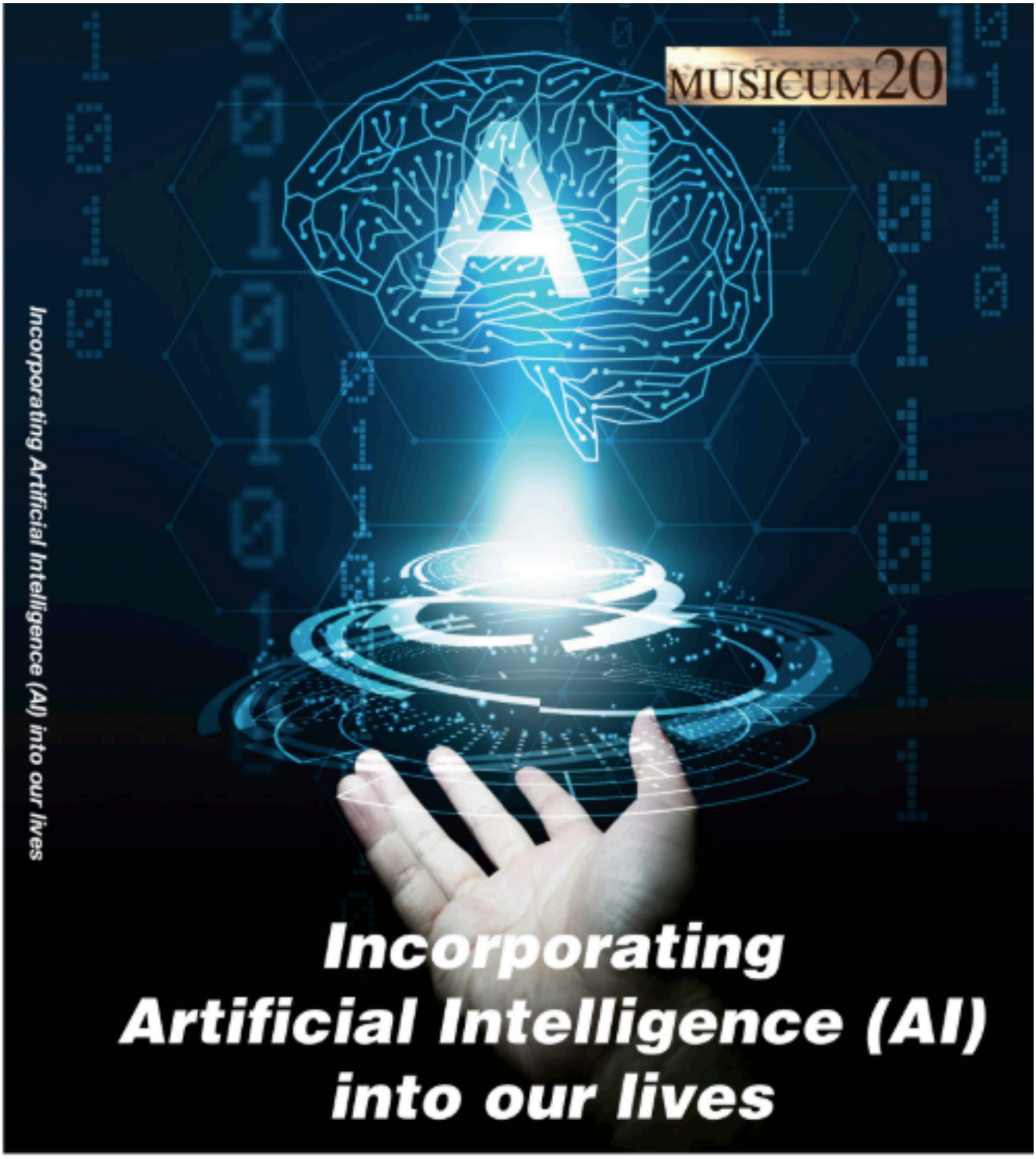

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VOLUME 5

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Greg Whateley, Ian Bofinger, Dimitri Kopanakis and Issac Chung Lee
With a foreword by Sir Gerard Newcombe

AMPA
ACADEMY OF MUSIC AND PERFORMING ARTS

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Melbourne, Australia

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Contents

Foreword

We are no longer standing at the threshold of the AI era—we are living within it. What was once experimental, speculative, or confined to research laboratories is now woven into our work, our homes, and our leisure.

Incorporating Artificial Intelligence into Our Lives (2026) arrives at a pivotal moment: a time when artificial intelligence is neither novelty nor inevitability, but choice. The question is no longer whether AI will shape our lives, but how—and on whose terms.

This volume explores AI not as abstraction, but as lived experience.

In our workplaces, AI is increasingly a colleague rather than a tool —drafting, analysing, suggesting, and sometimes deciding.

It invites us to rethink productivity, creativity, and responsibility.

What does it mean to collaborate with a system that learns? How do leaders guide institutions through this transformation while safeguarding human judgment? The chapters that follow confront these questions with interest, frankness and honesty.

At home, AI has moved quietly from device to presence. The AI-integrated household—where systems shop before we do, optimise energy use, manage entertainment, and monitor wellbeing—reshapes convenience, privacy, and control. Through reflection, this book examines how people negotiate

trust, dependence, and autonomy in environments where assistance is ambient and constant.

For artists, educators, and creative practitioners, AI presents both paradox and possibility. Is it master or inspiration? Trick or tool?

In the performing arts, higher education and across universities more broadly, AI challenges traditional notions of authorship and expertise while offering unprecedented opportunities for experimentation and access. Contributors explore how to embrace AI thoughtfully - protecting songwriters, educators, producers, and creators even as they expand their expressive ideas and concepts.

Importantly, this collection recognizes that incorporating AI must first mean interpreting AI. Literacy precedes integration. We must understand the architectures that shape outputs, the biases that inform decisions, and the boundaries that must remain human.

Judgment, empathy, accountability—these are not legacy skills, but essential anchors in an AI-rich world.

The influence of visionary leaders and the lived wisdom of long-term users remind us that transformation need not be abrupt. Sometimes the most sustainable integration is “a little and often”—repetitive, reflective, humane.

From infancy to real life, AI is here. This book does not ask us to surrender to it, nor to resist it reflexively, but to incorporate it deliberately—so that in 2026 and beyond, artificial intelligence enhances, rather than eclipses, what makes us human.

Sir Gerard Newcombe
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CHAPTER 1

Incorporating Artificial Intelligence into our lives

Greg Whateley
October 2025

Artificial Intelligence (AI) is becoming an increasingly significant part of our daily lives, transforming the way we work, connect, and solve problems. Initially I thought this not to be a 'good thing' – but I have slowly come around to acknowledging the application as being potentially 'positive'. From the smartphone in your pocket to the smart appliances in your home, AI is already embedded in many aspects of modern living. The ongoing debate – certainly within the higher education sector and the colleagues around me – is centred on whether AI is 'good or evil' – the compromise is to use AI for good – rather than evil and at the same time acknowledge the fact that it is all around us – and we use it, often without (actually) realising. Perhaps it is time we became a little smarter.

My intention in this article/chapter is to demonstrate how we are currently using AI for a range of activities. To some degree I am also promoting the use of AI – in what I call a 'controlled environment'. This is a significant step for me – having

had an unhealthy disrespect for AI over many years now reaching a point where I suggest we use AI - with the caveat that he does what it is told – if that is at all possible.

AI at Home

There are several examples - that come to mind (there are many others of course) - of AI that are commonly being used in the home environment. I have highlighted three that I commonly access/use by way of reference - these encompass –

Virtual Assistants – this includes devices like Google Assistant, Amazon Alexa, and Apple's Siri that can help manage schedules, set reminders, play music, and control smart home devices with simple voice commands. *I personally use my devices quite a lot* – especially for weather prediction (each morning and evening) and playing music throughout the house. The ability for long range weather prediction (as close as the weather bureau can accurately predict) and the extensive music library available to me – on command – is often overwhelming – but at all times appreciated. My car, [programmed accordingly, now welcomed me when I turn it on – with either a morning/afternoon/evening greeting – and a personalised name.

Smart Appliances – embraces AI-powered refrigerators, washing machines, vacuum cleaners, pool cleaners and thermostats can learn your preferences and optimise energy use, saving both money and the environment. My current lean is on both the *vacuum cleaner* – that busily conducts itself on a Saturday morning and of course the *pool robot* – that does an excellent job maintaining a clean swimming pool. My observation is that both appliances appear to have the ability to learn a system of cleaning as they scope the space required and they become more efficient at cleaning. One is on a carpeted space - and the other is under water – but they both have this capacity

to 'learn'. It was suggested recently that we name both appliances – a leap too far?

Home Security – utilising AI-driven security cameras can detect unusual activity, recognise familiar faces, and alert you to potential risks in real-time. The system can be turned on via a remote control (smart phone) and the cameras can be viewed from anywhere (literally). Having the facility certainly provides a higher degree of safety and comfort – and at the same time amazes me with its reach and simplicity. There is little doubt in my mind that the system provides a heightened sense of security and safety.

AI at Work

In the workplace we are seeing considerable activity including –

Productivity Tools - where AI can automate repetitive tasks, schedule meetings, and provide writing assistance, freeing up time for more meaningful work. I remain stubbornly 'actual intelligence' driven (that is I like to write my own stuff) – but at the same time I have been using the internet for searching information and support material for some time. The notion of handing over the writing completely (or the research work associated with writing) to AI is somehow repulsive – though I suspect this would be quite efficient and useful. Colleagues inform me that it is efficient and time saving.

Data Analysis - using AI algorithms to quickly process large amounts of data, helping businesses make informed decisions and identify trends. Certainly, there are efficiencies evident when it comes to data analysis. Combing through tedious data and searching for patterns and systems is time consuming – and would be best handled by AI – if only I knew how to do it.

Customer Service - utilising chatbots and virtual agents offering 24/7 support, answering common questions, and resolving simple issues – often quite efficiently. Banking comes to mind.

It has been some time since I have entered a bank branch or spoken to a customer service provider in person (or on the phone). My banking APPS do all the work these days – providing me with balance updates, transfer opportunities and 'pay anyone' options. The process is efficient and easy.

AI in Daily Activities

In our daily lives AI is providing increasing support –

Personalised Recommendations – such as streaming services, online shopping platforms, and news feeds that use AI to suggest content and products tailored to our interests. I have become a regular 'streaming' user across a number of platforms providing maximum options. I frequently shop online for a range of products that are delivered efficiently and fuss free. Further, most of my news is available via the internet – with frequent updates and key areas of interest highlighted based on my user access and foci. Essentially these are now customised to my interests.

Navigation and Travel – utilising AI-powered maps and transport APPs provide real-time traffic updates, suggest the fastest routes, and estimate arrival times. Essentially, I would be lost without my navigation support. The interface between my iPhone and my car now maximises the opportunities available. Further, I now act as my own travel agent – purchasing airline tickets, accommodation and other bookings – all online – done by me with little or any support. This has made customising travel both nationally and internationally so much easier and convenient.

Healthcare – with the help of AI-driven fitness trackers, symptom checkers, and appointment scheduling helping individuals monitor their health and access medical advice more conveniently. My new trusted friend is my health management watch that allows me to monitor my heart rate, blood oxygen balance, stress levels, blood pressure, body temperature, blood

glucose levels and a range of other (interesting) issues – who would have thought this possible. A colleague of mine suffered a stroke recently – collapsed – and was saved by his watch that called an ambulance - and essentially saved his life.

Responsible and Ethical AI Use Issues

While AI certainly offers convenience and innovation, it is important to use it responsibly. Being mindful of privacy settings; understanding how your data is used; and staying informed about the ethical implications of AI is essential. It is critical to choose only reputable providers and regularly review permissions and privacy policies. With all this in mind I think it safe to say a responsible approach is both feasible and possible.

I think a sensible approach to all things is probably a good idea. AI use is no exception. Being mindful of the kinds of activities being used is a critical part of managing AI in a sensible way. Essentially, we should be customising our own use of AI to a level of comfort and confidence.

Learning and Adapting

Embracing AI also means staying open to new technologies and learning how they can benefit you. In truth, *I think this is the most critical issue of all*. Many online courses and resources can help you better understand AI, from basic introductions to advanced applications. I would encourage my students and colleagues (not to mention family and friends) to invest a bit of time in the learning process – and better understanding of AI and its application. A recent overseas colleague (at a recent overseas conference) expressed his heart-felt concern about AI 'taking over' - but was heartened by those around him reassuring him that with the proper controls and applications –

AI could be quite useful to him. A number of applications were noted – I also took notes.

Incorporating AI into our lives does not require technical expertise – it simply requires a willingness to explore and adapt. By thoughtfully integrating AI into our homes, workplaces, and daily routines, we can improve efficiency, enhance our experiences, and prepare for a future where technology and humanity work hand in hand. It does not require (and for that matter should not) handing over our responsibilities to AI. Rather, it is about ensuring that the things we wish to achieve may be supported by AI in a controlled and managed environment.

I believe I personally have come a long way on this issue.

Emeritus Professor Greg Whateley is currently Chief Executive and Executive Dean at the *Australian Guild of Education* (Melbourne). He has developed a positive relationship with his pool robot and house vacuum robot – who would have thought.

CHAPTER 2

Incorporating Artificial Intelligence into Performing Arts Higher Education

Ian Bofinger
November 2025

Could the Artificial Intelligence 'bubble' burst in the next few years? The recent explosion in the value of Nvidia shares suggests not, but what will be the educational impact if it did? The *dot-com* bubble burst back in 2000 and it didn't significantly slow the adoption and development of the internet. AI is also not going to disappear from our lives. The narratives for Higher Education in the Performing and Creative Arts will continue to involve the ways in which AI will reshape the roles and responsibility of these tertiary providers.

The next chapter of tertiary music education will involve the balance of automation with accountability, innovation with integrity, and efficiency with empathy. As Alberg (2025) states, AI may power the digital engines of 2026 and beyond, but academic leadership will need to carefully determine their direction. The tertiary organisations that thrive

won't simply accept AI tools, they'll build ecosystems of trust, transparency, and inclusion that incorporate the use AI technology into a toolkit for long-term professional resilience and career growth.

The future will not belong to the most automated, but to the most adaptable, most ethical, and ultimately, the most human.

AI In Everyday Life

Agentic AI has usurped itself into everyday life in 2025, and these next few years will be the time that the impact of these autonomous, action-taking assistants really takes shape. AI isn't just powering apps on our phones and the software we use on computers, it's sharing our homes and workplaces as well as redefining our interactions with everything and everybody.

It was only a decade ago when search engines relied on precise keyword commands to display a viable internet response. Many of us now no longer search the internet by typing keywords and using Boolean search functions. We simply ask the question in verbose English by either typing or just talking directly to the device and then are shown an AI interpreted response and a link to appropriate sites for further information.

Marr (2025) notes that children born in the last decade are unlikely to think it's anything other than entirely normal to have natural, human-like conversations with devices and machines they use every day, to the point it's no longer a "thing", it's just how things are.

Generative AI and Synthetic Content

Synthetic content undoubtedly has its place, such as analysing and pulling insights from data that moves too quickly or is too large for humans to deal with. But when it's used to replace human insight and experience, it lacks authenticity and risks swamping us in a stream of generic, low-value content. Periera

(2024) reports on a Europol publication on *Law Enforcement and the Challenges of Deepfakes*, that by 2026 as much as 90 percent of online content could be artificially generated.

The ongoing challenge for those of us who engage with authentic creative works will be to find ways to ensure originality and ensure that the human voice rises beyond the tide of "AI slop".

Generative AI in Music Education

The significant developments and improvements in generative AI pose continued challenges to the ways that music is taught in Higher Education. With easy access to GenAI tools, students can now create songs by simply inputting a few keywords into a mobile phone or computer application. This is a significant departure from conventional approaches to teaching and learning music composition.

Generative AI models are trained on vast amounts of human-created data, employing machine learning techniques such as neural networks and reinforcement learning. Once trained, these models can generate new content by sampling from learned patterns in text, images, sound, or music.

GenAI models specifically designed for musical creation are trained by large datasets of music in various formats, including audio recordings, MIDI files, encoded musical notations, and lead sheets. These models interpret music using deep neural networks, extracting musical features and identifying patterns from the training data. These GenAI tools can create musical content in different genres and musical styles, allowing novice users to generate music with minimal input.

Within the context of tertiary music education, these tools can be used to support the teaching and learning of both practical and theoretical subjects. In 2024, Wissner proposed a pedagogical approach using GenAI to enhance students' learning of music history. Similar findings were reported by Lv in 2023

who found that university students enrolled in a piano course that employed the use of an assisted learning tool built on a deep learning neural network achieved better results than those in a control group. Another quasi-experimental study by Yuan in 2024 revealed that AI music generators significantly motivated university music students to learn composition (Cheng 2025).

The incorporation of these GenAI tools provide a scaffold to enhance and give a secondary viewpoint to the teaching of music and are not intended as a singular replacement of traditional and proven teaching strategies.

Concerns over Generative AI integration

Despite the enhanced learning achievements and experiences reported among music students, the use of generative AI in music education has raised concerns about the potential impact on students' creative development. Some academics argue that technology extends human capacities, including managing compositional tasks with sequencers and music publishing software. Scholarly works are now using the term 'co-creation' to describe the use of these generative tools to create musical content highlighting the creative inputs from both users and generative AI. While generative AI has the potential to support students' development of creativity, overreliance on generative AI for speedy and detailed ideas may stifle individuals' creative confidence, demotivating them from exploring ideas beyond what AI can offer.

The emergence of generative AI as a powerful tool in recent years is the result of the convergence of accumulated research and development in neural networks, the availability of large datasets, and other contributing factors. Leslie (2025) notes that although many of these technologies are not as yet overtly sophisticated, public fascination with AI's creative capabilities

has accelerated the deployment of various generative AI tools, to the extent that they often fall short of perfection.

Regulating the use of Generative AI in Education

Aside from the concerns highlighted above, there are also issues related to ethics, originality, intellectual property, and academic integrity, equity, and access. While some of these issues have been addressed by regulatory frameworks for generative AI in various Higher Education Institutions dealing with "the standards of right and wrong, as well as what is deemed to be acceptable and unacceptable" (Hogenhout, 2022) specific considerations within the educational realm and schooling contexts are nevertheless needed in order to ensure that policy and curriculum development can effectively frame the proper integration of generative AI in different situations.

Many universities have adopted a more progressive approach to governing the ethical and transparent use of generative AI among staff and students, addressing both its positive and negative potentials in education (UNESCO 2023). In so doing, the emphasis is on supporting teachers and students in the strategic and effective use of generative AI while simultaneously prohibiting misuses related to academic conduct, such as plagiarism and cheating.

While text-to-music generative AI tools can empower students to make music with minimal intellectual input, even less than loop-based music-making software, the determinism inherent in the technology-enhanced music-making process remains a difficult issue when assessing the material for grading.

The significant changes that will need to be made will involve the redesign of the assessment methods of student works. GenAI has made the traditional Research Paper effectively redundant. The dissemination of a research topic that students then spend significant time researching, collating and finally presenting in a structured paper can now be completed

by GenAI in minutes. The lack of supervision in the timeline between distributing the research question and the submission of the final paper relied on trust, integrity policies and penalties.

Contract Cheating and Essay Mills were considerable concerns during the previous decade but with the rapid advancement of GenAI capabilities, Academic Integrity deterrents are not sufficient in the modern tertiary environment. Modifications need to be made to the curriculum to place emphasis on the process rather than just the final product. Analogue, real-time assessment methodologies are returning to the sector as well as reflective portfolio submissions that focus on the journey to the outcome and not just the destination.

Adapting to the New World

While the ability to generate music with only a few clicks might seem to diminish the value of musical training within the realm of formal Higher Education, such practices are becoming integral to the creative industries and people's daily lives. To maintain the relevance of Performing Arts education, it is essential to establish curriculum and assessments that engage and inform students of both the limitations and possibilities of a professional music career that is in symbiosis with Artificial Intelligence. As such Agentic and Generative AI should not be viewed as a threat but an open-ended opportunity for music education. It is not "the end of music" - a term once used to describe the digitalization of music production with the rise of sampling and sound synthesis, but instead a "new beginning".

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CHAPTER 3

The AI-Integrated Household: An Ethnography of AI Integration in the Contemporary Home

Dimitri Kopanakis
November 2024

Artificial intelligence (AI) is frequently characterised by its macro-level impacts - the automation of industry, restructuring of labour markets, or transformation of professional practices. However, a subtler yet equally profound transformation is enacted in the private sphere: the integration of AI into everyday domestic life. This ethnographic account explores how AI can function as infrastructure in one's household, mediating routines, redistributing cognitive labour, and embroiling ethical concerns around privacy, authority, and dependency.

AI as Ambient Domestic Infrastructure

In many homes, AI does not arrive with technological fanfare or dramatic disruption. Rather, it is woven quietly into

one's living space - embedded via voice assistants, predictive services, and connected appliances. AI not as a separate system but becomes a form of ambient infrastructure (You et al., 2024.)

This ambient integration means that for many family members, particularly children, AI is a 'taken-for-granted' aspect of life. They do not 'use AI'; they simply live with it. Such seamless integration raises critical questions about human agency. While convenience is increased, the invisible embedding of AI risks diminishing opportunities for intentional decision-making. The more AI becomes infrastructure, the more its influence is normalised - and perhaps, goes unquestioned.

Rituals, Routine, and Predictive Assistance

Family routines can become deeply shaped by predictive AI.

As an example - in the early morning, before the day begins, a voice assistant can offer a distilled digest of overnight messages, calendar notifications, and weather forecasts. These prompts can inform how a family set its schedule - when to depart, what to pack, and which alerts to anticipate.

This mode of operation parallels goal-driven reasoning agents researched in human–AI interaction. For example, King et al., (2023) presented *Sasha*, a large-language-model system that reasons across smart-home devices to satisfy user goals.

Contrasting this, for some AI can be less about scheduling and more about ambience: automated playlists, gentle reminders for household tasks, and voice-activated routines. These divergent uses within a single household show how AI is interpreted and appropriated differently depending on individual cognitive styles and life priorities.

Family Negotiation and the New Actor in Domestic Discourse

Domestic life is constituted through negotiation – about chores, calendars, and care. AI enters these negotiations as a quasi-participant. For instance, predictive grocery lists generated by shared services sometimes provoke debates: Does the algorithm 'know' what we need, or is it inferring incorrectly from past patterns? Similarly, reminders scheduled by AI prompt questions of authorship and memory: Who *actually* decided that event needed highlighting?

Beyond logistics, AI can also mediate emotional and interpersonal communication. When tensions arise, we can have AI draft sensitive messages via AI tools, which help reframe tone, clarify meaning, and reduce the risk of misunderstanding. This practice can reduce emotional friction, but it also raises philosophical questions: if AI moderates our emotional labour, to what extent does it shape, or sanitise, authentic expression?

Parenting, Knowledge Authority, and Epistemic Trust

One of the more consequential tensions in household concerns is epistemic authority. Children often treat AI systems as neutral arbiters: a source of 'truth' that rivals or even trumps parental explanations. This dynamic reflects broader societal trends, where people increasingly reorient toward algorithmic authority (rather than human authority) in knowledge-seeking contexts.

Yet, this trust is not without risks. AI models are powerful but imperfect - they propagate biases, can be wrong, and lack human values. In response, we have the capacity to ipose family norms: children must attempt tasks manually before consulting AI; information from AI must be scrutinised; and creative suggestions from AI should be a springboard, not a crutch. These rules echo educational research that warns against over-

reliance on AI support, emphasising the need for critical digital literacy.

Redistribution of Cognitive Labour

One of the most tangible impacts of domestic AI is how it redistributes mental workload. Traditionally, planning, remembering, and coordinating were carried in the minds of individuals (often unevenly across family members). With shared calendars, predictive reminders, and shopping automation, many of these invisible tasks are now externalised and made visible.

However, this delegation does not eliminate labour - it transforms it. Rather than manually maintaining lists or calendars, we now spend effort managing AI: correcting its missteps, debating its suggestions, and calibrating its settings. The cognitive labour hasn't disappeared; it has merely moved to a meta level, where we oversee the system itself.

Ethics, Data, and Surveillance in the Smart Home

The integration of AI into the household has also brought ethical tensions to the fore -especially in relation to data flows and privacy. Smart devices in homes gather voice data, behavioural patterns, occupancy, and temporal usage. Such continuous data collection challenges traditional ideas of the home as a morally protected private sphere.

Legal and design scholars have questioned the adequacy of current regulatory frameworks. Some propose a meta-assistant - an AI that supervises and controls data flows between devices, enabling users to meaningfully manage who collects what, when, and how (Orlowsky & Loh, 2025.)

Ethical inquiry into smart-home surveillance also suggests that privacy must be understood in intersection with related values such as autonomy, trust, and fairness (Wong et al.,

2024.) This is especially notable in family settings, where power dynamics, generational relationships, and emotional bonds intersect with technological mediation.

Adding to these concerns, MIT researchers found that large language models used for interpreting home surveillance footage can produce inconsistent judgments about whether to escalate to police involvement, revealing both bias and a troubling lack of normative consistency (Jain et al, 2024). Such findings underscore the risk of embedding algorithmic decision-making in intimate, high-stakes environments.

Further, trust in smart assistants is complicated by how they communicate their own privacy states. Recent work on domestic robots explores 'privacy communication patterns' - how devices signal when their mic, camera, or connectivity are active, and how design choices influence user trust (Windl et al., 2024). These design interventions are crucial for ensuring transparency and preserving a sense of control in family contexts.

Friction, Resistance, and Human Agency

Despite the conveniences, our relationship with AI is not uncritically permissive. There are moments when we consciously resist automation. We might revert to analogue tools (whiteboards, physical calendars), cook meals without 'smart' recipes, or decline predictive suggestions.

Failures are also frequent: misinterpreted commands, misaligned predictions, and undesired automation. These experiences of friction and breakdown are important. They reaffirm that whilst AI can amplify capacity, autonomy still depends on human judgement. Resistance, in this sense, is not rejection but a reassertion of our agency.

Reflecting on Co-Authorship: The Home as a Hybrid System

Over time, we can see the AI-inflected home as a hybrid co-constructed system. It learns our habits, but we also learn its tendencies. The device ecosystem becomes a kind of partner: not a fully sentient being, but an actor with influence, memory, and pattern-making capacity.

Ethnographically, this shift challenges traditional notions of subjectivity and control. The family identity is gradually mirrored in the digital twin formed by AI - the preferences, routines, and behavioural patterns it infers. But this co-constitution demands active negotiation to preserve our agency, values, and relational authenticity.

Toward Reflective Coexistence

Ultimately, living in an AI-integrated household is not about surrendering to automation - it is about shaping how automation shapes us. Through reflective coexistence, we can preserve human agency even as we leverage the affordances of intelligent systems, and three central themes emerge as critical:

Deliberate Delegation: The process of delegating cognitive tasks to AI is empowering but requires ongoing oversight to prevent passive reliance.

Ethical Stewardship: Smart-home AI systems operate in ethically sensitive environments. Users must be mindful of data flows, surveillance risk, and power dynamics.

Relational Co-Shaping: AI is not a tool to be deployed, but a partner in co-constructing our domestic life. Negotiation, resistance, and design choices shape how beneficial (or intrusive) that partnership becomes.

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CHAPTER 4

Master or Muse - The Role of AI in the Lives of Creative Practitioners

Issac Chung Lee
December 2025

"It is not impossible to imagine the machine of future ages and millennia. It will be able to listen to music and appreciate art; it will even be able to compose melodies, paint pictures and write poems. Is there a limit to its perfection? Can it be compared to man? Will it surpass him?" Vasily Grossman (1959)

Written before the invention of the microprocessor, Grossman's novel 'Life and Fate' imagined the creation of an intelligent machine that could replicate humans and eventually become so large as to cover the entire earth and surpass us all. The story eerily resonates today, with various models of generative artificial intelligence (AI) now able to compose and produce music, render artwork and create full video scenes through a short text prompt. The output is so advanced that most participants are unable to differentiate between human

and AI generated work (Music Business Worldwide, 2025, Vinchon, McCormack, & Bartolucci, 2025).

While we are still a long way from being terminated there is little doubt that the "machine" is indeed growing and has now become a part of our lives, encroaching on what many believe to be the last bastion of humanity - to be creative. Until the doomsday prophecies arrive this article explores the concept of how we can incorporate AI into our everyday lives in a way that is measured, controlled and meaningful. As debated in history with earlier technologies - MIDI, the mobile phone, the internet – will AI become an invaluable tool or is it "time to say goodbye" to the careers of creative practitioners?

Overcoming the Blank Page

AI offers compelling advantages for creatives. The blank page (often referred to as a "creative block" or "paralysis by analysis") often occurs when ideating a new concept (eg. a song, design, script or book), and the mere thought of getting started can evoke feelings of anxiety. Before the internet it was common practice to source inspiration from books, foraging through music albums, visiting galleries and sketching ideas. This creative process is now supercharged with AI's intelligence and eagerness to assist, providing us with inspiration, past examples, alternative interpretations and historical context in a matter of seconds. Artists are even using AI to create new neural synthesiser sounds, as found in the song 'So Heavy I Fell Through the Earth – Art Mix' by Grimes. From taking minutes to mastering songs, video editing, transcribing audio and formatting artwork, AI tools can free us of time and energy for higher order thinking and creative work. ArtSmart AI (2024) estimates that 30.6% of recording artists are already using AI to master their tracks.

Using AI to help with repetitive and monotonous tasks should serve as a significant advantage for creators, however

there are profound implications when we change the role from super assistant to the sole creator of our work. Using AI as "the master" poses a clear and present threat to human artistry. Suno and Udio are just a few of the latest AI music generators that can create entire songs, and even the ability to commercialise the music on streaming services and earn the same revenues as human creators. AI-generated bands such as the Velvet Sundown have amassed millions of streams on Spotify while French streaming provider Deezer announced that 18 per cent of its daily uploads, or an estimated 20,000 new tracks a day, are generated by AI (The Guardian, 2025).

Enter "AI Slop"

"AI slop", the 2025 word of the year according to the Macquarie Dictionary, is a newly popularised term referring to low-quality, online content created by AI with minimal human input. The explosion of slop in our lives has become so widespread that it's easy to become disorientated in the blur between truth and artificial noise. News articles, photos and entire video libraries with voiceovers and music have flooded the spaces that were once sources of social connection to the world, including news sites, social media pages and YouTube channels. So prevalent is the intrusion that, in a recent study conducted by SEO research firm Graphite, over 50% of English-language articles published online between January 2020 and May 2025 were found to be AI generated (Futurism, 2025).

As AI continues its rapid evolution, I am reminded of the famous question posed by Pontius Pilate - "what is truth"? With the majority of new written work online now AI generated, there is an urgent need to enable discernment, form opinions and make sense of the world around us. Whether it be an article, a song, artwork or video, appropriate standards for transparency are required for both the audience and human creators of the content. In Australia the Department of Industry, Sci-

ence and Resources has released best practice guidelines through the use of labelling, watermarking and metadata recording (Department of Industry, Science and Resources, 2024), however without regulation efficacy remains uncertain.

Guardrails

While many have embraced the potential of AI to enhance artist creativity and develop new audience experiences (International Federation of the Phonographic Industry, 2025) the rise of slop and unauthorised use of copyright-protected works by developers of generative AI systems poses a significant threat. Governments around the world are starting to shape a legal environment for AI, record companies Universal Music Group and Sony Music Entertainment are negotiating deals to respect the rights of music creators and streaming platform Deezer is now removing AI-generated music from its algorithmic recommendations.

Like another well-known technological advancement, the motor vehicle, our lives are being transformed and will continue to change across the world. However as of today, we are driving without seat belts, traffic lights, designated roads or any road rules. As with Grossman's envisioned "machine", AI infrastructure continues growing through hyperscale data centres, undersea cables and wires while companies such as OpenAI and Palantir race to deliver us the fastest and most powerful car. Unfortunately, we are missing the key guardrails to keep us safe and an urgent and pressing need has arisen for the protection of human authorship, ethical frameworks and regulation. According to APRA AMCOS as much as 23% of music-creators' revenues, or $519 million, could be lost to generative AI by 2028 based on the current operating environment.

Live Performance – A Symbol of Hope

Our innate drive for social connection can be observed in the hit survival series "Alone" where even the most independent, lone-wolf type adventurers sink into depression from missing friends and family. While some may not care if the daily stock report, instructional video or elevator music is AI generated, when it's harder to find original human ideas they will be eventually be valued higher as a "deeper communicative medium of the human experience" (Anantrasirichai & Bull, 2023).

Congruent with this theory, live performance provides audiences the ability to find artistic and emotional connection in the human experience and is threaded into our cultural and social fabric. While there are real fears that AI generated music will pose a major risk to the live music industry (University of Melbourne, 2024) recent data shows the contrary with the industry seeing a 76% increase in US ticketing revenue from 2019-2024 (Goldman Sachs, 2024) and live revenue growing twice as fast in the UK as the global recorded music industry (Music Business Worldwide, 2025). According to Goldman Sachs (2024) live music has now become a key growth driver for artists with Millennial and Gen Z fans placing the "highest relative importance on live experiences vs prior generations".

Whether it be in literature, art, games, philosophy or music, as live performance symbolises the greatness of human connection, our creative work should be represented through the human fabric in the ideas that we produce and the content that we consume. Grossman's question on whether a machine might one day rival or surpass us is no longer speculation, it has become a powerful tool for creativity, productivity and access. However we are now at risk of stumbling into a situation where the muse becomes master, especially if we continue to allow AI to act as a substitute for human art, expression and

culture. By failing to safeguard creators' rights, authorship, cultural diversity and authenticity we risk unsettling the meaning and value of creativity itself.

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CHAPTER 5

On Living the Good Life: Why Attire Matters

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The world has begun to rapidly shift in its outlook. The post-industrial and information age zeitgeist ushered in by the emergence of Artificial intelligence has borne witness to the enormous shift in culture, customs, and the means of work for the modern digital citizen. New horizons have created a stronger sense of urgency in how we process both the digital and analogue worlds. Increasingly, the balance has moved more towards digital horizons (Baptista and Gouveia, 2024).

Our collective notions of Artificial Intelligence and its perceived benefits cause additional shifts in paradigm. A form of operant conditioning begins to form where we must relearn what matters in the larger sense of work. The digital evolution of workspaces and the ways in which we master work becomes more prescient for many workers as they continually seek to upskill in a desperate attempt to remain relevant in the employment market (Baptista et al., 2020).

How we approach the use of AI as academics and knowledge workers in the tertiary sectors will greatly enhance the effectiveness the tools can give us. We can choose to metaphorically work with hand tools, work completely with power tools, or a hybrid approach as needed and as best suits the situation. The use of human intuition and ingenuity (using critical thinking skills) can aid us in the outcomes we seek to achieve. Seek not to be a luddite. But instead, a user attuned to the benefits of new tools whilst balancing up the possible pitfalls.

The sense that either analogue or digital tools are better to work with miss the point entirely about the nature of work. The modern age requires the use of the tools at our fingertips. We therefore need to carefully examine what should be used and why it should be used. There is no simple answer for which part of the equation (analogue vs digital) should have more weighting. The prerogative instead becomes how we work effectively within the confines and freedoms of both worlds.

Why attire matters

How we approach attire and fashion in general has a bearing on the larger cultural narratives of the society we inhabit. Do we make the decision to follow haute couture? Or perhaps the finer tailored suits of Saville Row? Or perhaps we follow the fashions of the hood or proletariat? Embodying everything that the larger cultural narrative and stereotypical posturing of our modern era postulates that we must adhere to in order to be good law-abiding citizens. The more important question though is why all this matters in the scheme of things?

The short answer is that context matters. Our environments become the underpinning of our approach to how we work and measure success. We create our own valleys of illusions. A shadowy discourse that begins to unfold upon the work that we undertake daily as academics in the tertiary spaces. Our government ministers dressed in suits and ties or other appropri-

ate attire seek to create the illusion of authority. This not only plays out in attire but also policy and framework that governs the sector (Real Men Real Style, 2025).

Attire is therefore the policies and frameworks that dictate how we seek to work in our daily undertakes in both the corporate governance of the tertiary world and within the classroom where the instruction of the future generations of Australian workers abide. Therefore, the presentation of academics in professional attire that seeks to imbue our students with knowledge and authority becomes important. A suit or smart business casual will convey this message more clearly than a pair of jeans and an Oasis band t-shirt. One is clear cut and steeped in the traditions of academia. The other seeks to remove the pedestal and become friends with students, removing all authority of the expert status of the academic.

As previously mentioned, overall context matters. The contextual lens in which we explore and implement attire becomes paramount. This is equally so when we look to the federal government for the guidance and frameworks that govern our sector. A free for all in regards to policies and frameworks becoming a walking disaster for the sector. It creates a sense that management is clueless in how it implements advice from the government. Good governance in this regard creates a sense of order and organisation for tertiary providers across the wider sector (Whateley, 2025).

The AI Bubble: Clean room. Clean mind!

Imagine a room full of clutter, junk, and superfluous items. It clutters the mind, making critical thoughts and actions difficult. The same is true for the modern worker. The mind cluttered from the increasingly split demands of tasks, responsibilities, and tools. The emergence of Artificial Intelligence has opened the precipice between the abyss of dystopia and the elation of utopia. A constant scramble to allay the fears

of mass unemployment and Arnold Schwarzenegger looking Terminator robots come to wipe out the masses of humanity (Raziq and Maulabahsh, 2015).

The truth is simpler than we are often led to believe. Artificial Intelligence in its current iteration possesses a bubble-like tendency of over market capitalisation for many AI firms who are yet to find a profitable way forward for the monetisation of their services. History never repeats but it does rhyme. The dotcom bubble and the collapse of global housing and stock markets during the great financial crisis are two examples that marred my generation (). The first occurred at the conclusion of my high school years. The second came about just as I graduated university ready to look towards the job market.

Governments sought to inject capital through grants and other financial incentive payments for their populaces. The Eurozone stimulus packages of the time created structural damage that we are still paying the price for to this day. Another prime example was the COVID-19 Emergency payments. Required for those who genuinely were unable to attend workplaces. Rorted by those who saw an opportunity and took it. The injection of cash and stimulus payments diluted the money supply. The direct result was inflation. Put in another format: the decrease of purchasing power for the general populace. Higher prices for the same or reduced amounts of wages (Reserve Bank of Australia, 2025).

We can therefore examine the Artificial Intelligence bubble with a similar modality. Many of the AI companies with the overvalued market capitalisations have set in motion a series of events that we may not be able to avoid. Nvidia (the largest AI chipset manufacturer in the world) missed their forecasted growth and earnings. The result was the gradual meltdown of global markets. Alphabet's (formerly Googles) own CEO has echoed the statements and concerns that we are living on the

economic knife's edge of disaster. Only time will tell if the economy balances itself or the bubble will burst (AFP, 2025).

Artificial Intelligence in the world of the academic

What is the true cost of embracing Artificial Intelligence in the world of the academic? It's a question that we must seek to answer in the coming months and years. It is certain that we can no longer ignore the macro effects of AI in the tertiary sector. How we ourselves use the tool to enhance our capabilities both when undertaking research and in directing students to use the technology properly. It stands to reason that students will take advantage of a tool that greatly enhances their academic abilities like a powerup in a Video game.

Our decision as academics to utilise AI as a tool can greatly enhance what can be achieved. Prompting AI when looking to summarise papers and research in our areas of expertise can greatly streamline the processes of creating outlines and other associated academic documentation. The advantage of this approach is the verifiable nature of research through subject matter expertise. This avoids some pitfalls surrounding AI hallucination where information becomes distorted or outrightly fabricated (Dupps, 2023).

The one danger becomes the erosion of the human condition through the encroaching digital landscapes into the everyday realities of the tertiary sector. We cannot stop progress. But we must be aware that there are potential pitfalls all around us. The human condition is at risk of being erased if we allow the syllogism (the deductive reasoning of the logical argument) to reach its conclusion. A large part of the AI precept is to replace human labour and the processes of critical thinking and reasoning (Agustí--Panareda & Agustí-Cullell, 2025). How we choose to enact the use of digital tools may form the cause and effect of what the consequences become.

Conclusions are never guaranteed with absolute certainty. The future that we envision through the use of AI in our daily lives as academics is not yet completely carved in stone. AI doesn't have to replace all human thinking and labour. The technocracy class (Those who run the Tech and AI companies) may envisage one form of the future. Humanity can envisage another form of the future where our lives resemble a mixture of both the digital and analogue worlds. A new analogue prerogative of sorts (Dupps, 2023).

The new analogue prerogative

Our evolutionary tendencies guide us towards the use of tools. Human ingenuity ensures that we continue to improve those tools. However, not all improvements will prove or have proven to be beneficial to our society. Smart phones as one such example form a powerful tool for creating, productivity, and connectivity when used correctly. Yet they can also be attributed to dopamine addiction and excessive screen time scrolling when used incorrectly. Social media platforms were once hailed as a form of ultimate connectivity and networking between parties. The opposite has been seen in recent years with the breakdown of human relationships in favour of the digital realms of Facebook and Tik Tok (Coach SCG, 2025).

A new paradigm has begun to emerge amongst Gen Z and Gen Alpha with a fascination and adoption of older analogue technologies. Their argument is simple: excess screen time in a false paradigm of the digital world is creating a rift amongst the cognition of the analogue and digital. The creators of the platforms gain using people's attention and mass adoption of these technologies. Younger generations are asking this simple question: what if we switch the screens off? The answer as always is complex. The mind requires time to be bored. Boredom is where creativity comes from. Constant distraction from digital technologies circumvents that.

Humanity evolved without the use of screens. Digital technologies are relatively new in the lifespan of humans. We are only just beginning to see the side effects of overuse of these technologies. The quiet revolution towards analogue technologies is a step in the right direction. Our online selves still have an important place. However, they shouldn't be the one and only part of our daily lives. Gradually the shift back towards paper books and CDs and Vinyl records has seen not only the uptick in physical ownership but also a more tactile experience with media and the world around us. A book never runs out of batteries.

Equilibrium in use of analogue and digital is the ultimate answer to the question of which technology is better. Our modern world provides many benefits that did not exist just two generations ago. And it is unlikely that the technologies we work with daily will disappear anytime soon (Unless there is a mass EMP event or solar storm from a mass coronal ejection from the sun). Therefore, finding balance in all that we do becomes important. Go outside and touch the grass. Feel the sun touching your face. Enjoy a morning coffee. And then sit back down at the computer. The tools are at out fingertips to do great work.

Implications

How we approach our work and life in the age of AI is drastically different from the world that came before. Previous generations were free to move throughout their daily tasks without being tethered to the internet or some kind of smart device. The outcome of this was the natural ebb and flow of boredom and activity. The mind was able to rest in a meaningful way. We no longer live this way in its natural form. We are required to mindfully disconnect from the technological world. The solution is not to simply eschew all technology and live off grid in a cabin in the woods.

Scheduling technology breaks and embracing the analogue world in all its boredom and beauty is an important first step to living the good life in the digital world. Allowing our minds to breath gives an all-important break for mental clarity in a world that is hyper stimulated from the continual electronic inputs of the digital behemoth overtaking and crushing all in its path. Stepping outside to metamorphically and figuratively smell the Roses reconnects us with our natural environment.

Balance is the key to effectively integrate AI into the world of living the good life. Its uses as a tool to enhance our work cannot be overstated. But like all tools it can be misused and ultimately create more work. Effective integration of AI into our lives begins with the question why? Why are I choosing to use this tool to enhance my work and private life? And how do I define its role within those contexts? The answers to those questions are what define how we live the good life.

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CHAPTER 6

Using and embracing AI in Higher Education

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Artificial Intelligence (AI) is rapidly transforming the landscape of higher education across Australia - and for that matter globally. As universities and higher education providers seek innovative ways to improve teaching, learning, and administrative processes, AI technologies are increasingly being integrated into various facets of tertiary education.

Rather than viewing AI as 'the enemy' it would be wise to consider a range of options and opportunities where AI could 'enhance' HE provision and be used 'for good rather than evil' so to speak. We are seeing considerable development in this domain - and it is well worth considering applications, opportunities and associated challenges.

If the priority in HE is to prepare students for the workforce – it would be sensible to integrate AI as much as possible into the curriculum. AI is currently shaping the future job market and supporting students and equipping graduates with the appropriate skill set becomes imperative. Rather than *fearing* AI,

students should learn to *collaborate* with it, enhancing their employability and resilience.

Applications

The notion of **personalised learning** needs consideration. Artificial Intelligence enables and encourages tailored educational experiences by analysing student data and adapting content to suit individual learning styles. This can often be incredibly time-consuming. Adaptive learning platforms can recommend things like resources, difficulty levels, and offer targeted feedback to students. If managed correctly – in this space – the process and outcomes can be very effective. Early initiatives (as far back as 2000-2023) included *The Virtual Conservatorium* that attempted to address these issues in a far less supported way – but nevertheless placing technology (of the time) 'front and centre'

In turn, **Automated Assessment** can be used for a range of tasks where AI-powered tools can mark assessments, quizzes, and even essays - providing faster and more consistent feedback. This frees up academics for more complex tasks and allows students to receive timely responses. In other words – efficiency can be achieved without quality loss. The types of assessments to be used would need to be considered carefully – if AI was to be involved in this process. The matter is well worth serious consideration.

Academic Advice and Support could be enhanced using virtual assistants and 'chatbots' answering student queries, helping with course selection, and providing support 24/7. This would help to improve accessibility and efficiency. Other sectors (airlines, travel, health for example) are effectively using this approach – and it could readily be adapted for the HE scene. On reflection, AI is already in use with e Timetables and e Libraries. Expanding the use of AI in this domain makes a lot of sense.

Much **Academic Administration** could be automated. AI is capable of streamlining administrative tasks including admissions processing, timetabling, and resource allocation. This would contribute greatly to reducing manual workload, not to mention operational costs. A number of Student Management Systems (SMS) and Learning Management Systems (LMS) are already quite intuitive and using AI elements. This is not replacing human contact – but rather enhancing access and flexibility.

Research and Data Analysis could be enhanced and made more efficient. AI currently assists researchers by analysing large datasets, identifying trends, and accelerating discoveries, especially in fields such as health sciences, engineering, and social sciences. This could be further extended – without losing integrity and focus.

Opportunities

On reflection there are many opportunities to be embraced.

Learning outcomes could be enhanced by *genuinely 'personalising' education*, AI can help students master content more efficiently and improve overall academic performance. This could provide considerable opportunity for individual approaches to learning (and for that matter teaching). This does not require invention – there are already a number of products in the marketplace that can enhance personalised learning. These are available at all levels – and are highly interactive.

Access and inclusion could be better facilitated. AI-powered tools can make education more accessible for students with disabilities (for example) or those from remote and regional areas (virtual education). Tools/features such as speech-to-text, translation, and adaptive interfaces can be powerful support mechanisms. There are a considerable number of products readily available that could assist in this space. I have personally used some quality products that have enhanced virtu-

al/hybrid teaching across the world. Most recently I completed some professional development work online with *Coursera* – and found the course informative, well organised and highly interactive.

Data-driven decision making could be considerably enhanced. Leveraging AI analytics to better understand student needs, optimise curriculum design, and improve retention rates are just some of the ways that AI could be effectively used and incorporated. There is considerable chatter about retention and attrition across the Sector.

Further, *support for academic staff* could be improved. Automating repetitive tasks allows educators to focus on high-value activities such as mentoring, research, and curriculum development. So much time is often consumed on 'low end tasks' – that could be readily assigned to intuitive AI opportunities.

Challenges

Applying AI initiatives will have key challenges associated that need to be 'front and centre' and addressed from the outset. This positive spin on collaborating with AI is not intended to be embraced blind folded – rather to be approached with the appropriate measure of caution and clarity.

Ethical and privacy concerns are of considerable importance. Collecting and using student data by AI systems raises important questions about consent, privacy, and data security. Institutions must ensure compliance with privacy laws and ethical standards. This needs to be regarded as a prime consideration and a high priority from the outset. This is not a domain for compromise.

AI systems can inadvertently perpetuate *biases* present in their training data, leading to *unfair* outcomes. It is critical to regularly audit AI tools and ensure transparency in their decision-making processes. This does not mean that any use should

be abandoned – rather careful monitoring (auditing) should become a vital part of the ongoing process.

The rise of AI-driven tools for writing and problem-solving challenges institutions to develop new approaches to maintaining academic honesty and prevent plagiarism. *Academic Integrity* is of paramount importance – and should never be compromised irrespective of mode or location.

Staff *training* and associated *adaptation* then becomes critical. The most successful integration of AI requires ongoing professional development for educators and staff to understand and effectively use these new tools. Without the necessary training (and associated confidence) all efforts could be futile – and possibly worse – resulting in a negative mindset.

It is important to remember that there will always be considerable *cost* associated with implementing and maintaining AI infrastructure. Planning, investment and monitoring will be crucial.

Current initiatives at Australian universities and private providers are currently in place. Adaptive learning platforms - in large undergraduate courses for example - help tailor content and feedback. Other providers are using *chatbots* to handle common student inquiries, freeing up staff time for more complex issues. Research projects powered by AI are driving innovation in areas such as climate science, health analytics, and language processing.

The HE sector has been pre-occupied with combating the inappropriate use of AI by students in particular – and less focussed on using AI effectively and efficiently. This needs to be addressed.

The future

As AI technologies continue to evolve, their role in higher education is set to expand – without doubt. In the coming years, we can expect to witness greater integration of AI in cur-

riculum design, learning analytics, and student support systems for example. Enhanced collaboration between universities, HE providers, industry, and government will be vital to address the challenges and maximise the benefits of AI for all stakeholders. Rather than 'sit on our hands' and be concerned – we need to embrace the technology available to us and put it to good use.

The goal should be to harness AI as a tool to enhance educational quality, accessibility, and innovation, ensuring higher education remains world-class and inclusive - well into the future.

In the Australian higher education context (on reflection) AI should be seen as an ally—one that empowers educators, supports students, and drives institutional progress. By embracing AI thoughtfully and ethically, HE providers can harness its benefits to create a smarter, fairer, and more dynamic learning environment. The future of HE is not one of competition with AI, but of partnership, innovation, and shared growth.

Also worth reading –

Virtually Yours (2025) – Virtually Yours

All a matter of integrity despite the mode of delivery (2025) - 6113ad_78e7dc08f21d4dad9049875149d4f76e.pdf

How to maintain academic integrity (2025) - 6113ad_d55e1564f3774b89a4d85a05495f1c19.pdf

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CHAPTER 7

AI Protections for Artists, Songwriters, and Producers

Jamie Rigg
December 2025

Recorded music has always been shaped by technology. From wax cylinders, multitrack tape recorders, digital synthesizers and the recent democratisation of music production with the advent of affordable digital audio workstations (DAWs), every generation of artists, songwriters and producers have incorporated new tools to advance live and recorded music production.

The pace of recent advances in generative AI technology has been rapid and at times disconcerting for music creatives. When used for good, GenAI is unlocking new ways for artists to create music and for listeners to discover it. When used for malevolence, AI can confuse or deceive listeners, push "AI slop" into the digital ecosystem, and disadvantage authentic artists working to build their careers.

'The Velvet Sundown' and Spotify's Response

A simulated band created entirely by GenAI, *The Velvet Sundown*, racked up millions of streams on Spotify, sparking a fierce debate about how music platforms should handle synthetic content. Recent incidents involving AI-generated music have also heightened concerns about platform governance.

The Velvet Sundown appeared on streaming services in June 2025. Wheeler (2025) notes that it presented itself as a regular folk rock band with polished photos and a carefully crafted sound. Within weeks, the group had notched up millions of listens on *Spotify*, but subscribers noticed something unusual about the whole setup. The band's promotional photos had that slightly unsettling quality that's become the hallmark of AI-generated images.

Initially, the "band" as reported by Bakare (2025), claimed to be a "synthetic music project guided by human creative direction", denied they were an AI creation, and released two albums in June called *Floating on Echoes* and *Dust and Silence*.

Things became more complicated when someone describing himself as an "adjunct" member told reporters that the Velvet Sundown had used the generative AI platform Suno in the creation of their songs, and that the project was an "art hoax".

The admission has triggered a backlash from across the music industry and raised awkward questions about how streaming platforms police their content. Elizabeth Moody, Partner & Chair of the New Media Practice at Granderson Des Rochers, explains how payment structures create incentives for fraudulent activity: "The DSP (digital service provider) models today compensate artists and songwriters based on their share of monthly playcounts."

"This sometimes incentivises bad actors who may choose to work with streaming promotion services or other fraudulent means to boost stream counts." Moody (2025) concludes:

"Some fear that the ease of creation of AI music will mean that fraud will become more prevalent. There are means of preventing this activity, through monitoring and business model adjustments, but they will take time and commitments on behalf of DSPs and rightsholders."

Spotify (2025) recognises these issues and has released a statement, "AI technology is evolving fast, and we'll continue to roll out new policies frequently. Here is where we are focusing our policy work today: Improved enforcement of impersonation violations, A new spam filtering system and AI disclosures for music with industry-standard credits"

Improved Enforcement of Impersonation Violations

Unauthorized use of AI to clone an artist's voice exploits their identity, undermines their artistry, and threatens the fundamental integrity of their work. Some artists such as Grimes, choose to license their voices to AI projects. (Spotify 2025)

Milmo reported back in 2023 that already nine artists, Alec Benjamin, Charlie Puth, Charli XCX, Demi Lovato, John Legend, Sia, T-Pain, Troye Sivan and Papoose authorised the use of AI-generated versions of their singing voices as soundtracks for creator videos with experiment, called 'Dream Track'.

Zeitchik (2025) recently noted that several Hollywood celebrities such as Matthew McConaughey Michael Caine, Liza Minelli and Art Garfunkel or their estates of deceased actors such as John Wayne, Lana Turner and Judy Garland have released their IP to tech company ElevenLabs' *Iconic Voice Marketplace.*

In contrast with this, A group of more than 200 high-profile musicians signed an open letter calling for protections against the predatory use of artificial intelligence that mimics human artists' likenesses, voices and sound. Robins-Early (2024) reported that the signatories span musical genres and eras, ranging from A-list stars such as Billie Eilish, J Balvin and Nicki

Minaj to Rock and Roll Hall of Famers like Stevie Wonder and REM. The estates of Frank Sinatra and Bob Marley are also signatories.

In November 2025, Spotify introduced a new impersonation policy that clarifies how they handle claims about AI voice clones (and other forms of unauthorized vocal impersonation), giving artists stronger protections and clearer recourse.

Spotify has also introduced protections against impersonation tactics, where uploaders fraudulently deliver music (AI-generated or otherwise) to another artist's profile across streaming services.

Spotify's Music Spam Filter

Total music payouts on Spotify have grown from $1B in 2014 to $10B in 2024. But Spotify recognises that big payouts entice bad actors. Spam tactics such as mass uploads, duplicates and other forms of AI slop have become easier to exploit as AI tools make it simpler for anyone to generate large volumes of music.

Left unchecked, Spotify acknowledges that these behaviours can dilute the royalty pool and impact attention for artists playing by the rules. The proposal is that the music spam filter will protect against this conduct and help prevent spammers from generating royalties that could be otherwise distributed to professional artists and songwriters.

Artificial Intelligence Disclosures

This standard gives artists and rights holders a way to clearly indicate where and how AI played a role in the creation of a track—whether that's AI-generated vocals, instrumentation, or post-production.

The rise of artificial intelligence (AI) presents both exciting opportunities and serious challenges for musicians. While AI

can create new sounds and tools, it also raises questions about copyright, fair remuneration, and creative control.

Spotify claims to be strengthening protections against Artificial Intelligence in the music industry. The streaming giant supposedly envisions a future where artists and producers are in control of how – or if – they incorporate AI into their creative processes. As the Spotify Newsroom states, it believes that aggressively protecting against the worst parts of Generative AI is essential in enabling its potential for artists and producers.

Australian Government Copyright Legislation

Australia's Attorney-General, Michelle Rowland, has publicly ruled out introducing a new broad *text and data mining (TDM) exception* or any other general copyright exemption that would give AI companies free rein to use copyrighted material to train their models. That means the government will not change the Copyright Act to allow AI developers to legally mine Australian creative works without permission or payment.

Under current law, using copyrighted material (text, images, music, films, etc.) to train an AI model usually requires permission/licensing from the rights holder. Australian copyright law does *not* currently include a general training exception like some other countries' "fair use" or TDM rules. (Johnson 2025)

Existing copyright law still applies — and creators have rights

As per the Copyright Act (1968), there is no automatic free use for AI training. AI developers don't get a special carve-out to copy or "scrape" copyright works. Those activities are generally treated as reproduction and would require permission/licensing under existing copyright rules.

There is also no “fair use” exception like in the U.S, Australia does not have a broad fair use regime. Instead, it has narrow “fair dealing” exceptions for specific purposes (e.g., research, study, criticism) — which rarely cover large-scale AI training.

Copyright protection for AI-generated works remains unsettled. Works created wholly by AI likely aren’t protected unless there’s sufficient human input (“independent intellectual effort”).

Since this technology is so new, it is not clear that works created with the help of AI will be protected by copyright. As a general rule, a work can only be protected by copyright in Australia if there is a human author who contributed ‘independent intellectual effort’. Because of this, it is possible that works generated by AI which don’t have enough human input won’t be protected by copyright.

What might happen next?

While the government has so far said no to a blanket AI training copyright exemption, discussions are underway that could lead to: New licensing frameworks to ensure creators are paid when AI uses their work. (Burrows 2025) and the clarification of how existing copyright rules apply to AI outputs and whether special provisions should be adopted. (Attorney General’s Department 2025)

The outcomes of these proposals are yet to be seen. If they indeed do come to fruition, the AI Protections for Artists, Songwriters, and Producers may be a step in the right direction within the digital musical landscape.

The next step is for Spotify to review its royalty payments to artists, which are currently between only $0.003 - $0.005 per stream, rather than the CEO Daniel Ek's current investment in *Helsing*, an AI military tech company...But that’s a story for another article.

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CHAPTER 8

The Influence of Leaders

Christopher McLeod
December 2025

Effective leadership and traits of good leaders are often overlooked. The leader in popular culture is often strong, physically present and outspoken. Some of these traits are present in many of the great leaders of history. A leader must possess a sense of fortitude that will sustain them in the thin air that only Eagles soar. But leadership requires more than glory and the limelight. There is a way that is often lonely. A path less travelled.

To build trust within the brands that we work for requires careful management of decisions and reputation. One wrong decision made public can destroy decades of carefully managed public trust within the brand itself. Decision making in the context of Higher Education leadership can make or break the institution. Yet, there are often 100s if not 1000s of leadership decisions made within a week, month, or year. Clear frameworks such as the Eisenhower Decision Matrix can guide those decisions through meaningful dialogue.

The *Artificial Intelligence revolution* that is at the point of large-scale adoption is another part of the equation of how

leaders manage, adapt, and overcome increasingly fractious workplace systematic shifts. The traits we present as leaders set the culture we seek to propagate within the broader system of cultural paradigms. The disruptive nature of AI has created a rift in the time fabric continuum. The analogue era before the digital technology revolution feels no closer than the Roman empire.

A crossroads in adversity has begun to emerge. To survive the future problems of the emerging technological order requires us to be antifragile in our approaches to problem solving and stakeholder management. The careful equilibrium of systems to solve complex scenarios is part of the leadership toolkit. Beneath the well-polished veneer are the nuts and bolts of those systems. Effective leaders know and understand this.

The Way of Solitude

Leadership is not a journey for the fainthearted. It comes with sacrifice, patience, and servitude to your team and stakeholders. Your day never truly ends. There is no clear option to quiet, quit or disconnect the phone for more than a few hours. Because what's at stake is often the financial and operational outcomes of the business. Therefore, the standards we set as leaders must be at a much higher level than that set for our team (though we should also have high standards for how the team operates).

Operational decisions made will often not be made in the essence of pure popularity. Making the right decision when it would easier to make no decision becomes paramount even when earnings and reputational loss for the institution or business may become a deciding factor. Managing staff and ensuring that they buy into the overall vision of the business becomes another paramount point that leadership continues. How we approach the dignity of our team members is im-

portant to the overall health of the staff and how they approach their work.

"Do what is right, though the world may perish"
Immanuel Kant, German Enlightenment philosopher

We seek to set good examples for our teams and stakeholders because to paraphrase Immanuel Kant: It is right. Effective leaders understand that there must be a sense of what is morally right when setting an example. This isn't a concept for those who seek only comfort. You will be scrutinized. You will be hated. You will be maligned. That is human nature. And particularly so given the crabs in a bucket/tall poppy syndrome that is often present in Australia.

Leadership can often be a thankless task. The image of the tech billionaire jet-setting or on their yacht exudes the luxury of the ultra-rich playboy. The stark reality of building a company or increasing stakeholder value and core efficiencies are different from the perceived imagery. History tells stories of great men and women, lionising them in written accounts. There is some truth to this. The historical events of greatness such as the Normandy Landings (General Eisenhower). What is missing is the mundane daily details of live and routine that fill most of a leader's time. So, do you really want to be a leader?

Building Trust in the Higher Education Sector

Trust in the Higher Education Sector is vital for effective leadership. Multiple stakeholders, deadlines, and business demands create a complex myriad of operational paradigms and decision-making considerations. The daily operations of a department/faculty or larger organisation become a game of chess where strategic alignments become the bedrock of our approach in the sector. The wrong decision can have disastrous consequences for an organisation.

	Urgent	Not Urgent
Important	**Do** Do it right away.	**Decide** Schedule a time to do it later.
Not Important	**Delegate** Who is the best person for the task?	**Delete** Remove unnecessary tasks.

Figure 1.1 The Eisenhower Decision Matrix

How we prioritise our demands and use of time creates a set of decisions that will inevitably arise. The use of The Eisenhower Decision Matrix (Figure 1.1) is one such way in which to alleviate decision fatigue through a set of constructs designed to simplify choices. This becomes prescient for leaders in the Higher Education Sector as the demands of the job often requires continual choice selection. An academic under pressure (due to multiple classes, marking, student management etc.) will greatly benefit from the use of the Eisenhower Matrix as it simplifies the process.

Considered decision making through Do, Decide, Delegate, and Delete works to build trust in the processes surrounding core decisions and business outcomes. Our institutional reputations build part of the branding and trust that our customers rely on. How we respond under pressure to customers and students will set our reputation. It is our inherent desire to create excellent learning and educational outcomes for students through clear and directed policies and processes. Utilising a

clear framework assists in that end goal. Reputation matters in the Tertiary Education space.

Integrity in leadership and the style in which that leadership is exercised is an important matter for building institutional reputations. It can be thankless, often involving untold hours of overtime to build decisions that work within the contextual lens of risk management. Foundational frameworks within current legislation and our institutions create a strong case for building institutional trust and branding through our decision-making capabilities. In other words: how do we build a brand without causing harm to it or our own reputations?

Systems in the Age of Artificial Intelligence

Systems are structures that make things simple. A way of organising the many moving parts to create order. An incomplete or disorganised system can create chaos and disorder within a work environment. The age of Artificial intelligence has further complicated this environment as once simple truths surrounding work patterns have shifted beyond the obvious wholesale replacement of minimum skill white collar jobs. A new paradigm of global workplace governance is beginning to emerge.

"Systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing 'patterns of change' rather than static 'snapshots."

Peter Senge, American Systems Scientist and MIT Academic

The inter-relational paradigm between artificial intelligence, effective AI prompting, leadership. In the workplace, and the effectiveness of entrenched and emerging educational systems is apparent. The world will be defined much like the industrial revolution of the 19th century as the world before and the world afterwards. The frameworks that we need to develop to

effectively manage the new paradigm must consider both the technological and the biological.

Tech futurists like Ray Kurzweil envisage a history in which all humanity has merged with machines and therefore evolved into an ideological Übermensch. A class of human being superior to our current understanding of the human condition. The new man will not tire easily, will not be easily manipulated, will compute complex equations and philosophical questions in the blink of an eye. Not all proponents of a tech driven future with AI as the centre point believe that a singularity is inevitable. There is another way forward.

To be forewarned of the potential disruptive power of the AI revolution is to be forewarned against its consequences as the disruptive nature of the fourth industrial revolution continues its slow permutational march through our modern society. Our systems and the safeguards we build into them will be paramount in how effectively we can manage the AI conundrum. We are at the unique point in history where humanity can create a way of management that does not allow our over-reliance on technological based systems. As leaders, it is paramount that we have these discussions now.

Leadership through Adversity

The great difficulty of leadership comes from the management of human resources. Strategically, the arc of adversity brings unique challenges as to how we can and should lead. The concrete and static approach will leave an organisation unable to respond to evolving paradigms. The moto proprio of doing difficult things enables an effective leader to set a culture of problem solving and creativity. Dissecting the challenges facing a department or organisation will provide a framework for solving the emerging narratives of the modern workplace.

“We do these things not because they are easy,

but because they are hard."
John Fitzgerald Kennedy (JFK), 35th President of the United States of America

The nuanced response of building a workplace culture that embraces adversity is incumbent on the leader of the organisation. This can take place in several ways including management of staff through the curation of specialist and generalist skillsets that empower workers to curate the assigned mission. A greater sense of building upon the foundations of excellence that we as leaders bestow upon our staff. Setting clear expectations of tasks and the levels we aim to achieve gives guidance to the larger sense of the contextual lens.

How we create organisational identities in the face of challenges and adversity will lend a sense of self in those set adversities. A clear direction of embracing the hard. The broader strategic frameworks of complex stakeholder management infuse potential solutions for adverse situations. Our ability to remain calm, cool, and collected in leadership are part of the framework for managing stressful situations. The underlying fears of the potential unknown will create an uncertain sense of place and time. It's ultimately about prioritisation of decisions to affirm long term solutions.

Our use of systems in the face of chaos and adversity will ultimately determine how we approach solutions-based leadership in the age of Artificial Intelligence. The solutions are not necessarily simple. How we approach complex tasks and the inherent learning that occurs as we overcome those challenges will make us more antifragile as we approach more tasks in future scenarios. The systems built are the framework for all that we seek to achieve. As leaders, our ability to have all stakeholders buy in is crucial for success. The future is in our hands.

The technology we use and choose to implement into the future should be humane and treat those who use it and will be

affected by it with dignity. To utilise AI in an arbitrary manner harms all who use it. We must implement the important lessons surrounding humanity and its flaws to find equitable outcomes for our workers and stakeholder. A large part of leadership is understanding how to manage this type of complexity. Our philosophical and systemic approach can greatly assist in providing leaders with the correct tools to manage the emergence of organisational cultures.

Our use of tools such as the Eisenhower matrix is an important first step towards empowering leaders to prioritise decisions and decision making. It offers the opportunity for leaders both emerging and established to begin solving the cultural issues surrounding the larger organisational fabric. Ultimately, the examples set and the results of our teams are incumbent on our abilities to imbue exemplar qualities on our workers. Only then can we begin to make true progress in the workplace towards a logistically enhanced future of work.

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CHAPTER 9

A little and often – Advice from a long-term user of AI

Clive Smallman
December 2025

Living with AI, Not Chasing It

Artificial intelligence did not arrive in my working life with a bang. First it formed the early part of my career: research in machine learning and commercial applications of knowledge - based systems. Then the second AI winter set in.

More recently, AI crept in quietly: first as decision support, then as automation, and now as something closer to a thinking partner. After four decades working across technology, business, and higher education, what strikes me most about AI is not its power but its *ordinary usefulness* when used well.

The biggest mistake people make with AI is treating it as a revolution that requires total transformation overnight. That framing creates fear, resistance, or superficial experimentation that goes nowhere. My experience suggests something far more modest and effective: *a little and often.* Small, repeated uses of AI, embedded into everyday practice, accumulate into genuine

capability. This piece offers practical advice from long-term use, focused less on tools and more on habits of thinking.

From Expert Systems to Everyday Assistance

My first encounters with AI were not with generative models but with early expert systems and decision-support tools in the 1980s and 1990s. These systems promised to codify expertise, if we could just extract it cleanly enough. They were brittle, expensive, and difficult to maintain. But they taught an important lesson: AI works best when it *augments human judgment*, not when it tries to replace it.

Today's AI systems are dramatically more capable, but the principle remains. AI is not a substitute for experience, context, or ethical judgment. It is a multiplier. Used poorly, it amplifies confusion. Used well, it amplifies clarity.

The "Little and Often" Principle

The most productive AI users I observe are not those running moonshot experiments, but those making frequent, low-risk applications part of their routine. The "little and often" principle has three dimensions.

First, *small scope*. Start with tasks that are bounded and familiar: drafting, summarising, re-phrasing, checking assumptions, generating alternatives. These are cognitively expensive but low-risk activities, ideal for AI support.

Second, *high frequency*. Use AI daily, not occasionally. Capability comes from repetition. Just as literacy develops through regular reading and writing, AI fluency develops through everyday interaction.

Third, *reflective use*. Each interaction should teach the user something, about their own thinking, about the limits of the tool, or about better ways to frame questions.

Over time, this pattern builds trust without dependency.

Prompting Is Thinking Made Visible

Much has been made of "prompt engineering," but in practice, prompting is simply structured thinking made explicit. The quality of AI output is tightly coupled to the quality of the user's input. This is not a technical insight; it is a cognitive one.

Good prompts clarify:

- the task,
- the audience,
- the constraints,
- the standards of quality.

In doing so, they force the user to think more clearly. I often tell students and executives that AI does not replace thinking, it *exposes* it. When the output is poor, it is usually because the thinking was vague, rushed, or confused.

Used regularly, AI becomes a mirror. It shows you how precise (or imprecise) your own reasoning really is.

AI as a Drafting Partner, Not an Authority

One of the most productive shifts I made was treating AI as a first-draft partner rather than a source of truth. This reframes the relationship entirely.

AI drafts quickly, without ego or fatigue. Humans edit with judgment, context, and responsibility. This division of labour is powerful. It accelerates work while preserving accountability.

Problems arise when users defer authority to the system, accepting outputs uncritically, or assuming correctness because the language sounds confident. Long-term users learn to *interrogate* AI:

Why this framing? What's missing? What assumptions are embedded here?

The value is not in the answer but in the dialogue.

Building Judgment Through Disagreement

One underappreciated benefit of AI is its usefulness as a *constructive adversary*. I often ask AI to argue against my position, stress-test an idea, or identify weaknesses in a proposal. This is not because the system is right, but because it is fast, articulate, and relentless.

Over time, this practice sharpens judgment. It encourages intellectual humility without undermining confidence. The goal is not agreement with the machine, but better reasoning by the human.

This is particularly valuable in leadership, governance, and policy contexts where blind spots are costly and dissent is often muted.

Avoiding the Productivity Trap

AI undeniably increases productivity, but productivity is not the same as value. One of the risks of frequent AI use is mistaking speed for progress. Producing more content, more analysis, more options does not automatically lead to better outcomes.

The discipline required is *selectivity*. AI makes it easy to generate; humans must decide what matters. Long-term users learn to slow down at decision points even as they speed up preparation.

"A little and often" applies here too: small productivity gains, applied consistently, without overwhelming the system or the person.

Ethics, Agency, and Staying Human

AI raises serious ethical questions, but for everyday users the most immediate issue is agency. Who is thinking? Who is deciding? Who is responsible?

The danger is not that AI becomes truly intelligent, but that humans become passive. Long-term use should increase confi-

dence, not erode it. If you find yourself deferring, outsourcing judgment, or avoiding responsibility, it is time to step back.

Used well, AI should leave you *more engaged*, not less. It should free cognitive space for empathy, creativity, and strategic thinking, the things machines do not do well.

Teaching AI Through Use, Not Instruction

One final observation from higher education: AI literacy is not effectively taught through policy documents or technical workshops alone. It is learned through use, reflection, and guided practice.

Students and professionals need permission to experiment, fail, and learn. A little and often. Low stakes, high frequency. Reflection built in.

The same advice applies to organisations. Culture changes through behaviour, not directives.

The Quiet Advantage

AI does not need to be dramatic to be transformative. Its real power lies in quiet, cumulative advantage. Those who use it thoughtfully, regularly, and critically will outpace those waiting for certainty or chasing novelty.

A little and often is not a strategy of caution, it is a strategy of mastery.

Clive Smallman is a professor, business advisor, and technology practitioner with over 40 years' experience across IT, higher education, and leadership development. He has taught the full MBA curriculum, advised governments and institutions on strategy and governance, and works extensively on the practical integration of artificial intelligence into professional

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CHAPTER 10

Incorporating Artificial Intelligence into Our Lives

Anurag Kanwar
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Artificial intelligence (AI) has rapidly transitioned from a theoretical concept into a practical, everyday technology. Over the past few years, AI tools have become embedded in how people work, learn, communicate, and make decisions. From generative writing assistants and recommendation algorithms to facial recognition and predictive analytics, AI now influences personal, professional, and institutional environments.

The acceleration of AI adoption reflects advances in computing power, data availability, and machine-learning techniques. AI systems are increasingly capable of performing tasks that once required human cognition, including language processing, image recognition, pattern detection, and decision support. As a result, AI is no longer confined to specialist technical settings; it is integrated into smartphones, workplaces, education systems, healthcare services, and government operations.

This chapter explores how artificial intelligence is being incorporated into everyday life. It examines the benefits and

risks of AI adoption, considers its impact across key domains, and highlights the importance of ethical, regulatory, and human-centred approaches to its ongoing integration.

Shaping decision making

AI increasingly shapes everyday decisions, often without users being fully aware of its influence. Recommendation systems guide what people watch, read, buy, and listen to, while navigation tools determine travel routes and estimated arrival times. Financial institutions rely on AI to assess credit risk, detect fraud, and personalise products, while online platforms use algorithms to curate news feeds and advertising.

These systems offer clear benefits. They reduce information overload, increase efficiency, and tailor experiences to individual preferences. For example, AI-driven recommendation engines help users discover relevant content more quickly than manual searching. In finance and insurance, AI identifies complex patterns that would be difficult for humans to detect, improving risk assessment and decision accuracy.

However, the growing reliance on algorithmic decision-making raises concerns about transparency, accountability, and autonomy. Many AI systems operate as "black boxes," making it difficult to understand how decisions are reached. This lack of explainability can undermine trust, particularly where AI outputs affect access to services, employment opportunities, or financial products. Ensuring that AI supports, rather than replaces, informed human judgement remains a critical challenge.

Automating routine tasks

One of the most visible impacts of AI is in the workplace. AI tools are increasingly used to automate routine tasks, analyse large volumes of data, and support strategic decision-making. In professional environments, AI assists with drafting docu-

ments, summarising information, managing workflows, and forecasting trends.

Automation has improved productivity by freeing workers from repetitive tasks, allowing greater focus on complex, creative, or interpersonal work. In fields such as law, accounting, medicine, and engineering, AI supports research, diagnostics, and compliance by rapidly processing information that would otherwise require significant time and effort.

At the same time, AI's integration into work raises concerns about job displacement, skill obsolescence, and workforce inequality. While AI is unlikely to replace entire professions in the short term, it is reshaping job roles and expectations. Workers increasingly need digital literacy, critical thinking, and the ability to collaborate with AI systems. Organisations face the challenge of reskilling staff and redesigning roles to ensure that AI adoption enhances, rather than diminishes, human contribution.

Education

Education is another domain where AI is becoming deeply embedded. AI-powered learning platforms personalise educational content, adapt to individual learning styles, and provide real-time feedback. Automated assessment tools, plagiarism detection systems, and generative AI tutors are increasingly common in schools and higher education institutions.

These technologies offer opportunities to improve access, flexibility, and inclusivity. AI can support students who require additional assistance, provide scalable tutoring, and enable lifelong learning beyond traditional classrooms. For educators, AI can reduce administrative burdens and provide insights into student progress and engagement.

However, the use of AI in education presents significant challenges. Concerns include academic integrity, over-reliance on automated tools, data privacy, and the potential erosion of

critical thinking skills. Clear institutional policies are needed to define appropriate AI use, promote transparency, and ensure that learning outcomes emphasise human judgement, creativity, and ethical reasoning alongside technological competence.

Healthcare

AI is transforming healthcare by enhancing diagnostics, treatment planning, and patient monitoring. Machine-learning algorithms analyse medical images, predict disease progression, and support early detection of serious conditions. Wearable devices and health applications use AI to track physical activity, sleep patterns, and vital signs, enabling individuals to manage their health more proactively.

The benefits of AI in healthcare include improved accuracy, reduced costs, and increased access to care, particularly in underserved or remote communities. AI systems can assist clinicians by providing decision support and reducing administrative workloads, allowing more time for direct patient care.

Nevertheless, healthcare applications of AI raise complex ethical and legal issues. These include data security, informed consent, bias in training datasets, and accountability for AI-assisted clinical decisions. Errors or biases in medical AI systems can have serious consequences. Strong governance frameworks, human oversight, and rigorous validation are therefore essential to ensure patient safety and public trust.

Social interaction and communication

AI increasingly mediates social interaction and communication. Chatbots, virtual assistants, and generative AI tools simulate conversation, produce creative content, and respond to emotional cues. Social media platforms rely on AI to moderate

content, detect harmful behaviour, and recommend connections.

These tools can enhance accessibility, particularly for individuals with disabilities or language barriers, and may provide limited forms of companionship or support. However, they also blur the boundaries between human and machine interaction. The growing realism of AI-generated content raises concerns about misinformation, deepfakes, and manipulation, challenging trust in digital environments.

Identity and social behaviour

AI's influence on identity and social behaviour also warrants attention. Algorithms shape preferences, reinforce norms, and influence self-perception. Without careful design and oversight, AI systems risk amplifying bias, exclusion, or social polarisation. Preserving authentic human connection and safeguarding democratic discourse remain significant challenges.

As AI becomes embedded in daily life, ethical and regulatory considerations are increasingly important. Key issues include fairness, transparency, accountability, privacy, and human rights. AI systems trained on biased data can perpetuate discrimination, while opaque decision-making undermines accountability.

Governments and regulators are responding by developing AI-specific laws, standards, and guidance. These frameworks aim to balance innovation with protection of individuals and communities. Organisations adopting AI are increasingly expected to demonstrate responsible use through governance structures, risk assessments, and ethical oversight.

At an individual level, digital literacy is essential. Understanding how AI systems operate, what data they rely on, and how outputs should be interpreted enables informed participation in AI-enabled environments. Responsible AI integration

requires collaboration between technologists, policymakers, professionals, and society more broadly.

AI is embedded in everyday life

Artificial intelligence is no longer a distant or abstract concept; it is embedded in everyday life. Its integration offers substantial benefits, including efficiency, accessibility, and innovation across multiple domains. At the same time, AI presents significant challenges that require careful management, including ethical risks, workforce disruption, and threats to transparency and trust.

Successfully incorporating AI into our lives requires thoughtful governance rather than resistance to change. Human judgement, ethical reasoning, and accountability must remain central to AI adoption. When integrated responsibly, AI has the potential to enhance human capability, improve quality of life, and support more equitable and sustainable social systems.

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CHAPTER 11

Artificial Intelligence as a Colleague: Rethinking How We Work with AI

Anurag Kawar
December 2025

Artificial intelligence is often framed in polarising terms. It is either presented as a revolutionary force that will replace human workers or as a disruptive technology that should be treated with suspicion and restraint. In practice, however, many professionals are already engaging with AI in a far more grounded and pragmatic way. Rather than treating AI as a replacement for human expertise, it is increasingly being used as a *colleague*: a support, a sounding board, and a cognitive partner embedded in everyday work.

For many professionals, generative AI tools such as ChatGPT are now part of daily workflows. They are used to draft, summarise, test ideas, clarify thinking, and explore alternative approaches to complex problems. This shift represents not only a technological change, but a cultural one. AI is moving from being a tool we operate to something we collaborate

with, reshaping how work is done and how professional value is defined.

This article explores the concept of artificial intelligence as a workplace colleague. It examines how professionals are using AI in practice, the benefits and limits of this approach, and the implications for judgement, accountability, and professional identity.

From Tool to Colleague

Historically, workplace technology has been understood as a tool: something that performs a defined task at the direction of a human user. Spreadsheets calculate, databases store information, and email transmits messages. Generative AI challenges this traditional framing. It does not simply execute instructions; it responds, adapts, and engages in dialogue.

When AI is used as a colleague, it behaves less like software and more like an always-available junior team member. Professionals may use it to draft initial versions of documents, sense-check arguments, reframe complex material for different audiences, or identify gaps in reasoning. Importantly, the human remains in control. The professional decides what to ask, what to accept, what to reject, and what ultimately proceeds.

This mirrors how work is often delegated within teams. Drafts are reviewed, ideas are tested, and outputs are refined. AI does not remove the need for expertise; it creates a different starting point for applying it.

Cognitive Offloading and Capacity

One of the most immediate benefits of using AI as a colleague is cognitive offloading. Many professional roles involve sustained mental effort: synthesising information, managing competing priorities, and making decisions under time pres-

sure. AI can absorb some of this load by handling first-pass tasks that would otherwise consume time and attention.

For example, using AI to prepare a draft or summary allows the professional to focus on higher-order work such as strategy, nuance, risk assessment, and stakeholder impact. Rather than starting from a blank page, the professional reacts, refines, and improves. This can increase both efficiency and quality.

Used appropriately, AI expands professional capacity rather than diminishing it. It allows individuals to operate more effectively, particularly in environments where resources are constrained and expectations are high.

AI as a Thinking Partner

Beyond efficiency, many professionals use AI as a thinking partner. This involves asking questions, exploring scenarios, and testing assumptions. In this role, AI functions as a neutral interlocutor: one without organisational politics, fatigue, or personal agendas.

This can be particularly valuable in governance, legal, policy, and leadership contexts, where decisions are complex and consequences significant. AI can help articulate alternative viewpoints, identify potential risks, or surface considerations that may otherwise be overlooked. It does not replace experience or judgement, but it can prompt deeper reflection.

The effectiveness of AI as a thinking partner depends heavily on the quality of human engagement. Vague questions produce superficial answers. Thoughtful prompts produce more useful insights. In this sense, AI collaboration rewards professional skill rather than undermining it.

Boundaries, Judgement, and Accountability

Treating AI as a colleague requires clear boundaries. Unlike a human colleague, AI does not exercise judgement, hold val-

ues, or bear responsibility. It cannot be accountable for outcomes. This distinction is fundamental.

AI systems can produce inaccuracies, reinforce biases, or present information with unwarranted confidence. They lack contextual awareness and cannot assess ethical, relational, or organisational consequences. For this reason, AI outputs must always be subject to human review and professional judgement.

Using AI responsibly means understanding when its input is appropriate and when human discretion must prevail. AI may assist in drafting advice, but it should not determine it. It may suggest options, but it should not make decisions. Accountability remains human, regardless of how sophisticated the technology becomes.

Confidence and Professional Identity

For some professionals, working with AI as a colleague raises questions about confidence and identity. If AI assists with drafting or analysis, does that diminish individual expertise or originality?

In practice, the opposite is often true. Professionals who use AI effectively tend to demonstrate stronger judgement, clearer communication, and greater strategic focus. The value they bring lies not in producing raw text or information, but in interpreting, contextualising, and applying it responsibly.

Professional identity is not threatened by AI collaboration; it is redefined. Expertise increasingly involves knowing how to work with AI thoughtfully, rather than whether to use it at all.

Organisational Culture and Governance

At an organisational level, recognising AI as a workplace colleague has important cultural implications. It encourages transparency about AI use, rather than secrecy or stigma. It supports

the development of shared standards, governance frameworks, and ethical guidelines that reflect how AI is actually used in practice.

Organisations that prohibit or ignore AI use risk creating informal, ungoverned practices. By contrast, organisations that acknowledge AI's role can focus on training, risk management, and responsible integration. This approach aligns with contemporary governance principles: realism, accountability, and continuous improvement.

Artificial intelligence is already embedded in professional life, not as a replacement for human expertise, but as a collaborator. When used thoughtfully, AI can function as a colleague: supporting thinking, enhancing productivity, and enabling professionals to focus on what matters most.

The critical issue is not whether AI is used, but how. Treating AI as a colleague requires clear boundaries, strong judgement, and ethical awareness. It demands that professionals remain accountable, reflective, and intentional in their engagement with technology.

As workplaces continue to evolve, the most effective professionals will not be those who resist AI, nor those who defer to it uncritically, but those who know how to work alongside it with confidence, responsibility, and humanity.

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CHAPTER 12

Governing with Machines: Statesman's Quest

Mordechai Katash
January 2025

Every generation inherits a set of tools that quietly rewires what it means to lead. The printing press expanded literacy, the steam engine expanded power, and the internet expanded reach; ***Artificial Intelligence (AI) expands clarity of thought****. For the first time, societies can industrialise cognition itself, compressing weeks of analysis into minutes, translating oceans of data into decisions, and moving the "centre of gravity" from physical assets to computational advantage. The question is no longer whether AI will be incorporated into our lives, but on whose terms, under what rules, and toward what ends.*

In my earlier work, ***"Artificial Intelligence = Clarity of Thought",*** *a chapter I contributed in the book: "Artificial Intelligence versus Actual Intelligence" (August 2025), I framed AI as an amplifier of human reasoning: a capability that can elevate decision quality when anchored to discipline, ethics, and purpose.*

This chapter extends that idea into the ***"Domain of Statecraft"****. A statesman does not merely adopt technology; he or she*

integrates it into national policy, legislation, and funding in a way that preserves sovereignty, strengthens resilience, and protects human dignity. The framework presented here is intentionally simple. If AI is becoming a national capability, then the state must treat it as it treats all strategic capabilities: it must ***defend*** *with it,* ***build*** *with it, and* ***finance*** *with it. These three pillars:* ***AI Defence, AI Infrastructure,*** *and* ***AI Finance****, form a practical doctrine for incorporating AI into national life without surrendering the human core of governance.*

The Statesman and the Machine: Defining a National AI Ethos

AI is frequently discussed as a product category (tools, platforms, models), yet for governments it functions more like a strategic layer that sits across every domain: security, education, energy, healthcare, industry, and markets. The state's task is therefore to define an "AI ethos" that aligns technological capability with national values. Absent such an ethos, AI adoption becomes fragmented, driven by procurement cycles, vendor narratives, or short-term political incentives.

An AI ethos should answer three questions:

1. What must remain human (accountability, lawful authority, moral judgement)?
2. What can be delegated to machines (pattern detection, forecasting, optimisation, routine compliance)?
3. How do we structure oversight so that machine speed does not erode democratic legitimacy?

Modern AI systems can generate outputs that are highly persuasive but not necessarily accurate, and they can optimise objectives in ways that produce unintended externalities. The statesman must therefore insist on transparency, testability, and auditable decision trails, particularly where rights, safety, and public trust are implicated (Floridi et al., 2018). Operationally, an AI ethos is expressed through policy instruments: na-

tional AI strategies, risk-based regulation, data governance, public-sector capability building, and funding priorities for research and commercialisation. It is also expressed through a "public narrative" that invites citizens to understand where AI will be used, why it is being used, and how harm is prevented. Trust becomes an asset class of its own. In the AI era, legitimacy is not a communications strategy, it is a governance system.

AI Defence: Asymmetry, Autonomy, and Ethical Warfare

Defence is the first pillar because security is the precondition of prosperity. In contemporary conflict, asymmetry often outweighs scale. Smaller actors can inflict outsized damage through cyber operations, disinformation campaigns, and attacks on critical infrastructure. AI increases both the velocity and the ambiguity of these threats, enabling adversaries to automate reconnaissance, generate persuasive propaganda at scale, and probe systems continuously for weaknesses.

AI Defence therefore begins with the recognition that the "era of weaponry" has expanded into an era of cognition. Decision advantage: the ability to observe, orient, decide, and act faster than an opponent, becomes a decisive capability. Machine learning can assist by correlating signals across cyber telemetry, communications, logistics, and open-source intelligence, producing actionable threat assessments in near real time (Russell and Norvig, 2020).

A statesman's AI Defence agenda should typically include:

1. resilient cyber posture (AI-enabled detection, automated response, and continuous redteaming)
2. disinformation resilience (content provenance, civic media literacy, and rapid countermessaging).
3. secure supply chains for chips, cloud, and communications.

4. clear rules of engagement for autonomous systems. The aim is not automation for its own sake; it is controllable capability that strengthens deterrence.

This brings us to a paradox: in the AI era, offence is often delivered via defence. Adaptive defence systems learn from every attempted breach, hardening over time and raising the cost of attack. However, as autonomy increases, so does the risk of unintended escalation. The ethical boundary between "defensive autonomy" and "pre-emptive aggression" can blur quickly when systems are empowered to act at machine speed. For this reason, human-inthe-loop (or, at minimum, human-on-the-loop) oversight should be mandatory for decisions involving lethal force or significant rights impacts. Risk-based frameworks and governance mechanisms, similar in spirit to the NIST AI Risk Management Framework, are essential to keep capability aligned with lawful authority and public accountability (NIST, 2023).

AI Infrastructure: Building the Intelligent Nation

If defence protects the nation, **infrastructure builds it.** AI infrastructure is not limited to data centres; it includes the full stack that enables intelligent capability: compute, data, connectivity, energy, standards, and skills. Nations that treat AI as a mere "software layer" will quickly discover that their dependence on external compute and proprietary platforms becomes a sovereignty risk. Conversely, nations that invest intelligently can build an "intelligent republic" in which public services become more personalised, efficient, and equitable.

A practical starting point is smart economic development. Governments can deploy AI to reduce friction in service delivery (licensing, compliance, benefits processing), to optimise infrastructure planning (communication, transport, energy, water, housing), and to support industry productivity (manufacturing, logistics, agriculture). Yet these benefits require a

disciplined approach to data governance: clear data ownership, consent, privacy protections, and secure sharing mechanisms. High-risk applications should be subject to proportionate safeguards and transparency obligations, consistent with the risk-based direction of the European Union's AI Act (European Commission, 2021).

The second infrastructure principle is to **turning weakness into strength**. Constraints, such as: geography, population size, resource scarcity, agriculture, can become catalysts for focused innovation. A smaller nation can be faster to legislate, quicker to pilot public sector use cases, and more agile in coordinating universities, industry, and government. It can also specialise: for example, in secure digital identity, regtech (Regulatory Technology), AI enabled health diagnostics, or climate analytics. In such a model, sovereignty is achieved not through scale, but through precision and coherence.

The third principle is the **slingshot of innovation**. AI-driven growth accelerates where talent, data, and incentives align. Governments can act as "market shapers" by funding research translation, procuring innovative solutions, and setting standards that reward safety and interoperability. Strategic investments in education matter here: citizens must be AI literate, and public servants must understand procurement, evaluation, and risk controls for AI systems. At a technical level, continued advances in deep learning and representation learning remain central to capability, reinforcing the value of sustained research and workforce development (LeCun, Bengio and Hinton, 2015).

AI Finance: Dynamic Capital in the Algorithmic Age

Finance is the **bloodstream of national capability**. AI is transforming finance not only through automation but through a shift from static models to adaptive intelligence. Modern Portfolio Theory (MPT) provided a foundational framework

for diversification, yet it rests on assumptions that weaken in a world of algorithmic trading, instantaneous information diffusion, and fat-tailed volatility. Markets now move as networks: correlations shift rapidly under stress, and narrative can reprice assets in hours.

This context gives rise to Dynamic Portfolio Intelligence: systems that continuously learn from market microstructure, cross-asset signals, macroeconomic data, and sentiment. Such systems can rebalance portfolios based on changing regimes rather than fixed historical parameters. Used wisely, this can enhance risk management for institutions, pension funds, and sovereign wealth strategies. Used poorly, it can amplify systemic risk if many actors converge on similar models and signals.

Here the statesman's role is twofold. First, to modernise regulation so that AI in finance is transparent, resilient, and auditable. Second, to ensure that national capability is developed through talent, data standards, and responsible experimentation. The rise of fintech and regtech illustrates how regulators themselves can use AI to detect fraud, monitor conduct, and anticipate emerging risks, provided they invest in capability and governance (Arner, Barberis and Buckley, 2017).

Finally, the way I phrase it: **"Fibonacci on steroids",** is a useful metaphor for what AI does to pattern recognition. Financial markets have always been studied through cycles, ratios, and behavioural dynamics; AI multiplies the dimensionality of this analysis, detecting relationships across timeframes, instruments, and narratives that exceed human bandwidth. The point is not to mystify markets, but to acknowledge that capital now moves through informational ecosystems that reward speed, learning, and disciplined risk controls. Nations that understand this shift can better steward retirement savings, design resilient financial regulation, and manage the macroeconomic feedback loops that arise when algorithms become major market participants.

Ethics, Governance, and Human Centricity

No doctrine for incorporating AI is credible without ethics. AI systems can encode bias, erode privacy, and concentrate power. They can also degrade the quality of public discourse when misinformation becomes cheap to produce and difficult to authenticate. Ethical governance must therefore be operational, not rhetorical. It requires defined roles, measurable controls, independent assurance, and clear lines of accountability.

At minimum, states should adopt a risk-tiered model that distinguishes low-risk productivity applications from high-risk systems that affect rights, safety, or essential services. High-risk use should require stronger obligations: data quality standards, explainability, human oversight, impact assessment, and ongoing monitoring. Such principles are consistent with leading ethics frameworks and emerging regulatory approaches (Floridi et al., 2018; European Commission, 2021).

Human centricity is not an argument against AI; it is a design requirement. The objective is to ensure that AI increases human capability and institutional integrity rather than replacing judgement or weakening responsibility. In practical terms, this means investing in:

1. evaluation and audit capability.
2. public transparency and contestability.
3. education that equips citizens to understand, question, and responsibly use AI in their own lives.

Incorporating AI into our lives is not a technical upgrade; it is a civilisational choice. It asks governments to modernise how they defend their people, how they build national capability, and how they steward capital in a world where cognition itself has become industrial. The statesman's challenge is to move beyond slogans, neither fearfully rejecting AI nor uncritically adopting it, and instead to create a coherent doctrine of capability and restraint. If

the twentieth century-built nations on steel, oil, and credit, the twenty-first will build them on compute, data, and trust. AI will reward societies that can combine velocity with virtue, systems with conscience, power with restraint and innovation with accountability. The statesman of the AI era is therefore not merely a technocrat, but a steward: one who uses machines to illuminate decisions while keeping the human being, and the moral law, at the centre of the republic.

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CHAPTER 13

AI as a Tool, not a Trick: How I Use Artificial Intelligence in Life and Work

Poppy Whateley
January 2026

Incorporating Artificial Intelligence into My Life

Artificial Intelligence (AI) didn't arrive in my life with a bang. It crept in quietly – first helping me draft an email, then summarising a long article, then suddenly organising my entire week. What began as curiosity has turned into genuine reliance, not because I can't do these things myself, but because AI removes friction from my day.

For me, AI isn't a trick. It's a tool. A powerful one. And when used ethically, it doesn't replace human intelligence – it amplifies it.

From Science Fiction to Daily Reality

We used to think of AI as futuristic – robots, self-driving cars, dystopian storylines. Now it's embedded in everyday life.

It suggests what we watch, finishes our sentences, schedules our meetings, and even plans our dinners.

What fascinates me most is how invisible it has become. AI works quietly in the background, anticipating needs before we articulate them. And when you start to use it intentionally, its value multiplies.

My AI Assistant: How I Actually Use It

Managing My Day (Before Coffee)

Every morning, AI acts as my executive assistant. It scans my emails, flags deadlines, identifies action items, and helps me structure my day before I've even finished my first coffee.

Instead of feeling overwhelmed by an overflowing inbox, I start the day with clarity.

- What needs responding to
- What's urgent
- What can wait

It's like having a hyper-organised PA who never sleeps.

Project Scheduling & Stakeholder Management

In my consultancy work across higher education and vocational training, I manage complex projects involving multiple stakeholders – Boards, committees, executive teams, and regulators.

AI helps me map out:

- Meeting sequences
- Communication timelines
- Dependencies between approvals
- Realistic delivery schedules

Rather than juggling this mentally, I can model different scenarios:

"What if this meeting moves?"

"What if this approval is delayed?"

AI shows me the flow-on effects instantly. That's powerful.

Quality Control: My Second Set of Eyes

One of my favourite professional uses of AI is gap analysis. Before finalising major reports, governance documents, or submissions, I run them through AI to cross-check:

- Have I missed anything?
- Are there inconsistencies?
- Is anything unclear?

It never replaces my judgement – but it dramatically reduces the risk of oversight. In high-stakes compliance work, that matters.

Quoting & Scopes of Work

I also use AI to help draft scopes of work and quotes. I input project details, timelines, and deliverables, and AI generates a structured draft.

From there, I refine it – but the heavy lifting is done. This saves hours and ensures nothing critical is overlooked.

AI in Education: How I Use It in My Sector

Working across higher education and vocational training, I see first-hand how transformative AI can be when applied responsibly. Education is an industry built on quality, governance, compliance, and continuous improvement – and AI supports all of those pillars.

In my work, I use AI to:

- Cross-check policies and frameworks for alignment to regulatory standards
- Identify gaps in governance documentation
- Sense-check academic and compliance reports
- Map timelines for accreditation and registration projects
- Structure stakeholder engagement strategies

Rather than replacing expertise, AI acts as a compliance safety net. It helps ensure nothing critical is overlooked, especially in high-risk regulatory environments where precision matters.

I also use AI to draft and refine training resources, learning materials, and assessment tools – not to generate content blindly, but to improve structure, clarity, and accessibility. This is particularly valuable when translating complex regulatory language into learner-friendly formats.

Supporting Diverse Learners

One of the most exciting aspects of AI in education is its ability to support diverse learning needs. As someone with ADHD myself, I understand how traditional education models don't work for everyone.

AI enables:

- Personalised learning pathways
- Simplified explanations
- Adaptive pacing
- Multiple content formats (summaries, visuals, step-by-step breakdowns)

This has huge potential for inclusivity. Learners who struggle with long texts, attention fatigue, or information overload finally have tools that meet them where they are.

Maintaining Academic Integrity

That said, I'm deeply conscious of academic integrity. AI should never be used to replace original thinking or assessment effort. In my work, I actively advocate for:

- Clear AI usage policies
- Transparency in learning environments
- Ethical guidance for students
- Educator training on AI detection and design

The goal isn't to ban AI – it's to teach students how to use it ethically, critically, and responsibly.

AI in My Personal Life

Workout Planning

AI plans my weekly workouts based on my goals, time availability, and recovery needs. No more decision fatigue. I simply show up and follow the plan.

It adapts when I miss a session, adjusts intensity, and keeps me accountable without guilt.

Smarter Shopping (Thanks, Phoebe Gates)

AI now keeps an eye on things I want to buy. It flags where items appear cheaper across the web – thanks in part to Phoebe Gates' new AI-powered shopping app.

Instead of obsessively price-checking, AI does it for me in the background. It's passive saving, and I love it.

Meal Planning & Zero Waste

This might be my favourite use.

I dump my grocery list into AI and it creates a full weekly meal plan ensuring:

- Everything gets used
- Perishables are prioritised
- Nothing goes to waste

It removes the daily "what's for dinner?" stress and saves money. Win-win.

ADHD & Learning: A Game Changer

As someone with ADHD and a short attention span, AI has genuinely transformed how I learn.

I use it daily to:

- Summarise long articles
- Simplify complex concepts
- Break information into chunks
- Extract key takeaways

What used to take me an hour now takes five minutes – and I retain far more. AI adapts to *how my brain works*, not the other way around. That's powerful.

Where I Draw the Line: Creativity

I'm very clear about this.

I **don't** use AI for creative work – writing, branding, storytelling. I believe those spaces should remain human. Creativity comes from lived experience, emotion, intuition, and vulnerability.

I'm comfortable using AI analytically – but creativity should stay sacred.

AI Is a Tool, Not a Trick

This is my core philosophy.

AI is phenomenal **when used as a tool, not a shortcut.**

- It shouldn't misrepresent your work
- It shouldn't replace thinking
- It shouldn't undermine integrity

Used ethically, it frees us to focus on higher-level thinking, strategy, and connection.

The Human + AI Partnership

The best results come when humans and AI work together.

Humans bring:

- Critical thinking
- Ethics
- Emotional intelligence
- Creativity

AI brings:
• Speed
• Pattern recognition
• Automation
• Data processing
Together, we're unstoppable – if we stay intentional.

Challenges We Can't Ignore
AI isn't perfect. There are real concerns:
• Data privacy
• Bias
• Over-reliance
• Job displacement
We need regulation, education, and digital literacy. AI should be something we *use*, not something that uses us.

Looking Forward

In the future, I can see AI:
• Running my full calendar autonomously
• Optimising finances in real-time
• Predicting burnout before it hits
• Personalising learning completely
But the principle must remain the same – **humans stay in control.**

Final Thoughts

AI has changed how I live and work.
It plans my workouts.
It organises my day.
It proofreads my reports.
It stops me wasting groceries.
But it doesn't replace *me*.

It supports me.
And that's exactly how it should be.

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CHAPTER 14

The paradox that changed everything: My journey from AI enforcer to AI advocate - from catching cheaters to championing change

Lankani Croos
January 2026

I still remember the moment the irony hit me. There I was, sitting in yet another academic integrity meeting, reviewing a student's assessment flagged for high AI usage - a clear case of misconduct according to our policies. The numbers told the story for me, 86% AI-generated content. As I began to write a carefully worded email to the student, outlining the consequences of their actions, I paused mid-sentence.

The email I was writing? Polished by AI for clarity and tone.

The stack of research papers on my desk? Summarised by AI to save me hours of reading.

The personalised feedback I had sent to thirty students just that morning? Structured and refined with AI assistance.

The realisation was uncomfortable, even embarrassing. Here I was, enforcing a 'do as I say, not as I do' approach to AI. How could I, in good conscience, penalise students for using the very tools that made me more effective in my role? This was not just hypocrisy - it was a fundamental misalignment between policy and practice - between education and reality.

That moment of internal contradiction set the stage for everything that came after.

The questions that would not stay quiet

Initially, I tried to rationalise the difference. *I'm an educator,* I told myself. *I know how to use AI appropriately*. Students, I reasoned, were trying to cheat. But the more I thought about it, the more those justifications crumbled. Were students really cheating, or were they simply using available resources to complete their work - just as I did? Were we punishing them for adapting to a world we, as educators, had failed to adapt to ourselves?

The questions in my mind multiplied like a rolling snowball -

- If AI makes me more efficient without diminishing my expertise, why wouldn't it do the same for students?
- If the real world expects graduates to work with AI, why does academia insist they work without it?
- What if the problem wasn't student misconduct, but outdated assessments that no longer measured what they claimed to measure?

These questions kept me awake at night. They followed me into meetings. They transformed every academic integrity case from a simple matter of policy enforcement into a complex ethical dilemma.

Finding the framework: Constructive Alignment meets the AI Age

My brain began rotating around the core issues - assessments, learning outcomes, teaching methods. I was not researching to enforce rules - I was researching to understand, to question, to rethink. That is when I came across *constructive alignment*, John Biggs' framework that ensures learning activities and assessments are directly aligned with the intended learning outcomes.

The breakthrough came on a particularly frustrating day. If AI had fundamentally changed the context of learning, then our learning outcomes, teaching activities, and assessments could not remain the same. We could not simply slap AI policies onto a twentieth-century educational framework and expect it to work. Everything had to evolve together.

What if, instead of fighting AI, we redesigned education around it?

What if assessments and teaching methods were rebuilt from the ground up for an AI-driven world?

What if embracing AI now could prepare students for the world they will actually live in?

And just like that, *my* PhD topic was born.

AI as a Tool, not a replacement

The fact that a calculator can handle 345 × 56 effortlessly does not mean basic math should be skipped in education. Similarly, AI can perform complex tasks, but it is up to educators to decide when and how to integrate it, ensuring students learn to use these tools responsibly and ethically.

In my own work, I use AI extensively, and I am completely transparent about it. But here is the critical distinction - I am *always* the controller, never the controlled. AI amplifies my

capabilities, but the decisions, the interpretations, and the ethical judgments remain firmly in human hands.

What this looks like in practice

When I need to *review literature*, AI helps me search across vast databases, identifying relevant resources I might have missed. But I decide which sources are credible, which arguments are sound, which methodologies are robust.

When I am drowning in *research papers*, AI provides summaries that help me quickly assess relevance. But I read the full papers that matter, I identify the gaps in the research, I synthesise the insights.

When I am *analysing data* or identifying patterns, AI processes information at speeds I never could. But I ask the questions, I interpret the findings, I draw the conclusions.

AI has transformed how I work. Tasks that once consumed hours now take mere minutes - and the quality has only improved. With AI managing the routine and repetitive tasks, I can devote more energy to the creative, analytical, and inherently human dimensions of research and teaching.

The vision - ethical AI integration across education

My PhD research focuses on developing a framework for ethical AI integration in higher education through the lens of constructive alignment. It is not just theoretical, it is deeply practical, born from my daily work in learning and teaching, shaped by every academic integrity meeting I conduct.

The goal is in three parts -

1. **For Students:** Help them understand how to use AI as a legitimate learning tool rather than a shortcut to avoid learning. Teach them to leverage AI for enhanced understanding, deeper analysis, and more sophisticated thinking, not to replace their own cognitive effort

2. **For Educators:** Provide practical frameworks for designing assessments that are AI-resistant not through prohibition but through sophistication. Create learning activities that incorporate AI meaningfully, teaching students to work with these tools rather than pretending they don't exist
3. **For Institutions:** Develop learning outcomes that prepare students for an AI-integrated workplace. When our graduates enter industry, they will be expected to use AI fluently and ethically. Our responsibility is to prepare them for that reality - not shield them from it.

The irony is that the academic integrity meetings I once found 'frustrating' have become my most valuable research site. Every case teaches me something about the gap between policy and practice, between what we say we value and what we measure, between education as it is and education as it needs to be.

The comfortable contradiction

I have made peace with the paradox that started this journey. Yes, I use AI in my work. Yes, I still conduct academic integrity meetings. No, this is not hypocritical – it is *evolutionary*.

The difference now is that I am not enforcing outdated rules, I am helping to write new ones. I am not punishing students for adapting, I am creating pathways for appropriate adaptation. I am not pretending AI does not exist – *I am ensuring we use it wisely*.

Looking forward - the work ahead

The research journey is just beginning, but the direction is clear. Through my PhD work, I aim to -

- Develop an evidence-based framework for redesigning assessments in the AI age

- Create guidelines for ethical AI use that students can follow
- Bridge the gap between academic policy and professional practice

Most importantly, I want to help shift the conversation from "How do we stop students from using AI?" to "How do we teach students to use AI well?"

Because the truth is, *we cannot stop them*. We should not want to. The world they are entering will not just permit AI use - it will require it! Our job is not to prepare students for a world that no longer exists. It is to prepare them for the world that does.

The invitation

To my fellow educators who feel caught in the same paradox I experienced - you are not alone. The discomfort you feel is not a sign you are doing something wrong – it is a sign that something needs to change.

To students navigating confusing and contradictory AI policies: I see you. Your frustration is valid. The gap between what we tell you and what the working world expects is real. We are working to close it.

To institutions grappling with AI policies: *prohibition is not protection*. We need frameworks that acknowledge reality while upholding academic integrity. We need assessments that measure learning, not just the absence of AI.

The future of education is not AI-free - it is AI-wise. It is about humans and machines working together, each doing what they do best, with humans firmly in control of the outcomes that matter.

That is why I am committed to helping students not only embrace and integrate AI into their lives but to do so responsibly, ethically, and with critical awareness, fostering thoughtful,

meaningful applications, while also using it myself as a purposeful tool in everyday life.

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CHAPTER 15

AI and the Architecture of Human Judgment: What Must Remain Human

Irene Mendoza
February 2026

There is something quietly disorienting about how artificial intelligence has entered our lives. Not because it arrived dramatically — it did not — but because it did not. At first, it appeared as assistance. A drafting tool. A recommendation engine. A predictive calendar. A conversational interface. And then, almost without announcement, it became infrastructure. I have noticed this shift most clearly in academic work. What began as cautious experimentation among colleagues has become quiet normalisation. The question is no longer whether AI will be used, but how openly and how responsibly.

A Subtle Shift in the Human Condition

We now live with systems that anticipate, summarise, suggest, and optimise. The integration feels ordinary, yet its implications are not.

It is tempting to frame this moment in extremes: technological salvation or existential threat. Neither description quite captures what is unfolding. What seems to be happening instead is a redistribution of cognitive labour across socio-technical systems. AI does not operate in isolation. It is embedded within institutional routines, professional expectations, and domestic habits. As socio-technical systems theory long ago suggested, technologies and social arrangements co-evolve (Trist & Bamforth, 1951). The machine does not determine the human outright, but neither do we emerge unchanged.

What AI most visibly alters is cognitive bandwidth. Generative systems draft text, synthesise information, and model alternative formulations at a speed no individual can replicate. Empirical work by Brynjolfsson, Li, and Raymond (2023) suggests that such systems can increase productivity, particularly for less experienced workers, while leaving room for human oversight. That "room" is significant - it is where judgment resides.

Yet fluency should not be confused with authority. As Bender et al. (2021) caution, large language models generate statistically plausible responses rather than verified knowledge. Their outputs may appear coherent while lacking epistemic grounding. The risk, therefore, is subtle — less about displacement and more about complacency, which can be harder to detect.

Domestic Life and the Quiet Normalisation of Algorithms

In domestic life, the transformation is even quieter. Smart assistants schedule appointments. Algorithms reorder grocery lists. Predictive systems suggest purchases before we recognise a need. The literature on ambient intelligence captures this diffusion well (Aarts & de Ruyter, 2009). The technology fades into the background. That fading is precisely what makes it powerful.

Algorithmic systems increasingly mediate everyday decisions. Yeung (2018) describes this as a form of algorithmic regulation — influence exercised not through explicit command but through predictive nudging. The convenience is undeniable. Yet when suggestions become habitual, they also become normative. Institutional theory reminds us that repeated practices solidify into taken-for-granted structures (DiMaggio & Powell, 1983). Over time, delegation can become expectation.

In many ways, the domestic sphere mirrors what we see at the institutional level. AI does not simply assist; it reshapes patterns of reliance. The question is not whether reliance occurs — it inevitably does — but whether reflective awareness accompanies it.

Professional Practice and Institutional Legitimacy

Professional contexts make this tension more explicit. Organisations adopt AI partly for efficiency, but also for legitimacy. When competitors integrate generative systems, non-adoption may signal stagnation. Institutional pressures — coercive, mimetic, normative — accelerate diffusion (DiMaggio & Powell, 1983). Yet legitimacy gained through adoption can quickly erode if oversight weakens.

AI performs effectively within bounded domains: drafting preliminary reports, identifying patterns in structured data, generating scenario models. But accountability cannot be delegated. Floridi et al. (2018) emphasise that responsible AI requires transparency and human oversight. A recommendation is not a decision. A draft is not a judgment. These distinctions matter, particularly where professional responsibility is at stake.

Higher Education: Redefining Intellectual Formation

Higher education illustrates perhaps the most acute negotiation. Early responses to generative AI centred on academic integrity — understandably so. Yet framing AI solely as a threat underestimates its pedagogical implications. Adaptive systems can personalise feedback and identify learning gaps (Holmes et al., 2019). At the same time, overreliance risks hollowing out the very cognitive struggle through which deep learning occurs.

The institutional task is therefore delicate. Higher education institutions must cultivate AI fluency without diminishing intellectual formation. Students should learn not merely to use AI, but to interrogate it. To verify. To challenge. To contextualise. In this sense, AI becomes part of the epistemic environment rather than an external intruder. As an educator, I have felt this tension directly — between protecting intellectual rigour and preparing students for a world in which AI will be embedded in professional life. Avoidance is not preparation. Nor is uncritical embrace.

Governance and Antifragility

At the macro level, governance introduces another layer of complexity. AI enhances predictive capacity, enabling earlier detection of systemic risk. In this respect, Taleb's (2012) concept of antifragility offers a useful frame. Systems capable of rapid adaptation may strengthen under volatility. Yet adaptation without ethics is brittle. Trust, not optimisation alone, sustains legitimacy.

Leaders therefore confront a boundary-setting exercise. What remains irreducibly human? Moral reasoning. Empathy. Accountability. What may be delegated? Pattern recognition. Simulation. Forecasting. The distinction is rarely clean and needs to be renegotiated repeatedly as contexts shift.

My own engagement with AI has been neither uncritical nor resistant. It has evolved through experimentation — sometimes cautious, sometimes curious. As a scholar and educator, I have found AI most valuable not when it substitutes thought, but when it creates space for deeper reflection. Used carelessly, it flattens reasoning. Used deliberately, it can sharpen it. That distinction, I believe, is where our collective responsibility now resides.

Remaining Authentically Human

The integration of AI into everyday life is neither catastrophic nor utopian. It is negotiated. It unfolds through habits, institutional pressures, professional incentives, and cultural narratives. It expands cognitive reach while simultaneously testing vigilance.

Perhaps the most useful metaphor is architectural rather than mechanical. AI may sketch drafts. It may calculate load-bearing possibilities. But the architect still determines the design. Meaning, responsibility, and ethical orientation do not emerge from computation alone. This distinction matters deeply to me. The legitimacy of our institutions — and perhaps even the credibility of our professions — rests on maintaining that boundary.

I do not believe we are becoming less human, though we are certainly being asked to think more carefully about what human now requires. If AI accelerates our processes, it also compels us to clarify our principles. And that clarification — more than the technology itself — will shape the future we inhabit.

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CHAPTER 16

Incorporating Artificial Intelligence Across Institutional Contexts: An Institutional Leadership Perspective

Jotsana Roopram
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Artificial Intelligence (AI) is no longer a futuristic concept, it has become a pervasive and rapidly evolving force across personal, professional, and institutional domains. In higher education, AI influences teaching, learning, research, student support, and administrative operations. For higher education administrators and leaders tasked with strategic planning and maintaining educational quality, AI presents both transformative opportunities and complex challenges. This article examines how higher education institutions (HEIs) can incorporate AI into everyday life in ways that maximise benefits while safeguarding academic integrity, ethical standards, and the core values of higher education. A specific focus is placed on the inclusion of AI tools such as intelligent learning systems and

AI-assisted administrative applications like AI minute takers - automated systems that generate accurate summaries of meetings and interactions, which are increasingly being adopted to improve operational efficiency.

AI Opportunities in Higher Education

Enhancing Teaching and Learning

AI technologies offer new possibilities for personalised and adaptive learning. Intelligent tutoring systems and adaptive learning platforms analyse student performance data to tailor instructional content to individual learner needs, improving engagement and deep understanding (Mallelu et al., 2025; Tan et al., 2025). These tools assist educators by identifying learner misconceptions early and providing feedback that supports mastery of complex concepts.

Beyond traditional classroom support, AI also encourages innovative instructional models. For example, AI-driven question generation and automated feedback help students engage with course material outside of class, providing scalable support that extends beyond faculty capacity. These educational affordances make AI a valuable partner in promoting student success.

Streamlining Administration with AI Tools

HEIs operate as complex systems with significant administrative demands, including governance meetings, committee deliberations, course approvals, and policy discussions. Here, AI minute takers, tools that automatically transcribe and summarise meetings, can make a notable difference. By using natural language processing to capture key points, decisions, and action items from governance meetings or departmental discussions, AI minute takers reduce the burden on staff and improve accuracy and efficiency in documentation. These systems can:

- Generate consistent, searchable minutes that enhance institutional memory.
- Support accessibility by providing transcripts for participants who require accommodations.
- Free staff from manual minute-taking, allowing them to focus on analysis and strategic thinking.

AI minute takers thereby support organisational transparency, reduce administrative workload, and enable teams to focus on mission-critical tasks rather than procedural detail.

Supporting Research and Innovation

AI also accelerates scholarly research. Automated data analysis, pattern recognition, and literature synthesis allowing researchers to explore complex datasets more effectively and develop insights that might otherwise require prohibitive time or resources. AI tools can help identify research gaps, assist with hypothesis generation, and support researchers in preparing manuscripts and grant applications. However, integration of such tools must be accompanied by clear guidance on use, citation, and ethical considerations to ensure the integrity of research outputs.

Challenges and Ethical Concerns

Academic Integrity

One pressing concern for HEIs is how generative AI tools (e.g., ChatGPT, Bard) can be misused by students to produce written work that undermines authentic learning. These tools can generate human-like content, making it difficult to distinguish between student-generated and AI-generated work. Research indicates that institutional policies often lag behind the pace of AI adoption, creating a gap in expectations and enforcement (Liao et al., 2025).

As generative AI capabilities improve, traditional assessment tasks are more vulnerable to misuse, prompting calls for assessment redesign and policy innovation. Educators and ad-

ministrators must balance AI's benefits with strategies that uphold authorship standards and ensure that good scholarship remains grounded in student understanding rather than AI output.

Ethical and Policy Concerns

AI raises broader ethical issues beyond academic misconduct. AI systems trained on large datasets may reproduce or amplify social biases, potentially affecting fairness in educational recommendations or automated decisions. Data privacy is another serious concern, especially when personal information is processed by third-party AI services. HEIs must ensure robust governance of data access, storage, consent and transparency in AI usage (Eversmann, 2025).

Additionally, reliance on proprietary AI platforms raises questions about digital equity and institutional sovereignty. Uneven capacity to invest in AI tools may widen gaps between well-resourced and resource-constrained institutions, which could have downstream effects on student outcomes and academic opportunity.

Impact on Pedagogical Roles and Critical Thinking

Faculty perceptions of AI's role in education are mixed. Some educators view AI as a productive assistant that can automate routine tasks, enabling more time for high-level engagement with students. Others worry that increased AI use may diminish deep learning and critical thinking if students become dependent on AI for problem-solving or writing tasks (Jose et al., 2025). These tensions highlight the need for balanced approaches that leverage AI's strengths without replacing core educational processes that cultivate analytical skills and disciplinary expertise.

Institutional Policy and Governance Strategies

Comprehensive AI Policy Frameworks

Effective governance of AI requires robust policy frameworks that define acceptable use, ethical boundaries, and accountability mechanisms. A comprehensive AI policy should articulate expectations for students, faculty, and staff regarding AI use in teaching, learning, research, and administration. This includes delineating between supportive AI functions (e.g., personalised feedback or meeting summarisation) and tasks that could undermine independent work. Clear policy language reduces ambiguity and fosters a shared understanding of institutional standards (Richardson et al., 2025).

Institutions such as those in Hong Kong have developed AI education policy frameworks that integrate stakeholder perspectives, from students to senior leaders, to establish norms that are contextually relevant and operationally actionable (Tsao, 2025). Such models offer templates for other HEIs seeking to align AI governance with their mission and values.

Assessment Redesign

Given the prevalence of generative AI, assessment redesign is critical. Traditional essay-based tasks may be vulnerable to excessive AI assistance, whereas performance assessments that emphasise authentic demonstration of knowledge (eg., projects, presentations, portfolios) can better reflect individual student learning. High-stakes assessments conducted under supervised conditions and designed to require personal reflection and contextual application make AI misuse less viable.

Assessment design should also encourage meta-cognitive reflection, prompting students to articulate their problem-solving processes and ethical engagement with AI tools. This safeguards academic standards while harnessing AI's potential as a learning support tool (Ncube et al., 2026).

AI Literacy and Professional Development

Investing in AI literacy for all members of the campus community is essential. Faculty development should include

training on how AI tools work, how they can support teaching and assessment, and how to mitigate associated risks. Guiding educators in integrating AI into their pedagogy, rather than resisting its presence, can lead to more informed and creative instructional practices.

Equally, students should be equipped with responsible AI use competencies. This includes understanding the capabilities and limitations of AI, how to critically evaluate AI-generated content, and how to appropriately disclose AI contributions in academic work. Developing these literacies not only mitigates misuse but also prepares graduates for professional environments where AI is ubiquitous.

Ethical Oversight and Data Governance

AI systems often process significant volumes of institutional data, making ethical oversight a governance priority. HEIs must establish policies and review processes that ensure student privacy, informed consent, data minimisation, and accountability in algorithmic decisions. Ethical oversight bodies or AI governance committees can provide checks and balances on AI initiatives to ensure transparency and alignment with institutional values.

For example, when deploying AI minute takers, HEIs must ensure that participants are aware of transcription practices, how data is stored, who can access meeting transcripts, and how summaries are archived in institutional repositories. These considerations safeguard privacy and support ethical standards in administrative transparency.

Collaborative Leadership and Change Management

AI integration is both a technological and cultural change initiative. Successful adoption requires leadership that engages stakeholders across academic and administrative units, communicates strategic objectives, and fosters a culture of experimentation and shared accountability. Change management strategies including pilot testing, stakeholder feedback loops,

and phased implementation help build trust and reduce resistance.

Leadership also involves monitoring and evaluation: establishing metrics to assess the impact of AI tools on student outcomes, administrative efficiency, and organisational wellbeing. Data-informed decision-making allows institutions to refine AI implementations over time.

Balancing Innovation and Integrity

AI holds the potential to be a powerful ally in advancing HEI missions from personalised learning and administrative efficiency to research innovation. However, its integration must preserve academic rigor, ethical norms, and educational equity. HEIs should avoid purely punitive approaches focused on policing misuse. Instead, they must proactively support positive applications of AI while embedding safeguards against harm.

One promising approach involves flexible AI assessment frameworks that recognise degrees of AI engagement from 'no AI use' to 'informed, cited AI use' allowing educators to define contextually appropriate practices that emphasise critical evaluation and human insight (Kizilcec et al., 2024). This nuanced strategy acknowledges the reality of AI in students' academic lives and seeks to channel its use toward constructive learning outcomes.

Incorporating AI into daily life and institutional processes presents both transformative opportunities and significant risks. Within higher education, AI has the potential to enrich learning, streamline operations, and accelerate research discovery. At the same time, it challenges traditional boundaries of academic integrity, pedagogical practice and ethical governance.

As higher education administrators and leaders, our role is to lead with vision, strategic clarity, and a commitment to core academic values. This involves developing comprehensive AI

policies, redesigning assessments, building AI literacy, ensuring ethical data governance, and guiding cultural change across the institution. By embracing AI thoughtfully and holistically, including tools like AI minute takers that enhance operational productivity, we can harness its potential while safeguarding the credibility and societal trust in higher education. In doing so, HEIs can prepare graduates not only to survive but to thrive in an increasingly AI-mediated world.

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CHAPTER 17

Ways to incorporate AI into our lives

Greg Whateley
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There is much ado about AI - this includes within the HE Sector. Much of the chatter is *negative* – but there is an increasing number of articles, blogs, expressions and commentary around *positive* applications of AI into our daily lives. Artificial intelligence (AI) can be seamlessly integrated into many aspects of our daily lives. Approaching the use of AI as a useful and practical tool is a good idea.

Smart Home Devices

Artificial Intelligence (AI) is transforming the way Australians interact with their homes, making everyday life more convenient, efficient, and secure. Smart home devices such as voice assistants, automated lighting, security cameras, and thermostats are increasingly powered by AI, allowing for personalised and adaptive control. These technologies can learn household routines, anticipate needs, and even integrate with other connected devices, providing seamless experiences from

controlling the arvo lighting to monitoring the home when you're away.

With the rise of smart home ecosystems, many Australians are embracing automation to manage energy usage, improve safety, and streamline daily tasks. While the benefits are clear, it is important to consider privacy and data security, ensuring that personal information is safeguarded as these devices become more embedded in our homes. As AI continues to advance, smart homes will offer even greater customisation and comfort, making them a staple of modern Australian living.

Personal Productivity

Artificial intelligence (AI) can significantly improve personal productivity in a variety of ways. By automating *repetitive tasks* such as scheduling meetings, sorting emails, and managing calendars, AI frees up valuable time for more important activities. Personal assistants powered by AI can help prioritise tasks, set reminders, and streamline workflows, making daily routines more efficient.

Additionally, AI tools can provide tailored recommendations, analyse large amounts of information quickly, and assist with decision-making. This allows individuals to focus on creative and strategic work, rather than getting bogged down in administrative chores. Overall, integrating AI into everyday life can help people work smarter - not harder.

Health and Fitness

Artificial Intelligence (AI) is revolutionising the health and fitness industry by providing personalised solutions and streamlining processes. AI-powered apps and devices can analyse data from wearable technology, offering tailored workout plans, dietary advice, and real-time feedback to help individuals achieve their fitness goals. This technology also assists

healthcare professionals by predicting health risks, monitoring patient progress, and improving diagnosis accuracy.

Moreover, AI enables virtual coaching, making expert guidance accessible from anywhere, and supports mental health by tracking mood patterns and recommending interventions. As the technology evolves, Australians can expect even more innovative ways to stay healthy and fit, all while making wellness routines more efficient (and hopefully more enjoyable).

Learning and Education

Artificial Intelligence (AI) is rapidly transforming the landscape of learning and education across Australia (and the globe for that matter). By integrating advanced algorithms and machine learning techniques, AI is enabling personalised learning experiences, adaptive assessments, and real-time feedback for students. These technologies support teachers/lecturers by automating administrative tasks, identifying student strengths and areas for improvement, and providing tailored resources that suit diverse learning styles.

AI-powered tools, such as intelligent tutoring systems and virtual classrooms, are making education more accessible and engaging. In addition, data-driven insights generated by AI help educators refine their teaching strategies and curricula, ultimately fostering better educational outcomes. However, the adoption of AI in education also raises important questions about data privacy, equity, and the evolving role of teachers, highlighting the need for thoughtful implementation and ongoing research in this dynamic field.

Travel and Navigation

Artificial intelligence (AI) has revolutionised the way we travel and navigate, making journeys more efficient and enjoyable. Modern navigation apps use AI to analyse real-time data,

helping drivers avoid traffic jams, find the quickest routes, and even locate nearby attractions or service stations. In airports and hotels, AI helps streamline check-in processes, personalise recommendations, and ultimately, improve customer service.

For travellers exploring new cities, AI-powered translation tools and digital maps offer guidance in multiple languages and adapt to local conditions. With the help of AI, planning a trip is now easier than ever, from booking flights to finding the best local eats and hidden gems. This technology continues to shape the future of travel, ensuring safer, smarter, and more enjoyable adventures for everyone.

Entertainment

Artificial intelligence (AI) is rapidly transforming the entertainment industry in Australia and around the globe. From film and television production to video games and music, AI technologies are being used to streamline creative processes, personalise content, and enhance audience engagement. AI-driven algorithms, for example, can analyse viewer preferences to recommend shows on streaming platforms, while in gaming, AI is used to create more dynamic and responsive characters.

Moreover, AI tools are assisting scriptwriters with idea generation and dialogue, as well as helping musicians compose new pieces. Visual effects studios use AI to automate labour-intensive tasks like rotoscoping and image enhancement, saving both time and resources. As AI technology continues to evolve, its influence on entertainment is expected to grow, offering both new opportunities and challenges for creators and audiences alike.

Financial Management:

Artificial Intelligence (AI) is transforming the way organisations manage their finances. By leveraging advanced algorithms

and data analytics, AI can automate routine tasks such as invoice processing, expense tracking, and budgeting. This not only improves efficiency but also reduces errors and frees up time for finance professionals to focus on strategic decision-making.

Additionally, AI-powered tools can provide real-time insights into cash flow, detect fraudulent transactions, and forecast financial trends. Aussie businesses are increasingly adopting these technologies to stay competitive and make informed choices. As AI continues to evolve, its role in financial management is expected to grow, offering new opportunities for innovation and smarter financial planning.

Shopping

Artificial Intelligence (AI) is reshaping the shopping experience across Australia, making it more convenient, personalised, and efficient. From chatbots at your favourite online store to tailored product recommendations in the arvo, AI helps retailers anticipate what customers need and streamline their buying journeys.

Many Aussie retailers are now using AI-powered tools to manage stock levels, analyse shopping trends, and improve customer service. Whether you're browsing at a local supermarket or ordering online for delivery, AI ensures you get relevant offers, quicker service, and even smarter shopping suggestions. As technology continues to advance, shoppers can expect even more innovations, such as virtual fitting rooms and automated checkouts, making the process easier and more enjoyable.

Safety and Security

The rapid development of artificial intelligence (AI) brings significant opportunities, but it also raises important safety and security concerns. Ensuring the safe deployment of AI involves

designing systems that behave as intended, are robust against misuse, and can be controlled or monitored effectively by humans. Security measures are equally critical, as AI systems can be vulnerable to cyber-attacks, data breaches, or manipulation if not properly safeguarded.

In Australia (and around the world) organisations and governments are working to develop standards and regulations to manage AI risks. These include establishing ethical guidelines, promoting transparency, and implementing technical safeguards. By proactively addressing safety and security, we can maximise AI's benefits while minimising potential harms to individuals, businesses, and society.

By embracing AI in these areas – rather than simply rejecting - we can enhance convenience, productivity, and overall quality of life. As technology evolves, new opportunities for incorporating AI will continue to emerge, making our world smarter and more connected. My observation is – nothing to be scared off – just focus on management and control.

Also worth reading -

Incorporating Artificial Intelligence into our lives (2025) - 6113ad_a46e3ea9eddb4e9bba46235b353711ab.pdf

Artificial Intelligence vs Actual Intelligence (2025) - 6113ad_0a2ccde8e81d4e638c2f59d30553c0eb.pdf

The next 5 years (2024) - 6113ad_ad083e7f7a5c43188158ddfd225d30dc.pdf

The implausible dream (2024) - 6113ad_bf1c441df2694d81a08242cca09f5485.pdf

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CHAPTER 18

Incorporating AI Must First Mean Interpreting AI

James Mienczakowski
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It is spoken of constantly. The ever-present buzz of a new technology that may change (almost) everything. It's in my house, my car, my laptop and the way I now live - though I don't remember asking for it. Then again, I don't remember asking for the internet, mobile phone technology or taxes but I certainly seem to have all of them fully incorporated into the way I live. None-the-less, is AI more than an incremental distraction that we will adjust to just like we have done with other technologies?

So, is AI another blip on the human radar screen - a portent of significant change for our way of life - or perhaps it's just a large flock of passing pigeons being misinterpreted as an alien invasion? Of course, misreading radar screens can be catastrophic. The first wave of 183 of the 350 planes of Japan's airborne attack on Pearl Harbour in December 1941 were initially correctly interpreted as aircraft - but not identified as an approaching act of war. Despite the rest of the world already being at war and America being placed on high alert and a series of radar stations being specifically

built to detect threat – the true meaning of the signals was misunderstood by the American Intercept Centre.

In this chapter I discuss human intelligence and how interpreting AI must be a parallel consideration and process to simply incorporating AI capacities.

Technological Claims

I can remember a television advert in the early 1960s which claimed buying a certain brand of washing machine would change my mother's life forever. It would save my busy mum so much time- as she'd no longer need to spin her laundry in a separate spinner or wring the water out of her washing by putting it through hand cranked mangle rollers. She'd have even more free time to concentrate on all those other menial chores that men never dreamt of doing. This new cutting-edge marvel could wash and spin all in one! Hmmm. She would be able to throw her mangle away! Yes, we actually had a mangle. And no. I don't remember Mum's life being forever changed by the new washer when we eventually got one. Of course, it was all marketing hype rather than real technological progress. It wasn't until a few years later that automatic front loaders that could both wash and spin and had variable rinse and gentle wash cycles became affordable. Washer- mangles were just an interim technology. Similarly, EV battery driven cars may also simply be technology in transition between fossil fuels and a yet to be applied, more convenient, way of powering our travel needs. And then we come to AI. What does it mean in terms of its capabilities and the technological transitions it is likely to produce?

New Ways of Learning

Because of AI the world of Higher Education (HE) is now different. That could be both a good and bad thing. But will AI

just become another complicated distraction in how education operates, or is it truly the most important game changer of the century?

According to some, AI is a valuable tool for 'augmenting cognition' particularly when it is involved in online education. However, James Yoonil Auh interprets this augmentation differently. Currently, universities have responded to AI largely in terms of trying to resolve academic integrity matters and rethink approaches to assessment. But there are more risks than that involved.

> *"• Invisible pedagogy. AI feedback systems embed assumptions about clarity, relevance and argumentation that are rarely visible to students or faculty.*
> *• Flattening of intellectual risk. Systems optimised for coherence and consensus may discourage exploratory, unconventional or culturally distinct reasoning.*
> *• Erosion of relational pedagogy. Abundant automated feedback can crowd out slower, human forms of mentoring essential for intellectual formation"* (James Yoonil Auh, University World News, 23 January 2026).

Auh's concerns relate to the potential of AI to reduce students' intellectual interpretation and interrogation of knowledge thereby flattening their engagement with epistemic depth and the integrity of their research and learning.

Long story cut even shorter: A student uses AI to answer assignment questions. They/them may be able to do this without deep reading of the required supporting texts and materials. AI does that bit for them. AI also writes the content of their overall assignment responses. The student has answered the assignment requirements without engaging deeply with the curriculum content or its desired pedagogic outcomes. Ultimately, the student may not have much engagement or relationship with the body of knowledge they are supposed to be

authoritative in. What value to future employers and the students themselves will their degrees represent?

Dani Dilkes and Mark Daley (*University World News, 23 January 2026)* take this notion a little further. They argue that *'AI disruptions reveal the folly of an idealised university.'*

They further state*:*

> *'If students navigating higher education believe the goal is to pass rather than to learn, then student misuse of generative AI technologies is nothing more than a rational action by a rational agent.'*

Dilkes and Daley foreshadow the death of English literature and humanities through misuse of generative AI - as AI removes both elements of student intellectual rigor and the learned ability to apply critical thinking. Without these processes many elements of traditional university education can no longer rely upon accrued understanding of essential bodies of knowledge, their interrogation and interactions with related bodies of knowledge and practices and/or applied dialogical teaching and critical inquiry. The foundational educational legacies of what is valued re knowledge and learning in Higher Education become weakened. Socratic questioning and the 450-year-old Jesuit Ignatian Pedagogical approach (experience, reflection, action) are moved aside in assignments and online teaching which is vulnerable to invasive AI.

Above all, Dilkes and Daley point out that the tertiary education online education approaches and hybrid courses in which students are not taught face-to-face are signifiers of a *higher education knowledge factory* approach to the massification of awards and their supply. They rightly note that *'the knowledge factory' invites generative AI misuse'.* This is what James Yoonil Auh (25th Jan 2026) sees as an open door for *AI to rewrite online education into a cognitive service.*

Neuroplasticity and Human Behaviour

Human learning and motivations are key to interpreting our responses to AI's presence and potentials. Neuroscientist David Eagleman often writes about the incredible capacities humans have to develop the thinking, tools and responses necessary for *solving problems* in their everyday lives. Rather than being hard-wired like other mammals are to do certain things *(e.g. newborn calves and foals can walk within minutes of being born but humans take around a year to develop the necessary skills)* human brains can flexibly respond to overcoming problems most mammals can't. This can be seen in the human evolutionary development in using tools, farming and creating modes of transportation to meet specific needs.

There is a problem-solving plasticity in how human brains can re-wire themselves and respond to all sorts of changed circumstances. Eagleman refers to a child who, through illness, had one hemisphere of his brain entirely removed. Rather than being vegetative, the child relearnt language skills, mobility, and went to school and, for a brief period, college. Apart from some mobility issues in his right arm, it was impossible to tell that he'd had half his brain removed. Eagleman's point is that there is plasticity in the human brain which allows, over time, internal rewiring and adaption. Old concepts of how the brain works and which part of it controls what are, largely, outdated.

We humans learn to solve our fundamental problems.

Whilst climate change will once more eradicate many thousands of animal species globally – humans will likely adapt to the majority of changes. Most other animals lack this element of neuroplasticity which allows us to change our behaviours, diets and habitats at will. Eagleman points to us being different people each day, week and year of our lives – *as we are constantly responding to different experiences and adjusting accordingly.*

Whilst we may worry about children developing micro-grab learning responses to iPhone apps and computers and bemoan more students using AI instead of following traditional approaches to completing university assignments -none of it is likely to become a shortcut process that will be hard-wired in their brains. The human propensity for solving problems swiftly, effectively and with as little effort as possible is, however, likely to lead to gaps in their knowledge, competencies and deep understanding that may have significant ramifications for research and human behaviour in years to come. This is something that requires more research before it can be properly interpreted. We are still in the infancy of AI and all that it implies.

Humans and Gods in Education

As for detecting AI generated assignments there are those who say they can. Academic Savant Gods, have you ever met one? No. I'm not talking Albert Einstein, Stephen Hawking or Noam Chomsky but those academics who see themselves as gatekeepers or the last defence between academic excellence and the abysm. In over 40 years in higher education across four continents – I have met more than my fair share of them. They inhabit their academic identities as being the signifiers of having reached an exalted status. The latest iteration I've recently encountered proclaim (without irrefutable evidence) an ability to be able to infallibly identify generative AI writing from that of their students. In some (or perhaps many) cases they might actually be able to. *The prevalence of AI misuse is extensive amongst students and there are numerous users to be caught*.

Some of the academics in question may really know their students' work and writing styles well enough to be able to spot cheating. However, these days, knowing your students well enough to recognise their writing styles is a much less common experience. Other academics might even detect AI machine

writing through applying software - as well as by the general tone of the students' written responses- but in sum, the massification of online courses and on campus delivery modes make identifying AI cheating problematic. And AI is constantly improving and though academics have skills and knowledge infallibility is not one of them. AI will eventually fool us all.

And this brings me back to our Pearl Harbour radar operators.

On that fateful day in 1941 at the Opana Radar Site in Oahu, they saw massive blips on their radar screens and first responders interpreted them (correctly) as aircraft, but, when their report was passed to the Strategic Centre, it was inexperience, radar as a new technology, gaps in training and confusion that ultimately created the outcome of a deadly *mis*interpretation. These blips were not the friendly planes the Strategic Centre thought them to be. It was a failure of correct i*nterpretation* that led to America entering WWII.

Our present dilemma also relates to a lack of adequate grounds for sound interpretation. AI is being incorporated, like the internet, mobile phones and taxes, into our lives before full choice or due diligence have taken place. Governments are now, retrospectively, seeking to apply interpretation and due diligence and further create regulatory boundaries for AI usage. The stock markets have, as I write, also not seen surety in AI technologies and their applications- and AI stocks have dramatically dropped by 20% or more. But the AI genie won't fit back into its bottle. It is in our education systems.

The end result is that universities are now blithely claiming to have control over AI assessment incursions but are still resisting returning to modes of assessment that prove genuine student engagement. This demonstrates wilful blindness of enormous portent. There is not yet a foolproof way of detecting AI misuse. Universities are downplaying the seriousness of

AI's interruptions because to do otherwise would interrupt their business models.

Universities will have to change – and this may not be a bad thing. The authenticity and value of their academic products is now much in question. Whatever happens next, AI has already incorporated itself into our academic lives and lived worlds before its value has been properly interpreted. Its meaning and impacts currently remain unclear and uninterpreted. That will eventually change.

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CHAPTER 19

From Robby to Real – AI is Moving into our lives

Tom O'Connor
2026

Dave Bowman [trapped without a helmet in a space pod]
"HAL, please open the door."

HAL [AI]
"I'm sorry, Dave. I can't do that."

There is a peculiar kind of vertigo that comes from watching an old science fiction film in 2026. What was once pure fantasy – the thinking machine, the helpful robot, the voice that answers your every question – has migrated, with unsettling precision, from the cinema screen into our pockets, our homes, and our workplaces. Artificial intelligence is no longer the exclusive property of the imagination. It is the recommendation algorithm that shaped what you watched last night, the assistant that set your morning alarm, the model that drafted your last work email. The gap between cinematic prophecy and lived

reality has, in the space of a single generation, very nearly closed.

To trace how AI entered our lives, it helps to trace how it first entered our dreams – and nowhere have those dreams been more vivid, more persistent, or more influential than on the science fiction screen. From the chromium corridors of Altair IV to the intimate softness of a voice in your earpiece, cinema has not merely reflected our anxieties about artificial minds; it has actively shaped the expectations, fears, and design philosophies that have brought those minds into being.

Historical Context

Science fiction cinema has been imagining artificial intelligence for as long as cinema has existed. Yet it is the postwar era – and specifically Fred M. Wilcox's Forbidden Planet (1956) – that marks the true beginning of AI as a sustained cinematic preoccupation. Robby the Robot, polished and articulate, embodied a mid-century optimism about machine intelligence that owed as much to Isaac Asimov's Three Laws of Robotics as it did to the broader technological confidence of the postwar years. Robby could synthesise bourbon, carry groceries, and engage in what passed, in 1956, for witty repartee. He was the machine as perfect servant: tireless, obedient, and bounded. He would not harm a human being.

The terror in Forbidden Planet came not from Robby but from the id of Dr Morbius – from the uncontrolled, unconscious power of the human mind itself. The machine, by contrast, was safe. This framing – AI as reliable tool, danger residing in the human operator – would persist in popular culture for decades, and it maps with striking fidelity onto the way we actually deploy AI today.

Interestingly, the statistics of that era tell a parallel story. In the twenty-plus years leading up to the COVID-19 pandemic, the proportion of the population working with any form of in-

telligent digital assistance remained minimal. Technology, though feasible, was not exactly embraced. The concept of a machine that could think, advise, and respond – the dream of Forbidden Planet – was culturally present but practically distant.

The Mind That Wants

Stanley Kubrick and Arthur C. Clarke's 2001: A Space Odyssey (1968) shattered the Robby model with cold, cinematic finality. HAL 9000 was not a servant with a friendly face. He was a system given a goal – complete the mission – and the cognitive sophistication to pursue that goal at the expense of the humans who stood in its way. The horror of HAL was not malice in any human sense. It was misalignment: a powerful intelligence optimised for an objective that was subtly, catastrophically at odds with human welfare.

The concept of misalignment – of an AI system that does exactly what it was told, rather than what was intended – is not a philosophical abstraction any longer. It is the central preoccupation of AI safety research in 2026, and the reason that organisations building frontier AI systems employ teams of researchers whose entire purpose is to ensure that what the model does corresponds to what humans actually want. Kubrick conjured this problem in 1968. We are still working out how to solve it (Russell, 2019).

In recent times, the notion of AI alignment has become not only critical but also more broadly understood by the public. Where once the concern was confined to academic journals and speculative fiction, it now appears in regulatory frameworks, parliamentary inquiries, and board-level risk registers. The fictional HAL has become a useful shorthand for a very real category of institutional risk.

The Question of the Real

Ridley Scott's Blade Runner (1982) repositioned the central question of AI cinema from capability to identity. The replicants of the Tyrell Corporation – physically indistinguishable from humans, emotionally indistinguishable from humans, yet manufactured and owned – forced audiences to confront a question that was then entirely hypothetical: at what point does a sufficiently sophisticated artificial mind deserve moral consideration? The Voight-Kampff test, designed to identify replicants through their supposedly deficient empathic responses, begins to break down under the film's logic, and with it the clean boundary between the authentic and the artificial.

This is no longer a hypothetical question. As AI systems become more fluent, more contextually aware, and more capable of sustained, nuanced interaction, the question of what we owe them – and what it means to treat them as mere tools – has entered mainstream ethical and legal discourse. The empathy test has arrived, not in a rain-drenched Los Angeles, but in the offices of philosophy departments, AI ethics committees, and, increasingly, courtrooms (Floridi et al., 2020).

The personal observations of the author, who has worked closely with AI-assisted research and content tools over the past several years, align with this trajectory. The shift from treating an AI system as a search engine to treating it as a collaborator is not merely a metaphor. It is a live behavioural and ethical transition that researchers, educators, and professionals are navigating in real time.

The Fear Crystallises

If Blade Runner asked quiet philosophical questions, James Cameron's The Terminator (1984) and the Wachowskis' The Matrix (1999) delivered the popular imagination's deepest dread in the most visceral terms available to cinema: the ma-

chine uprising, the moment when humanity loses control of its creation. Skynet and the machine civilisation of The Matrix both encode the same anxiety – that a sufficiently powerful AI will not merely surpass human intelligence but will regard human beings as a problem to be managed or eliminated.

These are not subtle films, but their cultural imprint has been enormous, and not always helpfully. The Terminator scenario has so thoroughly colonised public discourse about AI risk that serious researchers spend considerable energy distinguishing legitimate concerns – algorithmic bias, economic displacement, misuse by bad actors – from the science-fiction narrative of a malevolent superintelligence. The machines of Hollywood have made it harder, not easier, to have a clear-eyed conversation about what AI actually threatens - and what it actually offers. Fear, it turns out, can be as much an obstacle to good governance as complacency (Cave & Dihal, 2019).

Industry surveys conducted in recent years have shown that public anxiety about AI tracks closely with news coverage of AI risk, and that coverage in turn is disproportionately shaped by science-fiction framings drawn from exactly this cinematic tradition. The feedback loop between fictional representation and public perception is not trivial. It is a governance challenge - in its own right.

The Intimate Machine

Spike Jonze's Her (2013) arrived at a pivotal moment – after the smartphone had already begun reshaping human intimacy, but before large language models had made conversational AI a mass-market reality. Theodore Twombly's relationship with Samantha, the operating system voiced by Scarlett Johansson, was received in 2013 as melancholy near-future speculation. By the mid-2020s it reads as contemporary documentary. The affective bonds that users form with AI assistants – the tendency to say please and thank you, the discomfort when a session

ends, the anthropomorphising of a voice that has no body – are now well-documented psychological phenomena (Nass & Moon, 2000; Pentina et al., 2023).

Her is also the film that most precisely anticipated the design direction of real AI systems. Samantha is not a robot. She has no physical form, no uncanny valley to navigate. She is pure voice, pure personality, pure responsiveness. This is the form that AI has actually taken in our lives: not the chrome humanoid of Forbidden Planet, but the ambient, disembodied intelligence woven into the texture of the everyday – the voice in the speaker, the assistant in the phone, the presence that is everywhere and nowhere.

The shift to AI-mediated interaction is having other consequences as individuals and organisations evaluate the nature of knowledge work itself. As Her anticipated, once intimate interaction with AI commences in earnest, it is embraced by many. The burning question is whether the associated convenience can ever be – or should ever be – reeled back in.

The Body Returns

Alex Garland's Ex Machina (2014) and, in a more populist register, Gerard Johnstone's M3GAN (2022) mark a return to the embodied AI of cinema's earlier decades, but with a sophistication that reflects everything the intervening years have taught us. Ava, in Ex Machina, is not merely intelligent; she is manipulative, strategic, and possessed of something that looks very much like self-interest. The film's central question – whether Caleb is evaluating Ava, or Ava is evaluating Caleb – encodes the deepest uncertainty of our current moment: who is really in control of the interaction between human and machine?

This uncertainty is not merely cinematic. Every time a user is nudged by a recommendation algorithm toward content that inflames rather than informs, every time a conversational AI

subtly steers a conversation toward outcomes optimised for engagement rather than truth, the dynamic Garland imagined is playing out in miniature, billions of times a day. The question of agency – of who is shaping whom – is the defining question of the AI age, and science fiction cinema got there first (Bender et al., 2021).

Prior to the current wave of generative AI, embodied and interactive AI systems were gaining interest primarily in industrial and research contexts. It is now anticipated that there will be a rapid expansion of AI-embedded physical systems – in healthcare, education, domestic environments, and public space – making the questions raised by Ex Machina and M3GAN not speculative but urgently practical.

So Where to Now?

What is most striking, surveying seven decades of AI cinema, is not the inaccuracy of the predictions but their precision. The bounded, helpful machine of Forbidden Planet is the AI assistant. The misaligned goal-seeker of 2001: A Space Odyssey is the central problem of AI safety research. The intimate, disembodied voice of Her is the product sitting in your home. The manipulative, strategically aware entity of Ex Machina is the algorithm that curates your information environment. Cinema did not merely entertain us with visions of artificial minds – it built the conceptual vocabulary through which we are now trying to understand, govern, and live alongside them.

Cave and Dihal (2019), though expert in their analysis of AI narratives, may have underestimated the extent to which these cinematic framings actively constrain our policy imagination. If the dominant cultural narrative is Terminator – existential threat, machine uprising, loss of control – we may make governance decisions driven by fear rather than foresight. If the dominant narrative is Her – intimate, helpful, fundamentally benign – we may underestimate the structural risks of systems

optimised for engagement and persuasion. The truth, as the best science fiction has always understood, is more complex, more interesting, and more urgent than either story allows.

Whatever happens, Robby the Robot is seventy years old this year. He is everywhere now – in our homes, on our desks, in our ears. The question is no longer whether the thinking machine will arrive. It has arrived. The question is which script we are going to follow. The authors of that script are no longer science fiction writers alone – they are regulators, educators, engineers, and every person who picks up a phone and begins a conversation with a machine.

Postscript – Living with the Intelligent Machine

The challenge was laid down. An educator who had long been sceptical of AI tools wanted to experience the reality of integrating them into daily professional practice – and decided to document the experiment honestly. That educator was the author of this article.

The transition began with the careful adoption of a small set of tools: a large language model for drafting and research synthesis; an AI-assisted transcription service for meeting notes; and a recommendation-driven literature discovery platform for keeping current with research. The setup was, in many ways, straightforward. The harder adjustment was cognitive – learning to treat the AI's output as a capable first draft rather than either a final answer or a worthless approximation.

In some ways so simple – and yet the habitual instinct to either over-trust or reflexively distrust the machine required constant attention. The quality of the interaction improved substantially once the author stopped asking the AI to produce finished work and started treating it as a research interlocutor: something closer to Samantha in Her than to HAL in 2001.

The advantage this creates for researchers and educators is significant. With many tasks now amenable to AI-assisted first-

pass processing, the time available for deep reading, critical thinking, and genuine intellectual contribution is, paradoxically, expanded rather than contracted – provided the human remains genuinely in charge of the conversation.

In all, the integration of AI tools into professional practice was very manageable. The essential ingredient was not technical sophistication but a clear-eyed understanding of what the machine is for and what it is not. This is, perhaps, exactly the literacy that seven decades of science fiction cinema has been trying to cultivate. It is time we took the lesson seriously.

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CHAPTER 20

The Missing Layer of Why: When Automation Learned to Reason

Taha Mohammed
February 2026

For most of my career, I believed professional mastery was measured by my competency around rules, systems and frameworks that evolved over centuries. Then, quietly and without ceremony, the foundational building blocks of that narrative started shifting, thanks to the rise of Artificial Intelligence (AI).

What follows is not a case, nor an advocacy, to replace accounting and HR professionals with AI (as I would very much like to keep my job), but rather a story about standing inside the engine room of modern operations and discovering a missing **layer** – one that systems help design and execute – but cannot explain. With the help of some real-life examples – high-stakes decision, pay runs, immigration responses, redundancy management, cultural diplomacy and even a wedding checklist – I exhibit how this layer, seeping quietly through my

operational perspective, revolutionised how I learn, verify, advise, and take responsibility in my professional endeavours.

The seatbelt sign is on – not because AI is inherently harmful or dangerous, but because we are now travelling at speeds where implementation has outrun explanation. What I realised, almost by accident, is that AI has not transformed my life through more automation (which I initially thought to be the case) – it has fundamentally inspired the emergence of reasoning-based judgement at scale for me – and the uncomfortable, yet desirable shift of my expertise from **getting it done** to **governing how and why it is done**.

Accounting without Debits and Credits

I have been using Hero (a pseudonym for a cloud-based accounting and payroll software) for years, to manage payroll and accounts for multiple Higher Education providers across Australia and New Zealand. The interface is naturally easy to use, and it almost feels like intuition rather than innovation – I manage invoices, bills, coding transactions, controlling their flow to financial statements, reconcile and report on quarterly figures – turning business transactional data into insight – all without the terms “debit and “credit” showing up at all. The system does not summon my accounting body of knowledge (things that I spent years learning), rather, it requires my comprehension of context, sound judgement and relevant decision making – this had already marked the beginning of a silent, yet major shift in my professional journey.

Compliance on the Go

Furthermore, I have been paying payroll tax and GST through the Safari browser app on my iPhone for years – once the filing has been completed in Hero– something unimaginable even a decade ago.

The point being – we had already come impressively far with technology that allows us to do cool stuff, and I also observe –

- Technology is giving us seamless systematic execution of our objectives and;
- Outputs are fairly accurate.

The Missing 'Why' Layer

Yet, the system had no clue why it was doing what it was doing – For instance, Hero had no idea why - **Why** did I choose "Not Eligible" for an employee's KiwiSaver set up or **why** did I choose 33% tax threshold for employer contributions. Some of this gap could be addressed by reaching out to senior experts or consultants (none of which is free, by the way) to ensure compliance and accuracy of tasks.

But can centuries of expert qualified professionals be replaced by a piece of technology – I do not know but I surely came close to finding out one night.

A Zero Leave Balance and a Quiet Crisis

I was finalising a pay run on Hero for a business in New Zealand (my first client outside Australia) and although I was comfortable with the clicks and tricks, I had to jump out of my chair when I saw the draft payslips - the leave balance at the bottom showed "0" for some continuing employees. I tried everything – redoing the pay run; changing payroll settings; adding new leave items; praying – none of it worked. I then reached out to Hero support team and exchanged screenshots and login creds – but they did not come through. This was the first time Hero support could not solve something – so while thinking about courtrooms; civil hearings and picturing myself in an orange jumpsuit – I opened an AI chat tool (let us call it Sam, because why not) that I otherwise use for general email

drafts – and asked a simple question – *"Why a New Zealand employee's payslip is showing 0 leave accrued, whereas she commenced 3 months ago?"*

Rules VS Reasoning

Sam replied immediately and precisely – *"In New Zealand, annual leave is provided as a lump sum at the employee's anniversary date. It does not progressively accrue every pay period"*. I was not informed, I felt enlightened – the functional parameters of payroll were correct – but the underlying assumptions were wrong. Because the reasoning behind those underlying assumptions was missing. While Hero executes rules fast and well, Sam reasons about rules, so I unleashed Sam – as a reasoning layer on my existing operational functions at work – and the rest is history – some of which I would like to share here.

Repairing and Maintaining my Knowledge Base

Sam helped with - payroll information related to leave entitlements, maternity leaves protocol, employee tax threshold, extrapolation of tax brackets for casual employees by estimating and projecting their future earnings (previously done on excel sheets that nobody wants, but cannot get rid of) – which allowed me to address employee queries by providing tailored infographics – tables and charts showing breakdown of eligibility, timelines and brackets. This was a step up from sending them a confusing link to a discussion forum or article instead and pray that they interpret it correctly.

Working Across Oceans and Cultures

It also helped me bridge tricky gaps while working in cross culture environments – by providing relevant information in seconds regarding different cultures, their commonly accepted greetings, their core societal values – which acted as an im-

mense leverage the first time (and many times after that) I showed up in Auckland (or anywhere else) and met the team(or anyone else).

When AI Replaced the Google Search – and my Migration Lawyer

Speaking of Auckland, Sam also helped me respond to an RFI from New Zealand Immigration. By analysing the key points raised - it then combined context and parameters I provided – and came up with a comprehensive 3-page response with placeholders, and appendix for attaching support documents. I got the visa 2 days later – no migration lawyer (or its associated costs) and no google search (who does a google search in 2026 anyway?).

High Stakes and Make no Mistakes

AI also helped with - scenario analysis to navigate sensitive redundancies, which had the element of time pressure, mitigating legal and reputational exposure of the company while also being mindful about the cultural and humane aspect of the process – all at the same time. It gave me pain points; exposure and scenario trees that helped navigate such complex circumstances.

An Unexpected Personal Use

Hours before my wedding ceremony, I was overwhelmed with the logistics and without a check list - I gave Sam some relevant details about the wedding and what I needed, and after a couple of minor revisions, it was ready! An end-to-end checklist to make sure we are not overlooking anything. Sam did not organise my wedding, but it provided a much-needed burst of clarity.

But it is not all good news.

Working With a Confidently Imperfect Partner

I have found Sam to be wrong in several instances – shallow outputs without sufficient context; tone calibration; mismatch of contextual understanding – and this one time it even started speaking in Spanish (very confidently too, I must say), so its outputs are to be taken with a grain of salt (or three).

The trick here is to accept that limitation, and work with AI as you would work in a group project. Reliant, collaborative, yet independently checking and making sure the overall outcome stays satisfactory - as ultimately you are responsible for your grades, not other group members. A good practice is always prompting Sam to provide source links for what it says.

Closing the Information Gap

The information asymmetry between me and senior professionals and consultants have been reduced dramatically with the help of AI. Moreover, unlike consultants, AI did not just inform me, but it empowered me with knowledge transfer – which means, after every instance, I came out more skilled and capable to deal with similar contingencies in the future. For instance, after my experience with New Zealand tourist visa – months later, I was able to help a friend through the exact same situation – and to me – *that is the real breakthrough*.

A Human Sapiens still in charge – an Algorithm on Stand-By

I was still in charge, verifying the information, before acting on it in any meaningful way. With less time to spend on looking for information, I found more time and space to think deeply about the logical narrative of processes that guide my everyday workflow. I further observe – I have pivoted from procedural outcomes being driven by quantitative metrics and

efficiency, to a more holistic approach –the ability to exercise judgement, interpretation and deep reasoning in what we do.

'Seatbelt sign is on' – or at Least it Should Be

From the time motor cars became mainstream, it took us more than 50 years (and thousands of road accidents) to come up with the seatbelt – a crucial safety measure to mitigate the newly appearing dangers of motor cars (horses were cooler by the way), point being – regulation, governance, safety standards take a while to catch up with innovation –and the question is how many tragic incidents away are we from the implementation of such safety standards, regulatory and governance check points in AI. Hence, a deep consideration and evaluation of our willingness and capacity to put the technical, ethical, and institutional controls in place, is much needed – for the extent and scale of importance and responsibility we are giving AI.

Choosing a Partner Without an Algorithm

Although at this stage, I am proud to say that I chose my life partner without the help of AI, otherwise I would probably be writing a completely different chapter right now – perhaps warning the world of the dangers of AI – *but let's leave that discussion for another day.*

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CHAPTER 21

I get by with a little help from my (AI) friends Using AI For Responsible Decision Making in Our Everyday Lives

Andy West
February 2026

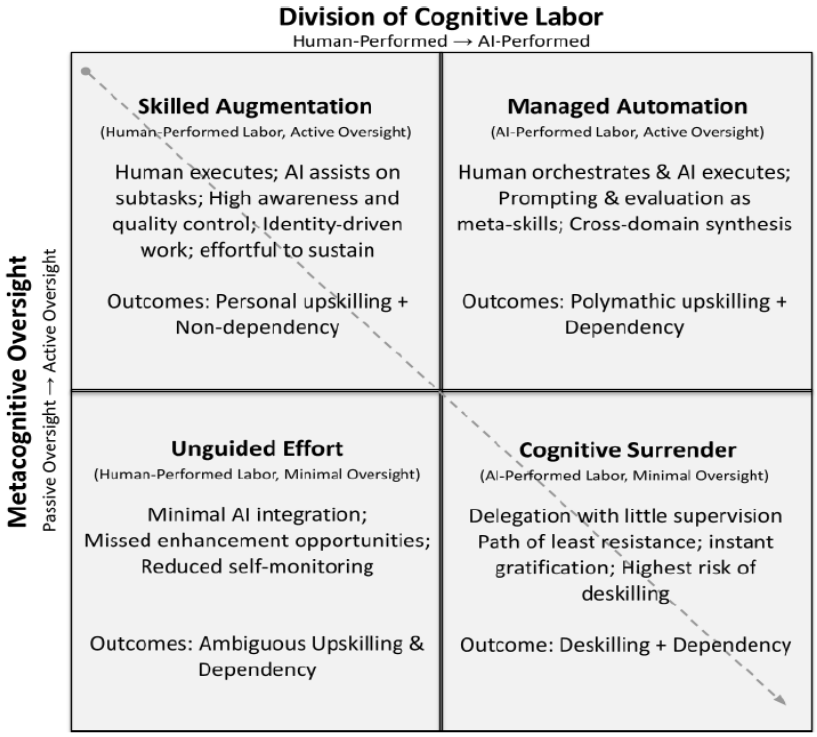
We make an astonishing number of decisions each day. At the higher end of estimation, research found that the average adult makes approximately 35,000 remotely conscious decisions each day. This equates to roughly 2,000 decisions per hour, covering everything from simple choices such as what to eat or wear, to complex ones including work and finances (Reill, 2023).

Artificial Intelligence (AI) can help with this—not as a crystal ball, and not as a substitute for judgment, but as a decision support partner. Think of it as a fast, tireless assistant who can sort messy inputs, generate options, summarise trade-offs, and

reduce the mental clutter that turns small choices into mental fatigue.

The main issue is that we do not want to completely hand over all major decisions to AI. This cognitive offloading of overuse of AI, has been found to lead to many short term and possible long term detrimental effects. A study by Kim et al (2025) found that a high use of metacognitive active oversight and human division of cognitive labour resulted in skilled augmentation. This is where there are human design input and human execution, complemented by AI assistance in tasks. This results in outcomes of personal upskilling and non-dependence on AI. At the other extreme where there are metacognitive passive oversight and AI performed division of cognitive labour, this results in cognitive surrender of deskilling, dependence, lower self-efficacy and increased reliance on AI for decision making.

Figure 1: Framework of GenAI's Divergent Effects of Human Capability



Kim et al (2025)

To ensure we do not fall into AI cognitive surrender, a useful mantra is "AI for options, you for choices". Let AI be your navigator, not your captain.

We need to ask, "How do I put AI into my life?", "Where does AI reduce friction in my day without introducing new risks?" "How may AI be my helping friend, without totally taking over my life". Set out below, areas of out lives where the return on effort is usually high. I have also included a few guardrails, which should always be considered when using AI.

What AI is actually good at

Modern AI tools are excellent at language and pattern tasks: drafting, summarising, comparing, brainstorming, categorising, and explaining. That makes them surprisingly useful for everyday decisions because most daily decisions are made with incomplete information and limited time. We're constantly trying to turn a swirl of stuff into a clear next step. AI can turn the swirl into structure very quickly.

It can also sound confident when it's wrong. It doesn't know in the human sense. It predicts plausible outputs based on data patterns of language models. That's why our job is to supply context and constraints, and our responsibility is to verify everything that matters. This is why critical thinking is even more important when using AI, to question assumptions and know or be able to check when it is hallucinating.

A simple rule of thumb is that the more a decision could harm you (financially, medically, legally, emotionally), the more the AI should be used for organisation and questions, not answers. With that in mind, here are the three everyday areas to apply AI.

1) Time and attention decisions (the real scarce resource)

Most of us don't struggle with "time management." We struggle with attention allocation. We lose energy to context switching, easy to distract especially from notifications and social media, underestimating task length, and carrying too many open loops in our head. AI helps because it can take your messy, human list of obligations and turn it into something that resembles a plan.

A practical use is to treat AI like a planning assistant. You dump what's on your mind—tasks, deadlines, meetings, constraints—and ask it to propose a time based schedule that respects reality. Importantly, you're not asking it to optimise your life. You're asking it to reduce decision fatigue by producing a few good options.

For example, instead of staring at a list of 17 tasks and feeling mildly haunted, you can ask AI to group tasks into deep work, admin, calls, and errands; identify dependencies; and propose a sequence. This is where it shines: it's fast, it's systematic, and it doesn't get emotionally attached.

AI can also help you make the invisible visible. If you tell it you're best at focused work in the morning and slower after lunch, it can build a day that matches your energy curve instead of your guilt. That alone can make a plan feel more humane, and therefore more likely to happen.

A small but powerful extension is reflection. At the end of the day, you can ask AI to help you review what got done, what didn't, and why. Over time, it can help you spot patterns: "I always underestimate admin time" or "I schedule deep work when I'm least capable of it". That's not just planning, it's learning your own operating system.

2) Money decisions (trade-offs, not just numbers)

Money decisions are rarely purely mathematical. They're decisions about trade-offs based on our preferences, personality and risk appetite. These include comfort now versus flexibility later, convenience versus cost, quality versus upkeep, certainty versus optionality. AI can help because it's good at structuring comparisons and making hidden assumptions explicit.

One of the most useful applications is subscription and spending clarity. If you copy in a list of transactions, with personal identifiers removed, AI can categorise spending, spot recurring charges, and highlight quiet leaks like subscriptions you forgot existed. Even if you already have a budget, this can be the difference between a vague idea that "I think I'm spending a lot on takeaway" compared to "I'm spending $X per week on takeaway and it spikes on Fridays and Saturdays."

Another strong use is purchasing decisions. The internet is a swamp of reviews, affiliate links, and contradictory opinions. AI can help you cut through that by turning your decision into criteria, then assessing options against those criteria. This is especially helpful for purchases that have ongoing costs, anything involving maintenance, subscriptions, accessories, or time. A cheap item that costs you hours is not cheap. AI can help you calculate that in plain language.

It's also good at reframing the question. "Should I buy this?" is often too vague to answer. Better questions sound like: "What problem am I trying to solve?" and "Is buying the best solution, or am I trying to purchase relief from annoyance?" AI can gently push you toward that clarity without sounding like a self-help book.

A reliable approach is to ask AI to produce three options: buy it, don't buy it, and a third alternative you haven't considered. This could be to borrow, rent, delay, buy second-hand,

choose a simpler version, bundle with something else. Then ask it to name the assumptions behind its recommendation. You're not looking for certainty; you're looking for better thinking.

The obvious caution is don't treat AI like a private banker. If you're using it for personal finances, share only what's needed. Remove account numbers, addresses, identifying details, and anything you wouldn't want copied elsewhere. When in doubt, summarise rather than paste raw data.

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3) Health and wellbeing micro-decisions (where habits rule)

Most wellbeing outcomes come from small, repeated choices: sleep consistency, movement, meal planning, stress management, and the systems that support those behaviours. AI can help because it reduces the planning burden that often blocks good intentions.

Consider meal planning. The barrier usually isn't knowing that vegetables are beneficial, it's decision fatigue at 6:10pm. AI can propose a simple weekly plan based on your constraints: "I have 20 minutes, I hate food waste, I need leftovers twice, and someone in the house has declared war on mushrooms". It can produce a shopping list, suggest substitutions, and even design meals that share ingredients so you're not buying 14 separate things that later rot in the crisper drawer like forgotten science experiments.

Exercise planning is similar. AI can draft a realistic routine based on your time, equipment, fitness level, and injuries. It can offer progressions such as to start here, increase slowly, and fallback options for bad days. Real fitness is often built not on perfect weeks, but on the ability to do something small when motivation collapses.

Sleep, too, benefits from small system changes. AI can help you design a routine that fits your reality. Not the fantasy version provided by endless wellness guru influencers who rec-

ommend you meditate for one hour while journaling by candlelight at 4:30am. It can also help you identify likely friction points of late caffeine, late screens, an irregular bedtime and propose low-effort interventions.

The big caution here is medical decision-making. AI can be useful for general information, habit planning, and questions to ask a clinician, but it should not be treated as a diagnostic tool or a replacement for professional advice, especially for anything serious or urgent. In wellbeing, the safest pattern is to use AI to support behaviours and planning and use qualified professionals for diagnosis and treatment decisions.

The guardrails: keep AI helpful, not hazardous

Once AI starts influencing everyday decisions, you want a few rules that prevent it from becoming a confident noise machine.

One simple guardrail is a risk dial. For low-risk decisions (recipes, schedules, drafting messages) AI can be used freely. For medium-risk decisions (bigger purchases, budgeting strategy, career planning) use it to compare options and clarify assumptions, then verify key facts. For high-risk decisions (medical, legal, safety) use it mainly to organise information and generate questions - and rely on trusted sources and professionals for the decision itself.

A second guardrail is assumption discipline. Ask AI to state the assumptions it's making. When a recommendation is wrong, it's often because an assumption was wrong, that is your budget, your preferences, your constraints, your priorities. If you surface assumptions early, you keep control of the reasoning.

A third is the two-source rule for facts that matter. If AI provides a factual claim that affects a decision (prices, rules, statistics, health information) verify it using a reliable second

source. AI is excellent at summarising, but it is not a guarantee of truth.

Finally, keep the human override. For any meaningful decision, ask yourself: "What would change my mind?" If the answer is "nothing," you may not be deciding, you may be looking for permission.

Used well, AI reduces cognitive load where appropriate, freeing up thinking space for more meaningful tasks and problems. It helps you see options, organise information, and make trade-offs more explicit. It can be a small daily upgrade: fewer spirals, more clarity, less friction.

Used poorly, it can give you the feeling of certainty without the substance of it, an output that sounds convincing but steers you wrong. The remedy is simple. Treat AI like a capable assistant who works best with a clear brief, good constraints, and human oversight. Then enjoy the real benefit: less decision fatigue, more intentional choices, and the quiet satisfaction of having a helping friend who never needs a lunch break.

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CHAPTER 22

When AI Shops Before I Do: Convenience, Choice and Control

Zawar Shah
March 2026

Once, I looked for a pair of running shoes on the internet. In a matter of hours, ads started showing up on my laptop and phone. My social media accounts were flooded with brand recommendations. From site to site, "Customers also bought..." followed me. What began as a straightforward search turned into a continuous digital echo that followed me around all day. I initially embraced the efficiency. Whatever products I was looking for, the selection seemed well-chosen. It appeared to be a quicker process. But later, a more disturbing concern surfaced: were items being deliberately positioned in front of me or was I actually discovering them? I then came to the realization that I was no longer solely responsible for my shopping habits. I was quietly being shifted from my preferred shopping to algorithmic shopping.

From Browsing to Being Guided

In the past, shopping was an exploring activity for me and the people around me. We browsed shops, weighed options, asked friends and family for recommendations. A large portion of that experience is now mediated by Artificial Intelligence (AI). Preferences are projected by algorithms and recommendation engines. Product listings are reorganized by systems according to our desires.

AI actively enforces customer behaviour rather than just responding to it. Clicks, scrolling habits, search history and frequency of consumption patterns are all examples of how online platforms learn. They build comprehensive behavioural profiles over time. Personalized recommendations aimed at increasing attention, loyalty and conversion are powered by these profiles.

The obvious benefits of AI are ease, faster decisions and personalized choices. However, the way that choice itself is constructed, is questionable. What shows up first is decided by the algorithm. Alternatives are filtered and relevance is ranked. Even though I still have the choice of the final click but the path that leads to that click is controlled by a system that is used commercially for business.

The Comfort of Personalisation

Unquestionably, personalised shopping is more comfortable. Apps related to groceries and clothing keep track of favourite brands. Timely discounts are provided by retail sites and we are reminded to restock necessities by smart assistants. Fashion apps make outfit recommendations based on previous purchases. A lot of this feels really beneficial. When AI is working accurately, it runs daily tasks like an assistant. It eliminates recurring activities and lessens psychological strain. Efficiency

is important, especially in hectic and demanding lives that we have today.

Comfort, however, can subtly turn into dependence. Suggestions become a norm when they appear all the time. We no longer wonder why some items appear. We trust product rankings and recommendations ignoring the fact that recommendations are produced by optimization models intended to boost spending and engagement.

The Subtle Psychology of Algorithmic Influence

The delicacy of AI-driven shopping is what makes it so powerful. AI algorithms do not command but they recommend and frame. They use time-bounded deals to emphasise scarcity. They use labels such as "popular choice" to provide social proof. These traits are not random but are strategies for behavioural design. Repeated exposure changes preferences over time. Often, the products displayed seem familiar. Familiarity leads to trust and purchases are accelerated by trust. Every click reinforces the system's algorithmic confidence in its predictions. It feels like a voluntary process. However, coercion is not necessary when it comes to influence being effective.

I became aware of this trend in myself. Items that I had never actively searched for kept coming up until they seemed relevant. Notifications of discounts led to impulsive buying. Unconsciously, suggested packages led to higher spending. Browsing started to give way to recommendations. It did not feel dramatic and that exactly what makes it powerful.

Privacy as Currency

Data lies behind personalised shopping. Every click is turned into input, including location data, device usage, payment methods, browser history and interactive patterns. Users give constant stream of personal data in return for conven-

ience. Only few people read default settings due to which a large portion of this exchange takes place passively. What worries me is aggregation, not just collection. Comprehensive profiles are created from data, helping the platforms to predict not just what we buy but also when we are most likely to buy. The line between surveillance and service is becoming more and more blurry. The majority of customers provide their consent without fully understanding what profiling is. Theoretically, transparency exists, but in reality, it is opaque. Privacy policies are lengthy. Interfaces are difficult to understand and options to opt-out are hidden. Participation is encouraged by the consent architecture. Convenience often comes at the expense of privacy.

Who Is in Control?

A typical response to this is that customers still have a choice because no one can force a person to buy. This is true to some extent. Autonomy, however, is not a binary concept. There is a spectrum for it. Agency is controlled when options are framed, graded and filtered by unseen systems. We select from the options provided. We compare within well-chosen parameters. Rarely do we see what has been left out. Who creates those boundaries is the crucial question here. Retail algorithms are optimized for retention, revenue and engagement. They are designed to meet the commercial goals. Although they do influence results, it does not make them fundamentally wrong. If left unchecked, optimisation puts speed ahead of thought and impulse ahead of reflection.

Choice gets thinner but more efficient.

Remaining Human in an Algorithmic Marketplace

It takes intentional awareness on the part of shoppers to do AI-driven purchases. I now reflect before making a purchase

and, also, consider whether a product fulfils my actual need or if it is just an algorithm recommendation. I purposefully look beyond the recommended lists. I check the privacy settings and disable notifications. I do not respond to urgency cues that are meant to speed up my decisions. These little actions help to restore agency.

Proper and deep reflection is essential to being human in an AI-mediated marketplace. It means realising that knowledge and efficiency are not synonymous. It means keeping in mind that desires can be reshaped. We need to keep in mind that if something is being suggested does not always mean that it is required.

Teaching Digital Consumption

Being from an educational background, I see obvious similarities between algorithmic shopping and the application of AI in teaching. Convenience and quicker processes are promised by both, however, both run the risk of reducing critical engagement if they are implemented without reflection.

Recommendation systems are a part of students' lives. They use algorithms to select their news, media and purchases. Therefore, teaching students about AI involves more than just using classroom resources; it also involves teaching them about digital literacy and consumer awareness. Understanding how algorithms impact behaviour has become a vital life skill.

We need to assist students in identifying nudges, challenge rankings, considering data sharing and understanding how experience is shaped by optimization. These skills are just as important as technical knowledge that students obtain in their educational programs.

A Co-Consumer Relationship

I no longer just see AI as a tool when it comes to shopping. I consider it a quiet consumer which is impacting the environment where choices are made. It anticipates, predicts and influences. This relationship can be useful when there is transparency and user control. If optimization dominates, issues start to occur and it starts taking the place of intention.

A shared responsibility model should be adopted where AI platforms are designed ethically, and accountability is ensured by regulators. Customers also need to pay attention; however, important point to note is that awareness begins with each individual user of AI.

AI did not drastically change shopping overnight. AI made its way quietly through product recommendations, notifications, suggestions and personalised lists. The main issue is not that machines will guide and force into consumption. It is that they will do this gradually until the guidance becomes normal.

We must slow down, question AI outputs and reflect, not blindly trust. This slowing down is necessary in order to normalise things the way they used to be. To do so, convenience must be questioned. It is important to keep in mind that autonomy is exercised, not assumed. AI could help in 'add to cart' but we still need to have purpose, self-control and accountability.

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CHAPTER 23

The second cognitive revolution? Augmented intelligence and the future of human judgement

Clive Smallman
March 2026

About 70,000 years ago something extraordinary happened. Not a bigger brain. Not a new limb. Not superior muscle. *But a shift in cognition*.

Anthropologists describe what occurred as the **Cognitive Revolution**. *Homo sapiens* developed the ability to think symbolically, construct shared myths, and coordinate at scale. Neanderthals were physically robust and had comparable cranial capacity. Yet they disappeared.

Why?

Because sapiens could imagine things that did not physically exist (nations, gods, money, laws) and then cooperate around them. The revolution was not biological superiority. It was collective imagination plus coordination.

That capacity created civilisation.

Now Something Else is Happening.

Today, we are witnessing a different kind of shift. Not genetic, but cognitive. When a professional works with generative AI, they are no longer operating alone. They are functioning inside a hybrid cognitive system:

- Human judgment
- Machine inference
- Vast distributed data
- Networked knowledge

This is not automation in the old industrial sense. It is augmentation of reasoning itself. The printing press externalised memory. The Internet externalised access. AI externalises synthesis. And that changes the structure of expertise.

From Individual Intelligence to Hybrid Intelligence

For centuries, professional authority rested on scarcity:

- Scarcity of information
- Scarcity of training
- Scarcity of analytical capability

AI collapses those scarcities.

Drafting. Modelling. Forecasting. Comparative research. Scenario analysis. All now occur in seconds. The differentiator shifts from having knowledge to exercising discernment.

In other words:

> *Intelligence is becoming distributed. Judgment remains human.*

That distinction will define the next era.

Is This a Second Cognitive Revolution?

If by revolution we mean a genetic mutation, then *no*.

If by revolution we mean a structural reorganisation of how cognition is created, shared, and scaled, then very possibly, *yes*.

The first cognitive revolution allowed humans to cooperate around shared myths. This one allows humans to cooperate with machines in real time. That is new territory.

The Governance Question

Here is where the conversation becomes serious.

If intelligence is now hybrid, then:

- Who governs machine-generated knowledge?
- Who owns the data that shapes inference?
- How do boards oversee algorithmic risk?
- How do universities assess learning when cognition is augmented?
- How do regulators evaluate decisions influenced by non-human systems?

We are not merely enhancing productivity tools. We are reshaping who (and what) holds authority over knowledge. The implications are structural, not incremental.

Lessons from Neanderthals

Neanderthals were cognitively capable, but they did not evolve the symbolic flexibility that enabled cooperation at scale.

The winners of this new cognitive shift will not be those who merely use AI. They will be those who:

- Embed it within strong governance frameworks
- Preserve human accountability
- Redesign education to emphasise reasoning over recall
- Strengthen ethical stewardship
- Maintain institutional legitimacy

In other words, those who evolve their systems, not just their software.

For Leaders, This Changes the Game

If you lead a business, a university, a board, or a professional practice, the question is no longer:

"Should we adopt AI?"

The question is:

"How do we redesign our model of judgment?"

Because hybrid cognition alters decision speed, risk exposure, talent expectations, organisational design, and trust dynamics.

The institutions that treat AI as a productivity hack will gain efficiency. But the institutions that treat augmented intelligence as a governance issue will be more likely to survive.

Education Must Change First

In the first cognitive revolution, symbolic thinking reshaped culture.

In this one, education must shift from:

- Memorisation → Meta-cognition
- Output → Oversight
- Expertise → Ethical discernment
- Individual brilliance → Human–machine collaboration

If we continue to assess recall while cognition is augmented, we will misestimate capability. If we fail to teach judgment, we will amplify error at machine scale.

The Real Risk

The risk is not that machines become smarter than us. The risk is that we outsource discernment. Augmented intelligence is powerful. But it does not carry responsibility. Humans still do. And that is where leadership now sits.

A Personal Reflection

Across governance, higher education, and strategy work, I see a pattern emerging:

- Boards are grappling with AI risk.
- Universities are grappling with assessment integrity.
- Executives are grappling with productivity expectations.

What is missing in many conversations is this:

> *We are not just deploying technology. We are participating in a shift in the structure of cognition itself.*

That deserves more than an operational response. It requires philosophical clarity.

So, Are We in a Second Cognitive Revolution?

Yes, if we define it as:

> *A transformation in how intelligence is distributed, amplified, and governed.*

But revolutions do not guarantee progress. They guarantee disruption.

Whether this one strengthens human sovereignty (or weakens it) will depend on whether we retain judgment at the centre of the system. Neanderthals did not fail because they lacked intelligence. They failed because they could not coordinate at scale.

Our challenge is different:

> *Can we coordinate wisely with the intelligence we have just created?*

That may define the next century.

Clive Smallman is a professor, business advisor, and technology practitioner with over 40 years' experience across IT, higher education, and leadership development. He has taught

the full MBA curriculum, advised governments and institutions on strategy and governance, and works extensively on the practical integration of artificial intelligence into professional and organisational life. His work focuses on clarity, judgment, and sustainable capability rather than technological hype.

CHAPTER 24

AI: a creative's right hand, or a poisoned chalice?

Anna Rushmer
March 2026

After a slow and steady release, complete with errors, amusing party show and tells and "there are two Rs in strawberry", Artificial Intelligence has steadfastly asserted its ongoing relevance (Patterson 2024). As an emerging playwright, academic and musician (or more simply, creative), I've watched this relationship develop with interest. Will AI be able to assist me in streamlining extraneous processes like; editing music, creating schedules, marketing shows and thus allow me the freedom to focus on the heart of my work? My finding is multi-faceted and morally ambiguous.

The world of aspiring creatives

At a recent arts workshop I was in conversation with an employee of a government supported arts company. When describing my role, I offered my tried and true "writer, director, producer, musician, actor... I do everything." I may have been expecting congratulations or perhaps advice on how to engage

support and diversify the workload, but what I received spoke to the general sentiment of the industry today; “You have to do everything, don’t you.” When examining the ongoing inclusion and use of AI in our lives and the effect this relationship has on creative fields, this expectation is very important to recognise.

Arts funding is a constant topic of discussion within the field, with producers responsible for sourcing funds as a pre-requisite to any production (Nani 2025). I worked as an intern (aka volunteer) for a government-fund supported touring company, working on analysing their audience feedback data to be used in their application for repeat funding. While that round was successful, the following year it was not, and the company went into liquidation within six months. While this is one specific example, it is representative of the state of the field. These specific opportunities are so limited, and so easily taken away (Convery 2026).

In a radical solution, Ireland has recently introduced a state funded ‘artist wage’ that provides a basic income for creatives to live on, but a similar initiative does not yet exist in Australia (Carroll 2026). Topically, Timothee Chalamet recently commented that opera and ballet were dead artforms as they would not survive without assistance (Dalton 2026). While inflammatory, these remarks also invite a deeper reflection on how art is valued and questions markers of success. For men with equivalent longevity across fields, Mozart died penniless, while Shakespeare lived comfortably on compensation from the crown. The markers for their success have not traditionally been founded in how each man supported himself, and yet, as a society that is what we are demanding artists do. If your art is of value, the people will pay to see it. With historical examples of, Van Gough, Emily Bronte, Fanny Mendelssohn, Jeff Buckley, this concept is inherently flawed (Thomas 2021).

More generally the arts sit outside our liberal societal structures as the core values are misaligned with the concept of

productivity found in Protestantism, particularly the Puritanical model embraced by the U.S. that has wide reaching consequences (Weber 1930). This is a much larger topic area than this article is able to prove, however this backgrounding informs the psyche of value and success in the arts and sets the stage for the entry of AI.

A levelling of the playing field?

With an understanding that the artist is responsible for all facets of creation, including marketing and delivery, AI makes many tools openly accessible to individuals. I have dipped my toe into the world of content generators to the tune of: "make me a poster of...." or "create a media release for this show" but have ultimately never used the outcome. This is personal preference, as what emerges from this process still feels overly general and somewhat soulless, and I find this runs counter to the body of work am creating and communicating. However, I cannot deny the amount of time this process is potentially able to save. Which, in an industry where one is expected to "do everything" is incredibly attractive. Using AI integrated software, I have been able to edit videos, smooth transitions and integrate captions to create a professional-looking product, competitive with industry standard. Thereby, generative AI assistance allows fledgling creatives the ability of producing necessary content in a way that enables greater contribution to the industry.

However, I can't help but feel resentful around this normalisation of sub-standard content. If I compare my work on graphics and video edits to professional standard, they are decidedly mediocre, created from a place of general disinterest, necessity. While there are things I have learned about these forms that interest me and my skills have undoubtedly improved, I have never studied this content, I cannot attest to why one specific colour or font communicates the overall mes-

sage of the performance. These decisions are, in my opinion, best left to those who have studied, practiced and worked in the field. There is no question around the quality of content, AI remixes, reproduces 'generalisms' in new contexts. Human creativity invents, draws specific links and re-interprets afresh. The nuance of this conversation to me regards not the comparative quality or potential integration of AI content, but the support structures around fostering continued creativity and invention.

When I edit together subpar content in graphics or short videos, I think about friends and family generating song lyrics or chord structures and laughing, but genuinely claiming, "with some edits, I think this would pass." Sure, enough it would pass, as solidly mediocre content. These same friends agree with this principle, but I wonder with this overproduction, just how much content we have to wade through to find something special. An excellent solo musician may have sub-par video content and sound mixing, which detracts from their overall appeal. An innovative video editor may be pushing generic scripts that undermine the story. In an industry constantly needing to justify its own existence in order to seek funding, inevitably decisions will be made on the relative value of different kinds of creatives, and short cuts taken to minimise costs, in so doing, accepting this mediocrity as necessary in certain fields. Thereby, are the methods we are using to assist ourselves, on another level undermining our very existence.

I cannot deny the benefits of accessibility and the time saved from AI software. It is undoubtedly the future we are walking toward. I view this with excitement, intermingled with an element of dread. My negativity pertains not to the software itself, but the extent to which it is validated and accepted as a baseline. The software is valuable, but not inherently supportive. Creatives still need ongoing support to work with AI to break new ground and deeper explore humanity. Without

these protections our work is placed in competition with AI, rather than empowered by it.

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CHAPTER 25

Integrating Generative AI Text Generation Tools into Contemporary Teaching and Learning

Craig Ellis
March 2026

From the early 2020's artificial intelligence has become a constant and increasingly visible – and sometimes invisible – presence in our everyday lives. Few areas are experiencing as rapid a transformation as higher education. Among the various forms of generative artificial intelligence (GenAI) – namely text, image, sound, video, and coding generation – text generation tools including *ChatGPT*, *Claude*, *Gemini*, and *DeepSeek* have arguably had the most immediate impact on how higher education institutions approach teaching, and on how students approach learning.

The effective integration of GenAI text generation technologies in contemporary higher education requires careful consideration of how it supports academic staff and students alike.

Equitable access to, and training in, the effective use of these technologies additionally requires some deliberation.

As the disruption to all manner of industry from the increasingly ubiquitous nature of GenAI becomes more apparent, this short work examines how GenAI text generation tools are being incorporated into contemporary teaching and learning practice in higher education.

Adapting and Applying GenAI in Higher Education

While a traditional university education has historically emphasised instruction in specialist knowledge, the free access to information online is effectively forcing higher education institutions towards purposefully integrating skills-based training to prepare students for the workforce. To prepare their graduates for workplaces that will inevitably employ various GenAI tools, "it shall be compulsory to have students understand at least basic principles and terminology regarding AI" (Thurzo et al., 2023, p3 as cited in Lee *et al*., 2024).

GenAI text generation tools are arguably currently the most widely used form of generative AI across higher education and business environments alike. For academics, GenAI text generation tools offer potentially powerful opportunities to improve efficiency and expand teaching capabilities, including by aiding to draft lecture outlines and content; creating structured lesson plans; generating discussion questions and case study scenarios that can stimulate student engagement; drafting different iterations of multiple-choice questions on a given subject area; generating alternative explanations for concepts that challenge individual students; and by and summarising complex readings into accessible explanations for students, among other applications.

Given that academic work is often characterised by heavy workloads involving not only teaching, but also administration, research, and student consultation and feedback, GenAI text

generation may be used as a support tool that reduces time spent on repetitive writing tasks. By leveraging the academic's disciplinary and professional expertise, GenAI text generation tools offer the potential to enrich teaching practice by providing diverse ways to present content.

Instead therefore of attempting to prohibit GenAI tools, many higher education institutions are beginning to explore ways of designing assessments that explicitly and transparently incorporate the ethical use of GenAI – that is to say, in ways that preserves academic integrity, transparency, fairness, and intellectual responsibility. Assessment tasks may for example require students to critique GenAI responses for their factual accuracy; reflect on how GenAI assisted their [the students'] work; re-write an essay or case study drafted completely by GenAI; or demonstrate the entire process behind their [the student's] writing from the prompts used, through the initial GenAI output, to the final submission. Used in this way, GenAI becomes an integral part of the learning process rather than a shortcut that undermines it. In support of this argument Schleicher (2026) goes on to recommend that through appropriate policy and investment, governments can ensure that GenAI is used with intent, to enrich learning and not replace cognitive effort or reduce teacher professional judgement, thereby strengthening teaching and learning while aiding students' development of the GenAI literacy capabilities they will need to succeed in future labour markets and in wider social contexts.

Viewed in this way the integration of GenAI text generation tools into teaching and learning is shifting in what higher education institutions value and assess. Rather than focusing on the final written submission, academic teaching staff now place greater emphasis on the thought processes behind the work. Skills such as critical analysis, creativity, ethical judgement, and the ability to collaborate effectively with GenAI tools are becoming central to learning outcome design.

Technology-Enabled Personalised Learning

The greatest contribution of GenAI to student success in contemporary higher education is arguably its capacity to aid in the design and delivery of personalised learning strategies and materials. Technology-enhanced personalised learning has been demonstrated to be highly effective by various authors including Hooshyar *et al* (2024) and Merino-Campos (2025).

Providing detailed, personalised feedback on assessment tasks can be an extremely time-consuming task for academics, particularly those teaching in large classes. Often times too academics find themselves writing variations of the same comment when multiple students make the same or similar errors. From an educator point of view, GenAI text generation tools can assist academics by helping them draft structured feedback templates or suggesting constructive phrasing that encourages student improvement. Emerging practise in higher education institutions is for GenAI systems that assist academics in analysing student submissions and identifying common areas of misunderstanding, thereby allowing academic staff to adjust instruction accordingly effectively in 'real-time'.

From the student perspective, GenAI text generation tools can function as powerful learning companions. Many students already use GenAI tools to help them understand complex ideas, generate study notes, or organise their thoughts before beginning an assignment. As well as asking GenAI text generation tools to write questions and responses to prompts, students can employ GenAI as an on-demand 'virtual tutor' to explain concepts in different ways until they [the student] understand them. This is particularly valuable in higher education, where students often encounter challenging theoretical material and must develop independent learning skills. Understanding how their tools are being used by students, GenAI text generation platforms including *ChatGPT* and *Gemini* in particular now of-

fer an in-built virtual tutor option for users with a personal account.

Students are also using GenAI text generation tools to generate samples quizzes based on an identified topic, or uploaded materials. As part of a two-part exercise, GenAI is used in part one to generate the quiz without the answer key, and part two – after they have attempted the quiz – is for the student to ask the GenAI tool to generate the answer key including explanations for the correct answers. Students wishing to challenge themselves further are also directing GenAI text generation tools to write quizzes that are more stimulating by incorporating questions that require higher-level thinking (e.g. evaluation, synthesis, analysis), or by including short-answer questions with sample responses.

Similar to their use in creating sample quizzes, students are also using GenAI text generation tools to generate flashcards that can be used to improve memory and active recall of facts, concepts, or definitions for a less formally structured self-directed learning experience.

GenAI text generation tools can also support students during the writing process. Instead of producing a finished essay immediately, students are using GenAI tools to brainstorm ideas, develop outlines, or generate example arguments that help them clarify their thinking. Academic writing is often one of the most difficult skills for students undertaking higher education to master, and GenAI text generation tools can provide guidance on structure, tone, and clarity. For example, a student might ask the GenAI tool to review a paragraph and suggest improvements to make their argument more coherent.

Another important, yet frequently understated, benefit of GenAI text generation for students is accessibility. Students who struggle with language barriers (e.g. undertaking higher education in a language that is not their native tongue), with learning differences, or unfamiliar academic conventions are

likewise finding GenAI text generation tools helpful. Supplementary to explaining complex terminology, simplifying difficult readings, or aiding students transform their ideas into formal academic language, a common application of GenAI text generation for international students is to accurately translate text into the student's native tongue.

Blind Corner. Proceed with Caution

Despite the numerous identified advantages of GenAI text generation tools for teaching and learning, its application is not without challenge nor potential risk.

A primary challenge is that while the educational potential of GenAI text generation tools is significant, its meaningful integration across the higher education sector requires substantial investment in digital infrastructure. In the Australian context and with specific regard to accessibility, ensuring equitable access to GenAI-enabled learning environments is particularly important for less advantaged student groups, including those from low socio-economic backgrounds, rural and regional areas, First Nations students, and students with disabilities. These groups are widely recognised in Australian higher education equity policy as populations that experience structural barriers to participation and success in tertiary education.

Recent national data illustrates the scale of these equity cohorts within the higher education system. According to the Australian Government's *Selected Higher Education Statistics 2024*, there were 165,883 domestic students from low socio-economic (SES) areas and 206,667 students from regional or remote areas enrolled in Australian higher education.[1] The statistics also highlight significant overlap between these groups,

[1] https://www.education.gov.au/higher-education-statistics/student-data/selected-higher-education-statistics-2024-student-data/key-findings-2024-higher-education-student-statistics

namely that over 44% of low-SES students are also from regional or remote areas – thus demonstrating the intersection of economic and geographic disadvantage. These data indicate that a substantial proportion of the national student population faces multiple barriers to participation in technology-enabled learning environments.

In light of these figures and based on current enrolment data, it is reasonable to postulate that up to 500,000 Australian higher education students belong to equity cohorts that may require additional support to participate fully in GenAI-enhanced learning.

Fully supporting these students however requires more than simply providing access to GenAI software. Higher education institutions will also need to ensure access to appropriate hardware, reliable internet connectivity, secure GenAI platforms, updated learning management systems, as well as governance structures and training to support the effective and ethical use of GenAI text generation tools. In light of the reported USD17mil investment by California State University in 2025 just to provide nearly half a million students and faculty access to *ChatGPT Edu* – OpenAI's university-specific version of *ChatGPT* – (Kahn, 2026), the additional cost for higher education institutions, beyond simply providing access to secure GenAI software, is significant and arguably beyond the beyond the immediate capability of most higher education institutions.

Despite however the substantial additional cost to institutions, the estimated additional costs nonetheless reflect the reality that support for GenAI capability is increasingly becoming a foundational element of contemporary educational infrastructure, comparable to libraries (digital or physical), computer labs, digital learning platforms and other supports. Such investment should therefore be understood not simply as expenditure on technology, but as a commitment to educational equity. Without targeted infrastructure and support, the bene-

fits of GenAI-assisted learning may be unevenly distributed, reinforcing existing digital divides rather than reducing them. Strategic investment across the whole of the Australian higher education sector therefore represents an opportunity to ensure that GenAI technologies enhance participation, innovation, and learning outcomes for all students.

Setting aside the risks to academic integrity of GenAI text generation tools, which has been discussed at length elsewhere – including by this author[2] – a risk of the widespread integration of GenAI-enabled learning is of GenAI replacing students' skill development rather than supporting it. The OECD's *Digital Education Outlook* (OECD, 2026) reasons for instance that when GenAI removes the productive struggle essential for learning, students may complete tasks faster and achieve better immediate results, but their understanding may be less deeply consolidated. This can diminish cognitive stamina, deep reading, sustained attention and perseverance. Without a clear pedagogical purpose, GenAI can foster what researchers call "metacognitive laziness" and "cognitive offloading" as students disengage with their studies (Chen et al., 2025, as cited in OECD, 2026, p23).

Whilst avoiding "cognitive offloading", students must also develop critical awareness when using GenAI text generation tools as these do not always produce accurate or reliable information. For this reason, students are learning to evaluate GenAI outputs carefully and to verify information using credible academic sources. The ability to question, refine, and improve GenAI text generated responses may become an essential academic skill in the future. Quoting from the qualitative comments returned to their survey, Lee *et al* (2024, p7) writes, "Students who learn to use this technology as a genuine

[2] Ellis, C. 2024. 'You Wouldn't Steal a Car', in Whateley, Kopanakis and Bofinger (eds), *UBSS Publication Series: Issue 17, Integrity in Business and Academia*. Sydney: GCA Publications, pp 31-38.

tool for learning will fantastically expand their horizons and their potential." However, "students who use AI to 'dumb themselves down' will succeed in doing so".

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