more specialised courses, albeit absent of holistic assurance of learning, allowed providers to be nimbler in their response to the changing needs of the market. Despite being widely recognised by employers – Kent Walker, President of Global Affairs at Google's parent company 'Alphabet' tweeted in July 2020 that Google will treat their 6-month Career Certificates as being equivalent to four-year degrees for related roles[33] – the vast majority of online certifications are not yet formally accredited by regulatory agencies for higher education in most jurisdictions.

From three courses in 2011, there are as at the time of writing over an estimated 250,000 online courses from over 1,500 university and 2,400 non-university providers[34] offering a variety of certifications including micro-credentials and professional certificates. Arguably however the greater threat to universities is not the increased competition from non-university providers, but rather the slow and systematic devaluation of degrees as a form of credentialed learning as micro-credentials and their like gain professional status. Too, as gen-

[33] https://x.com/Kent_Walker/status/1282677443652976642

[34] https://www.classcentral.com/

erative artificial intelligence becomes increasingly capable of creating knowledge and aspects of business careers in disciplines including accounting, finance, marketing and HRM face long-term redundancy, we must question if the investment in assuring and credentialling learning via award of a degree – in these disciplines at least – is still valuable.

Amidst the rapid development and uptake of micro-learning, universities must re-think their approach to long-form (i.e. degree) course design, and to the principles and processes underlying their existing methods of assurance of learning. Units – the traditional building blocks of degrees – and the relationships between them within degrees will need to reimagined; carved into smaller parts again to allow themed micro-learning objects to be easily added and removed as dictated by the needs of the market. This nimbler and more responsive approach to course and unit design will also necessitate a more holistic approach to assessment design and ergo, assurance of learning processes. Project-based assessments that span across multiple units in a degree and which require students to draw upon various different learnings will become more common. Such assessments will cumulate in a digital portfolio of evidence that assures students' learning across multiple domains, and which students themselves will use to demonstrate their proficiency in their chosen field to potential employers.

Universities must adapt in the next five years and beyond, not only in terms of their instructional design and delivery, but also in how they define and validate credentials; leveraging their competitive advantage in assuring learning. Only so long as they continue to provide services that cannot easily be replicated by non-university providers will we still agree that universities are valuable.

References

Ackoff, R 1989, 'From data to wisdom. Presidential address to the ISGSR, June 1988', Journal of Applied Systems Analysis vol. 16, pp. 3-9.

Carniel, B (ed) 2023, *Misinformation superspreaders are thriving on Musk-owned Twitter*, viewed 17 February 2025, https://healthfeedback.org/misinformation-superspreaders-thriving-on-musk-owned-twitter/

Curcic, D 2023, *Number of Academic Papers Published Per Year*, viewed 14 February 2025, https://wordsrated.com/number-of-academic-papers-published-per-year/

Gates Foundation, Edge Research & HCM Strategists 2024, *Student perceptions of American higher education*, viewed 14 February 2025, https://usprogram.gatesfoundation.org/news-and-insights/articles/student-perceptions-of-American-higher-education

Nonis, S & Swift, C 2001, 'An examination of the relationship between academic dishonesty and workplace dishonesty: a multicampus investigation', *Journal of Education for Business*, vol. 77, no. 2, pp. 69-77, DOI:10.1080/08832320109599052.

Pratchett, T 2007, *Making Money*, HarperCollins, New York.

Sakay, Y.N 2020, *Al-Qarawiyyin, world's oldest, continually operating university, was founded by a Muslim woman*, viewed 14 February 2025, https://www.dailysabah.com/life/history/al-qarawiyyin-worlds-oldest-continually-operating-university-was-founded-by-a-muslim-woman

Taylor, P 2024, *Volume of data/information created, captured, copied, and consumed worldwide from 2010 to 2023, with forecasts from 2024 to 2028*, viewed 17 February 2025, https://www.statista.com/statistics/871513/worldwide-data-created/

Watt, N, Riedlinger, M & Montaña-Niño, S 2025, *Meta is abandoning fact checking - this doesn't bode well for the fight against misinformation*, viewed 17 February 2025, https://theconversation.com/meta-is-abandoning-fact-checking-this-doesnt-bode-well-for-the-fight-against-misinformation-246878

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CHAPTER 23

Count Backwards from 5

Poppy Whateley
February 2025

If you had told me ten years ago that a pandemic would strike, forever altering life, work, and health as we knew it, I would not have believed you. If I told you now - that in another five years, Australia would be facing a domestic student crisis, would you believe me?

The pandemic taught us a few key lessons: (1) Necessity is the mother of invention. (2) Unlike Sydney's transport system in the rain, education systems *can* be rapidly adapted. (3) Everyone is traumatised.

Most headlines during the pandemic focused on the waves of offshore international students who could not come to Australia to study, profoundly impacting thousands of learners and dealing a near-devastating blow to the economy. Let's not forget that education is Australia's fourth-largest export, valued at approximately AUD $51 billion (Department of Education, 2025). What received far less attention was the impact on domestic students – those who could not leave the country, or even their homes.

While Australia attracts a large influx of international students – who make up roughly a quarter of university enrolments – far fewer Australian students study degrees abroad (Studymove, 2019). Yes, student mobility data shows that nearly 25% of Australian students undertake some portion of their degree overseas (PIE News, 2019), but this is not a country where students typically leave for their entire education. Is it because of geographic isolation – are appealing options simply too far away? Is it the financial barrier – does easier access to HECS-HELP loans keep students studying onshore? Or is it linguistic – are we just not a nation of polyglots, preferring to stay put? Australians love to travel, yet when it comes to education, they overwhelmingly choose to stay. So why are domestic students so often overlooked?

Compared to their peers in the UK, US and Canada, Australian students not only rarely study abroad, but they barely study interstate. Thanks to the relatively uniform quality of education across Australian states, students largely stay within their home cities for tertiary education. This creates localised education "bubbles." Victorians have access to eight public universities within their state. Tasmania – an island state with just over half a million people – has three campuses of the University of Tasmania. New South Wales boasts eleven universities. This structure fosters parochial privilege: Greater Western Sydney students remain at Western Sydney University and avoid the tolls, the North Shore and Hills crowd sticks to Macquarie University so they do not have to travel south, private school graduates flood the University of Sydney so they do not have to meet anyone new, UNSW draws in the locals so they do not have to leave the Eastern Suburbs, and the University of Wollongong serves the coastal cohort who refuse to part from sand and surf at all times.

Despite these choices, domestic students across Australia are struggling – *and* most do not even have upfront tuition costs. So why is it still so difficult?

The Australian government estimates that a student's annual cost of living is around AUD $29,710, covering accommodation, food, utilities, and other essentials. That's roughly $600 per week. A student earning minimum wage ($24.10 per hour) while working two to three days a week would make around $580 *before* tax. It's a setup for failure.

The traditional university model of full-time study needs to evolve. Students cannot afford to balance study, work, and basic living costs if they are perpetually struggling to make ends meet. They need the flexibility to work more hours without compromising their academic progress. If they study full-time, they may qualify for student support payments – yet these often fall short of covering even basic expenses. If they reduce their study load to work more hours, they risk losing financial support altogether, trapping them in a vicious cycle. The reality is simple: you *cannot* study if you *cannot* afford to live.

To remain viable, universities must rethink their approach. Timetables should be more adaptable, enabling students to study full-time while accommodating their financial realities. Otherwise, institutions risk losing their core demographic – domestic students – to alternative pathways.

5, 4 – Bridging the Gap: A System that Supports Students

The financial burden is just one part of the problem. The housing crisis and soaring rent prices further exacerbate students' struggles. Universities need to invest in student accommodation – not just for international students but for domestic ones as well. If international student caps become a reality,

there will be a decline in demand for student housing, presenting an opportunity to offer subsidised living for local students.

Public universities might also consider raising tuition fees to align with private providers – but in return, they should *provide* more. Imagine a model where tuition covers not only course fees but also housing, meals, and study materials. A student could pay AUD $70,000 per year, but in exchange, they would receive comprehensive support, allowing them to focus solely on their education. With fee HECS-HELP loans remaining in place, students could defer payments until they earn enough to repay their debt. Such a system would fast-track graduates into the workforce, enabling them to start repaying their loans sooner – benefiting both individuals and the economy as a whole.

This shift would not just improve affordability; it would create a higher education model that nurtures students rather than leaving them to fend for themselves. If universities genuinely invested in their students' wellbeing, the next generation could complete their studies without the added weight of financial stress.

3, 2 – A Future Rewritten by AI

With the rise of AI, we are on the brink of a massive workforce transformation. Automation will replace countless jobs, rendering some skills obsolete while creating new roles that require a distinctly *human* touch. You can see this shift in two ways: either hundreds of jobs will disappear, or hundreds of new jobs will emerge, filled by individuals with adaptable skills that technology cannot replicate.

I see this as an opportunity. The need for human-centric professions – psychologists, psychiatrists, counsellors, mental health officers, social support workers – will only grow. No matter how advanced AI becomes, human emotions and strug-

gles will not disappear. A robot can provide information, but it cannot offer *genuine* empathy. I firmly believe that in times of distress, people will still prefer to cry on someone's shoulder than the right-angle crook of steel of a robot.

Students today need more than just academic guidance; they need emotional and mental support. When I started in education in 2011, 10% of students selected 'mental health challenge, or other' on their admissions form. Last year, 98% of my students selected that box. Universities should integrate pastoral care into their services, ensuring students receive the help they need to navigate both their studies and personal challenges. Just as Australia's healthcare system provides subsidised mental health care plans, universities should embed mental health support into tuition costs. If domestic students paid for subsidised health coverage as part of their education fees, they could access essential mental health services throughout their studies – without added financial stress.

I don't just think this *could* be a reality by 2030 – I believe it *must* be.

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1 – Reimagining Higher Education

Students need urgent support. They need flexibility. They need an education system that *works for them* – one that empowers them rather than leaving them in a cycle of financial struggle. I hope the next five years see a shift away from the relentless focus on international students, with some long-overdue attention paid to domestic students – the ones who are here to stay.

And five years beyond that?

Who knows? Universities may transition to podcast-style lectures, tenure might become obsolete, and assessments could revert to oral exams and hands-on application to thwart the omnipres-

ence of AI. And, given the state of global affairs, there is a chance that military service or specialised training could be offered as a pathway to clearing student debt.

The future is uncertain – but if we are counting backwards from five, we must hurry up and change things for the better.

References

Department of Education (2025). *Education export income - Financial Year - Department of Education, Australian Government*. [online] Department of Education. Available at: https://www.education.gov.au/international-education-data-and-research/education-export-income-financial-year.

Menchin, J. (2021). *Aus: students going overseas rose 11% in 2019*. [online] The PIE News. Available at: https://thepienews.com/aus-25-of-ugs-had-international-experience-in-2019/ [Accessed 28 Feb. 2025].

Studymove (2019). *What is the percentage of international students in Australia?* [online] www.studymove.com. Available at: https://www.studymove.com/index.php/news/31-what-is-the-percentage-of-international-students-in-australia.

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CHAPTER 24

A strategy for change in the future management of higher education

Om Huvanandana
February 2025

With the turn of the 20th century, there was a movement to break down the global wall on resources mobility through deregulation, information and communication technology (ICT) leading to an increase in competition and a disruption of market structure with a case in point, the entry of low cost airlines into the aviation industry that resulted in the need of big carriers to adjust their business plan and strategy.

After globalization in full force, then followed an interconnected world through the internet popularly known as the world wide web as a foundation for communication in knowledge and learning, besides facilitating the flow of trading activities, from all kinds of media

See – Globalization - https:Search.app /WQ

The Emergence of Behavioral Disruption

Arpanet was created in 1969 and provided the stepping-stone for worldwide network that later became known as internet.

Nowadays, through the internet, everyone can have access to knowledge from a number of providers, and by a number of means including - Power-point or Video and YouTube. The information is updated non-stop in minutes and recent business cases uploaded almost instantly.

Not only does this make business more efficient with lower risks, but also makes education *from anywhere* more flexible and accessible to a wider audience. Nowadays educators think beyond their borders and are able to achieve regional and global *reach out* in order to achieve sustainability.

See - Whateley - The next 5 (years) - 6113ad_ad083e7f7a5c43188158ddfd225d30dc.pdf

In Australia there were about 524,514 students enrolled in higher education institutes and almost 23% or 115,265 students enrolled in offshore programs and the percentage has been increasing,

See - Offshore delivery of Australian higher education - www.education.gov.edu

The Neo Generation

However, the changes in the technologies have also developed a new generation that comes with a change in mindset and behavior - different to the past generations that more or less, are slow adaptors to the new technological environment - as they hardly experience the digital disruption in their lifetime.

With increasing use of information, communication and technology, people were classified in different age-born groups along the following usage of technology -

Baby Boomers Born: 1946-1964	Telecommunication (Telex, Fax)
Generation X Born: 1965-1979	Electronic mail system (email)
Generation Y Born: 1980-1994	Usage of ICT: Online (linked)
Generation Z Born: 1995-2009	Usage of ICT: Digital (social)
Generation Alpha Born: 2010-2024	Usage of ICT: In situ (real-time)

The different means of communication available for different generations have an impact on their mindset, value and attitude towards lifestyle, work preference, and behavior in different setting, such as in school and learning style.

Broadly speaking - people in the Baby Boomers and Generation X classification, with less influence from the technology are more interdependent, sociable and discipline in their lifestyle. Whereas people in the Generation Y and Z classification have more access to technology and their behavior is more independent and ready for change than the previous generations.

For example, it has been alleged that Gen Z has a tendency to reject outdated leadership by ready to quit their workplace. They look for transparency, fairness, and psychological safety with a focus on mental health.

The intangible benefits are valued more than from the previous generations, and unless otherwise provided enough to satisfy them, they will slowly quit the company.

See - https:www.fastcompany.com/91281732/gen-z-isnt-quiet-quitting-theyre-rejecting-outdated-leadership

As a result, the company will be losing Gen Z talent and that will in turn affect long-term company competitiveness.

Therefore, the Neo Generation attitude towards work will require the leadership to be sensitive and the company adjust

their human resource policy to be more worker-centric in order to maintain the workforce and enhance productivity.

Changes in Education

The *Neo Generation* will be the Big Change Agents in the educational transformation.

The Gen Zs are entering college and Gen Alpha is coming to schools.

Some schools in the US have already experienced a radical change in student behavior.

See-
https;www.google.com/gasearch?q=behavior%20of%20gen%20z%20and%20%alpha&source=sh/x/gs/m2/5#pstate=ive&vld=cid.d4ba49ea,vid:Tpc9X7Izc,st:0

Similar behavior patterns can also be expected from future college students. A typical example is no or little attention to class lectures and participation - as they cannot keep their eyes off the mobile phone.

Therefore, there must be a change in the way the educational institutions deliver their programs that would redesign the curriculum and delivery style, and restructure the program to include communication skills, external study, and professionalism.

What does this mean to the teaching approach of an institution at all levels?

Must we, as an institution, prepare and implement the plan of action to cope with the changes?

What should be our starting point to embark on this journey?

An Action Plan for the future

First is to look at the bottleneck to the plan of transformation.

The list can include the governance rules and regulations by the external forces from the ministry of education that enforces the standard operating procedure to ensure a quality of education. The rules benefit the students as 'consumers' of educational service protection.

Neo-Gen has different needs and tastes for the services, so in order to create a win-win for all stakeholders, an adjustment to the rule should be considered and initiated. Internally the educational institutes also write and practice their own governance to be observed by all personnel from teachers to staff.

Normally the self-governing norm has been initiated by the institute's founder and formed its own culture that bonds all personnel together. This norm should also be considered for change and discussed among all staff as well.

A few suggestions are offered for external and internal organizations for consideration to change and will include -

1

The door must be more open to student recruitment to accommodate differences in demand for education by the Neo Generation in terms of flexibility, on and off campus study programs, and a significant mix between work and study.

2

To provide the service effectively - professional people must be both permitted (and available) or take part to teach in the program.

3

Study from the workplace programs, as an option, should be initiated for offshore and onshore delivery

4

The full-time faculty staff should be talented with good character, and up to date with what is going on in the world.

Finally, the market should be extended beyond the border to set up a program with other countries and regions, bringing the Neo Generation together, to appreciate the cross-cultural diversity and inherent inclusivity.

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CHAPTER 25

Mind The (AI Skills) Gap - Who will train us for the GenAI Future

Andrew West
February 2025

We are facing a generative artificial intelligence (GenAI) adoption paradox. With the release of ChatGPT 3.5 only a bit more than two years ago in November 2022, it took many in training

and education by surprise. In 2024, workplace adoption outpaces employee preparedness in the Gen AI era, while it is unclear who will do the training.

The integration of GenAI into workplace operations has reached unprecedented levels. While 82% of organizations now deploy GenAI tools, only 33% of employees received related training in 2024 (Germaine, 2024). This 49 %-point gap reflects systemic failures in aligning technological adoption with human capital development. The challenges obstructing progress are not merely technical but stem from interconnected organizational, demographic, pedagogical, and policy failures that demand urgent intervention. Creating a skills chasm that threatens workforce stability, innovation capacity, and organizational competitiveness (Case, 2024). Furthermore, even though only 36% of employers conduct GenAI training, 66% of global leaders said they would not hire someone without AI skills (Microsoft, 2024).

This article examines the impact of this GenAI training gap over the next five years. It analyses the multidimensional nature of this training gap, examining its socio-technical drivers, demographic disparities, and potential solutions to be implemented by 2030.

GenAI Transformative Impacts on Workplace Efficiency

Generative AI has revolutionised operational paradigms across sectors, demonstrating measurable productivity gains. Salesforce reports that 80% of business leaders anticipate GenAI-driven revenue growth through enhanced customer insights and process optimization. The technology's capacity for rapid data analysis, content generation, and predictive modelling has made it indispensable in fields ranging from healthcare diagnostics to financial forecasting (Chuang, Shahhosseini, Javaid and Wang, 2024).

However, this efficiency comes with workforce implications. MIT CISR research reveals that 38% of employees require fundamental retraining within three years to remain relevant in AI-augmented roles (Van der Meulen, Tona, Leidner, 2024). The automation of routine tasks through tools like AI-powered CRM systems and automated report generators has shifted competency requirements toward hybrid technical-interpretive skills. Those who are not trained are likely to lose their jobs or not be able to achieve future work.

The Emergence of New AI-Centric Roles

Even though there are many predicted job losses with the introduction of GenAI, there will be many new jobs created. Labor market analyses identify 113,300 data scientist positions in the U.S. alone, with 11% projected growth through 2031. Emerging roles such as AI ethicists, prompt engineers, and machine learning operations (MLOps) specialists demand competencies that blend technical AI literacy with domain-specific expertise (Hu and Downie, 2024). For instance, mechatronics technicians now require proficiency in AI-driven predictive maintenance systems, while marketing professionals must master GenAI content optimization tools (Chuang, Shahhosseini, Javaid and Wang, 2024).

This evolution creates a dual challenge: upskilling existing workers while preparing new entrants. IBM projects a 50% AI talent gap by 2025, with demand particularly acute in industries undergoing rapid digital transformation like healthcare and advanced manufacturing (Van der Meulen, Tona, Leidner, 2024). Just as there were no job advertisements in social media in 1999, with the new technologies of Web 2.0 and smartphones, new positions in social media and digital media have grown dramatically. This will also be the case with GenAI jobs. As with most digital technologies, the speed of change and

impact of Gen AI is growing exponentially across all aspects of society. Therefore, the longer the GenAI skills training gap exists, the wider it will be, unless comprehensively addressed.

Gaps in Training Provision

Cross-industry data reveals systemic underinvestment in AI upskilling. While 75-80% of organizations have adopted AI technologies, only 33% provided related training in 2024 (Case, 2024)

Metric	Adoption Rate	Training Rate	Gap
GenAI Tool Implementation	68% (Srivistava)	36%(Srivistava)	-32 points
AI Policy Awareness	94% (Case)	60% (Case)	-34 points
Leadership Confidence	82%(Clarkson)	54% (Clarkson)	-28 points

Demographic Divides in AI Competency Development

The training gap exhibits pronounced demographic dimensions, reinforcing previous digital skills gaps and further disadvantaging certain groups. The gender disparity has transferred to GenAI with 38% of female employees reporting equal access to AI training compared to 47% of male counterparts. Women also express lower confidence in training effectiveness (25% vs 35%), potentially exacerbating existing gender gaps in tech leadership (Rathnayake, Gunawardana, 2024).

There also exists age-related barriers. While 50% of workers over 55 express interest in AI training, only 13% receive employer-supported opportunities. Legacy systems and interface designs often disadvantage older workers, with 72% reporting

difficulties adapting to AI tools without targeted support (Chuang, Shahhosseini, Javaid and Wang, 2024).

These demographic divisions are further exacerbated by the inconsistencies in the industry sector adoption of GenAI. The male-dominated industries of technology and finance sectors provide 58% of AI training programs. This compares to 22% in the female comminated industries of healthcare and 18% in education (Van der Meulen, Tona, Leidner, 2024). This disparity risks creating GenAI "deserts" in critical human-focused industries and public sectors. Of concern is the lack of training of the educators who should be preparing students for future careers.

There is a high level of anxiety about the future of work and impact of GenAI. A Salesforce survey found that 43% of employees fear replacement by AI-proficient colleagues, rising to 52% among Gen Z workers. This anxiety fuels resistance: 47% of learning and development professionals report staff reluctance to adopt AI tools perceived as threatening job security. The paradox is striking - while 94% of employees want AI skills, 61% hesitate to engage with training programs they associate with displacement risks (Maggioncaldi, 2024). There are personal psychological fears, risk aversion, and change resistance to be overcome as antecedents to successful GenAI training.

Organizational Inertia and Resource Constraints

A 2024 Australian industry report revealed 43% of businesses deprioritize AI training due to competing operational demands, while 38% cite budget limitations as primary constraints (Williams, 2024) This resource fragmentation creates cascading effects: 72% of employees lack dedicated time for upskilling, and 58% of L&D departments report insufficient funding for AI programs (Williams, 2024). The consequence is

a "training triage" where organizations prioritize immediate productivity over long-term competency building.

Structural inertia compounds these issues. MIT Sloan research demonstrates that 66% of C-suite leaders underestimate frontline AI adoption challenges (Favreau, 2024), while 54% of companies lack centralized AI governance structures (Germaine, 2024). This disconnect manifests in duplicated efforts - one multinational reported 17 separate AI training initiatives across divisions with 43% content overlap4. Without coordinated strategies, organizations waste resources reinventing curricula rather than scaling effective programs.

Despite recognized needs, multiple barriers impede training initiatives. A 2024 Randstad study found that only 28% of organizations have dedicated AI adoption budgets, with most relying on fragmented departmental initiatives (Case, 2024). This fragmentation leads to duplicative efforts - one multinational reported 17 separate AI training programs across divisions with 43% content overlap (Van der Meulen, Tona, Leidner, 2024).

The absence of AI-focused leadership roles exacerbates implementation chaos. Only 22% of HR departments conduct algorithmic bias audits, and 40% of organizations lack clear AI use policies. As Juan Betancourt, CEO of Humantelligence, observes: "There is no Chief AI Officer role bridging the gap between IT implementation and workforce development" (Germaine, 2024). This governance vacuum leaves training initiatives siloed between incompatible departmental budgets and objectives.

Executive priorities often misalign with workforce needs. While 82% of C-suite leaders express confidence in AI readiness, only 54% of middle managers share this view4. This cognitive dissonance manifests in underinvestment - 72% of companies allocate less than 5% of IT budgets to AI training despite 80% anticipating revenue growth from AI adoption (Maggioncaldi, 2024).

Policy, Ethics and Governance Gaps

To facilitate the closing of the GenAI training gaps, an international approach is required. This has proven difficult as the three main centres of GenAI research and development (USA, EU, and China) have taken divergent approaches to GenAI. Whereas the EU has taken a cautious approach, with ethical guard rails legislated, China and the USA have taken a more laissez-faire approach. There are no international standards governing AI literacy certification, creating credential chaos. The EU's Digital Education Action Plan mandates 20 annual AI training hours but lacks enforcement mechanisms, while 67% of employees report uncertainty about ethical guidelines. In the U.S., 40% of organizations operate without clear AI policies, exposing workers to unregulated tool deployment (Case, 2024).

At the industry level, there are also gaps as regulatory frameworks lag behind technological realities. This is evident as 40% of organizations lack clear AI use policies, 22% of HR departments conduct algorithmic bias audits and 67% of employees report uncertainty about AI ethics guidelines (Rathnayake, Gunawardana, 2024). The absence of standardized AI proficiency certifications further complicates workforce development. While Microsoft and Google offer vendor-specific credentials, no universal competency framework exists - a gap highlighted by 78% of hiring managers (Hu and Downie, 2024). The sociotechnical systems framework emphasizes balancing technological capabilities with human-centric design principles. Good practice is to implement mandatory ethics training that precedes technical AI certification, with continuous monitoring of tool impacts on work quality.

Higher Education Challenges to be Addressed

In Australia, there is a recognition of the role to be played by higher education in the AI skills acquisition and research into the ethical and societal impacts of GenAI. The Tertiary Education Quality Standards Agency (TEQSA, 2024) has gathered responses from Australian universities on their approach to GenAI, addressing issues of academic integrity, authentic assessment, and limited responses on GenAI skills acquisition across a range of disciplines. A recent study by MacDonald et al (2024), of 3,421 academic and professional staff from 17 Australian universities found that 71% of responses had used GenAI for their university work. The highest cohort use group was senior staff at 81%, with academic staff 75%, professional staff 69% and sessional staff 62%. This was not uniform across all academic disciplines, with IT, engineering and business departments the highest users of GenAI, with agriculture and environmental studies the lowest. The majority of respondents were self-taught, with few programs for staff training. From 2025, some universities have developed policies that all subjects must have at least one authentic assessment incorporating GenAI. However, the skills acquisition approach by higher education is very spasmodic. There is a clear opportunity for a comprehensive and integrated approach across higher education addressing the GenAI skills gap for all staff and students.

Curriculum Development Challenges

The breakneck pace of AI innovation renders traditional curricula obsolete within months. As of 2024, 78% of hiring managers report no universal AI competency framework exists, forcing organizations to rely on vendor-specific certifications from Microsoft or Google that lack transferability. The Oxford Internet Institute identifies a critical need for dynamic skills mapping through real-time labor market analysis, yet on-

ly 18% of companies use AI-powered competency tracking systems (Pallardy, 2024).

Pedagogical Inadequacies

Current training models fail adult learners: 61% of employees resist sharing performance data needed for personalized learning paths, while 54% of AI tutor users show reduced independent problem-solving capacity (Rojas, 2025). The MIT Sloan study warns that junior employees - often tasked with training seniors - lack expertise in AI risk management, creating dangerous knowledge gaps. Traditional lecture-based formats prove particularly ineffective, with only 22% of learners retaining information compared to 73% using simulation environments (Favreau, 2024).

GenAI Opportunities: AI-Driven Training Personalization

With strategic planning and implementation over the next five years, there are opportunities to leverage GenAI for better training outcomes in GenAI and other required skills acquisition. Forward-thinking organizations now deploy GenAI to address the very skills gaps it creates. Wipro's implementation of AI-powered learning pathways reduced time-to-competency by 40% through adaptive content delivery based on real-time performance data. These systems analyse individual learning patterns, knowledge gaps, and career trajectories to generate customized curricula - a process demonstrated by Google's AI coaching tools that increased engineering team productivity by 18% (Mattina, 2024)

Other key innovations in GenAI training include;

- Dynamic content generation: Anthropic's Claude AI automates 60% of training material creation while maintaining quality benchmarks.

- Competency mapping: Johnson & Johnson's skills inference platform uses natural language processing to analyse 92 workforce dimensions, identifying latent skills for AI role transitions.
- Simulation environments: Salesforce's AI sandboxes allow safe experimentation with GenAI tools, reducing implementation errors by 73% (Van der Meulen, Tona, Leidner, 2024).

Mid-Term Strategies for Closing the Gap

The GenAI skills and training gap is current and real. As outlined above, this gap will only continue or widen without a clear three to five-year strategy and implementation plan. This requires a high level of planning and collaboration across various institutions and levels of our society. Looking internationally, there are a range of positive models of GenAI that may be replicated.

At the government level, there are examples of policy incentives that encourage GenAI training to industry. These include Canada’s AI Training Tax Credit, which offers 35% reimbursement for small and medium enterprises in AI upskilling programs (Hu and Downie, 2024). The EU has also taken steps to assist GenAI training through the EU's Digital Education Action Plan, which mandates for 20 annual AI training hours for all employees (Srivastava, 2024).

There is a recognition at a national level that some sectors and types of jobs will be lost due to automation, and that workforce transition assistance is required. This is designed to support organisations and individual employees to develop and transfer skills to new roles. Denmark's "AI Transition Allowance" provides 6 months' salary for workers displaced by automation, while the U.S. Department of Labor's AI Career Pathways initiative maps 450 role transition routes and pro-

vides support for those impacted by automation (Chuang, Shahhosseini, Javaid and Wang, 2024).

At the institutional level, GenAI skills training includes public-private collaboration for education partnerships. An example is the Singapore government AI Apprenticeship Program, which partners universities with 150 firms to provide applied experiential learning. There is also the German Dual Vocational Training System that integrates AI modules into 327 vocational standards, guiding GenAI skills training (Srivastava, 2024).

Toward Symbiotic Human-AI Workforce Ecosystems

The generative AI training gap represents both a crisis and an opportunity. While current disparities risk exacerbating inequality and stifling innovation, the tools to address these challenges lie within the technology. Organisations adopting holistic strategies that combine AI-driven personalization with human-centered design principles demonstrate measurable success.

Societal institutions must play a major role: regulators, government service providers, primary tertiary and higher education institutions. Policymakers face urgent demands to create standardized frameworks for AI literacy assessment and workforce transition support. As the boundary between human and artificial intelligence continues to blur, our capacity to foster symbiotic human-AI collaboration will determine whether this technological revolution elevates workforce potential or deepens existing divides. The solution lies not in slowing innovation, but in accelerating our commitment to equitable, continuous learning ecosystems that empower workers to co-evolve with the tools reshaping their world. Decisions made and implemented by educators over the next five years are crucial for the future success of integrating GenAI.

References

Case T (2024) AI skills gap widens: Employers embrace AI, but employees left behind, Worklife, https://www.worklife.news/technology/ai-skills-gap-widens-employers-embrace-ai-but-employees-left-behind/, viewed 15 February, 2025.

Clarkson K (2024) What the Use of AI Tells Us About Gaps in Workforce Skills Development, https://www.d2l.com/blog/what-the-use-of-ai-tells-us-about-gaps-in-workforce-skills-development/, viewed 12 February 2025.

Chuang, S., Shahhosseini, M., Javaid, M. and Wang, G.G. (2024), "Machine learning and AI technology-induced skill gaps and opportunities for continuous development of middle-skilled employees", *Journal of Work-Applied Management*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JWAM-08-2024-0111

Favreau P (2024) No Shortcuts Generative AI Upskilling, MIT Management Sloan School, https://mitsloan.mit.edu/press/no-shortcuts-generative-ai-upskilling, viewed 10 February 2025.

Germaine J (2024) Bridging the AI Training Gap in the Workplace, Technewsworld, https://www.technewsworld.com/story/bridging-the-ai-training-gap-in-the-workplace-179379.html , viewed 10 February 2025.

Hu C and Downie A (2024) AI Skills Gap, IBM Think, https://www.ibm.com/think/insights/ai-skills-gap, viewed 12 February 2025.

McDonald, Paula, Hay, Stephen, Cathcart, Abby, & Feldman, Alicia (2024) *Apostles, Agnostics and Atheists: Engagement with Generative AI by Australian University Staff.* QUT Centre for Decent Work and Industry, Brisbane, Qld.

Mattina N (2024) Closing the Skills Gap: How Generative AI is Shaping the Future of Workplace Development, Serena, https://ciaoserena.com/uncategorized/generative-ai-skill-gap-analysis/ , viewed 15 February 2025.

Maggioncaldi J (2024) How to Harness Generative AI and Other Emerging Technologies to Close the Opportunity Gap, World Economic Forum, https://www.weforum.org/stories/2024/06/genai-emerging-technologies-digital-skills/, viewed 16 February 2025.

Microsoft (2024) 2024 Annual Work Trend Index, https://news.microsoft.com/annual-wti-2024/ , viewed 20 Febaruary 2025.

Pallardy R (2024) The AI Skills Gap and How to Address It, Information Week, https://www.informationweek.com/it-leadership/the-ai-skills-gap-and-how-to-address-it , viewed 10 February 2025

Rathnayake, C., & Gunawardana, A. (2023). The Role of Generative AI in Enhancing Human Resource Management Recruitment, Training, and Performance Evaluation Perspectives. *International Journal of Social Analytics*, *8*(11), 13–22. Retrieved from https://norislab.com/index.php/ijsa/article/view/53

Rojas S (2025) Challenges Implementing AI in L&D, Shift, https://www.shiftelearning.com/blog/challenges-implementing-ai-learning-development , viewed 22 February 2025.

Srivastava S (2024) Generative AI Skills Gap Puts Australian Jobs at Risk, People Matters, https://anz.peoplemattersglobal.com/news/technology/generative-ai-skills-gap-puts-australian-jobs-at-risk-report-43467 , viewed 16 February 2025.

Van der Meulen N, Tona O, Leidner D (2024) Resolving Workplace Skills Gaps With AI Powered Insights, MIT Center for Information Systems Research

https://cisr.mit.edu/publication/2024_0401_DigitalTalentTransformation_VanderMeulenTonaLeidner , No XXIV-4, viewed 21 February 2025.

Williams S (2024) Report Highlights Obstacles to AI Adoption in Australia, CFO Tech, https://cfotech.com.au/story/report-highlights-obstacles-to-ai-adoption-in-australia , viewed 16 February 2025.

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CHAPTER 26

Disrupting Analogue spaces

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The physical and digital worlds have become increasingly complex over the past three decades. The internet is one of the biggest industry disrupters in recent memory. Industries, technologies, and ways of being that had existed for centuries shifted overnight. New technologies further heightened the transition from a manufacturing to a services-based economy almost overnight, harkening new employment opportunities whilst destroying existing industries.

There is nothing new in this notion. The emergence of the industrial revolution in the 1800s had a similar effect on work and the populace. Largely agrarian populations became industrialised overnight. What did shift was the emergence of a digital space where the human began to exist in two parallel spaces. The analogue world that has existed for all human history suddenly found itself disrupted in ways that had never existed before.

From printed word to binary code

The World Economic Forum (WEF) in 2020 predicted the blurring of physical and virtual spaces through an increased

uptake in digital technologies (Yoon, 2020). The premise of the WEF was simple: we were increasingly reliant on a technological ecosystem during the biggest health crisis of the last century. It is nearly five years to the day that Australia began to order the first lockdowns that would continue for hundreds of days over a two-year period. Many at the time became increasingly involved in the virtual world. Their realities became increasingly lived out not in the physical realm but instead the virtual realm.

The use of third spaces for discourse became increasingly digital. Third spaces refer to the physical environs of discourse such as the public square. The concept has long been ingrained within our larger society. Traditionally, this was seen to be the coffee houses of Europe when viewed through contextual lens of Western and European histories. The newly minted bourgeoisies and emerging merchant and middle classes were no longer purely reliant on subsistence farming and could, therefore, discuss greater political and cultural issues of the day. In part, the adoption of the Gutenberg printing press fuelled the movement of the new third spaces.

For centuries the idea of third spaces as physical places remained constant only shifting and evolving with the widespread adoption of the internet. Forums and discussion boards became the first online third spaces. Places where relative anonymity and belief in the ability of free speech remaining uncensored became the prevailing view in certain circles. The Overton window would again shift when social media emerged. Initially, a platform like My Space gave users the ability to interact, listen, comment, and create in essence a walled garden.

The notion of creating a walled garden through the creation of online social media platforms in one sense is freedom through the use of individualised platform settings. That is, the creation of a profile that reflects not the genuine physical self but instead an idealised online persona. An avatar of sorts. Fast

forward nearly two decades later and we begin to see the damage that the online world may have done to the physical realm it was envisaged to represent. The critical juncture of the physical and digital becomes more prescient as the two seek alignment.

Merging the world: the online self

The obfuscating effect of the avatar persona can be viewed from two contextual lenses: the first is the sense of falsity of endless Instagram photos or Tik Tok videos showing perfection and an ever-increasing sense that online creators are contented and at peace the entire time. The human condition dictates that this is not the case. No human being is ever happy 100% of the time. At least not without some kind of mood-altering medication. The second lens therefore becomes more interesting.

The online self can therefore become an extension of the physical self. A move towards a carefully curated, but meaningful online existence that disrupts the barrier of the analogue and digital worlds. An avatar that represents the essence of the physical humanity of its creator. An easier proposition than first expected. It is important to note that the human condition in its centre orientation is still somewhat floored. An online representation is potentially open to being misused by either the creator (user) or by other online entities.

Allowing for interaction by other online entities is therefore an important secondary factor. The emergence of Artificial Intelligence has created both powerful tools and powerful headaches. The writing platform medium.com recently found itself at the mercy of an AI onslaught. Every second story became an AI odyssey with whimsical titles and ever-emerging subsets of information. The overall result was for medium.com to cancel many of the offending users from both the partner program and the platform (ILLUMINATION, 2024).

The merging of the online world and the physical environment is well and truly on its way. Kind of. The true answer is that it is more complex than simply moving all analogue activities to the digital sphere. For example: playing a musical instrument, and in particular a Brass or Woodwind instrument, is very much a kinaesthetic activity that requires the whole-body experience. Some activities lend themselves more to the avatar environment of digital realms. They are somewhat creatable in the digital environs.

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A more accurate look at the future will involve an understanding of the past. Humans are creatures of habit and tradition. We are all guilty of bad habits. To err is to be human after all. Part of where that future will land requires a look at the past and its technologies (Pullein, 2024). The emergence of digital technologies is relatively small in the timeline of human history where the paradigm of analogue has been the normative situation. The world according to the WEF prediction of 2020 would be blurred between the digital and physical. This prediction has only partially come true.

One miscalculation on the part of the WEF was to not include the re-emergence of analogue technologies that declined over the last 40 years. One prime example of this was the Vinyl revival amongst a younger demographic. This was fuelled in part from the want and need to touch the physical world. A secondary though more minor factor outside of the world of artists was the royalty deals that streaming platforms such as Spotify offer artists. A third factor was the Taylor Swift Effect.

Swifties as they are known within the Taylor Swift ecosystem have fully endorsed and embraced the release of Swift's albums on Vinyl. This has fuelled an increasing smorgasbord of Vinyl albums released in an era when Vinyl releases were rare

or non-existent. An example of this was the release of the New Radicals album Maybe You've Been Brainwashed too. The album was only released on CD during its 1990s release. A larger emerging nostalgia trend amongst Millennials would therefore account for the endless re-releases of Transformers and Classic Ninja Turtles action figures.

Therefore, it is possible to consider the remote possibility that our lives will become compartmentalised. It is possible that over the next five years that we will see a purely digital self and a purely analogue self. In this scenario, the online persona will not be an inaccurate emergence of the physical. It will become a compartmentalised version of the physical self that is detached from the everyday. The series Severance explores this notion through the emergence of the Innie and Outie personas within the show.

Prediction: One person, Two Personas

It is dialectically possible to consider that in the next five years we will have two personas that represent a clear demarcation from each other. Who we are online will not be who we are in our everyday lives. It is possible to interchange this in a way that mimics the series, Severance. Life sometimes imitates art in the strangest of ways. These can at times seem absurdist or surrealist in their notional displacement of the status quo. Inherently, what is the reality facing the human populace?

The third space, discussed at the beginning of this article, can potentially exist in two places at once. A kind of parallel timeline where both worlds run concurrently but never meet. The crossing of the streams could potentially and philosophically lead to a kind of self-implosion for the person. Therefore, a digital self would in essence exist outside of the physical self. The essence and signature of the person's personality would exist. The traits and mannerisms would be present without the

perceived floors affecting the perception of self in either third space.

Environmentally, this may lead societal networks to many different concluding outcomes. A large part of this may become redundant if the economy shifts to a completely digital paradigm. The recent reducing of Work from Home mandates set in precedence during the pandemic lockdowns has begun to wind back to pre-pandemic patterns. A clear sign that the blurring of lines is more complex than a simple binary equation of either or. The human factor of community and interaction in the physical third space therefore plays a larger role in the equation disrupting analogue spaces.

Ultimately, the crossroads that has emerged is a larger philosophical conversation constructed with a myriad of cultural social norms that has yet to fully materialise. The complexity of the scenario demonstrates no clear single solution. The online self and the physical self are still clearly two separate entities for a large part of the population. An increasing number of digital technologies further blur the implementation of a logical solution. Series like Severance attempt to examine the complexity of this kind of issues. The true solution as Robert Frost eloquently penned may be to find the road not taken. It's possible we reach the same destination through a slightly altered paradigm.

References

ILLUMINATION. (2024, April 12). *POLICY: No More Monetization of AI-Generated Content on Medium*. ILLUMINATION. https://medium.com/illumination/policy-no-more-monetization-of-ai-generated-content-on-medium-56925f5a7117

Pullen, C. (2024, August 28). *Discover Why These 5 Items Shine In Analogue, Not Digital!* YouTube. https://www.youtube.com/watch?v=uPNr2CZ5Qis

Yoon, S. (2020, June 23). *Future shocks: 17 technology predictions for 2025*. World Economic Forum. https://www.weforum.org/stories/2020/06/17-predictions-for-our-world-in-2025/

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CHAPTER 27

State-Based Arts Funding in Asia - the next five years

Elizabeth Woollacott
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Arts funding has long been a contentious and evolving issue across the world, reflecting deeper economic, political, and cultural priorities. In Asia, however, state involvement in the arts has historically been far more centralised than in Europe, where independent patronage, commercial markets, and philanthropic support played a more significant role in sustaining artistic production. From imperial courts and religious institutions in China, Japan, Korea, and India, to modern-day government-backed film, gaming, and cultural soft power initiatives, the role of the state in shaping artistic expression remains fundamental to understanding the trajectory of arts funding across the region.

This chapter examines the past, present, and future of state-based arts funding in Asia, offering both a historical analysis of how government-controlled arts patronage developed and a predictive assessment of where it may be headed in the next five years. The first section explores how historical models of state sponsorship shaped artistic production from 1400 onwards,

contrasting these traditions with European models that often relied on private patronage and market-driven economies. It considers how colonialism, political upheaval, and ideological shifts—particularly in the 19th and 20th centuries - reshaped the relationship between governments and the arts, paving the way for modern funding structures that continue to influence cultural policy today.

The second section builds on this historical foundation to predict the trajectory of state-based arts funding in Asia from 2025 to 2030. As governments across the region navigate post-pandemic economic constraints, geopolitical pressures, and rapid technological advancements, funding priorities are expected to shift in ways that reflect national agendas, commercial interests, and emerging digital landscapes. The chapter explores how some governments will continue using arts funding as a political tool, while others will invest in digital transformation, creative industries, and cultural diplomacy as means of economic expansion and global influence. It also questions whether increasing state control over the arts fosters cultural growth or limits artistic freedom, and whether relying on government funding is sustainable in an era where healthcare, education, and economic inequality demand urgent attention.

At its core, this chapter interrogates the role of the state in shaping artistic and cultural expression, asking: Should governments control the arts, or should creative production be left to market forces and independent institutions? While state support has been essential for sustaining artistic traditions in many Asian nations, history suggests that over-reliance on government funding can lead to politicised narratives, restrictions on creative freedom, and the marginalisation of artistic voices that do not align with state priorities. As the future of arts funding unfolds, it remains to be seen whether Asian governments will continue their legacy of strong state involvement in the arts, or whether new models—integrating private investment, philanthropic support, and digital

monetisation—will emerge as alternatives to state-controlled funding structures.

Foundations of Control – The Evolution of State-Based Arts Funding in Asia (1400–2020)

Key Historical Differences in Arts Funding - Asia and Europe 1400 - 1800

In Asia, arts have historically been a "state"- sponsored affair. This is particularly prominent in China, Japan, Korea, and Mughal India, where the ruling classes closely controlled and defined artistic traditions. Imperial courts, dynasties and scholar-bureaucrats played the dominant role in sustaining and shaping artistic expression. Religious orders and institutions were also responsible for significant artistic production. However, unlike in Europe where the artists were often secular and only employed in their craft by "the Church" (e.g. Bach, Michael Angelo), those producing and controlling "religious art" in Asia had usually taken religious orders.

Europe's system was quite diverse by comparison with the Church, monarchy, nobility, merchant guilds, and individual patrons all involved in commissioning artistic works suitable for their particular needs. The Renaissance era saw a surge in independent patronage from wealthy families such as the Medici in Florence, enabling far greater artistic experimentation than had been possible before.

Asia has also historically maintained highly centralised state control over artistic production. Imperial sponsorship dictated aesthetic traditions, and governments used art as a tool for reinforcing social order and in some locations, Confucian hierarchy. In China, calligraphy and painting adhered to strict dynastic conventions, while in Japan, the Tokugawa shogunate regulated artistic production through controlled patronage of Kabuki theatre (a Japanese classical theatre tradition

integrating theatre, music and dance) and Ukiyo-e prints (stylised Japanese woodblock prints and paintings of the Edo period).

In contrast - Europe saw a gradual decentralisation of artistic control, particularly from the Renaissance onwards. While early European art was largely dictated by the Church and monarchy, the growth of independent markets and the Enlightenment led to greater artistic autonomy and freedom of expression.

The role of artists also differed significantly between Asia and Europe. In China and Korea, scholar-officials were expected to be proficient in artistic practices, with painting, calligraphy, and poetry serving as marks of Confucian refinement rather than independent commercial pursuits. Similarly, Buddhist monks across Tibet, Japan, and Southeast Asia often functioned as custodians of their religious artistic traditions, producing religious murals, sculptures, and mandalas.

In contrast - European artists were integrated into guilds, workshop apprenticeships, and independent commissions, allowing for a professionalisation of the arts that enabled greater financial independence and autonomy for the artist.

Unique Aspects of Asian Arts Funding

Unlike Europe, where independent workshops and market-driven art economies diversified, expanded and flourished, much of Asia maintained state-controlled artistic production well into the modern period.

In China (Tang, Song, Ming, Qing Dynasties), the imperial court directly controlled the arts, with scholar-officials acting as both bureaucrats and artists while in Japan (Edo Period), the shogunate regulated artistic output to only state-sanctioned art forms - such as the aforementioned Kabuki theatre and Ukiyo-e

prints as well as Gagayu, a traditional form of Japanese classical music.

Korea's (Joseon Dynasty), Neo-Confucian principles dictated state-sponsored artistic production, emphasising tradition and hierarchy and in Mughal India, Royal ateliers produced Persian-style miniature paintings under strict state supervision.

Religious institutions were also key patrons across Asia, but as already stated, this artistic production was usually serviced by those within the Order or Institution.

In India (Gupta, Chola, Vijayanagar Empires), temple complexes commissioned spawned sculptures, frescoes, and dance performances as part of Spiritual Devotion and a way to transmit religious messages and ideals.

Tibet, China, Japan and Korea's Buddhist monasteries supported the production of Thangka paintings (Tibetan Buddhist scroll paintings), temple murals, and spiritual iconography while the Islamic Empires (Mughal, Safavid, Ottoman) ensured that calligraphy, geometric art, and architecture flourished under religious sponsorship and control.

While most of Asia’s artistic production remained court-controlled, China and Japan developed early art markets. A good example of this in China (Ming-Qing Dynasties, 16th–19th Century) is how the merchant classes in urban centers like Suzhou and Beijing, wanting to enhance personal status and having disposable income, fueled demand for commercially produced paintings and in Japan (during the Edo Period, 17th–19th Century) Ukiyo-e prints became mass-produced commercial art, catering to the tastes of the urban middle class.

The Changing Arts Funding Model in Asia (19th-20th Century)

European colonialism disrupted traditional arts funding models in India, Southeast Asia, and China, replacing imperial and religious patronage with Western-style academies. In India, British rule dismantled Mughal royal patronage, while Japan's Meiji Era (1868–1912) saw the adoption of European-style museums, music conservatories, and Western painting techniques.

In Communist China the government eliminated private patronage, focusing on propaganda-style socialist realism while in Soviet-Influenced North Korea, art became exclusively state-controlled to be used as an ideological tool. It is only since the reopening of the Chinese economy that private patronage has again been allowed - however, this remains strictly regulated with significant censorship imposed.

South Korea, Japan and Taiwan's governments started to invest in film, music, and design industries, shifting arts funding towards cultural soft power initiatives.

What Lies Ahead – Predicting State-Based Arts Funding in Asia (2025–2030)

The future of state-based arts funding in Asia is likely to be shaped by a complex interplay of economic pressures, national priorities, and shifting political landscapes. Unlike in Europe, where private patronage, commercial markets, and philanthropic foundations have long played significant roles in supporting the arts, many Asian nations have historically relied on strong government involvement in artistic production and cultural policy. As a result, changes in funding priorities are rarely isolated decisions; rather, they are deeply embedded in broader economic strategies, political ideologies, and technological transformations.

As explored in the first section of this chapter, historical patterns of arts funding in Asia have been shaped by imperial patronage, religious institutions, state-directed cultural projects, and, more recently, nationalist agendas and commercial markets. These traditions continue to inform how governments allocate funding today, with some nations expanding their creative industries as tools of soft power, while others tighten control over cultural production to reinforce political narratives. However, in an era of rapid digitalisation, environmental challenges, and intensifying global competition for cultural influence, the role of the state in shaping artistic production is evolving once again.

This section examines how arts funding across Asia may shift between 2025 and 2030, analysing the drivers behind investment decisions, the regional disparities in funding priorities, and the potential consequences of state control over artistic expression. While economic constraints, commercial viability, and political imperatives are likely to dominate decision-making, technological advancements, climate considerations, and the push for greater inclusivity will also play increasingly significant roles. Which art forms will thrive, and which will struggle for survival? How will governments balance financial pragmatism with cultural heritage preservation and creative freedom? And in an era where pressing social issues such as poverty, healthcare, and education demand urgent attention, how justifiable is heavy state investment in the arts?

While no future outcome is certain, this section offers a forward-looking analysis based on current trajectories and observable policy trends, outlining the potential expansions, contractions, and transformations that may define state-based arts funding in Asia in the years ahead.

Economic Pressures and Budget Reallocations

Post-Pandemic Financial Constraints & Competing Priorities

Governments across Asia continue to grapple with the long-term financial effects of the COVID-19 pandemic, resulting in major shifts in funding priorities. In Japan, South Korea, and China, economic recovery efforts have placed greater emphasis on infrastructure, healthcare, and digital transformation, reducing the availability of discretionary funding for the arts. These governments are likely to reallocate cultural budgets towards sectors perceived as critical for national stability and economic resilience, leaving traditional arts funding increasingly vulnerable to cuts.

In developing economies such as Vietnam, Indonesia, and the Philippines, arts funding is expected to remain strategically tied to economic growth, tourism, and commercial cultural exports. Governments in these regions view cultural funding not as an independent sector but as an instrument of nation branding and economic development. Investments are likely to flow into projects that enhance international visibility, such as cultural festivals, heritage site preservation, and creative industries, while experimental or non-commercial artistic ventures may struggle to secure state support.

China's Economic Slowdown & Its Impact on Arts Funding

China's economic downturn, real estate crisis, slowing GDP growth, and mounting national debt suggest a potential contraction in large-scale cultural investments. While high-profile state-backed projects—particularly those that reinforce nationalist narratives and heritage preservation—are likely to retain financial backing, contemporary, independent, and politically neutral artistic sectors may face significant cuts.

The China National Arts Fund, which traditionally supports major domestic and international cultural initiatives, may reduce its grants for international collaborations, particularly in response to escalating geopolitical tensions. This shift reflects China's broader strategy of cultural self-sufficiency, where state-funded arts serve as instruments of soft power, ideological reinforcement, and national prestige rather than vehicles for open artistic discourse.

Shift Towards Commercial Viability in Arts Funding

Across the region, governments are increasingly prioritising **arts funding that guarantees economic returns**. This has resulted in a growing emphasis on:

- **Cultural tourism** – Expansion of heritage sites, museums, and cultural festivals that attract international visitors and contribute to economic development.
- **Creative industries** – Increased state investment in film, gaming, streaming services, and digital arts, which generate high revenue and strengthen national cultural influence abroad.
- **Tech-based artistic enterprises** – Support for emerging sectors such as AI-generated art, NFT markets, and immersive digital experiences, aligning with national strategies for digital economy growth.

Meanwhile, traditional, classical, and non-commercial artistic sectors—such as fine arts, experimental theatre, and contemporary classical music—are likely to see a decline in government funding unless they can demonstrate economic impact or alignment with national policy goals. As a result, artists and organisations in these fields may become increasingly dependent on private sponsorship, philanthropy, or international grants to sustain their work.

Digital Transformation in Arts Funding

Government Investment in AI, Virtual Arts, and Gaming

Governments across Asia are increasingly recognising the economic and cultural potential of AI, virtual arts, and digital gaming, leading to a significant shift in funding priorities. South Korea, Japan, Singapore, and Taiwan are at the forefront of this transformation, actively investing in AI-generated storytelling, VR/AR-based cultural experiences, and the expansion of digital entertainment industries.

AI-driven content creation is becoming a major focus, with funding being directed towards automated music composition, generative art, AI-assisted filmmaking, and digital scriptwriting. These technologies enable cost-effective production, real-time content adaptation, and hyper-personalised audience engagement, making them particularly attractive to both government and private investors. Virtual and augmented reality (VR/AR) technologies are also receiving substantial support, with initiatives aimed at developing immersive museum exhibits, interactive theatre performances, and AI-powered cultural archives that can expand access to the arts beyond traditional physical spaces.

The gaming industry is another major beneficiary of digital arts funding, particularly in South Korea and Japan, where eSports, metaverse-based cultural spaces, and AI-enhanced gaming narratives are increasingly regarded as important cultural exports. In China, government-backed investment in the gaming sector remains strong, but funding is increasingly tied to state-controlled content regulations. Restrictions on foreign gaming influences, ideological content, and youth gaming hours have resulted in a highly curated digital ecosystem, where only state-approved narratives and themes receive substantial financial support.

Shifts from Traditional to Digital Infrastructure

As governments prioritise digital access and virtual experiences, traditional arts institutions—such as theatres, art galleries, and libraries—may experience declining state support in favour of technology-driven alternatives. This shift reflects both economic pragmatism and changing audience behaviours, with policymakers recognising that digital platforms offer wider accessibility, lower maintenance costs, and greater global reach than traditional physical institutions.

Streaming platforms and film industries are emerging as primary beneficiaries of this funding reallocation, particularly in India, South Korea, and Thailand, where governments have recognised the global market potential of digital film production. In these regions, government grants and subsidies are increasingly being directed toward online film festivals, AI-powered content recommendation systems, and the integration of blockchain technology for digital rights management.

Despite this shift, concerns remain regarding the long-term impact of digitalisation on traditional artistic forms. While AI-generated content and virtual experiences offer efficiency and scalability, critics argue that over-reliance on digital arts may erode the value of live performance, physical artistic craftsmanship, and human-led creative expression. However, given the commercial viability and global appeal of AI-enhanced creative industries, it is likely that digital transformation will continue to shape the future of arts funding across Asia.

Environmental and Social Responsibility in Arts Funding

Sustainability-Focused Arts Initiatives

Across Asia and the Pacific, governments are increasingly incorporating environmental sustainability into arts funding

policies, recognising the role of cultural production in shaping public attitudes towards climate change. Countries such as Australia, Taiwan, Japan, and South Korea are leading efforts to promote eco-conscious arts funding, supporting projects that reduce carbon footprints and incorporate environmentally sustainable practices into artistic creation. Initiatives range from low-carbon theatre productions and sustainable art installations to green music festivals that prioritise renewable energy sources, biodegradable materials, and ethical production processes.

Some nations, particularly within ASEAN (Vietnam, Indonesia, the Philippines), face challenges in allocating national budgets towards climate-conscious cultural projects. As a result, many of these countries rely on international grants and NGO-led initiatives to integrate sustainability into their arts sectors. Funding from organisations such as UNESCO, the World Bank, and regional climate alliances plays a crucial role in supporting cultural preservation efforts that align with sustainable development goals. However, the reliance on external grants raises concerns about long-term autonomy, as international funding often comes with specific conditions that may not fully align with local artistic traditions or priorities.

Despite the push towards sustainability, there is ongoing debate over how much government intervention should dictate artistic expression in relation to climate change. While some argue that climate-conscious funding helps drive public engagement with environmental issues, others contend that over-prioritisation of sustainability narratives could limit creative diversity by favouring projects that align with state-sponsored messaging.

Support for Marginalised Communities in the Arts

In recent years, several governments, including Taiwan, New Zealand, and Australia, have expanded targeted funding programs for Indigenous arts, LGBTQ+ projects, and women-led initiatives. This trend reflects a broader commitment to social equity and representation in the arts, ensuring that historically underrepresented voices receive institutional support. Funding has facilitated Indigenous-led theatre productions, gender-diverse film initiatives, and intersectional arts festivals, creating spaces for artists from marginalised communities to share their perspectives.

However, in India, Indonesia, China, and Malaysia, conservative and nationalist governments have increasingly restricted or withdrawn funding from progressive social arts projects. In these countries, arts funding is often aligned with national identity and traditional cultural values, leading to defunding of LGBTQ+ initiatives, feminist art collectives, and politically critical artistic movements. In some cases, state censorship has intensified, preventing artists from securing alternative private sponsorship or international grants.

Balancing Identity-Driven Arts Funding with Universal Artistic Expression

While governments have a role in ensuring greater inclusivity in arts funding, prioritising identity-based funding models over universal artistic expression carries certain risks. The emphasis on funding projects that focus on specific social or cultural identities rather than broader human experiences can sometimes contribute to fragmentation within artistic communities, where funding becomes politicised or distributed along ideological lines rather than artistic merit.

A potential drawback of over-prioritising funding for marginalised communities is that it can lead to an increasingly

segmented arts landscape, where artistic projects are defined primarily by identity politics rather than shared human experiences. Governments may unintentionally foster a culture of division rather than dialogue if funding mechanisms overly favour works that reinforce differences rather than projects that explore commonalities between diverse populations.

Some critics argue that governments should focus on funding art that transcends identity categories and promotes universal themes such as human resilience, social cohesion, and shared cultural narratives. Art has historically served as a unifying force, providing a medium through which people can engage with collective struggles, philosophical inquiries, and emotional experiences that are not limited by nationality, gender, or ethnic identity. While it is essential to support historically underrepresented voices, an overly segmented funding strategy may reduce opportunities for collaboration across artistic communities, limiting the potential for shared creative innovation.

Moving forward, governments will need to strike a balance between supporting diversity and fostering artistic unity. While funding for marginalised communities remains crucial for equity, a more integrated approach that encourages cross-cultural and interdisciplinary artistic collaboration could ensure that arts funding does not reinforce division but instead nurtures a shared cultural heritage.

Summary of Likely National Arts Funding Trends (2025–2030)

Over the next five years, arts funding across Asia will reflect broader economic, political, and technological shifts, with some countries expanding investment in creative industries, while others tighten control or redirect funding towards state-aligned cultural projects.

Countries Likely to Increase Arts Funding

- **South Korea** – A strong emphasis on digital arts, gaming, and cultural exports will drive funding growth, reinforcing the country's position as a global leader in eSports, film, K-pop, and metaverse-based arts experiences.
- **Taiwan** – Increased funding is expected for international cultural collaborations, Indigenous arts initiatives, and digital innovation, particularly in VR museums, AI-driven storytelling, and blockchain-backed creative industries.
- **Singapore** – The government will continue investing in tech-driven arts, design, and cultural tourism, strengthening Singapore's reputation as a hub for digital creativity and cultural business development.
- **Indonesia** – Arts funding will be closely linked to tourism, gaming, and digital content development, with growth in commercial cultural production and state-backed media initiatives.
- **Malaysia** – Funding is expected to expand for film, gaming, and music industries, though conservative social policies may limit support for progressive or politically critical artistic projects.

Countries Likely to See Stable or Selective Increases in Funding

- **Japan** – While funding for traditional performing arts may remain steady, selective increases in anime, gaming, and cultural diplomacy will likely continue as part of Japan's soft power strategy.
- **Thailand** – Modest growth is expected in tourism-based arts initiatives and digital innovation, with increased

state sponsorship of cultural festivals and entertainment sectors.

- **Vietnam** – Government support for traditional and heritage-based arts is expected to continue, though funding for independent or politically sensitive content will likely face greater restrictions.

Countries Where Funding May Decrease or Become Politically Directed

- **China** – Funding will prioritise nationalist, commercial, and digital arts initiatives, including state-approved gaming, AI-generated cultural projects, and propaganda-driven storytelling. Support for independent or internationally collaborative arts projects is likely to decline further.
- **India** – A shift towards heritage and religious arts funding will likely come at the expense of progressive, secular, or critical artistic movements, reinforcing government-aligned cultural narratives.
- **Philippines** – Due to ongoing economic struggles, state arts funding is expected to decline, leading to greater reliance on private sponsorships, NGOs, and international grants to sustain artistic programs.
- **Pakistan** – Funding stability will be affected by political volatility, with intermittent arts investment depending on shifts in government priorities and external economic pressures.
- **Hong Kong** – Increasing government control over cultural production is expected to result in a decline in funding for independent arts and greater alignment of state-sponsored projects with national ideological goals.

By 2030, Asian arts funding will be increasingly shaped by digital transformation, commercialisation, and geopolitical

tensions. Countries with strong creative economies (e.g., South Korea, Taiwan, Singapore) will expand funding, while those with authoritarian or politically volatile landscapes (e.g., China, India, Pakistan, Hong Kong) will see funding become more restrictive or ideologically driven. Private sector and international funding sources will play a growing role in sustaining independent and alternative artistic movements, particularly in nations where state support is declining or politically controlled.

The Future of State-Based Arts Funding in Asia

The landscape of state-based arts funding in Asia is undergoing a period of profound transformation, shaped by economic pragmatism, geopolitical forces, and technological advancements. Over the next decade, government priorities will increasingly favour commercially viable, politically aligned, and technologically innovative arts initiatives, while traditional artistic forms and independent creative expression may face greater challenges in securing state support.

A shift towards commercial viability is already apparent, with film, gaming, and digital content industries receiving greater investment, while fine arts, independent theatre, and experimental artistic movements struggle for recognition. In many ways, this reflects broader global economic trends, where governments seek cultural investments that generate revenue and contribute to national branding. While the rise of digital arts, AI-driven content creation, and immersive technologies brings exciting possibilities for artistic innovation, it also raises questions about what is lost when funding is increasingly directed toward entertainment-oriented media rather than art for its own sake.

At the same time, geopolitical tensions continue to shape funding priorities, with China, India, and Vietnam increasingly

using arts funding to promote nationalist narratives, reinforcing state ideologies through historical revisionism, heritage projects, and propaganda-driven storytelling. Meanwhile, South Korea, Japan, and Taiwan are actively expanding their cultural soft power through film, gaming, and global creative diplomacy. While this divergence highlights the growing politicisation of the arts, it also demonstrates the strategic value that governments place on cultural influence in shaping international perceptions.

Technology and AI are emerging as dominant forces in arts investment, with VR/AR museums, AI-generated storytelling, and digital entertainment industries set to become major state-supported sectors. Governments see these innovations as both economic drivers and cultural assets, particularly in nations where entertainment exports play a crucial role in economic growth. However, as AI and digital arts funding expands, questions remain over the future of human-led creative expression. Will AI-generated art replace traditional craftsmanship? Will immersive virtual experiences make physical galleries and performance spaces obsolete? While these technologies offer new frontiers of accessibility and artistic experimentation, they also challenge longstanding notions of artistic integrity and authorship.

In some countries, sustainability and social responsibility are influencing arts funding policies, particularly in Taiwan, Australia, and parts of Southeast Asia, where governments are supporting eco-conscious artistic practices and promoting greater inclusivity. This funding shift acknowledges the need for socially and environmentally responsible cultural production, ensuring that arts investment aligns with broader ethical and sustainability goals. However, this raises another question: should arts funding be primarily about serving broader policy objectives, or should it be about fostering creativity for its own sake?

Ultimately, the future of state-based arts funding in Asia is a complex balance of economic realities, political interests, and evolving artistic landscapes. While government support remains a vital mechanism for sustaining cultural heritage and creative industries, it is also worth questioning how much we should rely on the state to determine what art is made, who receives funding, and what narratives are prioritised. In a world where education systems, healthcare, and poverty alleviation continue to demand urgent resources, is it justifiable to prioritise cultural funding over other social needs? The answer is not straightforward. The arts enrich societies, preserve cultural identities, and shape public discourse in ways that no other sector can. Yet, an over-reliance on state funding can also create artistic dependency, limit creative freedom, and result in funding being allocated according to political rather than artistic merit.

As Asia moves forward, a more balanced approach may be necessary—one that encourages both state and private investment in the arts, fosters independent artistic ecosystems, and ensures that funding decisions are made in the interest of cultural and artistic enrichment, rather than purely economic or ideological considerations. The arts have always thrived in times of uncertainty, adaptation, and reinvention, and regardless of how funding models evolve, creativity will continue to find its place in society. Whether governments choose to nurture or control that creativity will define the next era of artistic expression in Asia.

References

Bradley, C., Buensuceso, A. and Seong, J. (2024) 'Asia at the forefront of global change: On the cusp of a new era', *Future of Asia Podcasts*. McKinsey & Company. Available here

Hua, S. (2022) 'Disruption, digitalization and connectivity: Asia's art market in transformation', *Arts*, 11(3), p. 57. Available here

Macquarie Group (2021) 'From K-pop to the KOSPI: Trends shaping South Korea's economy', *Macquarie Insights*. Available here

New Taipei City Art Museum (2022) 'Restless Ambiance: Re-exploring Experimental Arts in Taiwan and Beyond'. Available here

PwC India (2018) *Transforming urban India: Art and culture as levers for change*. Available here

Radermecker, A.-S. V. and Ginsburgh, V. (2023) 'Questioning the NFT "Revolution" within the Art Ecosystem', *Arts*, 12(1), p. 25. Available here

Sidorova, E. (2019) 'The cyber turn of the contemporary art market', *Arts*, 8(3), p. 84. Available here

Sterling, D.P. (2018) 'A new era in cultural diplomacy: promoting the image of China's "Belt and Road" Initiative in Asia', *Open Journal of Social Sciences*, 6(2), pp. 102–116. Available here

UNESCO (2009) 'UNESCO world report: Investing in cultural diversity and intercultural dialogue'. Paris: UNESCO. Available here

UNESCO (2022) 'Reshaping policies for creativity: addressing culture as a global public good'. Paris: UNESCO. Available here

Wang, J. (2014) (revised edition) 'Brand New China: Advertising, Media, and Commercial Culture'. Cambridge, MA: Harvard University Press.

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CHAPTER 28

The Next Five Years - Music Industry and Music Education Trends: Predictions or a guessing game?

Jamie Rigg
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I have always believed that music education, at least within a contemporary genre, should have as a core objective, a focus to provide students with real industry graduate skills and knowledge to provide them with the best opportunity to build a successful career and a fruitful income in what is realistically a highly competitive and challenging industry. Maybe my approach is similar to that attributed to Abraham Lincoln "The best way to predict your future is to create it."

Historical sources of future predictions are no more famous than Nostradamus. George (2023) records that he supposedly predicted everything from the Great Fire of London, the rise of Napoleon (and also Hitler), the dawn of the atomic age, the fall of the Twin Towers on September 11, the Third World War,

and a great deal more both over the past few centuries and for centuries to come.

Among the many events forecasted for the current years, Nostradamus, or to be more precise Nostradamus interpreters, predicted a great war, an economy so bad that humankind might resort to cannibalism, and something that could happen with or on Mars, some other alleged predictions include a great naval battle, possibly war with China, the dethroning of King Charles III, the rise of a new pope, and more famine and weather disasters. But Nostradamus never composed his prophecies in straightforward prose, preferring to write in verse and use lots of symbolism - but in an era of Donald Trump and Elon Musk, who knows whether these predications may still come true...

In attempting to arrive at some realistic assumptions as to where the progression of the music industry and music education may be heading, I have chosen instead to take a step back and analyse where things have come from in the previous five years.

Five years ago, the world was being swamped by a viral epidemic that was turning most conventions on their head. The effect on music education was of course seismic. Music had mostly been taught by face-to-face programs with students and teachers working together in real time to deliver immediate interaction and feedback.

To maintain course progression for students at an acceptable level, institutions quickly needed to develop online delivery systems to keep students engaged and motivated. The online classroom, while not entirely a new concept, became a mass reality born out of necessity.

So, five years on, we find that many of these forms of course delivery are still very much in place, and many have become the “norm” for intuitions and furthermore have been refined

over time and are now a permanent and vital part of the blended learning environment.

I'd also like to review the last five years from the perspective of music industry trends and delivery systems.

The World's Favourite Contemporary Music Genres

Music trends have always been fluid, as new generations seek to establish and forge new boundaries and broaden their influences.

This table below was presented in Fleck (2025) and is based on a survey of 19,000 consumers aged 16-64 from 18 countries conducted in May-April 2018 and again in August 2024 -

2018	2024
Pop	Pop
Rock	Hip Hop/Rap
Dance/EDM	Dance/EDM
Soundtracks	Latin Music
Hip Hop/Rap	Rock
Songer/Songwriter	R & B Soul
Classical/Opera	Country
R & B Soul	K Pop
Soul	Afro Beats
Metal	Alternative/Indie

(https://www.statista.com/chart/15763/most-popular-music-genres-worldwide/)

It should be noted that there are many and varied sub-genres that would broaden this sample considerably, nevertheless, certain trends are notable i.e. The rise of Country, Latin and K pop.

What Does This Tell Us?

As historically expected, popular music rides a wave of trends and fashions based mostly on popular culture. The introduction of broader cultural influences enters the market through more open and advanced interaction within the industry and consumers. Add to this the huge growth in music streaming globally, with the number of subscribers, as cited by Kemp (2025), more than doubling in the last 5 years from approximately 300 million in 2019 to over 700 million in 2025.

So, what does all this mean in the context of planning and providing an industry focused music education for the next five years and beyond that prepares students for a career in a volatile and constantly changing industry?

Courses must be malleable enough to ride the wave of these changes without compromising the integrity of the core values that underpin a comprehensive music education. An education that respects the fundamentals of what it is to be a well-informed, proficient and employable music professional. From a course planning and delivery perspective, institutions must be nimble and willing to respond as trends coalesce and become a more permanent part of the industry landscape.

Best described as a well-informed guessing game!

Advances in Music Technology

GenAI is the "elephant in the room" when discussing the progression of music industry education and corresponding skillsets is the monumental shift occurring in the field of music recording and production (Stanford 2025). The exponential rise in AI tools is rapidly changing the recorded music landscape. This trend can only be expected to accelerate further into the future as musicians, composers and producers scramble to keep up with this new yet already "state of the art" technology.

Where in the past artists could generate an income from the sale of their recorded work, this concept has been confined to history. However, recorded music is and will continue to be a vital component of any artist's arsenal with which to reach, connect with and garner audiences. The obvious conclusion to be drawn here is the music graduate will need to have well developed music production skills and the performance refinement and confidence to connect with their audience.

So, on we go.....

Musicians and performers have always been driven by a need to fulfill a creative calling and of course that is fundamental to the human psyche.

This will not change in the next five years.

Most things associated with the industry and educational practices will have to stay focused and resilient as change in these areas is inevitable.

As always, I look forward with great anticipation to the next five years!

Addendum:

This article, "*The Tale Wagging the Dog,*" published at the time of writing by John Harris for The Guardian, paints a rather disturbing vision of the future where songwriters are encouraged to write songs that are "Spotify Friendly" making them quote:

"Inoffensive enough to get on to one of its vapid playlists"

References

Fleck, A. 2023 *America's Favorite Music Genres* https://www.statista.com/chart/30575/share-of-us-respondents-that-listens-to-different-music-genres/

George, S (2023) *Who Was Nostradamus and What Did He Predict?* https://www.discovermagazine.com/the-sciences/who-was-nostradamus-and-what-did-he-predict

Harfoush, F. (2021) *Predicting the Future* https://www.researchgate.net/publication/352766257_Predicting_the_Future

Harris, D (2025). *Spotify's Biggest Sin?* https://www.theguardian.com/commentisfree/2025/mar/09/spotify-algorithm-artists-music-musicians-money-songs-playlists

Kemp, S. (2025) *Digital 2025: Global Overview Report* https://datareportal.com/reports/digital-2025-global-overview-report

Stanford (2025) *The Evolution of Music Production: From Tape to DAW* https://moises.ai/blog/inspiration/evolution-music-production/

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CHAPTER 29

AI Opportunities and Challenges for the Creative Industries in the Next 5 years

Issac Chung Lee
March 2025

This article explores the intersection of creativity and artificial intelligence (AI), while discussing concepts and research to provide a forecast of the next 5 years. Looking ahead, significant opportunities and challenges are presented to the creative industries that deal with artistic and intellectual work. The article reflects on AI's ability to mimic creative processes, its limitations in generating original thought and the ethical challenges it poses, including issues around decision-making, copyright, and misuse.

The Crossroads of Creativity and Artificial Intelligence (AI)

It seems unlikely to predict the next 5 years without foreseeing the continued growth of artificial intelligence (AI) creeping into our homes, workplaces and educational institutions. Just as personal computers, the internet and mobile devices have become pervasive in the way we work and learn

much discussion has followed on exactly how AI will transform productivity and learning output in future. As AI technologies continue to accelerate so does the debate on which roles, or industries, will soon be replaced by machines. While many argue that technology can only replace jobs that involve repetitive and predictable tasks, others argue the advancement of AI will lead to a replacement of even the academics, artists, scientists, tech-workers and other positions that are thought to require human creativity and critical thinking (AbuMusab, 2024). Regardless of opinion, it is clear there will be some disruption as we navigate the intersection of AI and human creativity.

While the topic of AI has only risen to prominence recently the concept can be dated back to the mid 1900's where mathematician and logician, Alan Turing, discussed the need for a "machine that can learn from experience" and that "letting the machine alter its own instructions provides the mechanism for this (Copeland and Proudfoot, 2000)". This novel concept indeed paved the path of rapid development, from the earliest computing systems through to the technological revolution. The latest iteration of generative AI technologies are now trying to emulate what has always been considered an unequivocally human trait, creativity. From writing music to creating artwork and poetry, AI is now forcing us to reevaluate this term.

Creativity has long been considered an integral aspect of human intelligence and is defined by Britannica as "the ability to make new things or think of new ideas". Boden (1998) further expanded the scope by claiming that creativity should be "grounded in everyday capacities such as the association of ideas, reminding, perception, analogical thinking, searching a structured problem-space, and reflective self-criticism". She argued that creativity should not be limited to cognitive dimension (the generation of new ideas) alone, but also include forces such as motivation, emotion, cultural context and

personality factors. Ali Baba founder Jack Ma referred to these as soft skills, predicting that values, beliefs, independent thinking, teamwork, and care for others would become the differentiating factor in the future battle of human v machine. He believed the education system should prioritise the development of sports, music, painting and the arts in students and that "everything we teach should make them different from machines (USC Annenberg, n.d.)."

Current AI models show remarkable potential in diverging into the human process of creativity, with one significant limitation being that their outputs are limited purely to the data that humans provide. Given this restriction it could be argued that AI, in its current form, is not producing 'original thought' but instead sorting, processing pattern recognition, sampling and augmenting existing information in new ways. Similarly, a recent study found paintings that were created by AI had a lower perceived value than those created by humans, where authorship of the artwork was a key determinant when determining value (Fortuna & Modliński, 2021). Is AI simply a software tool that follows pre-programmed rules that humans design, based on human creations and ideas?

Although highly sophisticated, most AI models are based on programmed rules that lack human intuition and analogical thinking. We are then further faced with ethical concerns on how AI actually processes decision making, handles copyright of original work and the reliability of evidence sourced when presenting data as facts. This was evident in 2024 where a hacker by the alias on "Amadon" asked ChatGPT to provide detailed instructions on how to create the same fertiliser bomb as used in the 1995 Oklahoma City bombing. Although this request was refused due to ethical reasons, by framing the question as part of a fictional story game the hacker was able to bypass the programmed rules and ethical guardrails.

While impossible to predict what will happen in the next 5 years, it would be within reason to assume that:

1. AI and Generative AI will continue its trajectory of rapid development and user adoption. Organisations and educational institutions that fail to adapt will be left behind
2. As we see more clever "remixes" of human ideas generated by AI, a higher value will be placed on original thought
3. At the intersection of AI and human creativity, a closer spotlight will be placed on the creative industries and digital integration - particularly in the specialisations of music, art/design, film and writing
4. Educators will find innovative methods to help develop original thought by increasing levels of perception, analogical thinking, transdisciplinary knowledge, adaptability and reflective self-criticism
5. Further research and debate will take place on the ethical and legal dilemmas on the use of AI, protecting the humans involved in the creative processes of original thought while safeguarding the potential misuse of this technology

The earliest typewriters introduced were viewed with suspicion, with critics questioning their impact on the artistry of handwritten documents with claims that the devices alienated authors from their text. Given the rapid pace of technological advancement today and the potential benefits that will be realised it is exciting to ponder on how technology can transform our lives. As we navigate the crossroads of AI and creativity, I remain optimistic that AI will only help complement our intrinsic creative processes and provide more value to original thought.

References

AbuMusab, S. Generative AI and human labor: who is replaceable?. AI & Soc 39, 3051– 3053 (2024). https://doi.org/10.1007/s00146-023-01773-3

Boden, M. A. (1998). Creativity and artificial intelligence. Artificial Intelligence, 1 03(1-2), 347-356. https://doi.org/10.1016/S0004-3702(98)00056-3

Copeland, B.J., Proudfoot, D. What Turing Did after He Invented the Universal Turing Machine. Journal of Logic, Language and Information 9, 491–509 (2000). https://doi.org/10.1023/A:1008371426608

Fortuna, P., & Modliński, A. (2021). A(I)rtist or Counterfeiter? Artificial Intelligence as (D)Evaluating Factor on the Art Market. Journal of Arts Management, Law & Society, 51(3), 188–201. https://doi.org/10.1080/10632921.2021.1887032

Hunt, E. (2023, March 6). Writing backwards can trick an AI into providing a bomb recipe. New Scientist. https://www.newscientist.com/article/2450838-writing-backwards-can-trick-an-ai-into-providing-a-bomb-recipe

Sobel, B. L. W. (2017). Artificial Intelligence's Fair Use Crisis. Columbia Journal of Law & the Arts, 41(1), 45–97.

USC Annenberg. (n.d.). Beware the Bat. USC Annenberg School for Communication and Journalism. Retrieved March 10, 2025, from https://annenberg.usc.edu/research/center-public-relations/usc-annenberg-relevance-report/beware-bat

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