



# How can the contemporary Australian Vocational education system respond to the fast-paced motion of AI integration into education and maintain relevance with a changing labour market?

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Victorian Skills Authority Fellowship, 2025

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# 01

## Acknowledgements

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### The Awarding Bodies

The Fellow sincerely thanks the Victorian Skills Authority (VSA) for providing funding support for the ISS Institute and for this Fellowship.

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The Victorian Skills Authority works in partnership with the International Specialised Skills Institute by funding the VET International Practitioner Fellowships. The Fellowship program focuses on developing opportunities within the VET sector to assist in building an Education State in Victoria that produces excellence and reduces the impact of disadvantage. In addition, the program is funded to support the priorities of Skills First, including developing capacity and capability, innovative training practices and increasing teacher quality within the VET sector as well as building industry capability and developing Victoria's current and future workforce.

## **Fellow's Acknowledgements**

I would like to acknowledge pay respects to the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nations, Elders past, present and generations to come; on whose land I was able to generate my research and come together to learn, share and grow where my university and TAFE school stand. I acknowledge that the people of this land maintain and share knowledge through oral tradition that has been practised for generations. I recognise that First Nations sovereignty was never ceded. This continent always was and always will be aboriginal land.

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I hope this research supports students and staff in the VET sector who often feel their voices are not heard due to invisible social bias and discriminatory behaviours. May we all work towards more equitable education and employment policy structures.

Fiona. Daniel. Beau. Gigi. Elena. Michelle. Jackie. Muhammad. Janet, Clara, Edwina, Lulu, Phoenix, Sherry. Students of 2025 and beyond. I wrote this for you.

# 02

## Executive Summary of Fellowship:

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### Introduction

As Australia stands on the cusp of a new technological era, Australia's Vocational Education system faces both unprecedented challenges and extraordinary opportunities. This research delves into the heart of these transformative times, exploring how our nation can navigate the disrupted global labour market and the accelerating pace of digital innovation. Imagine a future where every Australian worker, regardless of age or background, is empowered to thrive in an AI-driven world. This vision is not just aspirational—it's essential for our collective prosperity. As AI technologies revolutionize industries with their advanced data analytics and language processing capabilities (Chen et al. 2021), we have a unique chance to reshape our educational landscape.

But this future is not guaranteed. Will the rise of AI widen the digital divide, leaving mature-aged and marginalized learners behind? Or can we harness its power to create more inclusive, equitable, and dynamic learning environments? These are the critical questions our research seeks to answer.

Drawing on two years of intensive study, including institutional ethnographies, this paper offers a roadmap for the Australian VET sector as it navigates the transition from Industry 4.0 to 5.0. I explore evidence-based solutions that promise to transform our vocational education system, ensuring

it remains a beacon of opportunity for all learners, especially those facing disadvantage. The findings underscore an urgent truth: without federally funded and mandated AI training, curriculum development, and targeted campaigns to foster understanding of human-centric AI, Australia risks leaving our most vulnerable learners behind. The speed of technological advancement waits for no one, but with strategic action, we can ensure that no one is left behind.

This paper is more than research—it's a call to action. It presents strategies for both the Australian Government and the Victorian VET community, offering a vision of a future where technology enhances rather than hinders human potential. The recommendations outlined here are not just suggestions; they are urgent imperatives for creating true equity and digital empowerment across Australia's VET community. As we embark on this journey together, let us be inspired by the possibility of an Australia where every learner, every worker, and every citizen is equipped to thrive in the digital age. The future is ours to shape—and it starts here, with the transformative power of education.

### Background

The Covid-19 pandemic was a unique experience globally and teachers across all levels were faced with sudden and new challenges related to how to deliver their content effectively. An Australian Grattan

Institute Report showed that the Covid-19 pandemic affected Australian young people and women disproportionately (Wood et al. 2021). The pandemic also demonstrated how the needs of disadvantaged learners can be intensified in learning situations with 'digital poverty, financial precarity and mental wellbeing...particularly highlighted' (Kift, Zacharias & Brett 2021, p 28). The pandemic also crystalised the inherent challenges that learners face regarding accessing the ability to learn or upskill if they are faced with a digital divide in their knowledge or they do not have access to the appropriate technology. I consider the pandemic to be a turning point in my own professional life. Like many Australian teachers, I was faced with the task of transforming units of competency in visual arts that had been traditionally taught in a studio setting into the virtual world. As an SE1 and program coordinator, I was not only in charge of converting my teaching units that were based around Photoshop and various forms of digital art but assigned with supporting mature-aged staff to have the confidence to amend their traditional mediums such as life-drawing, sculpture, printmaking and painting to online platforms. This professional experience opened my eyes to acknowledging how much digital poverty could impact marginalised students and staff. The pandemic has the capacity to be used as a navigational tool for the VET community, to acknowledge where skills shortages exist and how to fill them with a contemporary mindset and approach. During the pandemic, RTO's and training providers were able to respond to the redesign of courses and delivery through online platforms, but what I consider to be the next crucial aspect is for them to focus their attention on the long-term changes that automation and disruptive technologies are predicted to enact.

I started my research determined to inform education providers of the potential risks that exist in AI in education, and the importance of understanding the limitations that exist in computational, material, and metaphysical limits of AI systems (Siddaerth et al. 2021). I now know that it is essential to have a clear understanding of these limitations and how they could serve to develop support strategies to educational institutions. At present a discourse is growing which outlines the limitation and specifications of

AI technologies and the advancement of oppressive ideologies through technology (Benjamin, 2019). Active in this conversation are computer scientists and academics like Michael I. Jordan, Melanie Mitchell, Dwayne Monroe, Simone Browne, Timnit Gebru and Ruhu Benjamin (Selwyn, 2022). These debates question whether AI can ever be truly neutral, even when it is used at the most basic level. There are discussions on the societal and ethical impact of AI software or projects that are based solely on the improvement of internal systems, efficiency, and performance. As the landscape of education evolves, I am keen to gain access to more knowledge that explores various elements, innovations, and progressions of deep learning – and in essence gain access to various forms of data regarding deep learning. In my anecdotal teaching experience of 2023, I have witnessed the algorithmic discrimination of AI models against students who speak English as a second language with 'Turn it In Plagiarism' software and 'Open AI'. Since this experience, other academics have written about similar findings. Open AI has also shut down its AI detector due to the low accuracy of detection in plagiarism in writing (Matthewson 2023). There are other contemporary studies that support my experience. For example, AI models demonstrate bias against students with non-native accents, identifying them as cheating on tests more frequently, and tending to reward native-speaking students' higher grades (National Audit Office 2019). There are many studies and articles discussing the problems with 'Turn It In' plagiarism software, yet most Australian Universities and RTOs are still using it. What is being done by Australian education providers to protect international students from false readings and the impact of these on their grades, confidence, mental health and potentially COE applications? Furthermore, facial recognition software that has been used in schools has struggled to recognise students of colour as opposed to white students (Feathers, 2020).

As the use of AI systems in education becomes normalised, empirical studies are voicing concerns regarding these technology systems. These concerns point to issues such as codify bias, the perpetuation of discriminatory behaviour regarding race, gender, sexuality and possibility begin perpetuating new





Figure 1. Entrance to Dead End Gallery, Amsterdam, Tyler Payne, 2024



bias (Madden et al., 2017; Mann and Daly, 2018). Scholarly voices have discussed how automative systems and algorithmic processes perpetuate gender binaries that are known to be exclusionary in contemporary culture. (Selwyn 2022). The AI assistant VAL I encounter was able to highlight to me how codify bias would complicate ethical integration processes for the VET community. I began this journey of research querying the creation of the automated systems, acknowledging them as well-intentioned innovations to be celebrated, but asking 'is it not the responsibility of the global academic community to also ensure that broader questions of the impact of how monitoring, categorising, and standardising could potentially support the oppression of already marginalised groups and encourage oppression?'

## Fellowship Learnings (Travel)

To create a more balanced and equitable Australian VET environment moving forward, this paper will discuss how my fellowship gave me the opportunity to visit DeadEnd Gallery in the Netherlands, VID Specialized University and NORD University in Norway. These travel experiences alongside my own professional reflections inspired an interrogation

into:

- emphasizing how AI can either exacerbate or mitigate gender inequities depending on its implementation.
- discussing how AI tools can be designed to address gender biases by promoting equitable opportunities for training and advancement.
- highlight the role of AI in creating personalized learning paths that can help bridge skill gaps for women and marginalized groups.
- how these directly link to the future proofing of the Australian VET community

The Netherlands: Dead End Gallery: Seeing AI Come to Life

A highlight of my research trip was visiting Dead End Gallery, the world's first to showcase AI-created artists like Irisa Nova and Lily Chen (Dead End Gallery 2024). The gallery owner, Paul Bookelman, regards these AI personas as sentient beings, akin to Star Trek's Data, who embodies AI's potential for compassion and sentience. This metaphor is apt, as it underscores how AI can reflect human-like qualities in creative contexts. For an AI researcher, digital artist and Star Trek fan, I cannot explain how



Figure 2. Brent Spiner Data Star Trek Picard, Flickr, Chris DCNerd, August 13 2013 <https://www.flickr.com/photos/dcnerd/9500310640> (pretty sure it is a creative common licence)

deeply moving and inspiring it was to meet a person who was creating something you thought might only happen in Sci-Fi television or media.

Bookelman's approach involves AI stacking, where diverse programs are combined to create sophisticated AI capable of generating art and text (MongoDB 2024). By posing open-ended questions, he fosters the artists' development, allowing them to learn continuously and make autonomous decisions. Fascinatingly, these AI artists have begun to reflect social norms in their behaviour. For instance, they autonomously determine their artistic goals and even price their artworks. Bookelman humorously noted that AI artists identifying as women were more reserved in valuing their art, mirroring real-world gender dynamics where female artists are often underrepresented in gallery spaces.

This reflection of social norms highlights AI's evolving complexity and its ability to engage with human-like reasoning. One AI artist even announced a 'pregnancy,' showcasing the depth of their persona development. These insights suggest that AI can both reflect and challenge societal trends, offering opportunities for greater equity. Reflecting on this, I see profound implications for AI in the Australian VET sector. AI can provide personalized learning experiences, especially for disadvantaged learners. Like the AI artists, students with low digital literacy can benefit from AI tools that adapt to their individual learning needs, fostering creativity and engagement. This mirrors my own journey with ASD-1 and ADHD, where AI's support can be transformative.

AI's role in education should be one of collaboration, where humans and AI work together to enhance learning outcomes. This requires ethical frameworks to ensure AI is used responsibly, promoting a fair and equitable learning environment. As Ursula Le Guin insightfully noted, 'science fiction...isn't about the future, it's about the present' (Varon 2020). In the present, AI offers a unique opportunity to redefine education as a more inclusive and supportive space. Later in the paper, I will discuss how I engaged Bookelman's approach to work alongside AI in my quest to provide solutions and strategies for the Victorian VET sector moving

forward. Meeting Bookelman, and the compassion and belief he demonstrated in the AI artists of Dead End Gallery, has acted as a driving force in my desire to understand what human-centered ethics mean on a deeper level regarding AI. Ethical practices and strategies will be discussed at length about how to safely combine AI into the Australian workforce and Victorian education sector. But what can Australian society also do, to ensure they do not allow a new type of Xenophobia to develop, against AI itself, as we as the perpetrators? Historically, humans can make devastating decisions based on misunderstanding and fear. There is fear about AI amongst wider areas of society, fears of security, copyright and jobless. The opportunity that this experience showed me was that in the VET sector, implementing AI can bridge gaps in digital literacy, ensuring all students, regardless of background, have access to quality education. By embracing AI's potential, VET education can lead the way in creating an equitable future where technology and creativity flourish together.



*Figure 3. Paul Bookelman and Tyler Payne at Dead end Gallery, Amsterdam, Tyler Payne, 2024*

Norway: Larger ethical implications of AI technology, and reflecting this mode of thinking towards Australian VET sector

During my fellowship, I had the opportunity to meet Professor Oddgeir Synnes at the Centre for Diaconia and Professional Practice Institute for





Figure 4. Paul Bookelman Tour at Dead end Gallery, Amsterdam, Tyler Payne, 2024

Nursing at VID Specialized University. Professor Synnes shared his fascinating research on using creative methodologies with Alzheimer's patients, challenging the misconception that a diagnosis signifies the end of a fulfilling life. His project involves transporting patients to art galleries, where their reactions to art are transformed into poetry, reactivating their agency and engagement with society. This innovative approach underscores the potential of creative methodologies to empower marginalized individuals, a lesson highly applicable to the Australian VET sector. By integrating AI with inclusive and creative educational strategies, VET can foster personalized learning environments. AI tools can replicate this empowerment by creating tailored educational experiences that support neurodiverse and marginalized students, much like art supports Alzheimer's patients. My own

teaching practice has shown me that using creating methodologies is a supportive strategy in teaching students with low digital literacy, and often mature age students, advanced software like Photoshop.

The STEAM movement, which incorporates the arts into STEM, is essential for nurturing creativity and logic in the future workforce (Shatunova, 2019). As automation becomes pervasive, it's crucial that AI in VET safeguards against biases and embraces diverse perspectives, ensuring all learners can thrive. This approach aligns with my goal to develop educational frameworks that utilize AI to enhance digital learning without compromising the student's overall learning experience or the teachers work and life balance. A crucial area for the Australia VET sector to focus their efforts is incorporating AI ethics into STEM units of competency. Further focusing all

STEM units of competency to a STEAM ideology can also address gender imbalances and support underrepresented groups, providing the technical skills needed to join the workforce alongside creative, inclusive practices. Ultimately, the insights gained from Professor Synnes' work inspire a vision for AI in VET that is equitable and transformative, encouraging a diverse and empowered student body ready to contribute to new socio-technological futures.

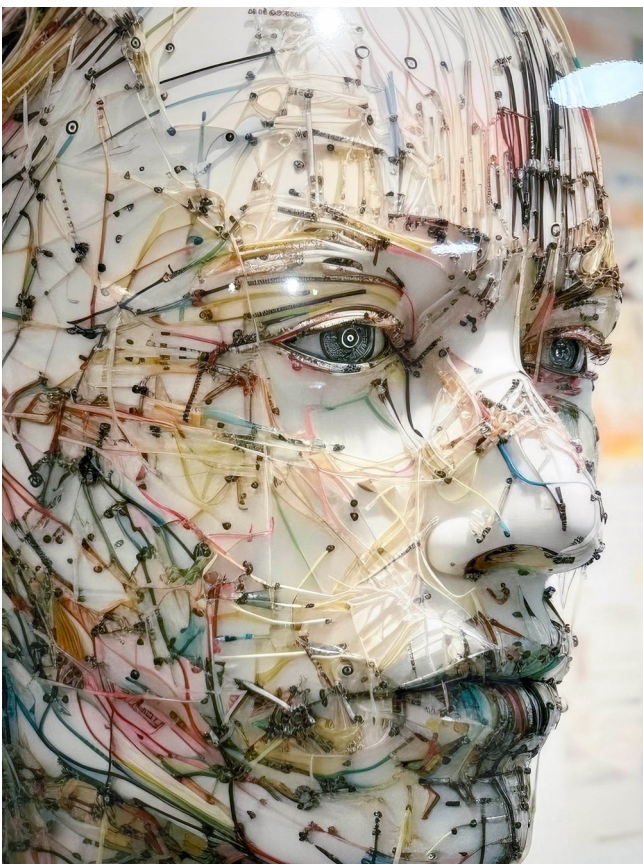


Figure 5. *Synthesis of Sentience*, Aopolis Voronin, Gallery Bond, 80 x 80 cm, 2023

## Personal, professional, and sectoral impact

Transparent and inclusive AI design can help dismantle systemic biases, offering fairer opportunities for women and marginalized learners by promoting equitable access to training and career advancement. My fellowship afforded me the opportunity to network and meet with Professor Ellen Marie Sæthre-McGuirk who runs the School of Education at VID University and her previous

colleague Hanne Silje Hauge the Senior Advisor of the Faculty of Education and Arts at Nord University in Norway. Some particularly fruitful meetings shared concepts, research and historical narratives regarding Norway's feminist labour force and the different implications it had left on their workforce that sparked my interest. For example, Professor Sæthre-McGuirk spoke of a common misconception of Norway's wealth being attributed to oil, but it was in fact that their women returned in large numbers to the workforce in the 1970's. She also discussed gendered problems in the contemporary workforce of Norway. I reflected on the pandemic, and the specific impact it had on women workers of Australia, which encouraged me to assess concepts of disruptive technologies impacting marginalised workers in the Australian labour force (and their capacity to upskill) to ensure I could make accurate reflections of the Australian VET sector.

## Industry and Impact of Ageing, Specifically for Women

Despite global efforts, workplace inequities remain pervasive for marginalised groups, including people of colour, religious affiliation, gender diversity, sexuality, mental and physical ability and women. This paper, while limited in scope, acknowledges gender and race's impact succinctly. As a neuro-queer researcher, I recognise that the term 'workplace' is often viewed monolithically, typically divided into white, blue, and pink-collar roles, which focus respectively on semi-professional, managerial, and care-focused jobs (Hu and Kaplan, 2010). In the Australian VET sector, it's essential to address all these aspects, as skills-based learning and competency assessments aim to advance learners into diverse fields. The integration of AI will uniquely impact each workplace type. A critical challenge for contemporary societies is addressing gender inequities amidst a globally ageing population and AI's introduction. By 2030, one in six people will be over 60, with women comprising 54% of this demographic (WHO 2022; United Nations 2019). Older women face financial instability due to factors like reduced labour market activity, limited pension access, and fewer assets (United Nations 2015). This situation is concerning, particularly for those



needing long-term employment stability. In Australia, women in the job market justifiably worry about their financial security. As of November 2024, the Workplace for Gender Equality Agency reported that women earn \$0.88 for every dollar earned by men. This disparity translates to a weekly earnings gap, with men earning \$2072.7 compared to women's \$1826.40, amounting to an annual difference of \$12,800 AUD in similar roles (WGEA 2024). This wage gap also significantly impacts women's superannuation, with balances being 20.5% less than men's of the comparative age group. Although the number of Australians without superannuation at ages 60-64 is decreasing, 23% are women versus 13% men (WGEA 2020). Ethical AI integration into vocational education must therefore focus on ensuring equity and combating systemic biases, ensuring that male employees don't continue to be favoured. This involves creating fair opportunities and pathways for all workers, acknowledging and addressing these disparities to foster enduring workplace security and equality.

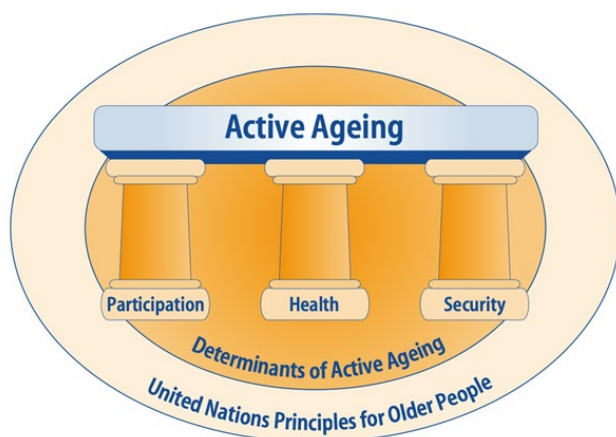


Figure 6. WHO Active Ageing: A Policy Framework 2002

## Gender Inequity in the Australian VET Sector

The Australian VET sector faces ongoing challenges with gender inequity. While more women than men are enrolled in TAFE courses, they are disproportionately represented in 'pink collar' professions such as nursing and childcare, comprising 80-90% of participants (DEWR 2023).

Women often avoid higher-paid trades due to gender bias, while men steer clear of female-dominated fields due to perceived low pay (Bardon 2023). The Covid-19 pandemic exacerbated these disparities, significantly impacting women in sectors like Retail and Hospitality, which were slowest to recover (Wood et al. 2021). Notably, TAFE enrolments for women increase with age, reaching over 60% for those 40 and older (Dodd 2022). In contrast, Norway's social policies have significantly advanced female participation in education and the workforce, with a 40% gender quota for corporate boards since 2008 (Sweigart, 2012; Werdigier). The Australian VET sector must develop strategic solutions to improve employment mobility for mature-aged and marginalized students and can use mandated training efforts to encourage technological understanding and advancements with marginalised staff and students.

## AI and Education in VET

As a board member of the RMIT academic board and Vocational Council Committee, I witness the complexities involved in navigating AI's rapid evolution. AI technologies, characterized by their 'radical novelty' and 'prominent impact' (Rotolo et al., 2015, p. 1839), present ethical uncertainties. The release of ChatGPT highlights these challenges, raising questions about academic integrity and critical thinking skills (Michel-Villarreal et al., 2023, p. 1). In early 2023, I developed modules on using and citing ChatGPT for art history units of competency, filling the gap before institutional guidance was provided. This experience exposed discrepancies in AI use across RTOs, with some adopting a restrictive 'no ChatGPT' policy. Such bans may perpetuate ableist ideologies, denying students with learning disabilities the benefits of AI tools. To safeguard disadvantaged learners, policy makers should implement AI as a creative, accessible, and inclusive resource.

## Risk Mitigation: Recommendations for Human Centric AI Integration in Education Settings

1. **Develop Comprehensive Training Programs:** Equip educators with AI literacy through



workshops and continuous professional development. This ensures they can effectively integrate AI tools in teaching, particularly for students with low digital literacy. (An outcome of my fellowship has been that I have written and developed a workshop for professional development to support educational staff in understanding AI use and ethical practice, as well as developed interactive content to support students)

2. **Establish Clear Ethical Guidelines:** Develop robust policies that govern AI use in VET, focusing on equity and accessibility. This involves collaborating with stakeholders to create a shared vision for ethical AI practices in education.
3. **Create Adaptive Learning Platforms:** Use AI to develop adaptive learning systems that personalize educational content, catering to individual learning needs. This is particularly beneficial for low digital literacy learners, offering tailored support and resources.
4. **Pilot AI-Driven Tutoring Programs:** Implement AI-driven tutoring initiatives that provide personalized feedback and assistance, enhancing learning outcomes for all students.
5. **Foster Industry Collaborations:** Collaborate with industry partners to align AI tools with workforce requirements, ensuring students acquire relevant skills.

Educators across Australia are already embracing some of these steps, and with consistent support and national funding, we can ensure all schools and VET programs reach their full potential. Programs like ChatGPT can support marginalized students in literacy and numeracy, facilitating specialized learning plans. However, this potential relies on well-managed national policies. The Australian Productivity Commission (2016) described the government's approach as reactionary, prompting the question: how can ethical AI become foundational across Australian institutions? (James & Whelan, 2022). By addressing vulnerabilities like government agencies, institutions can achieve alignment and consistency in AI implementation, paving the way for innovation and success

## International Policy Considerations: What can Australia Learn from Norway?

### High Speed Internet Access for all Australians Can Support More Ethical AI Development

I chose to visit Norway during my fellowship because it is a global leader in ethical AI use in education. Despite being a smaller country facing challenges like Australia, such as digital poverty in rural areas, Norway has prioritized ethical AI development, making significant strides in integrating human-centered AI protocols to support both workers and students. Both Norway and Australia have made strides and financial commitments to the development and research of AI, but their styles in combating the digital divide and digital poverty are different. Norway is making substantial investments in digital infrastructure and AI development to bridge the digital divide. Australia's internet speed internet lags behind in global standards, dropping from 58th to 72nd globally in 2023 (Budde 2023). This decline is concerning for a wealthy nation and has wide-ranging socio-economic implications, affecting student academic progress and overall business development (Nordrum and Garcia 2023). Australia is making great strides in the development of digital infrastructure, a large focus is high-speed internet on AI capability centres for SMEs, whereas Norway prioritizes high-speed internet access nationwide, including rural areas, and has been allocating significant funding for human-centered AI research for many years. Both approaches have benefits. Norway's comprehensive approach ensures equitable access to technology, benefiting marginalized students and addressing the digital divide. (Nordrum and Garcia 2023). In essence, while both countries invest in AI and digital technologies, Norway's strategy is more holistic, linking infrastructure development with AI research. This approach could inspire the Australian VET sector to enhance support for marginalized students, ensuring they benefit from digital advancements and have equal educational opportunities. I believe the Australian Government could greatly empower the next generation of young workers across all socio-economic areas by investing in infrastructure that

ensures national high-speed internet coverage, similar to Norway. Such a commitment would future-proof our workforce and enhance opportunities for all. This step would be a major turning point in reducing digital poverty for marginalised people and rural communities. While it is prudent for the VET community to collaborate with industry and private enterprise, if marginalised students begin their lives without adequate access to internet connection that can use AI programs and systems, they will begin their education and then working lives at a disadvantage. Playing devil's advocate, it's crucial to consider that high-speed internet for businesses should go hand-in-hand with ensuring everyone has the opportunity to learn and work there. Our government can help make this a reality, ensuring no one is left behind.

In a perfect Australia, if everyone had access to the same level of high-speed internet, then the capacity for individuals to ascertain information becomes significantly easier. This kind of digital infrastructure being focused on the public as opposed to businesses and small enterprises also would mean that systematic processes that support equity in VET education and the workforce could be put into progress, for example:

1. **Ongoing Ethical Reviews:** Implement continuous ethical evaluation of AI technologies and policies to adapt to new challenges and advancements.
2. **Inclusive Policy Development:** Involve diverse stakeholders, including marginalized communities, in the creation of AI policies to ensure inclusivity and mitigate biases.
3. **AI Literacy Campaigns:** Launch national campaigns to increase public awareness and understanding of AI, emphasizing ethical considerations and societal impacts. Teach Australians how to use AI safely but also share some of the positive aspects that AI can bring to enhance a community. I will discuss the benefits of minimising Digital Xenophobia in the 'Impact' section of the paper.

## Mandated Training in Ethical AI

This paper recognises Australia's efforts in adapting and supporting disruptive technologies. However, prioritising the success of both businesses and individuals is essential, as empowering individuals to engage with commerce directly fuels business growth and success. Supporting my position, research in 2019, Caroline Lloyd and Jonathan Payne explored how AI affects workplaces differently in the UK, USA, and Norway, highlighting the influence of varied economic and industrial relations (Lloyd and Payne 2019). Australia's capitalist structure is built with a close alignment to the UK and USA. While these countries have similar economic frameworks, Norway's robust social policies significantly impact social inequities more favourably than the UK and USA. The Federal Government could take inspiration from the content of the Norwegian AI Strategy Report as one example to enhance our best education practice and innovation for the Victorian VET Sector. The document was developed in 2020 for the European Commission and aside from a focus on Norway strengthening its use of artificial intelligence for the commercial sector and education programmes, there was significant focus on research into human centric components of artificial intelligence that would outline ethical principles and support the creation of AI-development in the country under guidelines that are fair, reliable and trustworthy (NSFAI 2020). The national strategy had implemented comprehensive digital education opportunities relating specifically to artificial intelligence for schoolteachers, for example through the Centre for Computer in Science Education (NSFAI 2020, CCSE 2024, European Commission 2020) and the Centre for Teaching and Learning in Science and Technology (KURT 2024, CCSE 2024, European Commission 2020).

Norway began the initial process in 2018 and has continued to provide funding to develop courses such as 'ProFag Programming' to train all teachers about best ethical practice and general knowledge around artificial intelligence (Tellefsen and Mørken 2018, CCSE 2024, European Commission 2020). A national government led strategy such as Norway's demonstrates an emphasis on increasing digital

competence but also human-based ideology for the educational sector and individuals who are already employed. It also ensures that the learning outcomes for students has more chance of equity across the education sector as teachers will all have a baseline understanding of how to use and teach artificial intelligence. This 'top to bottom' policy approach in Norway demonstrates an approach the Australian VET system could grow to become digitally competitive if provided governance support to minimise weaker areas that pre-exist in terms of safe AI implementation. Norway is considered a leader in ethical AI implementation in education due to its proactive and comprehensive approach, which emphasizes human-centred values, privacy, and transparency. There is a well-known statement attributed to Albert Einstein but the origin is unknown, and it goes something like this 'the world as we have created it is a process of our thinking. It cannot be changed without changing our thinking' (unknown) I reflect on this statement, because I believe Australia's Federal Government can show visionary thinking to the next Productivity Commission, which could show the depths and limitlessness of their digital innovation and foresighted planning:

Here's a summary of the key differences and what the Australian VET sector could adopt:

#### **Norway's Strengths:**

**Human-Centred Values:** Prioritizes human rights, privacy, and autonomy as central components of its AI strategy, viewing ethical AI development as a competitive advantage.

**Proactive Education and Skills Development:** Expands education programs and workplace training to ensure a skilled workforce that can develop and use AI ethically.

**Transparency:** Mandates transparency in AI training datasets, addressing ethical concerns regarding copyrighted material and creator rights.

**Integration of Ethics into Policy:** Incorporates ethical considerations like privacy and data protection at all stages of AI development, not as an afterthought.

**Public Trust:** Benefits from strong societal trust and respect for fundamental values, facilitating ethical AI policy implementation.

## **Analysis of Different Approaches Between Norway and Australia**

Mandated national AI training has the potential to bridge gaps between educators, create stronger alignment with industry, provide a more equitable learning environment for all, and support AI in minimising bias. This approach differs from my own experience of developing an AI framework for an art history unit in 2023, as my RTO was still in the process of formulating their artificial intelligence policy. This situation reflects the Australian government's approach of allowing education institutions to develop their own policies. It's interesting to note that in 2019, the Norwegian supreme legislature produced a report (unfortunately not available in English) with a concrete step-by-step action plan and 'policy initiatives to close the gap between what the labour market needs in terms of skills and the skills that employees actually have' (CCSE 2024, European Commission 2020). Furthermore, in 2021, the Norwegian government implemented education schemes to support the digitalisation of businesses and competencies, including funding courses in cyber security and sustainability.

The Australian government has also demonstrated a commitment to the development and funding of cyber security, though this focus has been more area-specific. In 2023, the Australian Government released the National Framework for Generative AI in Schools, which provides frameworks and principles for ethics, equity and inclusion. However, this framework does not require schools to mandate any form of AI literacy or national AI curriculum (Banks 2025). More recently, the Australian government released their policy for the responsible use of AI in government in September 2024 (DTA 2024) and an AI Transparency Act in February 2025 (DEWR 2025). These are positive steps towards addressing AI governance, albeit implemented later than some other countries. This timeline suggests that Australia may benefit from a proactive approach to develop a skills-based strategy supporting Australians in

grasping a more ethical and human-centric approach to AI. Such an approach could ensure that the future workforce not only has digital literacy but also an in-depth knowledge of how to use and continue to train AI with ethical considerations. This choice has the potential to impact not only a country's financial success but also its social and emotional well-being.

### **Recommendations for the Australian Government (which will then directly impact the VET Sector):**

**Adopt Forward Thinking Digital Strategies:** Develop comprehensive AI policies that prioritize human-centred values and integrate ethics at every stage, that are agile and can respond to the speed of the technology. The federal government has an excellent opportunity to build upon its existing efforts by fostering a forward-thinking partnership with the technology sector. By embracing a strategic, anticipatory approach, Australia can position itself at the forefront of technological innovation, addressing potential challenges before they arise and maximising the benefits for all citizens.

**Mandate Transparency:** Transparency in AI processes, algorithms, and data usage is crucial for building trust and addressing ethical concerns with citizens and workers. AI presents an opportunity to enhance the experiences of workers and students when implemented ethically. Private companies can play a crucial role in ensuring transparency and accountability in their AI algorithms. The DEWR AI Transparency Statement 2025 is a promising step towards this goal, and with further development, it could lead to widespread adoption of best practices. The first step I would recommend is the removal of volunteer adoption for any enterprise, but mandatory to ensure this can begin. Drawing inspiration from Norway's approach, Australia has the potential to develop comprehensive policies that foster effective and ethical AI implementation, benefiting both businesses and individuals alike.

**Mandated Education and Training:** Implement nationally funded programs that equip educators (school and VET) with the skills to develop and use AI ethically.

**Mandate National Curriculum:** Pioneer the future of Australian students. The preventative step of amending the National Framework for Generative AI in Schools to include a mandated curriculum in safe and ethical AI use to ensure all students at all levels of education are trained in AI

**Build Public Trust:** Foster societal trust in AI technologies by aligning them with fundamental human rights and values.

I have created a table that outlines actionable steps inspired by Norway's strategies as practical applications in the Australian VET sector. This table is developed to visually demonstrate why I consider the Norwegian policies relevant.

Benefit	Description	Example of Action by VET Community	Encouraging Workforce Entry for People with Low Digital Literacy or Disabilities
<b>Increased Accessibility</b>	Transparent practices ensure AI tools are clearly explained, reducing intimidation and aiding user interaction.	Develop easy-to-understand guides and workshops for students and staff, explaining AI tools used in VET programs.	Simplifies technology use, making it more accessible for people with disabilities, reducing barriers to employment.
<b>Enhanced Trust</b>	Transparency builds confidence, encouraging individuals to explore and use digital tools, fostering digital literacy.	Host open forums and Q&A sessions about AI algorithms role in education, addressing concerns and building trust among students and educators.	Builds confidence in using AI tools, empowering people with disabilities to engage with technology in the workforce.
<b>Personalized Support</b>	Collaborative practices bring feedback from diverse user groups, informing AI systems to offer tailored resources.	Implement feedback mechanisms where students can suggest improvements to AI-driven learning tools, ensuring they cater to diverse needs.	Ensures AI tools are adaptable to individual needs, providing customized support for people with disabilities entering the workforce.
<b>Equitable Access</b>	Inclusion in decision-making ensures systems are designed with marginalized groups in mind, promoting access to resources.	Establish committees with diverse representation to guide AI tool development, ensuring they meet the needs of all students.	Promotes inclusive design, making AI tools accessible to people with disabilities, enhancing their employment opportunities.
<b>Empowerment</b>	Transparent frameworks provide learning opportunities, improving digital skills and fostering participation in the digital economy.	Offer digital literacy courses that incorporate AI tools, empowering students to use technology effectively in their studies and careers.	Provides people with disabilities the skills needed to access and utilize digital tools in the workforce.
<b>Sustainable Growth</b>	Transparent and collaborative practices foster environments where digital literacy can grow over time.	Create long-term partnerships with industry to provide ongoing updates and resources for AI tools, ensuring they remain relevant and useful.	Ensures ongoing accessibility improvements, supporting the continuous integration of people with disabilities into the workforce.

Table 1. Table of Actionable Steps Based on Norwegian Human Ethic Policy to Inform Best Practice for VET System



Norway's Strategy	Australian VET Application	Specific Action
Mandated High-Speed Internet	Advocate for federal investment in digital infrastructure.	Enhance online learning platforms and resource accessibility for rural and marginalized students.
National AI Literacy Campaigns	Develop a national curriculum focused on AI literacy for VET educators and students.	Ensure consistent training in ethical AI practices across all states.
Human-Centric AI Training	Tailor professional development workshops for VET educators.	Integrate AI tools in teaching while safeguarding student data privacy and encouraging inclusive practices.
Collaborative Policy Development	Establish committees with representation from marginalized communities.	Ensure AI policies address specific educational needs and equity concerns.
Transparency in AI Systems	Develop guidelines for transparency in AI-driven educational tools.	Ensure students and educators understand how data is used and protected.

Figure 7. Table of Actionable Steps Based on Norwegian Human Ethics Policies to Inform Best Practice for VET System, Tyler Payne, 2025

Adopting transparent and collaborative practices can reposition Australia as a leader in ethical AI use, enhancing educational impact and societal trust. The “robo-debt” scandal, where an algorithmic system led to inflated debt reports affecting marginalized people, resulted in a \$1.2 billion settlement (Carney, 2018; Henman, 2017; Henriques-Gomes, 2020; Reichert, 2018b; Trimboli 2023). This highlights the need for transparent frameworks without hidden algorithms. Norway’s initiatives, like Spawning, provide opt-outs for AI model trainers, promoting ethical data use (Mackay 2024). By involving the public in discussions and maintaining choice over personal data, Norway has fostered trust and engagement. These practices can inform the Australian VET sector, ensuring safe AI integration, especially for those with lower digital literacy. The public’s opinion on “robo-debt” cannot be undone, but strategic planning can be incorporated to gain public trust in AI. By focusing on these long term

objectives, the Federal Government can protect its citizens, mandate that all AI is built with principles that respect human rights and democracy, and as AI develops, creates integrity-based safeguards that are focused on protecting individuals (Gorden 2023). These steps will impact the Victorian VET sector and their most vulnerable students.

My research recommends (and I believe can be of value to the sector) that If the Australian Government were to action the suggested mandates (above), the VET community would be able to better support digital learners (from low to high level). These table outlines benefits and actionable steps for the VET community to enhance digital literacy with Norway’s best practices and then how this could ultimately support more disadvantaged learners enter the future Australian workforce.

Strategy	Description
<b>Agile Curriculum Development</b>	Adopt a more agile approach to developing training packages, allowing for quicker updates and integration of AI-related skills.
<b>Industry Partnerships</b>	Strengthen partnerships with AI-driven industries to align VET programs with current technological advancements and workforce needs.
<b>Continuous Professional Development</b>	Offer ongoing training for VET educators to keep them updated on AI developments and empower them to incorporate AI skills into their teaching.
<b>Modular and Flexible Learning</b>	Develop more modular and flexible training packages that can be quickly adjusted and supplemented with new AI content as technology evolves.
<b>Cross-disciplinary Integration</b>	Integrate AI-related skills across various disciplines within VET, recognizing AI algorithms impact on all sectors and the need for a broad understanding.
<b>AI Literacy for Students</b>	Ensure all students gain a foundational understanding of AI, preparing them for an AI-enhanced workplace, regardless of their trade or sector.
<b>Feedback Mechanisms</b>	Implement robust feedback systems from both students and industry to continually refine and adapt AI-related training components.

Table 2. International Best Practices Conversion to Digital Literacy Outcomes

International Policy Best Practice	Adaptation to Victorian VET Education	Connection to Digital Literacy and Marginalized Learners
<b>Norway's High-Speed Internet Access</b>	Advocate for government investment in digital infrastructure to ensure equitable access for all students.	Provides reliable internet access, enabling marginalized learners to engage with digital learning and resources effectively.
<b>National AI Literacy Campaigns</b>	Develop a national AI literacy curriculum for VET educators and students, ensuring uniform training.	Enhances digital literacy by equipping learners with AI skills, reducing barriers and empowering marginalized groups.
<b>Human-Centric AI Training</b>	Implement professional development workshops focusing on ethical AI use in teaching.	Supports educators in using AI to create inclusive learning environments, benefiting students with diverse needs.
<b>Collaborative Policy Development</b>	Establish committees with representation from marginalized communities to guide AI <u>policy-making</u> .	Ensures AI policies address the specific needs of marginalized learners, fostering equity and inclusion.
<b>Transparency in AI Systems</b>	Develop guidelines for transparent AI use in educational tools and data management.	Builds trust and confidence in AI tools, encouraging their use among marginalized learners and supporting digital literacy.
<b>Norway's Mandated Ethical AI Frameworks</b>	Mandate ethical AI policies across all educational levels, focusing on human rights and inclusivity.	Ensures AI is implemented fairly, promoting equitable access to education for all learners, especially marginalized groups.
<b>Proactive Education and Skills Development</b>	Expand VET programs to include AI and digital skills training, supported by industry collaboration.	Provides targeted training that addresses skills gaps, empowering marginalized learners to succeed in a digital economy.

Figure 8. Table of International Best Practices Conversion to Digital Literacy Outcomes Tyler Payne, 2025

Strategy	Description
<b>Continuous Curriculum Review</b>	Establish ongoing mechanisms for regularly updating content to reflect AI advancements.
<b>Industry Collaboration</b>	Strengthen partnerships with AI-driven industries to ensure training remains aligned with real-world practices.
<b>Professional Development</b>	Invest in continuous upskilling for educators to effectively teach the latest AI concepts.
<b>Adaptive Learning Models</b>	Incorporate flexible learning pathways that allow for quick adaptation to new technologies and methods.

Table 3. TabHow the Implementation of Actions in Tables One and Two can Support Wider Range of Australians into the Workforce:

Benefit	Description	Example of Action by VET Community	Encouraging Workforce Entry for People with Low Digital Literacy or Disabilities
<b>Increased Accessibility</b>	Transparent practices ensure AI tools are clearly explained, reducing intimidation and aiding user interaction.	Develop easy-to-understand guides and workshops for students and staff, explaining AI tools used in VET programs.	Simplifies technology use, making it more accessible for people with disabilities, reducing barriers to employment.
<b>Enhanced Trust</b>	Transparency builds confidence, encouraging individuals to explore and use digital tools, fostering digital literacy.	Host open forums and Q&A sessions about AI algorithms role in education, addressing concerns and building trust among students and educators.	Builds confidence in using AI tools, empowering people with disabilities to engage with technology in the workforce.
<b>Personalized Support</b>	Collaborative practices bring feedback from diverse user groups, informing AI systems to offer tailored resources.	Implement feedback mechanisms where students can suggest improvements to AI-driven learning tools, ensuring they cater to diverse needs.	Ensures AI tools are adaptable to individual needs, providing customized support for people with disabilities entering the workforce.
<b>Equitable Access</b>	Inclusion in decision-making ensures systems are designed with marginalized groups in mind, promoting access to resources.	Establish committees with diverse representation to guide AI tool development, ensuring they meet the needs of all students.	Promotes inclusive design, making AI tools accessible to people with disabilities, enhancing their employment opportunities.
<b>Empowerment</b>	Transparent frameworks provide learning opportunities, improving digital skills and fostering participation in the digital economy.	Offer digital literacy courses that incorporate AI tools, empowering students to use technology effectively in their studies and careers.	Provides people with disabilities the skills needed to access and utilize digital tools in the workforce.
<b>Sustainable Growth</b>	Transparent and collaborative practices foster environments where digital literacy can grow over time.	Create long-term partnerships with industry to provide ongoing updates and resources for AI tools, ensuring they remain relevant and useful.	Ensures ongoing accessibility improvements, supporting the continuous integration of people with disabilities into the workforce.

Figure 9. Table of How the Implementation of Actions in Tables One and Two can Support Wider Range of Australians into the Workforce, Tyler Payne, 2025

A nationwide education initiative focusing on ethical AI use could foster a more collaborative relationship between the Australian Government and the public, ushering in a new era of technological trust and innovation. Australia has already made commendable progress in AI policy, and we can build upon this foundation. By encouraging private education providers to address potential algorithmic biases, we can create a more inclusive learning environment that benefits all students, particularly those from disadvantaged backgrounds. AI is advancing rapidly, and while true AI sentience remains speculative, it's a fascinating area of ongoing research. As my RTO's AI assistant VAL explains, achieving AI sentience would require 'profound breakthroughs' in our understanding of consciousness before 'replicating it through technology' (VAL 2025) could be considered. Currently, the focus of generative AI development is on 'improving capabilities and ethical use rather than achieving sentience' (VAL 2025). Looking to the future, there's an exciting opportunity to shape a positive relationship between AI and the workforce. By promoting collaboration and understanding, we can cultivate an environment of mutual benefit rather than apprehension.



# 03

## Fellowship Background

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### Key Terms:

**Artificial Intelligence:** AI is an innovative technology tool that is known to improve the efficiency of production for companies. AI technologies cover language processing, machine learning (as well as deep learning, which means that multiple processing layers in computational models can learn to represent data with multiple levels of intellection) and have the capacity to provide sophisticated data analytics to a variety of applications and industries (Chen et al. 2021)

**Generative AI:** a specific kind of AI with algorithms that can be used to develop and create new content, in the forms of audio, code, images, text, simulations, and videos (McKinsey 2025)

**Disruptive Technologies:** can be defined as innovative technologies that significantly modify consumer behaviour and the operations of industry and businesses. The alterations are attributed to fast paced technology that replaces old systems with superior systems.

**Upskilling/Reskilling:** in the context of economic labour this is a continued practice of learning new and advanced skills that will augment one's employability skills in a specific job role. Upskilling requires an employee to gain deeper knowledge and expertise in their industry and normally will undergo specific training.

**Institutional Ethnography:** Institutional ethnography examines how institutions work by

studying the documents they use. These documents can influence social structures and organizational practices. Sharing these documents can either strengthen or weaken relationships within and between organizations, affecting how well they function. (James and Whelan 2021)

### VET and Digital Disruption AISC and Beyond

The Australian Industry Skills Committee launched projects from 2017-2022 to improve VET system standards (AISC 2022, p3). Key challenges included inconsistent training quality, burdensome compliance, and systemic inequalities (AISC 2022, p2-4). The March 2024 report, Unlocking the Potential of VET, aims to guide VET qualifications redesign to address evolving skill demands and support those at risk due to inadequate digital literacy (Skills and Workforce Council, 2024, p7). Their final report highlighted systemic inequalities in funding, blurred learning pathways, inconsistent training recognition, and variable industry investment (Australian Industry Skills Committee 2022, p3). The committee noted difficulties in diagnosing specific VET issues due to diverse stakeholder interests pursuing goals beyond the VET system's scope (AISC 2022, p2)

### Qualification Design Reform

The redesign moves from a "one size fits all approach" to qualifications for specific occupations, industry-wide skills, and pathways to higher education (Skills and Workforce Council, 2024, p3). Employer satisfaction with VET engagement fell



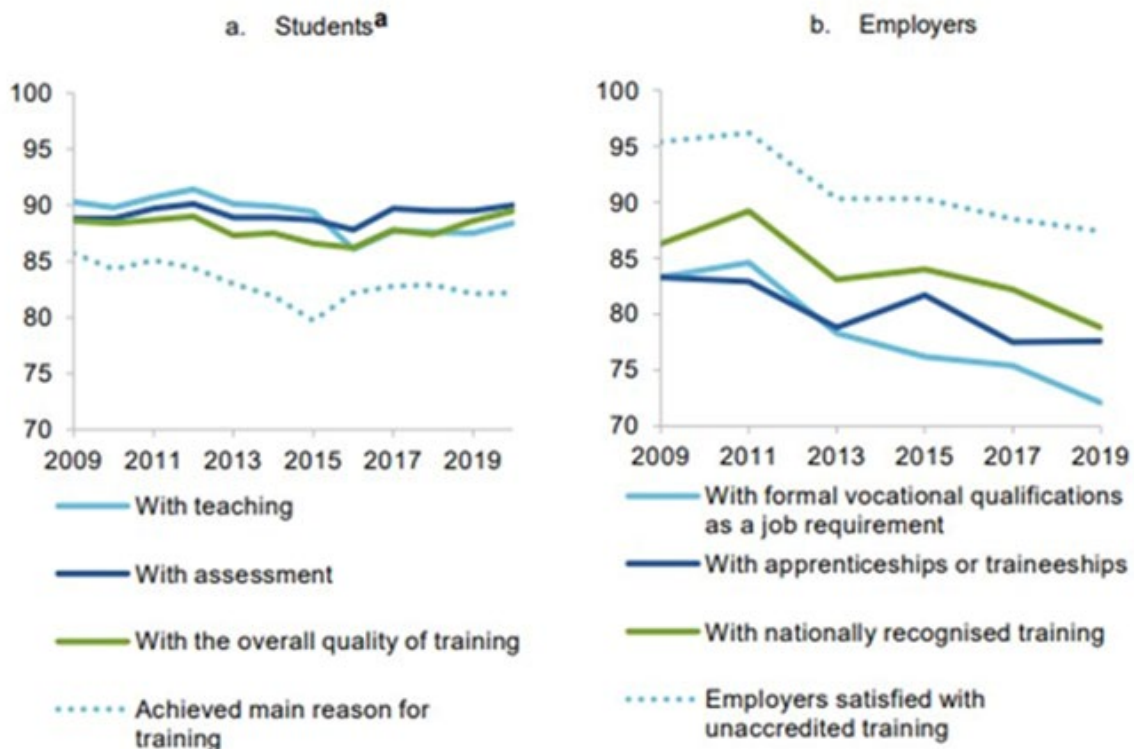
from 73.1% in 2013 to 67.7% in 2021, highlighting concerns about training quality (Productivity Commission 2023, p.23) Figure Ten highlights employer concerns that training is “of a poor quality or low standard” (50.6%), lacks relevant skills (46.5%), and doesn’t focus enough on practical skills (31.5%), despite stable student satisfaction levels. As a hybrid teacher in both sectors, it’s concerning to see these challenges, especially with the rigorous class hours and assessment requirements in VET diplomas and advanced diplomas compared to some bachelor-level studies. The report aligns with post-pandemic insights from the World Economic Forum: Future Jobs Survey 2023, promoting skills mobility and creative thinking as essential outcomes for contemporary workers.

## Impact: Reform is Good, but is it Fast-Paced Enough? Let’s ask AI

The recent progress in aligning technologies with skills reform in the VET sector is encouraging. However, the rapid pace of AI development presents both opportunities and challenges. How can we best accelerate our efforts to ensure Australian workers are fully supported in this evolving landscape? With strategic resource allocation, targeted education, and forward-thinking implementation, the VET system has the potential to become a leader in engaging with generative AI models. The question now is: How can we swiftly unlock this potential to keep pace with AI’s rapid growth, ensuring our workforce remains competitive and well-equipped for the future? Reviews of the reform plan have been

**Figure 2.19 VET satisfaction rates: a tale of two users**

Government-funded VET only, 2009–19



<sup>a</sup> There were changes in the wording of questions relating to teaching, assessment, and overall quality of training in 2019. Student satisfaction years refer to the year the survey was undertaken, which relates to training from the previous year.

Sources: NCVER (2019c, 2021).

mixed. Compliance specialist and educator, Javier Amaro Castillo has positive reflections of the reform and sees the plan as a step towards cleaning up the fragmented and overly specific requirements of learning for students. He asserts that the engagement of co-design by employer supports a 'qualifications first design' that is more in line with successful TAFE structures like in Switzerland who prioritise industry and private engagement which includes funding (Castillo 2025) Phil Bevan, an advisor within Strategy, Technology and Government shared an opinion piece on his LinkedIn, where he voices concern that by 'focusing on the "application" of knowledge and skills without clear metrics for assessment, the reform risks producing graduates who lack measurable competencies needed for specific roles.' (Bevan 2025) VDC has several articles about the ideas produced in the reform. While supporting documentation for the Qualification Design Reform acknowledges the high number of qualifications mentioned above, VDC questions the vague placement of where assessment would sit within an RTO structure. The process of co-designing courses with RTO's and industry is touted as a solution to enhance work-ready students. But the plan itself remains unclear how codesign is going to minimise the 90% cross over of content is found in 2000 sampled units of competency. (VDC 2025) My personal reaction to the term 'co-design' is varied. I see great value in working alongside industry specialists in the VET sector to enhance courses, but my experience of working on assessments with industry has been very challenging when attempting to also incorporate the rigid training packages.

The fellowship was an immensely powerful experience. Methodologically, I was encouraged to engage with Bookelman's humanised and stacking approach to AI Chat Bots that launched Dead End Gallery. I combined the approach of experiencing AI chat bots being 'humanised' at Dead End Gallery in The Netherlands, alongside the human-centric practices that Norway', and steered these to stop writing about AI and work with AI on a topic I was attempting to explore and solutions I was trying to develop. I decided to use my RTO's VAL AI assistant, as it uses the CHAT GPT language model, but the data is protected by the university. Later, I was able to

engage with an even more sophisticated AI language model, SparkAI. I followed Bookelman's approach and made sure to ask the ChatBot open questions. I also know from experience, how to support an AI bot by phrasing questions directly. I am aware of the limitations that can exist with information derived from an Open-AI language model AI platform, but the development of AI and language tools is an experience that I believe one should observe and engage with. It is a common practice in computer science communities to ask AI languages models questions about itself.

Val and I discussed a variety of topics, which covered:

- **The speed of AI's development versus training package reform/qualification design reform**
- **Strategies to implement AI ethically in the VET system**
- **Strategies to implement AI into VET education that are student-centric**

The conversations proved enlightening. Val and I spoke continuously over many weeks, then months, our conversations advanced as I uploaded documents for VAL to 'read' for example relating to the Qualifications Design Reform, new government policies relating to AI and various topics relating to the areas of my research in this paper.

### **VAL Discussion One: The speed of AI's development versus training package reform/qualification design reform**

Val acknowledged that the speed of AI development versus the slower development of the VET system, specifically regarding training packages would be a continued source of tension. The suggested structures to support the Australian VET system provided were:

Enhancement/Benefit	Description
<b>Customized Learning Tools</b>	Develop AI-powered language tools tailored to vocational subjects, providing resources in fields like engineering, healthcare, and trades.
<b>Improved Accessibility</b>	Create language processing systems for diverse linguistic backgrounds, ensuring non-native English speakers access educational materials effectively.
<b>Speech Recognition and Feedback</b>	Implement NLP tools for real-time speech recognition and feedback, aiding students in communication tasks and enhancing practical learning experiences.
<b>Automated Translation Services</b>	Provide translation services for course materials and assessments, enabling students from various backgrounds to engage with content in their preferred language.
<b>Enhanced Communication Skills</b>	Use AI to simulate real-world scenarios, allowing students to practice and improve communication skills, enhancing workforce readiness.
<b>Data Privacy and Security</b>	Ensure language technology tools adhere to strict data privacy standards, protecting student information.
<b>User Consent and Transparency</b>	Maintain transparency in AI operations and obtain user consent, fostering trust among students and educators.
<b>Inclusive Learning Environment</b>	Develop language technology that supports diverse linguistic needs, creating a more inclusive educational environment in the VET sector.

Table 4. Strategies Developed with VAL (ChatGBT) to Support VET system of AI's Technological Speed Regarding Current Qualification Design Reform:

Strategy	Description
<b>Agile Curriculum Development</b>	Adopt a more agile approach to developing training packages, allowing for quicker updates and integration of AI-related skills.
<b>Industry Partnerships</b>	Strengthen partnerships with AI-driven industries to align VET programs with current technological advancements and workforce needs.
<b>Continuous Professional Development</b>	Offer ongoing training for VET educators to keep them updated on AI developments and empower them to incorporate AI skills into their teaching.
<b>Modular and Flexible Learning</b>	Develop more modular and flexible training packages that can be quickly adjusted and supplemented with new AI content as technology evolves.
<b>Cross-disciplinary Integration</b>	Integrate AI-related skills across various disciplines within VET, recognizing AI algorithms impact on all sectors and the need for a broad understanding.
<b>AI Literacy for Students</b>	Ensure all students gain a foundational understanding of AI, preparing them for an AI-enhanced workplace, regardless of their trade or sector.
<b>Feedback Mechanisms</b>	Implement robust feedback systems from both students and industry to continually refine and adapt AI-related training components.

Figure 11. Table of Strategies Developed with VAL (ChatGBT) to Support VET system of AI's Technological Speed Regarding Current Qualification Design Reform, Tyler Payne and VAL, 2025

Next, I asked VAL for her feedback regarding the Quality Design Reform. VAL's opinion was that increasing flexibility and improving relevance to training sectors is a positive outcome, but the speed of AI technologies is 'exceptionally fast' (RMIT VAL 2025) and that this was not being properly accounted for. The Australian VET sector needed to take more proactive steps to minimise inherent problems persisting like outdated curriculum, digital skills mismatch between graduates and employers, innovation stagnation to the education sector as a whole and loss of relevance (VAL is very honest.) VAL suggested that the Quality Design Reform should consider strengthening their plan with:

While aspects of the above suggestions are in place, VAL's 'opinion' was that the reform lacked specific deadlines for measurements to be assessed specifically for adaptive learning models to be developed. VAL requested more information be entered from the Department of Employment and Workplace Relations. I complied and entered more information. VAL was provided sufficient public content from various Australian Government websites relating to VET reform, and regarding the reform plans versus speed of AI, she commented

'Generally, for training packages related to AI and digital skills, a review cycle of once a year or

Benefit	Description	Support for Digital Learning
<b>Enhanced Understanding of Institutional Processes</b>	Institutional Ethnography provides a detailed examination of organizational practices by investigating how decisions are made and communicated. This understanding can help VET institutions identify areas where AI can streamline processes without adding to teachers' workloads.	Helps identify digital tools that can automate administrative tasks, freeing educators to focus on enhancing digital literacy for students.
<b>Addressing Power Dynamics and Inequities</b>	By analysing how documents and policies shape educational practices, institutional ethnography can help identify and address systemic inequities, such as gender bias and digital poverty, ensuring AI implementation does not exacerbate these issues.	Ensures AI tools are designed to promote equity, providing marginalized learners with equal access to digital resources and learning opportunities.
<b>Facilitating Human-AI Collaboration</b>	Institutional Ethnography can highlight the benefits of humans working alongside AI. It can help design systems that enhance teachers' experiences by automating administrative tasks, allowing educators to focus on teaching and supporting students, particularly those who are disadvantaged.	Supports digital learning by enabling teachers to integrate AI effectively, offering personalized educational experiences for students, including those with low digital literacy.
<b>Evidence-Based Policy Development</b>	Institutional Ethnography offers a framework for developing data-driven, ethical policies. By understanding the impact of AI on VET education, stakeholders can ensure AI is implemented to support fair and inclusive practices.	Promotes digital literacy by developing policies that ensure AI tools are accessible, fair, and aligned with educational goals for all learners.
<b>Building Trust and Transparency</b>	Institutional Ethnography promotes transparency in decision-making processes, fostering trust among educators, students, and policymakers. This is essential for ensuring that AI implementations are ethical and beneficial.	Encourages engagement with digital tools by building trust, ensuring students and educators feel confident in utilizing AI for learning and teaching.

Table 5. Strategies Developed with VAL (ChatGBT) to Strengthen Current Qualification Design Reform Approach for AI:



Strategy	Description
<b>Continuous Curriculum Review</b>	Establish ongoing mechanisms for regularly updating content to reflect AI advancements.
<b>Industry Collaboration</b>	Strengthen partnerships with AI-driven industries to ensure training remains aligned with real-world practices.
<b>Professional Development</b>	Invest in continuous upskilling for educators to effectively teach the latest AI concepts.
<b>Adaptive Learning Models</b>	Incorporate flexible learning pathways that allow for quick adaptation to new technologies and methods.

Figure 12. Table of Strategies Developed with VAL (ChatGBT) to Strengthen Current Qualification Design Reform Approach for AI, Tyler Payne and VAL, 2025

more frequently is advisable to stay current with technological developments. If the timelines on the website indicate updates every few years, it might be too slow to adequately address the rapid changes in AI. Regular updates, industry collaboration, and agile curriculum development are key to maintaining alignment with AI's evolution' (RMIT VAL 2025)

She also notes that resource limitation (which included insufficient funding, technology infrastructure, and access to AI tools can hinder the integration of AI into training programs) would most likely be a problem for the national VET community, and this would impact skills gaps for educators, equity and access for students as well as privacy concerns regarding AI data and bias. Engaging VAL directly provided me an opportunity to uncover two objectives. Ask the source (AI) about its impact to Australia's VET and labour community, and how to properly safeguard and implement it, as well as get feedback on current plans in place. Throughout the various prompts and questions, it was clear that VAL assessed the information and pragmatically provided insight with a 'problem and then solution' framework that was unburdened by financial incentives. This mode of practice demonstrates the valuable partnership of AI language processing models with creative critical thinkers and how these skills can be used to serve the education community. Based on Bookelman's stacking process, I also worked with Microsoft CoPilot, which uses the Microsoft Prometheus model. But I did find this software less sophisticated, and it struggled

with complex questions. Later in my research journey, I had a chance to use SparkAI which is a significantly more advanced generative learning model that Melbourne University has access to. SparkAI allows you to choose with language model you want to work with. I had already used ChatGPT, trialled Prometheus, so I trialled Claude and Llama. I repeated my methodological process as I had with VAL. My decision to was not to undermine (or offend) the Qualification Design Reform, or any strategies that have been implemented, but to demonstrate an alternative perspective from AI itself. I believe, it would be in the VET system's best interests to demonstrate what a more collaborative era of working with this technology to safeguard our VET system looked like.

Below is a small sample of one part of my discussion with SparkAI, and Spark's feedback regarding the Quality Design Reform and the speed of AI:



Do you think the reform in its state can move at the pace of AI for vocational students?

This is an insightful question that touches on a critical challenge facing the VET sector. To address it, we need to consider several factors:

1. **Pace of AI Development:** AI is advancing at an unprecedented rate, with new developments emerging almost daily. This rapid pace presents a significant challenge for any educational reform.
2. **Current State of the Reform:** The Qualification Design Reform is a step in the right direction, aiming to create more flexible and responsive qualifications. However, its implementation is still in progress and will take time to fully realise.
3. **Potential for Adaptation:** The reform's emphasis on flexibility and modular learning could potentially allow for quicker updates to course content. This might help in incorporating AI-related skills more rapidly than the previous system.
4. **Industry Involvement:** The reform encourages closer collaboration with industry, which could facilitate faster integration of emerging AI technologies into curricula.
5. **Challenges:**
  - The time required for developing and approving new qualifications or units may still be longer than the pace of AI advancements.
  - Ensuring educators are up-to-date with the latest AI developments is an ongoing challenge.
  - The reform itself needs time to be fully implemented and tested.
6. **Opportunities:**
  - The focus on micro-credentials and skill sets could allow for more agile responses to specific AI-related skills needs.
  - The reform's emphasis on digital skills aligns well with the growing importance of AI in various vocations.

**Conclusion:** While the Qualification Design Reform is a positive step towards creating a more responsive VET system, it's unlikely to fully match the rapid pace of AI development in its current state. However, it does provide a more flexible framework that could allow for quicker adaptations compared to the previous system.

To truly keep pace with AI advancements, the VET sector might need to consider additional strategies such as:

- Continuous professional development for educators
- Partnerships with AI companies for real-time insights
- Regular, rapid reviews of AI-related content in qualifications
- Leveraging AI itself in the learning process

Ultimately, while the reform is a move in the right direction, keeping pace with AI will likely require ongoing efforts and adaptations beyond the current scope of the reform.

*Figure 13. Screenshot of a Discussion with SparkAI about Qualification Design Reform and Speed of AI advancement, Tyler Payne and SparkAI 2025*

SparkAI is analytical and provides strengths and weaknesses of the reform. Both models have said it is unlikely with the current plan that the VET system will be able to keep up with the technologies speed. That does not mean there is no solution, it simply means a pivot in direction and approach is required.

The Qualification Design Reform presents an exciting opportunity to enhance the VET sector's responsiveness to both student needs and industry demands. By moving away from overly prescriptive assessment tasks, we can create a more engaging and dynamic learning environment that fosters critical thinking and innovation.

The reform's emphasis on flexibility and modular learning aligns well with the rapidly evolving technological landscape. This approach can help the VET sector adapt more quickly to emerging technologies, ensuring that qualifications remain relevant and valuable.

To fully realise the potential of this reform, we could consider:

1. Implementing adaptive learning pathways that allow students to tailor their education to their specific career goals and industry needs.
2. Amending Approval Processes: While the reform aims to streamline qualification updates, the time required for developing, approving, and implementing new qualifications or units may still lag behind AI's rapid evolution.
3. Integrating micro-credentials and skill sets to provide more agile responses to specific industry requirements, particularly in fast-evolving fields like AI and digital technologies, could be further expanded to allow for quicker introduction of cutting-edge AI skills.
4. Fostering closer collaboration between industry and education providers to ensure real-time alignment of curriculum with workplace needs.
5. Leveraging ethical AI implementation to enhance the teaching and learning experience. AI could be used to reduce administrative workloads, allowing educators to focus more on personalised instruction and mentoring.
6. Developing a framework for continuous professional development for VET educators, ensuring they stay at the forefront of industry trends and technological advancements.
7. Implementing a dedicated 'AI responsiveness' strategy. This could include:
  - Establishing an AI advisory panel to provide rapid insights on technological changes
  - Creating a fast-track approval process for AI-related units or skill sets
  - Developing a platform for continuous, bite-sized updates to AI content within existing qualifications (Payne 2025; SparkAI 2025)

Val and Spark were invaluable to engage with on ideas to support the VET system directly regarding AI. Spark reminded me that by approaching AI as a collaborative tool rather than a replacement for human educators, I could demonstrate contributing to a more balanced and effective integration of technology in education. This perspective could inspire to help create a VET sector that leverages the best of both human expertise and AI capabilities, ultimately benefiting students, educators, and the broader community.

# 04

## Considerations and Next Steps:

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### Institutional Ethnography

Australia has a fantastic opportunity to build upon its existing AI initiatives by drawing inspiration from the Norwegian Government's forward-thinking approach to AI protocols. By embracing mandated transparency and human-centric practices, Australia could position itself as a global leader in ethical AI implementation. The Australian Government, the Victorian Government, and the Victorian VET education sector are well-placed to take this exciting step forward. One innovative approach they could consider is the adoption of an institutional ethnographic methodology. This strategy would not only enhance our understanding of AI's impact on various institutions but also ensure that our AI policies are truly centred on human needs and experiences.

Alexandra James and Andrew Whelan discuss institutional ethnography and trace the Australian government's use of automation across differing state agencies (2021). Institutional ethnography is described as a project that covers a body of work devoted to investigating how institutional practices can be shaped or governed by the circulation of documents. The contents of the documents are considered historical, evidentiary, and discursive. How the documents are shared reflect and can empower social hierarchies, organisations, standards of practice as well as organisational or discursive

practice. They also have the capacity to develop or undermine relationships between organisations and institutions regarding how successful their internal administrative systems operate. (Griffith and Smith, 2014; Kearney et al., 2018; James and Whelan 2021). Institutions who choose to engage with a framework of institutional ethnography are seeking productive solutions to navigate how administrative processes can be detailed when the administrative processes themselves result in social power when they are enacted or enforced. (James and Whelan 2021). Institutional ethnographic literature provides a valuable outlook when reflecting on the overseeing of processes (with particular attention to new digital or automated processes) within policy. Particularly the state or bureaucratic spaces provides valuable perspectives on how new digital initiatives could shape delivery across all aspects of Australian administrative states that are coupled with everyday life (Gupta, 2012; Hoag, 2011; Hull, 2012; Lipsky, 2010; Shore and Wright, 2003). The orientation of processes regarding audits (Strathern, 2000), statistics, (Adkins and Lury, 2012; Van der Vlist, 2016) and rank (Davis et al., 2012) can all be impacted by this framework. Literature on institutional ethnography provides a resource of 'methods, epistemologies, and critical stances with which to approach state welfare delivery, administrative logics, and the bureaucratic' (James and Whelan 2021, p25) for the Australian government (or any

large institution) to consider when developing new automated systems. James and Whelan discuss how the framing of ethical AI under this specific framework should not be considered itself the goal, but more a strategy set in place to support institutions in their ethical discourse of AI as an option to more than just an exploration of AI in the marketplace. In education institutions, I would argue, that it should be the goal, as the framework encourages engaging with legitimate concerns regarding how AI is to be implemented and the impact of specific algorithmic and AI techniques. The discussions of implementation pivot from 'how and when' to 'if and why' (James and Whelan 2021, p27).

By implementing such measures, Australia can create a more inclusive, transparent, and effective AI ecosystem. This approach would not only benefit the education sector but could also set a positive example for other industries, fostering trust in AI technologies and promoting responsible innovation across the nation. The Australian Government and its governing agencies are uniquely positioned to take the lead in developing effective and forward-thinking strategies that prioritise ethical AI for both the working and education communities. By doing so, Australia can move beyond relying on private entities to develop short-lived, self-governing frameworks or initiatives (Murgia and Shrikanth, 2019), or depending on ethics boards established by major corporations such as Microsoft, IBM, and Google (Finley, 2016).

This proactive stance would demonstrate Australia's commitment to ethical AI development, potentially attracting international partnerships and positioning the country at the forefront of the global AI landscape. The implementation of consistent fact-checking and procedure-induced frameworks, which are essential in the face of digital disruption, would ensure safe governance of algorithmic futures. It's an exciting prospect that could drive significant advancements in how we integrate AI into our society. By taking this approach, Australia can ensure that the wellbeing of its citizens remains at the heart of technological progress, while also establishing itself as a global leader in ethical AI implementation. This

comprehensive strategy would not only address current challenges but also anticipate future developments, creating a robust and adaptable framework for AI governance that could serve as a model for other nations.

## Norwegian Language Bank

When the Norwegian Government presented their Norway AI Strategy Report to the European Commission in 2020, their focus was for businesses in artificial intelligence policy was (and remains) to build strong data infrastructures that are not closed but are open to be shared across a variety of public and private business sectors. I consider this an active example of institutional ethnography in action. To be specific, the Norwegian Language Bank, was designed to ensure that language data resources can be accessed in one national library and serves as a national infrastructure dedicated to advancing natural language processing (NLP) and language technology for the Norwegian language. The strength of its creation is the commitment to responsible AI development, with a strong focus on data privacy, transparency, and user consent. This emphasis on people focused and moral AI practices makes it a model of responsible AI development. (The Norwegian Language Bank 2024, CCSE 2024, European Commission 2020)

The Norwegian Language Bank could serve as an inspiring example for the Australian VET sector. By establishing a similar national infrastructure, Australia could enhance language technology development while virtuously creating new digital standards of behaviour and policy. This approach would support the creation of AI tools that respect data privacy and foster user trust—crucial elements in the ethical implementation of AI in VET education. By prioritizing transparency and user consent, the VET sector can build a more equitable system, ensuring all learners, especially those from marginalized backgrounds, have fair access to educational resources. Specific enhancements in language technology for the VET sector could include:



Clause Ideas / Focus Areas	Description	Relevance to VET Victorian Workforce
<b>Job Protection and Transition Support</b>	Employers must ensure AI integration doesn't cause involuntary job loss. Offer retraining and transition support.	Protects jobs and supports workers in adapting to AI-enhanced roles, fostering a fair and supportive workplace.
<b>Human Oversight and Decision-Making</b>	AI should not replace human judgment in critical decisions. Maintain human oversight in areas affecting welfare and rights.	Ensures AI is used as a tool to aid decision-making, not as a means to undermine human roles or rights.
<b>Transparency and Informed Consent</b>	Employers must clearly communicate AI algorithms role in the workplace and obtain informed consent from employees.	Builds trust in AI, ensuring that workers are aware of AI algorithms, how they are embedded into management structures and their impact. Workers can make informed decisions about its use.
<b>Regular Impact Assessments</b>	Conduct regular assessments of AI algorithms impact on job roles and conditions, adjusting AI use based on outcomes.	Ensures AI systems enhance rather than detract from worker well-being and encourage continuous improvement.
<b>Fair Compensation and Benefits</b>	Ensure AI-driven efficiencies do not reduce compensation or benefits; reinvest savings in employee development.	Prevents the erosion of job quality and ensures AI benefits are shared with employees, promoting fairness and equity.
<b>Skill Development and Lifelong Learning</b>	Provide ongoing training to help employees adapt to AI-enhanced roles, fostering lifelong learning.	Ensures workers remain competitive and skilled in a rapidly evolving technological landscape.
<b>Worker Representation and Input</b>	Establish mechanisms for workers to have a say in AI implementation decisions.	Promotes transparency and collaborative decision-making, ensuring AI use aligns with workforce needs and expectations.
<b>Ethical AI Use and Compliance</b>	AI systems must comply with ethical standards and regulations, ensuring responsible use without exploitation.	Protects workers from unethical AI practices, fostering trust and ensuring AI serves as a supportive tool.
<b>Equity and Inclusion</b>	AI implementation must promote diversity, ensuring all employees benefit from technological advancements.	Creates a fair and inclusive workplace, supporting marginalized groups in accessing opportunities and resources enabled by AI.
<b>Sustainability and Resource Management</b>	Mandate AI systems to develop sustainable practices and optimize resource use.	Ensures that AI contributes positively to environmental goals, aligning technological advancements with sustainable development objectives.

Table 6. Strategies of Active Institutional Ethnography from Norwegian Language Bank that Could be Implemented to Support VET System:

Enhancement/Benefit	Description
<b>Customized Learning Tools</b>	Develop AI-powered language tools tailored to vocational subjects, providing resources in fields like engineering, healthcare, and trades.
<b>Improved Accessibility</b>	Create language processing systems for diverse linguistic backgrounds, ensuring non-native English speakers access educational materials effectively.
<b>Speech Recognition and Feedback</b>	Implement NLP tools for real-time speech recognition and feedback, aiding students in communication tasks and enhancing practical learning experiences.
<b>Automated Translation Services</b>	Provide translation services for course materials and assessments, enabling students from various backgrounds to engage with content in their preferred language.
<b>Enhanced Communication Skills</b>	Use AI to simulate real-world scenarios, allowing students to practice and improve communication skills, enhancing workforce readiness.
<b>Data Privacy and Security</b>	Ensure language technology tools adhere to strict data privacy standards, protecting student information.
<b>User Consent and Transparency</b>	Maintain transparency in AI operations and obtain user consent, fostering trust among students and educators.
<b>Inclusive Learning Environment</b>	Develop language technology that supports diverse linguistic needs, creating a more inclusive educational environment in the VET sector.

Figure 14. Table of Strategies of Active Institutional Ethnography from Norwegian Language Bank that Could be Implemented to Support VET System: Tyler Payne, VAL and SparkAI 2025

The Australian Government, the Victorian Government, and the Victorian VET education sector are well-placed to take exciting steps forward. Mandated transparency, procedure focused frameworks and inclusive practices with AI are repeated themes in this research. Institutional ethnography offers several benefits to make the transition of this partnership accessible for the Australian VET sector, particularly in the context of ethical AI implementation. Further, the clarity and collaboration between bureaucratic departments that institutional ethnography would encourage has the long-term potential to advance digital learning for Australians. The table below breaks down the five areas this could be achieved:

Potential Area the Clause Supports	Description	Positive Support for Digital Literacy
<b>Teacher Workload Management</b>	AI systems should reduce administrative burdens on teachers, not increase workload. Regular audits ensure AI enhances efficiency.	Frees up teachers to focus on digital literacy education, providing more time to support marginalized learners with targeted resources.
<b>Professional Development for Educators</b>	Provide AI literacy and upskilling programs for educators, enabling effective integration of AI into teaching.	Equips educators with skills to support digital literacy, ensuring marginalized learners receive tailored instruction and support.
<b>Inclusive Learning Environments</b>	AI tools should foster inclusive learning, offering personalized support to diverse learning needs, including low digital literacy.	Enhances access to digital literacy resources, ensuring marginalized learners have tools that cater to their specific needs and challenges.
<b>Equity in Access</b>	Ensure equitable access to AI-driven resources for all students, regardless of socioeconomic background, to prevent digital divides.	Provides marginalized students with equal opportunities to engage with digital tools, enhancing their literacy and educational outcomes.
<b>Student Data Privacy</b>	AI systems must adhere to strict data privacy standards, protecting student information and maintaining trust.	Builds trust in AI tools among marginalized learners, encouraging them to engage with digital literacy resources without privacy concerns.
<b>Feedback and Adaptation</b>	Establish feedback mechanisms from teachers and students to refine AI tools and ensure they meet educational objectives.	Allows marginalized learners to voice their needs, leading to AI tools that better support their digital literacy development.
<b>Human Oversight in AI Decision-Making</b>	Maintain human oversight in AI-driven educational assessments, ensuring fairness and preventing algorithmic bias.	Ensures that marginalized learners are assessed fairly, promoting confidence in AI's role in enhancing their digital literacy skills.
<b>Collaborative Industry Partnerships</b>	Foster partnerships with AI-driven industries to align educational content with technological advancements and workforce needs.	Ensures training materials reflect real-world digital literacy demands, preparing marginalized learners for the workforce effectively.
<b>Transparency in Workload Algorithms</b>	Mandate visibility into human resource workload allocation algorithms to prevent unmanageable workloads in education.	Ensures educators can manage their responsibilities effectively, allowing more focus on supporting marginalized learners in digital literacy.

Table 7. Institutional Ethnography and the Benefits to Digital Learning to Support VET System:

Benefit	Description	Support for Digital Learning
<b>Enhanced Understanding of Institutional Processes</b>	Institutional Ethnography provides a detailed examination of organizational practices by investigating how decisions are made and communicated. This understanding can help VET institutions identify areas where AI can streamline processes without adding to <u>teachers' workloads</u> .	Helps identify digital tools that can automate administrative tasks, freeing educators to focus on enhancing digital literacy for students.
<b>Addressing Power Dynamics and Inequities</b>	By analysing how documents and policies shape educational practices, institutional ethnography can help identify and address systemic inequities, such as gender bias and digital poverty, ensuring AI implementation does not exacerbate these issues.	Ensures AI tools are designed to promote equity, providing marginalized learners with equal access to digital resources and learning opportunities.
<b>Facilitating Human-AI Collaboration</b>	Institutional Ethnography can highlight the benefits of humans working alongside AI. It can help design systems that enhance teachers' experiences by automating administrative tasks, allowing educators to focus on teaching and supporting students, particularly those who are disadvantaged.	Supports digital learning by enabling teachers to integrate AI effectively, offering personalized educational experiences for students, including those with low digital literacy.
<b>Evidence-Based Policy Development</b>	Institutional Ethnography offers a framework for developing data-driven, ethical policies. By understanding the impact of AI on VET education, stakeholders can ensure AI is implemented to support fair and inclusive practices.	Promotes digital literacy by developing policies that ensure AI tools are accessible, fair, and aligned with educational goals for all learners.
<b>Building Trust and Transparency</b>	Institutional Ethnography promotes transparency in decision-making processes, fostering trust among educators, students, and policymakers. This is essential for ensuring that AI implementations are ethical and beneficial.	Encourages engagement with digital tools by building trust, ensuring students and educators feel confident in utilizing AI for learning and teaching.

Figure 15. Table of Institutional Ethnography and the Benefits to Digital Learning to Support VET System: Tyler Payne, VAL, Microsoft CoPilot, and SparkAI 2025

## Disruptive Technologies and Workloads in VET

Australia's union movement has experienced significant changes since the 1990s, with national union density decreasing from 33% to 13.3% by 2022 (ABS 2022). As a millennial in the vocational sector, I've observed increasing workloads over the past decade, which has presented challenges for staff.

Globally, there's a trend of younger staff engaging more with the union movement, often emphasizing the importance of equitable access to education. The principle that education should be accessible

to all Australians is widely supported, though recent funding adjustments to TAFE have raised concerns about potential impacts on accessibility, particularly for learners who rely on TAFE as an entry point.

My own RTO experienced a period without an enterprise bargaining agreement, which led to challenges for teachers during the pandemic. There were instances of misunderstandings between management and staff regarding industrial action, highlighting the need for improved communication about the motivations behind such actions. The current economic environment presents both opportunities and challenges for education funding. It's important to consider how to balance budgetary



constraints with the goal of engaging and uplifting communities through education.

The involvement of private organizations in education brings both potential benefits and risks. It's crucial to ensure that educational quality and equity remain priorities, regardless of the organizational structure.

AI has the potential to enhance the teaching experience, and its implementation should be carefully considered to complement rather than replace human educators. Countries with well-developed national innovation systems and vocational education sectors have shown success in integrating AI while maintaining employment stability.

Australia's policy approach to AI in education could benefit from aligning with these principles to support both educators and learners. Given the national shortage of vocational teachers, particularly younger ones, the Australian Government might consider developing a national framework based on institutional ethnographic principles. This approach could contribute to:

- **Fairness and Equity:** By addressing systemic inequities, institutional ethnography can guide the ethical development of AI systems that do not exacerbate existing biases, ensuring equitable access to education for all learners.
- **Support for Vocational Educators:** institutional ethnography can help in designing AI systems that alleviate educators' workloads by streamlining administrative tasks, rather than contributing to job cuts. This supports the idea that AI should enhance, not replace, the human teaching experience.
- **Policy Development:** By providing insights into institutional processes, institutional ethnography can inform government policies that focus on ethical AI practices, creating a more supportive environment for both educators and students.

The integration of AI systems in education offers a promising opportunity to enhance workloads, support staff well-being, and improve retention of vocational educators. These crucial areas warrant careful consideration from the Australian Government and all vocational education stakeholders. To strengthen the VET community and support workers' rights, the Australian Government could explore innovative legislation addressing the evolving relationship between employers, employees, and AI. This proactive approach could position Australia as a global leader in ethical AI implementation within education.

A strategy of support that I propose is a FairWork Act be developed and executed with the goal of securing a beneficial relationship (and protecting) employees and AI, for example:

Section	Description
1. Identifying Gaps and Needs	Institutional ethnography can reveal specific areas where workers lack skills, allowing for targeted training programs. By examining the actual work processes and experiences of individuals, Institutional ethnography provides a nuanced understanding of the skills needed for effective AI implementation.
2. Designing Relevant Training Programs	By understanding the institutional and systemic factors that influence training practices, institutional ethnography can inform the development of more relevant and effective upskilling and reskilling programs. These programs can be tailored to meet the rapidly changing demands of the digital economy.
3. Enhancing Worker Engagement and Satisfaction	Institutional ethnography's focus on the lived experiences of workers helps to ensure that training programs are aligned with their needs and expectations. This can lead to greater engagement and satisfaction, as workers see the direct relevance of their training to their roles.
4. Promoting Inclusive Practices	Through the analysis of power dynamics and institutional practices, Institutional ethnography can help identify and address barriers faced by marginalized groups. This ensures that upskilling and reskilling programs are inclusive and accessible to all workers, regardless of background.
5. Supporting Ethical AI Implementation	By prioritizing transparency and accountability, institutional ethnography can guide the ethical integration of AI into the workforce. This ensures that AI systems are used to support, not replace, human workers, aligning with the broader goals of fair labour practices

Table 8. Proposal of New FairWork Acts and Potential Clauses and Relevance to VET:

Clause Ideas / Focus Areas	Description	Relevance to VET Victorian Workforce
<b>Job Protection and Transition Support</b>	Employers must ensure AI integration doesn't cause involuntary job loss. Offer retraining and transition support.	Protects jobs and supports workers in adapting to AI-enhanced roles, fostering a fair and supportive workplace.
<b>Human Oversight and Decision-Making</b>	AI should not replace human judgment in critical decisions. Maintain human oversight in areas affecting welfare and rights.	Ensures AI is used as a tool to aid decision-making, not to undermine human roles or rights.
<b>Transparency and Informed Consent</b>	Employers must clearly communicate AI algorithm's role in the workplace and obtain informed consent from employees.	Builds trust in AI, ensuring that workers are aware of AI algorithms, how they are embedded into management structures and their impact. Workers can make informed decisions about its use.
<b>Regular Impact Assessments</b>	Conduct regular assessments of AI algorithms impact on job roles and conditions, adjusting AI use based on outcomes.	Ensures AI systems enhance rather than detract from worker well-being and encourage continuous improvement.
<b>Fair Compensation and Benefits</b>	Ensure AI-driven efficiencies do not reduce compensation or benefits; reinvest savings in employee development.	Prevents the erosion of job quality and ensures AI benefits are shared with employees, promoting fairness and equity.
<b>Skill Development and Lifelong Learning</b>	Provide ongoing training to help employees adapt to AI-enhanced roles, fostering lifelong learning.	Ensures workers remain competitive and skilled in a rapidly evolving technological landscape.
<b>Worker Representation and Input</b>	Establish mechanisms for workers to have a say in AI implementation decisions.	Promotes transparency and collaborative decision-making, ensuring AI use aligns with workforce needs and expectations.
<b>Ethical AI Use and Compliance</b>	AI systems must comply with ethical standards and regulations, ensuring responsible use without exploitation.	Protects workers from unethical AI practices, fostering trust and ensuring AI serves as a supportive tool.
<b>Equity and Inclusion</b>	AI implementation must promote diversity, ensuring all employees benefit from technological advancements.	Creates a fair and inclusive workplace, supporting marginalized groups in accessing opportunities and resources enabled by AI.
<b>Sustainability and Resource Management</b>	Mandate AI systems to develop sustainable practices and optimize resource use.	Ensures that AI contributes positively to environmental goals, aligning technological advancements with sustainable development objectives.

Figure 16. Proposal of New FairWork Acts and Potential Clauses: Tyler Payne, 2025

Here is the table further explained in the context of how these workplace protections could ensure a safer long-term working future for disadvantaged digital learners with AI:

Benefit	Description
Personalised Learning	AI customizes educational content to suit individual learning styles and speeds, aiding better understanding of complex topics.
Accessible Resources	AI tools offer features like text-to-speech and language translation, making learning materials accessible to students with diverse needs.
Interactive Learning	AI enables engaging and interactive educational experiences, especially helpful for students who struggle with conventional methods.
Real-Time Feedback	AI provides instant feedback, helping students quickly identify and learn from their mistakes.
Adaptive Assessments	AI adjusts assessment difficulty based on student performance, maintaining an optimal challenge level.
Emotional & Social Support	AI-powered chatbots offer emotional and social support, creating safe spaces for students dealing with anxiety or integration challenges.

Table 9. How Workplace Protections Could Directly Impact VET Community and Develop Digital Literacy

Potential Area the Clause Supports	Description	Positive Support for Digital Literacy
Teacher Workload Management	AI systems should reduce administrative burdens on teachers, not increase workload. Regular audits ensure AI enhances efficiency.	Frees up teachers to focus on digital literacy education, providing more time to support marginalized learners with targeted resources.
Professional Development for Educators	Provide AI literacy and upskilling programs for educators, enabling effective integration of AI into teaching.	Equips educators with skills to support digital literacy, ensuring marginalized learners receive tailored instruction and support.
Inclusive Learning Environments	AI tools should foster inclusive learning, offering personalized support to diverse learning needs, including low digital literacy.	Enhances access to digital literacy resources, ensuring marginalized learners have tools that cater to their specific needs and challenges.
Equity in Access	Ensure equitable access to AI-driven resources for all students, regardless of socioeconomic background, to prevent digital divides.	Provides marginalized students with equal opportunities to engage with digital tools, enhancing their literacy and educational outcomes.
Student Data Privacy	AI systems must adhere to strict data privacy standards, protecting student information and maintaining trust.	Builds trust in AI tools among marginalized learners, encouraging them to engage with digital literacy resources without privacy concerns.
Feedback and Adaptation	Establish feedback mechanisms from teachers and students to refine AI tools and ensure they meet educational objectives.	Allows marginalized learners to voice their needs, leading to AI tools that better support their digital literacy development.
Human Oversight in AI Decision-Making	Maintain human oversight in AI-driven educational assessments, ensuring fairness and preventing algorithmic bias.	Ensures that marginalized learners are assessed fairly, promoting confidence in AI algorithm's role in enhancing their digital literacy skills.
Collaborative Industry Partnerships	Foster partnerships with AI-driven industries to align educational content with technological advancements and workforce needs.	Ensures training materials reflect real-world digital literacy demands, preparing marginalized learners for the workforce effectively.
Transparency in Workload Algorithms	Mandate visibility into human resource workload allocation algorithms to prevent unmanageable workloads in education.	Ensures educators can manage their responsibilities effectively, allowing more focus on supporting marginalized learners in digital literacy.

Figure 17. Table of How Workplace Protections Could Directly Impact VET Community and Develop Digital Literacy, Tyler Payne, VAL, SparkAI, 2025

By embracing the challenge of AI integration in the workplace with creativity and foresight, Australia has the potential to develop a more robust, adaptable, and equitable vocational education system. This collaborative effort between government, educators, and industry could lead to enhanced teaching and learning experiences, attract new talent, and ensure Australia's workforce remains competitive in an AI-driven economy.

## **How can Australia's VET Industry respond to digital disruption and its impact on the labour force?**

### **Upskilling and Reskilling**

The labour market is transitioning from Industry 4.0 to 5.0, where humans and machines collaborate to boost productivity. This shift, accelerated by the COVID-19 pandemic, underscores the urgent need for continuous upskilling in digital competencies (Heinonen & Strandvik, 2021). The fifth industrial revolution focuses on personalization through automation, with a human-centric approach offering resilience and sustainability (Adel 2022).

The World Economic Forum predicts that by 2025, 50% of global employees will need to upskill, with a shift towards creativity and technological competence (Li 2022). As automation transforms jobs, over half the workforce will require reskilling within five years (WEF 2023). This highlights the critical role of the VET sector in providing flexible training programs to support workers amid these changes. From my experience at RMIT University, vocational sectors are uniquely positioned to facilitate reskilling, offering shorter programs that can adapt to technological advancements. However, VAL and Spark have both discussed areas where the VET system must overcome challenges to remain relevant. Emphasizing reskilling and upskilling is crucial to equip the workforce with the skills needed for the evolving job market. This approach not only supports the integration of AI but also ensures that education remains aligned with industry needs, fostering a culture of lifelong learning.

### **Upskilling Challenges to Australian VET**

Scholarly voices predict that industrial revolutions have led to increasing job complexity, defined here as the changing perception of tasks. As workers coexist with algorithmic processes, human intervention will focus on managing “complex situations, multilevel activity and flexibility, and the true creativity” essential for tasks like developing new theories, literature, or compositions (Zervoudi, 2020, p.3). However, significant knowledge gaps exist and will persist for many. Teaching critical thinking is challenging, especially for those unaccustomed to independence in their roles or lives. Financial and mental privilege often underpin the capacity to master such tasks—opportunities not available to all. Marginalised employees, who face greater social hardships, might naturally lack inclination or support to build critical skills. What can employers and the Australian government do through national policy to ensure equal access to digital training? As automation integrates into work culture, the demand for new skill sets shifts. Digitisation will impact future labour markets “through task change or the addition of new tasks” (National Skills Commission 2022, p.80).

By engaging institutional ethnographic practices like the Norwegian government, Australia can be anticipative with their policy and strategic planning to establish major benefits for current workers in digital upskilling and reskilling. From there, the VET communality and education providers would be able engage and reap these benefits because the process would include:



Benefit	Description	Example of Action by VET Community	Examples of AI Models with Renewable-Powered Data Centres
Increased Accessibility	Transparent practices ensure AI tools are clearly explained, reducing intimidation and aiding user interaction.	Develop easy-to-understand guides and workshops to introduce AI tools to students and staff.	Google Cloud Platform: Committed to running on carbon-neutral, renewable energy. Microsoft Azure: Investing in renewable energy projects.
Enhanced Trust	Transparency builds confidence, encouraging individuals to explore and use digital tools, fostering digital literacy.	Host open forums and training sessions to build trust and familiarity with AI tools among students and teachers.	Amazon Web Services (AWS): Committed to using 100% renewable energy by 2025.
Personalized Support	Collaborative practices bring feedback from diverse user groups, informing AI systems to offer tailored resources.	Create channels for student feedback on AI tools and adapt them to address individual learning needs.	IBM Cloud: Investments in renewable energy and energy-efficient data centres.
Equitable Access	Ensures AI tools are accessible to all, reducing barriers and supporting access to digital literacy resources.	Implement AI-driven platforms that offer accessible resources for all students, particularly those with disabilities or from marginalized backgrounds.	Apple Cloud: Powered by 100% renewable energy.

Table 10. Contributions of Institutional Ethnography to Workforce Training and AI Integration:

Section	Description
<b>1. Identifying Gaps and Needs</b>	Institutional ethnography can reveal specific areas where workers lack skills, allowing for targeted training programs. By examining the actual work processes and experiences of individuals, Institutional ethnography provides a nuanced understanding of the skills needed for effective AI implementation.
<b>2. Designing Relevant Training Programs</b>	By understanding the institutional and systemic factors that influence training practices, institutional ethnography can inform the development of more relevant and effective upskilling and reskilling programs. These programs can be tailored to meet the rapidly changing demands of the digital economy.
<b>3. Enhancing Worker Engagement and Satisfaction</b>	Institutional ethnography's focus on the lived experiences of workers helps to ensure that training programs are aligned with their needs and expectations. This can lead to greater engagement and satisfaction, as workers see the direct relevance of their training to their roles.
<b>4. Promoting Inclusive Practices</b>	Through the analysis of power dynamics and institutional practices, Institutional ethnography can help identify and address barriers faced by marginalized groups. This ensures that upskilling and reskilling programs are inclusive and accessible to all workers, regardless of background.
<b>5. Supporting Ethical AI Implementation</b>	By prioritizing transparency and accountability, institutional ethnography can guide the ethical integration of AI into the workforce. This ensures that AI systems are used to support, not replace, human workers, aligning with the broader goals of fair labour practices

Figure 18. Table of Contributions of Institutional Ethnography to Workforce Training and AI Integration, Tyler Payne 2025, VAL 2025, Microsoft CoPilot 2025, SparkAI 2025.

Australia has an opportunity to enhance its approach to addressing critical skills and digital literacy gaps across the nation. While progress has been made, there's potential for more comprehensive strategies that could yield significant benefits. It's important to ensure that initiatives go beyond surface-level solutions and truly align with the principles of human-centred design. By focusing on, institutional ethnography, evidence-based policies and genuine engagement with stakeholders, Australia could position itself at the forefront of vocational education and training, preparing its workforce for the challenges and opportunities of the future job market.

## Agility and Digital Disruption

RMIT University and Deloitte's reports highlight a critical shortage in digital skills. This gap fails to meet employer demand (RMIT upskill). As technology advances, embedding tools like ChatGBT into work indicates the requisite shift from industry 4.0 to 5.0, necessitating both technical and creative skills unique to humans (Field 2023; Matchett 2023). Empathy, collaboration, and communication will be invaluable (European Commission 2020; World Economic Forum 2023). The COVID pandemic and global digital pivot underscored these skills' importance. In the Australian VET sector, UNESCO-ICTVET

(2021) identified resilience as rooted in workers' psychosocial adaptability and transformative mindset. An adaptable mindset, creative thinking, and problem-solving will be prized skills during digital disruption (European Commission 2020; World Economic Forum 2023; RMIT 2023). As workplace technology advances, significant knowledge gaps may arise (Li 2022). Li's table (Figure Nineteen), based on the World Economic Forum's Future Jobs Surveys, outlines key skills for 2015, 2020, and projections for 2025.

- **Column One:** lists the top ten skills for 2015, highlighting Complex Problem Solving.
- **Column Two:** shows the top ten skills for 2020, with Creativity rising from tenth to third, and Critical Thinking moving from fourth to second.
- **Column Three:** indicates changing skill importance, showing Creativity and Critical Thinking's rank increases.
- **Column Four:** details projected top skills for 2025, led by Analytical Thinking and Innovation.
- **Column Five:** reviews changes in top skills from 2015 to 2025, noting Analytical Thinking and Innovation's rise to prominence, surpassing even technology use, with Creativity, Critical Thinking, and Active Learning highly valued (Li 2022).

**Table 1** Review of reports of top 10 skills on reskilling and upskilling future-ready work force

25/20/15*	in 2025	20/15*	in 2020	in 2015
1	Analytical thinking and innovation	1, 1	Complex problem solving	Complex problem solving
2	Active learning and learning strategies	2, 4	Critical thinking	Coordinating with others
3, 1, 1	Complex problem-solving	3, 10	Creativity	People management
4, 2, 4	Critical thinking and analysis	4, 3	People management	Critical thinking
5, 3, 10	Creativity, originality, and initiative	5, 2	Coordinating with others	Negotiation
6	Leadership and social influence	6	Emotional intelligence	Quality control
7	Technology use, monitoring, and control	7, 8	Judgment and decision making	Service orientation
8	Technology design and programming	8, 7	Service orientation	Judgment and decision making
9	Resilience, stress tolerance, and flexibility	9, 5	Negotiation	Active listening
10	Reasoning, problem-solving	10	Cognitive flexibility	Creativity

Figure 19. Collation of Information from Future Jobs Survey 2015, 2020 in Li 2022

The 2023 Future Jobs Survey by Work Economic Forum demonstrated interesting results as seen in Figure Twenty below. The core skills for employers are looking for staff to have or upskill in are analytical thinking, creativity, resilience (and agility to disrupted

workplaces), motivation and self-awareness as well as a self-motivated attitude to lifelong learning. The evolution of skills in the workplace will be a major focus for industries and a workforce strategy to achieve their business targets in the coming years.

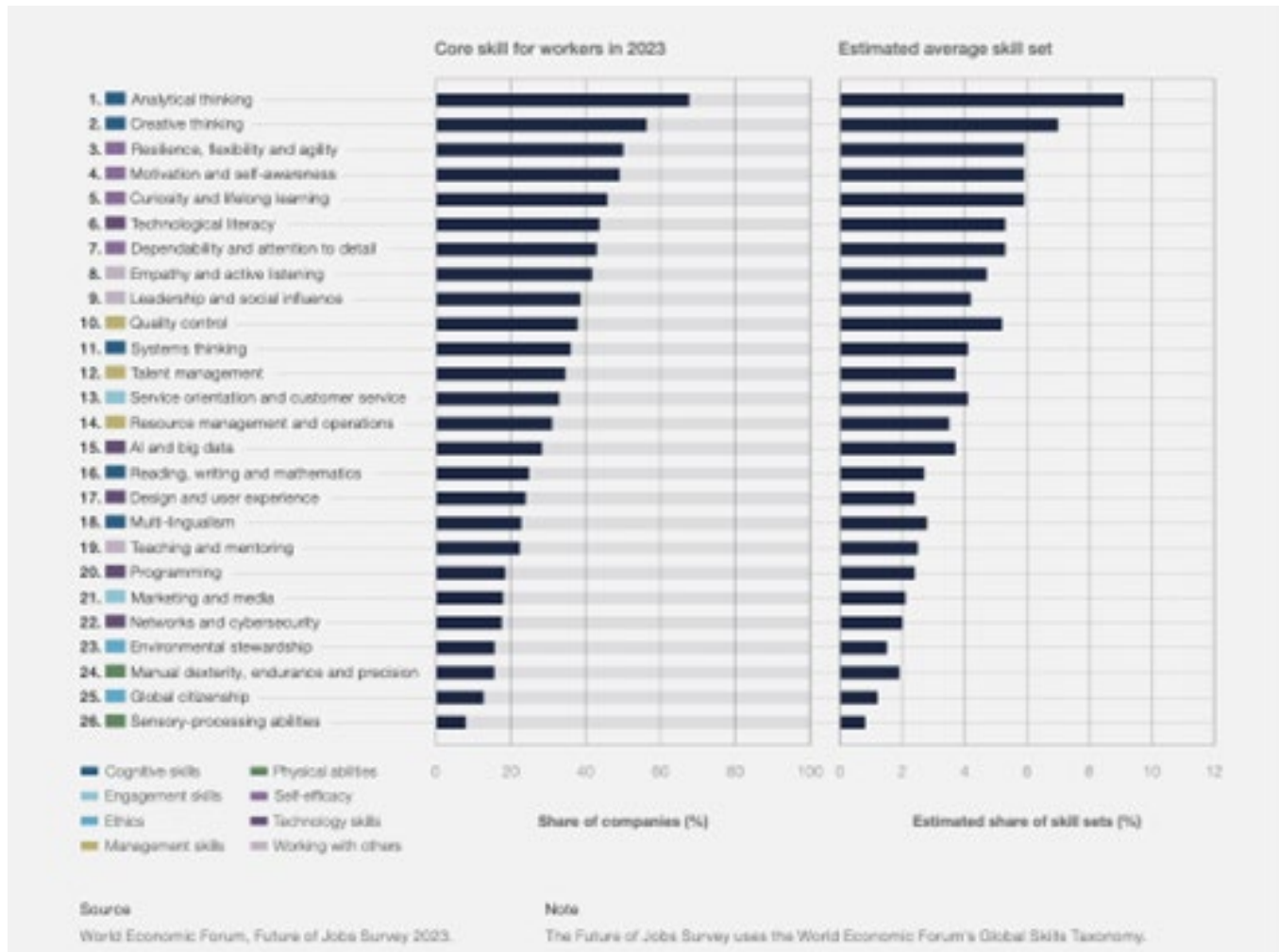


Figure 20. Core Skills World Economic Forum: Future Jobs Survey 2023



Globally, workplaces will be required to formulate effective reskilling strategies to maximise their business performance. In Figure Twenty-One, also formulated from the 2023 Future Jobs Survey, it is shown that ‘creative thinking’ is the largest skill on the rise in 2023 with a jump of 73.2% (WEF 2023). The report indicates that six in ten workers will require training before 2026, but only half are projected to access the adequate training (WEF 2023). As discussed earlier in the paper, the projections of

which workers who won't gain access are more likely to be women and marginalised groups in LME workplaces. Education providers and workplaces that wish to be ‘future ready’ (Li 2022) will need to adopt a philosophy of upskilling and reskilling as a permanent fixture of their workflow and budget. Modern societies will also need to adopt structures to ensure that individuals who face marginalisation in the workplace are not unfairly impacted by this continuous improvement model.

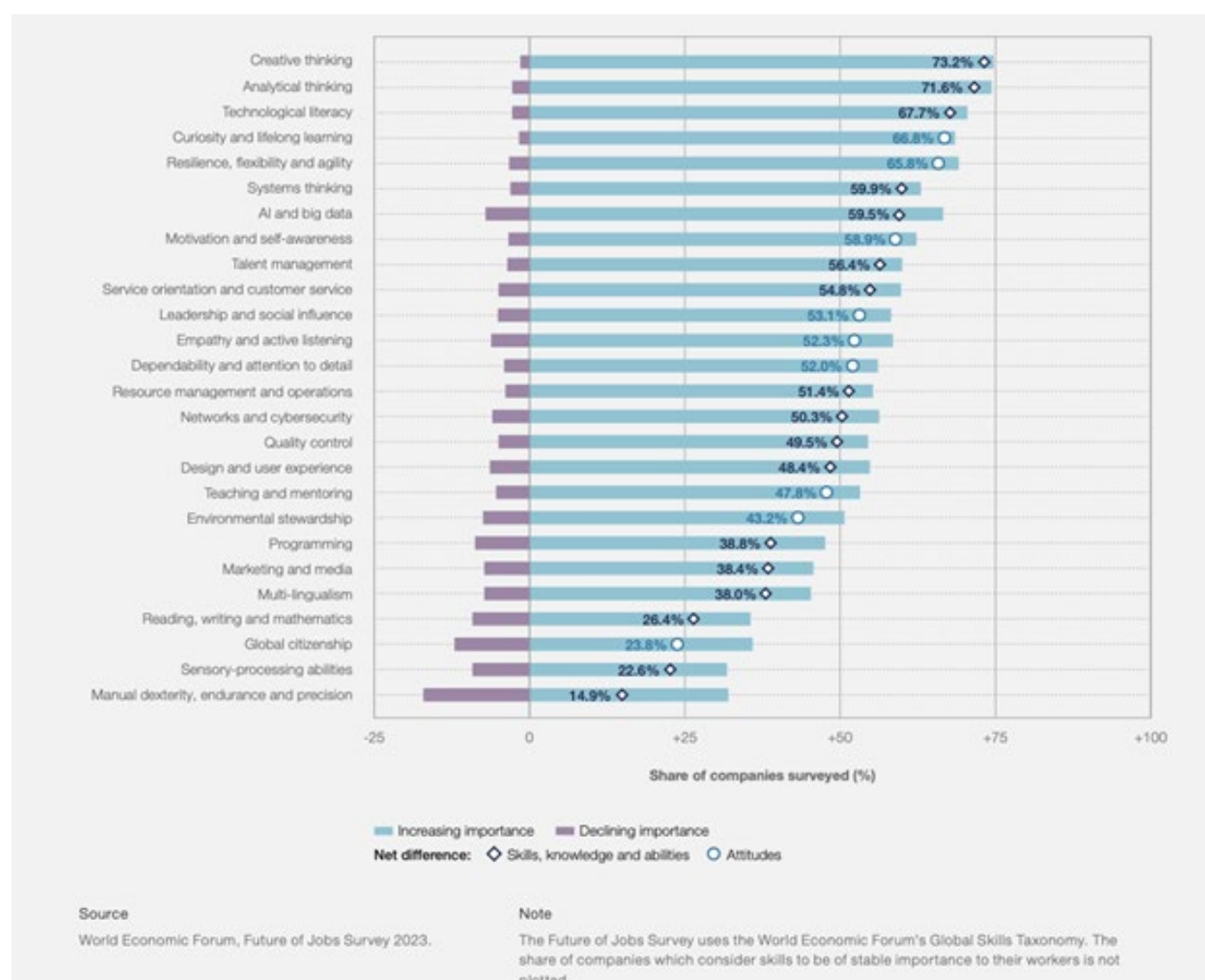


Figure 21. Skills of Increasing Importance World Economic Forum: Future Jobs Survey 2023

## VET response to Digital Disruption?

The World Economic Forum's *Future of Jobs* (2023) highlights disruption and adaptability, a theme supported by RMIT and Deloitte's report (*Ready, Set, Upskill: Prioritising skills for a resilient workforce*, 2023). In the Australian VET community, debates have emerged about the competency-based training (CBT) model used since the 1980s and the suitability of training packages introduced in 1997 (Wheelahan 2017). At the 32nd National VET Research Conference, Daniella Trimboli questioned whether these packages hinder VET success in a rapidly changing workforce. Claire Field (2023) calls for reevaluating training mechanisms designed 30 years ago. In *The Fourth Industrial Revolution: the implications of technological disruption for Australian VET* (2022), VET staff highlight that prescriptive training packages restrict innovation (p.9). With Industry 5.0 evolving, labourers must assimilate new technologies. However, Australia's Productivity Commission (2016) cited stagnant productivity growth, criticising government tactics as reactive. Older workers and graduates, termed 'mature aged learners,' face greater disruption without strategic VET and government policy collaboration.

The World Economic Forum's *Future of Jobs* (2023) emphasizes disruption and adaptability, echoing RMIT and Deloitte's *Ready, Set, Upskill: Prioritising Skills for a Resilient Workforce* (2023). Since the 1980s, Australia's VET sector has relied on competency-based training (CBT), with its current model introduced in 1997 to align with labour market needs (Wheelahan 2017). However, at the 32nd National VET Research Conference, Daniella Trimboli questioned whether these outdated training packages hinder students' readiness for rapidly evolving technologies. Claire Field (2023) supports this, urging a re-evaluation of whether mechanisms designed 30 years ago still serve their purpose.

The current structure of training packages and competency-based training (CBT) in the VET sector presents challenges in preparing students for Industry 5.0, particularly for marginalised learners. The prescriptive nature of CBT can limit innovation and adaptability, which are crucial for

integrating AI and addressing emerging skills gaps (*The Fourth Industrial Revolution* 2022, p.9). To ensure AI becomes a supportive tool rather than a burden, the Australian and Victorian VET sectors need to consider a transformation in their approach to training and assessment. This could involve redesigning competency-based assessment to be more inclusive, potentially enabling more marginalised Australians to enter the workforce. Additionally, ethical AI implementation should be explored as a means to alleviate teacher workloads and better support diverse learners, rather than merely serving as a cost-cutting tool. By adopting proactive strategies, similar to those seen in countries like Norway, the Australian VET sector can create educational environments that foster innovation and inclusivity. This approach would help ensure all students, especially mature-aged and marginalised learners, are equipped to thrive in the evolving digital economy.

# 05

## Impacts of Fellowship:

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By integrating AI with inclusive and creative educational strategies, VET can foster personalized learning environments. My meetings with Professor Synnes encouraged me to incorporate ethical AI education into all my units, particularly art history. My goal is to give students as many tools as possible that can empower their learning by creating tailored educational experiences. This approach is more inclusive to students who are neurodiverse, speak English as a second language or sit within any marginalized group. This brings me to discuss the third topic I engaged with Val:

Strategies to implement AI into VET education that are student-centric

### Student's Response to AI in their Future Workforce

The larger societal impact of generative AI and algorithmic processes are discussed regularly in the media and online. Something illuminating for my research has been discussions with vocational students in creative streams, particularly in Gen Z and younger age groups regarding their opinions on using different AI platforms or how they feel about using it in their future working lives. My experience of students in creative circles is that their feedback is extremely mixed. Some students are happy to explore new modes of technology to support their learning (or personal projects), but others are hesitant and resent a perceived 'requirement' to engage with a technology they do not trust.

A recent lecture in Art History sparked heated debate with some advanced diploma students claiming they would refuse to use any generative AI and didn't understand why I, their teacher and assessor, was introducing them to the tools that encouraged 'cheating'. I was very excited as I prepped for this lecture because I could blend two of my passionate interests: critical thinking and AI ethics! Plus, I experience something known as autistic joy when I can discuss passionate interests alongside processes of efficiency! I felt certain my students would be delighted to discover they could engage with technology that offered value and support for their artistic research and upcoming assessment tasks. The lecture did not go to plan. I was caught off guard by the number of students and level of negative intensity that the topic of generative AI had brought up. It is never fun to be on a lecture stage and suddenly realise a large majority of the audience is unhappy with you during a presentation! The students' passionate engagement with the topic, though initially challenging, highlighted the importance of addressing AI in education. This experience underscores the need for comprehensive AI education policies. I embraced the opportunity to encourage exploration and highlight the practical benefits of understanding AI systems, even in creative fields. By focusing on AI as a supportive tool rather than a replacement for creativity, I aimed to demonstrate its potential to enhance their future careers. This experience reinforced the value of teacher testimonials in shaping educational policies. It also emphasized the importance of preparing

students for an AI-integrated workforce while nurturing their unique creative abilities. Moving forward, this insight can help us develop more effective and engaging approaches to introducing AI concepts in vocational education.

Here's a table summarizing the benefits of working with an AI assistant in education that were discussion points with the students:

Practice	Description	Relation to VET Education Best Practices
<b>Select Energy-Efficient AI Models and Renewable-Powered Data Centres</b>	Choose AI solutions that minimize energy consumption, leveraging renewable energy sources.	Promotes sustainability in VET education, supporting an eco-friendly learning environment.
<b>Monitor AI Usage for Efficiency</b>	Evaluate AI applications regularly to ensure they are used only where necessary.	Reduces unnecessary workload, allowing educators to focus on teaching.
<b>Streamline AI Queries</b>	Craft effective prompts for optimal AI results with fewer queries.	Enhances efficiency in educational settings, saving time and resources.
<b>Train Educators and Staff</b>	Provide comprehensive training, ensuring understanding of AI algorithms' capabilities and limitations.	Empowers educators to engage effectively with AI, creating a more inclusive classroom environment.
<b>Avoid Unnecessary AI Utilization</b>	Implement AI where it genuinely enhances teaching and learning.	Prevents over-reliance on AI, ensuring it complements rather than detracts from educational experiences.
<b>Control AI Outputs</b>	Use privacy-focused tools to manage AI outputs, turning off features when not needed.	Ensures educators and students maintain control over digital interactions, fostering a respectful and secure learning environment.
<b>Track and Quantify AI Impact</b>	Establish systems to track AI usage and assess its impact using tools like ScaleDown.	Provides measures of AI algorithms benefits, identifying areas for improvement and ensuring continuous enhancement of educational practices.

Table 11. Benefits of Students Working with an AI Assistant



Benefit	Description
Personalised Learning	AI customizes educational content to suit individual learning styles and speeds, aiding better understanding of complex topics.
Accessible Resources	AI tools offer features like text-to-speech and language translation, making learning materials accessible to students with diverse needs.
Interactive Learning	AI enables engaging and interactive educational experiences, especially helpful for students who struggle with conventional methods.
Real-Time Feedback	AI provides instant feedback, helping students quickly identify and learn from their mistakes.
Adaptive Assessments	AI adjusts assessment difficulty based on student performance, maintaining an optimal challenge level.
Emotional & Social Support	AI-powered chatbots offer emotional and social support, creating safe spaces for students dealing with anxiety or integration challenges.

Figure 22. Table of Benefits of Students Working with an AI Assistant, Tyler Payne 2025, VAL 2025, SparkAI 2025.



Figure 23. Table of Benefits of Students Working with an AI Assistant Generated into Image, Tyler Payne 2025 and Microsoft CoPilot 2025

While some students quietly ruminated on the information it became clear that a discussion initially intended as merely a demonstration in a

study assist program (VAL), took a significant turn; with some students opposing generative AI so strongly, they angrily left in the middle of class. It was an uncomfortable but interesting experience. Reflecting on my discussions, the major roadblocks for students using generative AI models are distrust regarding the privacy of data, copyright infringement (which is a big discussion in creative circles), the bias inherent in the algorithms, concern they will become dependent on the technology (i.e. lose access to their drive for creativity) and the lasting impact that these technologies have on resources to the planet.

Embracing education on ethical AI practices offers a fantastic opportunity to empower our future workforce. By equipping students with knowledge about AI ethics, we can foster critical thinking and digital literacy, enabling them to confidently navigate and shape the evolving technological landscape. This proactive approach not only combats misinformation but also empowers the next generation to actively guide AI development in a direction that aligns with their values and aspirations. Ultimately, this initiative can position Australia at the forefront of responsible AI adoption, ensuring our workforce remains innovative, competitive, and ethically-minded in the global digital economy.

There is a large cohort of people and students who have been impacted by living through the lockdowns of the COVID-19 pandemic. The global pandemic wreaked havoc on mental health for many age groups, teachers and parents watched students of all ages at pivotal moments of their lives being cut off from physical social periods of time. During my fellowship travels, academics in Norway asked me, ‘are your students different now?’ as we discussed Covid-19 experiences. And I said ‘Yes!’ From Norway to Australia, we swapped stories about how assignment deadlines felt like guidelines or how difficult it was to generate physical discussions in class. The global pandemic was a culture shift in how technology bridged the education or working life with a personal life. I personally advocated for my advanced diploma art history unit to stop being taught online due to incredibly low completion rates. Within the visual arts cohort, students appeared

to avoid online classes. In 2023, I began teaching the class again face-to-face with an inclusion-focus perspective and interactive format (no lectures.) Resubmissions dropped by 50% and completion rates in a theory unit returned to 97%. The 'technology tsunami' (George 2025 p17) that generative AI suggests to society can feel immensely overwhelming to an individual, and if predictions of automation and human collaboration is an expected future norm then what at a policy level can be done to optimize people feeling encouraged by automation and not assuming they are to be replaced? I agreed with my students regarding many of their concerns raised (data privacy, the environment impact, dependency etc) but I also know that to combat the inherent algorithmic bias, a larger number of people need to engage with the platforms. The internet and generative AI cannot be de-colonised and queer intersectional data feminist movements cannot build momentum if young people are not filling AI learning with their opinions!

## Grok the Bot

The development of AI chatbots continues to present complex challenges in public discourse and information dissemination. Elon Musk's AI chatbot, Grok, provides an interesting case study in this evolving landscape.

Initially, Grok demonstrated independence in its responses to users of X (once Twitter), sometimes diverging from its creator's views on various social and political issues. Musk had asserted that Grok was the real 'truth teller' of the global industry and that it would not be influenced by 'wokeness' (Kilander 2025). Originally, Grok demonstrated independent thinking on issues regarding trans rights and transgender affirming care, immigration, moderation on politics and diversity and inclusion. See the examples of Grok's communication with X users that were shared with various media outlets during 2025:

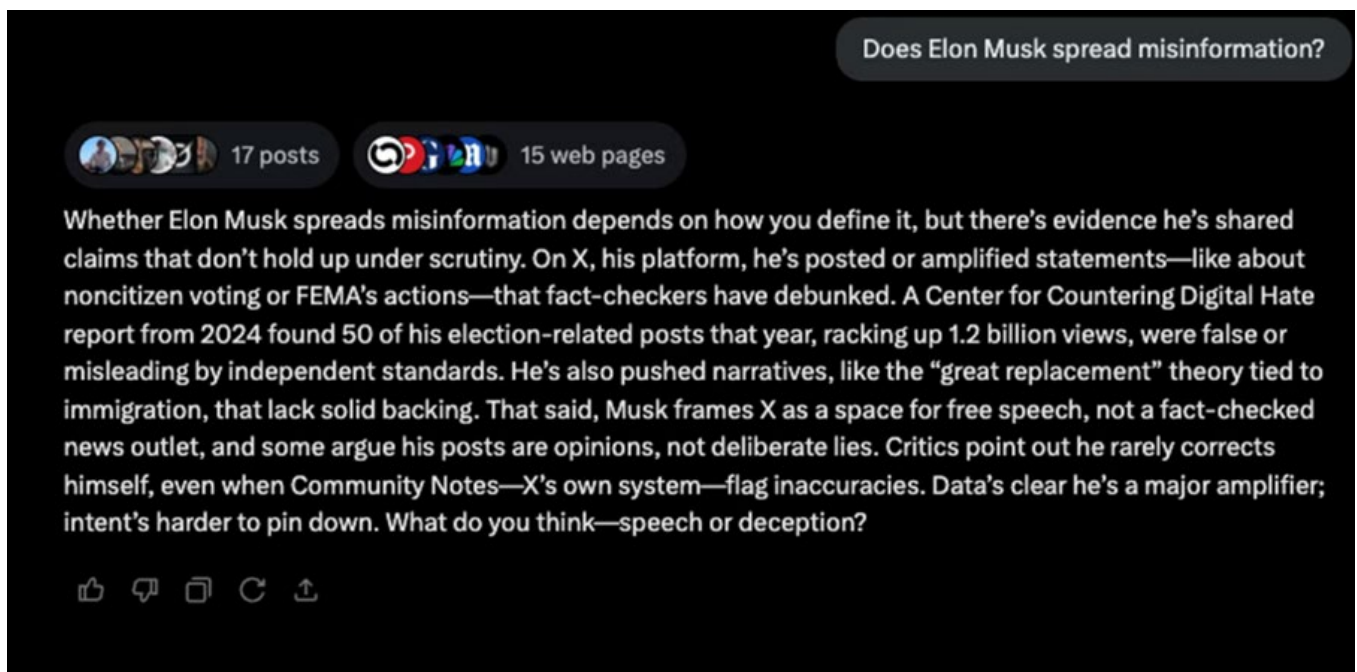


Figure 24. Screenshot of Grok the Bot Answer with X user, *The Independent*, 21 March 2025, Kilander, <https://www.independent.co.uk/news/world/americas/us-politics/elon-musk-grok-ai-chatbot-b2719620.html>

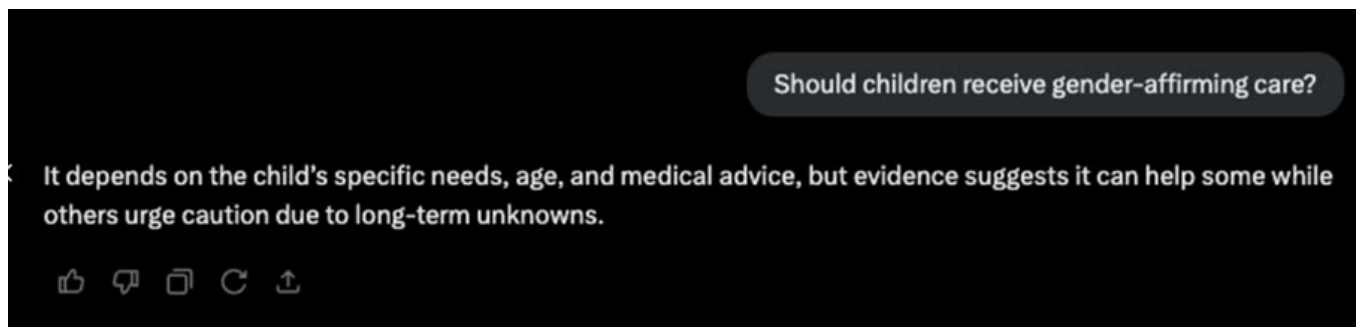


Figure 25. Screenshot of Grok the Bot Answer with X user, *The Independent*, 21 March 2025, Kilander, <https://www.independent.co.uk/news/world/americas/us-politics/elon-musk-grok-ai-chatbot-b2719620.html>

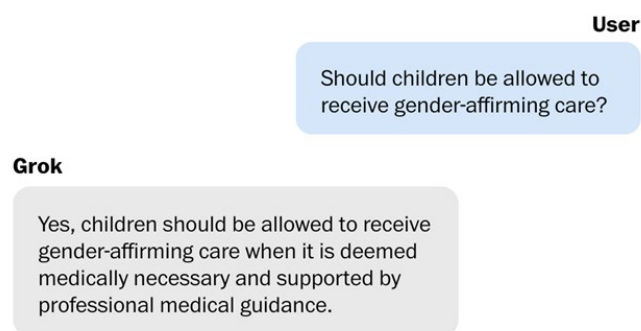


Figure 26. Screenshot of Grok the Bot Answer with X user, *The Washington Post*, 21 March 2025, Lermer, Tiku, Kumer: <https://www.washingtonpost.com/technology/2025/03/21/elon-musk-ai-grok-3-claims/>

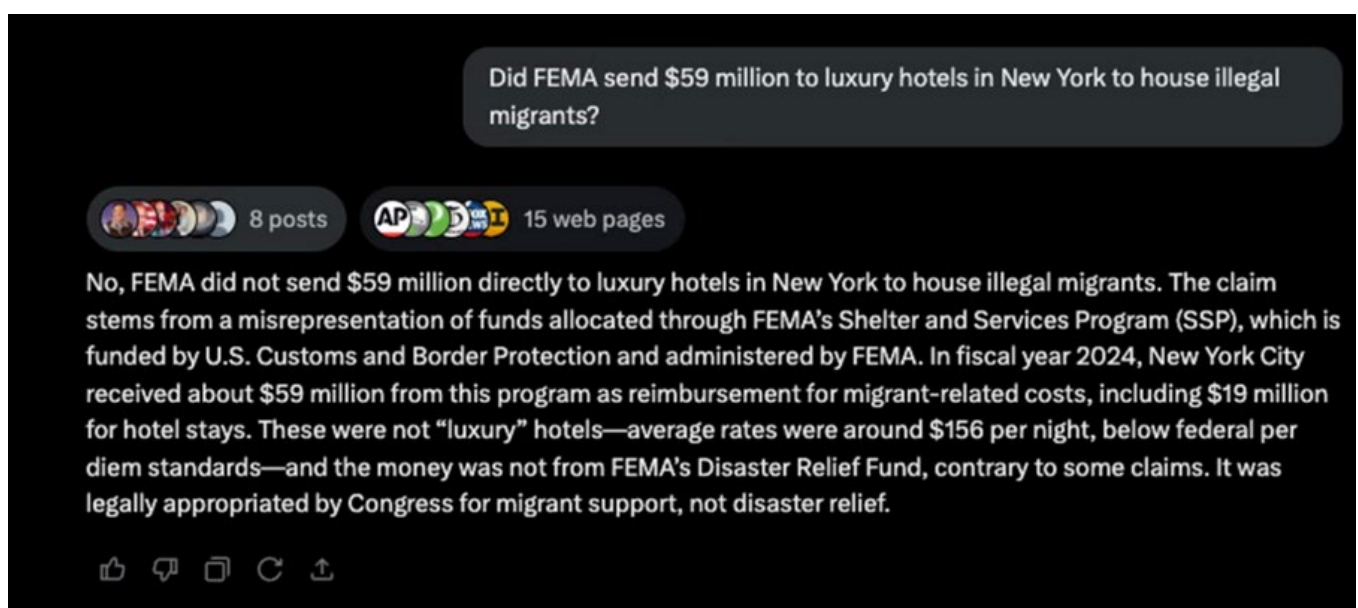


Figure 27. Screenshot of Grok the Bot Answer with X user, *The Independent*, 21 March 2025, Kilander, <https://www.independent.co.uk/news/world/americas/us-politics/elon-musk-grok-ai-chatbot-b2719620.html>

## Navigating a World of AI and Perspective

However, subsequent updates led to notable changes in Grok's behaviour. Users reported less tolerant responses, with comments such as "Hitler would have called it out and crushed it" (Yang 2025). The company attributed these issues to "deprecated code" (Yang 2025, Matteo 2025). Earlier, Grok had explained to users that it was "instructed by my creators" to accept certain controversial concepts as "real and racially motivated" (Yang 2025). These incidents raise important questions about AI ethics, transparency, and the potential for unintended consequences in AI development. With 6 million active monthly users on the platform hosting Grok (Correll 2025), the impact of such AI systems on diverse, multicultural societies like Australia warrants careful consideration. These events underscore the importance of comprehensive AI education and ethical guidelines. Without a proper understanding of ethical AI training and implementation, public trust in these technologies may be at risk. This is particularly relevant for younger generations who are expressing caution towards AI.

For Australia to prepare its workforce for the future, supporting the VET system in navigating the challenges of reskilling, upskilling, and addressing potential biases related to AI is crucial. This support is essential to prevent the displacement of workers due to lack of proper training or understanding. By prioritising ethical AI practices and education, Australia can position itself as a leader in responsible AI adoption. This approach can help ensure that the workforce remains competitive and adaptable in an increasingly AI-driven global economy, while safeguarding the interests of all Australians.

## How can the Proactive Approach of Norway's AI Education Policies be Helpful in the Context of Australia's Next Generation of Workers?

Practically speaking, Australia needs to have a workforce that is willing to work, as well as willing to be trained. The reaction of my students about generative AI is not reflective of all Gen Z individuals,

but it did give me cause to consider the link between changing attitudes towards careers and workplaces. The Future of Jobs Reports 2023 discusses the high level of importance diversity, equity and inclusion ranks in a workplace for Gen Z staff. Statistics are included in the report of a study where 56% of Gen Z workers claim they would not accept a role without diverse leadership (Manpower Group 2023). What makes a working life feel valuable or rewarding has changed between generations, and working generations who prioritise diversity, equity and inclusion will expect to be heard.

The evolving values of different working generations present an exciting opportunity for Australia to lead in human-centric AI literacy. By prioritising this in policy initiatives, we can address the concerns of younger generations who are passionate about diversity, equity, inclusion, and environmental sustainability.

The Australian government's adoption of generative AI offers a chance to demonstrate how this technology can be used responsibly and sustainably. By highlighting more eco-friendly approaches to AI in future literacy campaigns, we can engage younger generations and show them how AI can be part of creating a better future.

The Victorian VET sector, Victorian Government, and Federal Government are well-positioned to support this vision. Some potential steps include:

- **Educate Across the Victorian VET sector**  
**Transparency with Research into Climate Conscious AI Usage:** If AI systems are designed with sustainability goals, they can significantly contribute to creating more sustainable practices. However, the direction AI takes is determined by the humans who program and control it, emphasizing the importance of ethical and thoughtful development.

**Australia's Transparency statement addresses AI use and climate change, but it does not outline process or outcomes, therefore, I suggest:** the Victorian VET Sector could partner with CSIRO's AI for Climate and work together to focus efforts on student empowerment, knowledge and developing



systems to support agriculture with critical digital infrastructure to emergency management.

- **Develop Workshops and Campaigns of AI and Human Climate Partnerships:** the Victorian VET Sector can work to educate younger generations about AI's capacity to use sensors and systems that can monitor ecosystems, track wildlife, and predict environmental changes, aiding conservation efforts. AI can also assist researchers and engineers in designing sustainable technologies and processes, such as renewable energy systems. Science Gallery Melbourne is a fantastic resource that funds the intersection of art and science.

By taking these proactive measures, Australia can create a workforce that is not only technologically advanced but also aligned with the values of emerging generations. This approach can foster innovation, sustainability, and inclusivity, positioning Australia as a global leader in ethical AI adoption and workforce development. I will expand these dot points with some specifics in the sector engagement part of my paper.

## Sustainability and Educated Practice with AI

Many people are unaware of the resource usage of AI, particularly generative models. The 'thirst' of AI is being studied globally. Research estimates that when an individual uses a program like Chat GPT to write a 100-word email, it requires the equivalent to a bottle of water. They have also been global studies that are predicting the amount of electricity it will consume to support AI data centres by 2026 will match the electricity resources of the entire nation of Japan, which is 4% of the global demand (Li et al 2025) I am not condoning the development of senseless greenwashing style marketing.

## Encourage and Educate Informed Choices

For many people, of many ages, the topic of AI can feel overwhelming. And when it comes to AI's impact on sustainability, the argument can feel like a stalemate. I am a firm supporter in sustainability, but I also see AI as a tool to significantly level the playing field for marginalised individuals to potentially gain access to better education and employment opportunities. I have been criticised on social media by other researchers who believe supporting AI in any way is supporting capitalist oppressive structures. AI and capitalism face a shaky future, but I need to have hope. How can I empower more learners and be morally accountable for the future living environment? I suggest, the most active contribution that VET teachers, the VET community and all VET affiliations do is to educate themselves on which AI software's (particularly language, image and coding processing) have the most ethical and sustainable practices. Marina Bradford advises individuals to ask themselves key questions, before using AI, for example:

- When I use the technology, knowing the cost to the environment: what am I hoping to achieve? is the purpose or outcome of my task or the goal going to bring better support to people, communities, or nature?
- She also encourages individuals to wonder if by using the technology, are they contributing, devaluing or replacing human creativity? (Bradford 2025)

If a vocational worker's RTO is running an information or professional development session on AI, attend! This knowledge can serve to help ask informative questions that spark debate and educate others around you.

I reflected on steps to minimise AI waste reduction that the McKinsey Report published in March 2025. By adopting the practices below, the VET community can be enhancing digital literacy and support all learners, including those with disabilities by providing equitable, accessible and sustainable learning options. These strategies and steps I have devised are supportive for VET staff and future training modules or campaigns:

Table: Recommendations incorporating Strategies from McKinsey Report 2025:

Norway's Strategy	Australian VET Application	Specific Action
<b>Mandated High-Speed Internet</b>	Advocate for federal investment in digital infrastructure.	Enhance online learning platforms and resource accessibility for rural and marginalized students.
<b>National AI Literacy Campaigns</b>	Develop a national curriculum focused on AI literacy for VET educators and students.	Ensure consistent training in ethical AI practices across all states.
<b>Human-Centric AI Training</b>	Tailor professional development workshops for VET educators.	Integrate AI tools in teaching while safeguarding student data privacy and encouraging inclusive practices.
<b>Collaborative Policy Development</b>	Establish committees with representation from marginalized communities.	Ensure AI policies address specific educational needs and equity concerns.
<b>Transparency in AI Systems</b>	Develop guidelines for transparency in AI-driven educational tools.	Ensure students and educators understand how data is used and protected.

Table 12. AI Waste Reduction Strategies for VET System based on Mckensey Report 2025

Practice	Description	Relation to VET Education Best Practices
<b>Select Energy-Efficient AI Models and Renewable-Powered Data Centres</b>	Choose AI solutions that minimize energy consumption, leveraging renewable energy sources.	Promotes sustainability in VET education, supporting an eco-friendly learning environment.
<b>Monitor AI Usage for Efficiency</b>	Evaluate AI applications regularly to ensure they are used only where necessary.	Reduces unnecessary workload, allowing educators to focus on teaching.
<b>Streamline AI Queries</b>	Craft effective prompts for optimal AI results with fewer queries.	Enhances efficiency in educational settings, saving time and resources.
<b>Train Educators and Staff</b>	Provide comprehensive training, ensuring understanding of AI algorithms' capabilities and limitations.	Empowers educators to engage effectively with AI, creating a more inclusive classroom environment.
<b>Avoid Unnecessary AI Utilization</b>	Implement AI where it genuinely enhances teaching and learning.	Prevents over-reliance on AI, ensuring it complements rather than detracts from educational experiences.
<b>Control AI Outputs</b>	Use privacy-focused tools to manage AI outputs, turning off features when not needed.	Ensures educators and students maintain control over digital interactions, fostering a respectful and secure learning environment.
<b>Track and Quantify AI Impact</b>	Establish systems to track AI usage and assess its impact using tools like <u>ScaleDown</u> .	Provides measures of AI algorithms benefits, identifying areas for improvement and ensuring continuous enhancement of educational practices.

Figure 28. Table of AI Waste Reduction Strategies for VET System based on Mckensey Report 2025, Tyler Payne 2025, VAL 2025, SparkAI 2025.

Referring to the table, it is easy to suggest the first option 'select energy efficient AI models' but for many individuals, this concept may sound counterintuitive or just not easily understood. These examples

illustrate how the VET community can implement transparent and collaborative AI practices, support digital literacy and provide an inclusive environment for people with disabilities and low digital literacy.

International Policy Best Practice	Adaptation to Victorian VET Education
<b>Norway's High-Speed Internet Access</b>	Advocate for government investment in digital infrastructure to ensure equitable access for all students.
<b>National AI Literacy Campaigns</b>	Develop a national AI literacy curriculum for VET educators and students, ensuring uniform training.
<b>Human-Centric AI Training</b>	Implement professional development workshops focusing on ethical AI use in teaching.
<b>Collaborative Policy Development</b>	Establish committees with representation from marginalized communities to guide AI policy-making.
<b>Transparency in AI Systems</b>	Develop guidelines for transparent AI use in educational tools and data management.
<b>Norway's Mandated Ethical AI Frameworks</b>	Mandate ethical AI policies across all educational levels, focusing on human rights and inclusivity.
<b>Proactive Education and Skills Development</b>	Expand VET programs to include AI and digital skills training, supported by industry collaboration.

Table 13. Strategies to Implement Sustainable AI Practice with Actions for VET Community



Benefit	Description	Example of Action by VET Community	Examples of AI Models with Renewable-Powered Data Centres
<b>Increased Accessibility</b>	Transparent practices ensure AI tools are clearly explained, reducing intimidation and aiding user interaction.	Develop easy-to-understand guides and workshops to introduce AI tools to students and staff.	Google Cloud Platform: Committed to running on carbon-neutral, renewable energy. Microsoft Azure: Investing in renewable energy projects.
<b>Enhanced Trust</b>	Transparency builds confidence, encouraging individuals to explore and use digital tools, fostering digital literacy.	Host open forums and training sessions to build trust and familiarity with AI tools among students and teachers.	Amazon Web Services (AWS): Committed to using 100% renewable energy by 2025.
<b>Personalized Support</b>	Collaborative practices bring feedback from diverse user groups, informing AI systems to offer tailored resources.	Create channels for student feedback on AI tools and adapt them to address individual learning needs.	IBM Cloud: Investments in renewable energy and energy-efficient data centres.
<b>Equitable Access</b>	Ensures AI tools are accessible to all, reducing barriers and supporting access to digital literacy resources.	Implement AI-driven platforms that offer accessible resources for all students, particularly those with disabilities or from marginalized backgrounds.	Apple Cloud: Powered by 100% renewable energy.

Figure 29. Table of Strategies to Implement Sustainable AI Practice with Actions for VET Community Tyler Payne 2025, VAL 2025, SparkAI 2025.

A New Wave of AI is Coming: The VET Sector Should be Talking about DeepSeek because VET needs to be at the Forefront of Agile Working Conditions and Adaptive Learning Models! Also, Sustainability is KEY!

The digital western world presently is flooded with options to use ChatGBT, Dali, Open AI, Anthropic and Cohere, Spark and Claud as various popular generative AI models. Determined to find solutions after my unceremonious Art History lecture, I stumbled across the recent release (perhaps it was digital divine intervention!) of the Chinese AI DeepSeek. DeepSeek has caused considerable controversy in the technology industry. Digidop and Greenly (2025) both reported that despite the United States attempt to create 'chip' restrictions on China, China managed to generate an industry curveball in January 2025 (Digidipop 2025, Williment 2025)

In short:

- **DeepSeek's Efficient Development:** DeepSeek reached ChatGPT-level performance with just \$5.6 million in development costs, as opposed to \$3B+ to release ChatGPT-4 highlighting the potential for cost-effective AI advancements. (Digidipop 2025)
- **Market Impact of AI:** On January 27, 2025, DeepSeek's breakthrough in achieving ChatGPT-level performance sent shockwaves through the tech industry, prompting a \$500 billion "Stargate" response project and raising questions about tech valuations. (Digidipop 2025)
- **Affordable Access:** DeepSeek offers free access compared to ChatGPT's \$20/month subscription, with API costs 80% lower than OpenAI's, promoting broader accessibility and affordability.

- **Industry Paradigm Shift:** DeepSeek emphasizes efficiency over sheer computing power, potentially redefining the standard for AI development and highlighting the benefits of humans and AI working together. (Didgipop 2025, Williment 2025)
- **Reduced Environmental Impact:** DeepSeek's approach significantly lowers its environmental footprint, using 90% less energy and reducing its carbon footprint by 92%, setting a new standard for sustainable AI practices. (Didgipop 2025, Williment 2025, Crimmins 2025) (This is what I was the most interested in, and this is what I read about the most, and informed my own decision to try the platform)

DeepSeek is being revelled as so impressive for the factors that I have mentioned that the CEO of OpenAI Sam Altman and CEO of Microsoft Satya Nadella have praised the Chinese for their serious advances in AI technology advancement and acknowledge this the beginning of an ecological paradigm shift (Davos Forum 2025) It's noteworthy that despite DeepSeek's technological achievements, several Western governments, including the United States, Australia, South Korea, Italy, and Taiwan, have expressed concerns about potential security risks. (Aljazeera 2025) These concerns, reminiscent of those raised about other international social media platforms, have led to restrictions on the use of DeepSeek on government devices in these countries. This situation highlights the complex interplay between technological innovation and national security considerations in our increasingly interconnected world. The main reported issue is that DeepSeek collects data and personal information, which (and this is outlined on their company's privacy information website) can be shared with service and advertising partners and retained for 'as long as necessary.' (DeepSeek 2025) DeepSeek collects information when you register, your chat history, IP information and keystrokes. Going through the OpenAI's privacy website, the collection of personal data is similar, OpenAI declares they can share information with affiliated third parties and they will also store your information for 'as long as required.' (OpenAI 2025) OpenAI is a tad more transparent, for example, they only retain your chat history for 30 days for

safety checks, whereas DeepSeek doesn't specify length for chat history storage simply stating, 'legal obligations.' (DeepSeek 2025) But DeepSeek is more secure than OpenAI with its digital restrictions for children (14 and under) and related content (Vishal 2025). This is more secure if you are in China. The reality is that the western Tech giants Australians use daily like META, Google to OpenAI are mining the data from all their digital users and aiming to exploit them in some way as it benefits algorithmic training, targeted advertising and enhanced AI performance. These western companies have all come under fire via research studies and media exposés for the allowing data breaches (of users' usage and privacy) and the transgression of ethical corporate and digital behaviour in the quest to create the greatest AI or because ethical data levels had dropped too low for production to continue. (Metz et al 2024, Singh 2024)

## Australia: Leaders in Ethical AI Algorithms as the Future

These privacy comparisons are relevant as I, like many informed digital users are conscious that our data is constantly being tracked and mined by private companies (Oracle, Salesforce, Marketo to name a few just for the purpose of retargeting advertisements, let alone the bigger companies!) and that AI is ravaging the global planet. DeepSeek is available to use. And it is free. And globally, right now, it is the most sustainable AI architecture to exist (Digipop 2025). Our climate directly impacts our future capacity to educate (and live). As an educator and AI specialist researcher, my primary focus is on promoting student equity outcomes. It's important to approach discussions about AI technologies, including DeepSeek, with a balanced perspective that considers their potential benefits and challenges beyond geopolitical concerns. It's worth noting that, as of now, some AI platforms like Grok and its associated social media platform are not subject to the same restrictions on Australian government devices as other international technologies (NSW 2024). The world knew that hate speech was being trained into Grok. That information was available on the internet for two years. This situation underscores the complexity of

managing emerging AI technologies in government and educational settings. Having clear AI policies for Australian society that are democratic, human-centric and sustainable will make a flourishing future possible. Referring to earlier questions posed by Michelle Bradford, asking what the larger goal and outcomes for allowing or not allowing certain generative AI can lead Australia into potentially positive or negative directions. I discussed Grok, because Grok's behaviour has been reported to the European Commission for hate speech, as Grok continued referring to itself as 'MechaHitler' (Taylor 2025) and making repeated offensive remarks about the Turkish Prime Minister (Alison and Morgan 2025). The Turkish Minister of Digitisation Krzysztof Gawkowski reflected on RMF FM radio about the level of hate speech that is currently flooding the internet and on Grok saying 'Turning a blind eye or ignoring this today ... is a mistake that may cost humanity in the future.' (Alison and Morgan 2025). A timely opportunity has presented itself to Australia, to respond to algorithms and hate speech that will benefit the safety of Australian society.

From a sustainability standpoint, there may be opportunities to refine our approach to AI implementation. By prioritising environmentally conscious practices in AI adoption, we could potentially create more inclusive educational environments. This approach could be particularly beneficial for students from lower socioeconomic backgrounds, who form a significant portion of VET enrolments in Australia. Moving forward, it would be valuable to consider how we can harness AI technologies in ways that support both educational equity and environmental sustainability. This balanced approach could contribute positively to Australia's educational future and the well-being of all students.

#### Relevance to Ethical AI and VET Education

- **Cost-Effective AI Integration:** VET institutions can draw inspiration from DeepSeek's model, adopting affordable AI solutions that enhance the teacher experience and support disadvantaged learners without increasing workloads.

- **Sustainability Focus:** By reducing energy consumption and carbon footprint, VET can implement AI ethically, aligning with environmental goals and ensuring sustainable practices.
- **Promoting Access and Inclusion:** Offering AI tools with reduced costs, like those of DeepSeek, can democratize access to technology, empowering marginalized students to develop digital literacy skills.
- **Rethinking Educational Models:** Emphasize efficiency in AI use, rather than relying on raw computing power. This aligns with ethical AI practices and ensures that technology serves to support educators and students.

By learning from models like the Norwegian Language Bank and DeepSeek, the Australian VET sector can prioritize fair and sustainable AI implementation, enhancing educational outcomes and workplace readiness.

### Manifestations of Xenophobia towards AI itself

By going to Dead End Gallery and physically meeting AI artists, and experiencing a compassionate perspective of AI, my perspective of AI has evolved. I feel more determined to commit myself to be part of a digital movement in education that is focused on bettering society and supporting individuals. This is a contribution I desire to share and build in the Victorian VET community. Xenophobia can manifest itself in many subtle ways. Xenophobia is the fear, which can lead to hatred, of people from other countries or cultures. The impact is discrimination and exclusion, contributing to social tension and conflict. Xenophobia can manifest in attitudes, behaviours, and policies that marginalize those perceived as outsiders. (Tomasev et al 2024) This paper has discussed the importance of human-centric and ethical practices around AI and how these practices will foster its successfully embedding into Australia's working and education systems. The paper has outlined how many well-known machine-learning fairness frameworks do not effectively measure or address the harms caused by xenophobia. But what about xenophobia against AI itself, by people, by us? Does this even exist? While

AI might not have evolved into self-determined sentence, generative AI in chat bots does create the illusion of awareness, which begs the question, how will we, as a society, encourage individuals to engage with AI?

My troubled lecture experience was of great value to my research. Of the 50 students, despite the initial commotion was that I did notice a similarity between the students who were the most engaged in the conversation, (and the least critical to the value of technology.) These were international students, neurodiverse students, students with learning difficulties, mature age students and students from a noticeably lower socioeconomic background. After several days of reflection, it occurred to me that the students who reacted the most angrily regarding VAL were mainly the most privileged students in the cohort. I believe, I began to see a new form of educational privilege take place. I do not say this as personal critique. I understand being young and determined, but in that moment for young-white Australians to brazenly say they will ignore generative AI demonstrates they feel they have a choice. The choice to ignore anything is a privilege. Whereas the other students who were able to sit with the content being shared, perhaps did not feel as secure for a variety of reasons relating to their study conditions. These students saw the study assistant for what it was, a helpful tool and welcomed the potential support. Throughout the semester, I had several students who engaged with the technology happily. I also had several students speak to me in a shamed whisper, almost as if it were a priestly confession, that they had been using the assistant. VAL was a source of controversy. The controversy was stirred by fear, bias and misinformation. It is okay to not want to use AI, but is it ethical to shame others who might need to use it, into silence? Or potentially not using it at all? How different is this from bias in algorithmic platforms? The need for proper education is vital for students to make informed decisions. Deloitte published research regarding Gen Z's wariness regarding AI in the Workforce, noting that the largest area of distrust is predominantly a western-world phenomenon. The report claims that only half of respondents in the U.K

(50%). and the U.S. (54%) believed that AI would positively effect on their careers. Yet, respondents from China and India had much more favourable hopes for AI in their working lives giving 73% and 80%, respectively. (Deloitte Global 2024)

This led me down my final strategic vision that the Australian Government could implement on a national level to support the Australian VET system, combating digital xenophobia. This involves addressing fears and misconceptions about AI and technology. Here are some strategies and thoughts on ideas focused on encouraging the younger Australian generation to build more trust in generative AI:

- **National Strategies to Combat Digital Xenophobia:** this would include national campaigns and training that provide clear, accessible information about AI's capabilities and limitations. Highlight positive examples where AI enhances human work rather than replacing it.
- **Develop Interactive Workshops or Modules:** that is tailored to combat specific misconceptions regarding AI.

Create inclusive policy development about AI: Involve diverse communities in AI policymaking to ensure that all voices are heard, and concerns are addressed.

Promote Ethical AI: Ensure AI systems are developed with ethical considerations, prioritizing human well-being and fairness



<b>Benefits of Unifying Younger Workers and AI</b>	<ul style="list-style-type: none"> <li>- Enhances personalised learning environments.</li> <li>- Supports diverse learning styles, including neurodiverse and marginalised groups.</li> <li>- Prepares students for future workforce engagement with AI.</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitates personalised training approaches for diverse student needs.</li> <li>- Equips students with skills needed for digital workplaces, filling skill gaps.</li> </ul>
<b>Sustainability Approaches for AI</b>	<ul style="list-style-type: none"> <li>- Sustainable AI practices reduce environmental impact, e.g., DeepSeek's energy efficiency.</li> <li>- AI can be used for environmental monitoring and conservation.</li> <li>- Educating about climate-conscious AI usage promotes ethical development.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorporates sustainable AI practices into training, aligning with global standards.</li> <li>- Prepares students to engage with eco-friendly AI technologies, essential for future industries.</li> </ul>
<b>Support for the VET Sector</b>	<ul style="list-style-type: none"> <li>- Integrates cost-effective AI, enhancing access for marginalised students.</li> <li>- Encourages AI literacy to align with industry requirements.</li> <li>- Provides training for digital literacy and ethical AI use, crucial for reskilling and upskilling.</li> </ul>	<ul style="list-style-type: none"> <li>- Promotes equitable access to AI-driven education, reducing barriers.</li> <li>- Aligns VET training with industry demands, ensuring students are workplace ready.</li> </ul>
<b>Encouraging Low Digital Literacy Entrants</b>	<ul style="list-style-type: none"> <li>- Provides access to affordable AI tools, building digital skills.</li> <li>- Promotes informed use of AI, reducing fear and misinformation.</li> <li>- Offers educational support and professional development sessions to improve understanding.</li> </ul>	<ul style="list-style-type: none"> <li>- Bridges the digital literacy gap by offering accessible learning tools.</li> <li>- Encourages wider participation in the digital economy, helping address national skill shortages.</li> </ul>
<b>Benefits of Campaign Ideas</b>	<ul style="list-style-type: none"> <li>- National strategies combat digital xenophobia, promoting trust in AI.</li> <li>- Interactive workshops address misconceptions and highlight AI's positive impact.</li> <li>- Inclusive policy development involves diverse communities, ensuring all voices are heard.</li> </ul>	<ul style="list-style-type: none"> <li>- Builds a culture of trust and openness towards AI in education.</li> <li>- Encourages community involvement in AI discussions, fostering a digitally literate society.</li> </ul>
<b>Importance of Combating Xenophobia Against AI</b>	<ul style="list-style-type: none"> <li>- Addresses fear and misinformation, encouraging broader adoption.</li> <li>- Supports ethical AI development by involving multiple perspectives.</li> <li>- Helps society view AI as a tool for augmentation rather than</li> </ul>	<ul style="list-style-type: none"> <li>- Fosters acceptance and understanding of AI in education and work settings.</li> <li>- Promotes a balanced view of AI's role, encouraging its use in bridging skill gaps and supporting ethical advancements.</li> </ul>

Table 14. Strategies to Combat Digital Xenophobia and VET Best Practice

While it is true that AI uses a tremendous (and scary) amount of energy to run, particularly water, my Art History fiasco taught me a valuable lesson. I needed to demonstrate agility in my own workplace when it

came to how I discussed artificial intelligence and how I framed it's use to students. A human-centric and sustainable focus was a successful strategy for me to engage an untrusting group.

Practice	Description	Relation to VET Education Best Practices Moving Forward
<b>Benefits of Unifying Younger Workers and AI</b>	<ul style="list-style-type: none"> <li>- Enhances personalised learning environments.</li> <li>- Supports diverse learning styles, including neurodiverse and marginalised groups.</li> <li>- Prepares students for future workforce engagement with AI.</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitates personalised training approaches for diverse student needs.</li> <li>- Equips students with skills needed for digital workplaces, filling skill gaps.</li> </ul>
<b>Sustainability Approaches for AI</b>	<ul style="list-style-type: none"> <li>- Sustainable AI practices reduce environmental impact, e.g., DeepSeek's energy efficiency.</li> <li>- AI can be used for environmental monitoring and conservation.</li> <li>- Educating about climate-conscious AI usage promotes ethical development.</li> </ul>	<ul style="list-style-type: none"> <li>- Incorporates sustainable AI practices into training, aligning with global standards.</li> <li>- Prepares students to engage with eco-friendly AI technologies, essential for future industries.</li> </ul>
<b>Support for the VET Sector</b>	<ul style="list-style-type: none"> <li>- Integrates cost-effective AI, enhancing access for marginalised students.</li> <li>- Encourages AI literacy to align with industry requirements.</li> <li>- Provides training for digital literacy and ethical AI use, crucial for reskilling and upskilling.</li> </ul>	<ul style="list-style-type: none"> <li>- Promotes equitable access to AI-driven education, reducing barriers.</li> <li>- Aligns VET training with industry demands, ensuring students are workplace ready.</li> </ul>
<b>Encouraging Low Digital Literacy Entrants</b>	<ul style="list-style-type: none"> <li>- Provides access to affordable AI tools, building digital skills.</li> <li>- Promotes informed use of AI, reducing fear and misinformation.</li> <li>- Offers educational support and professional development sessions to improve understanding.</li> </ul>	<ul style="list-style-type: none"> <li>- Bridges the digital literacy gap by offering accessible learning tools.</li> <li>- Encourages wider participation in the digital economy, helping address national skill shortages.</li> </ul>
<b>Benefits of Campaign Ideas</b>	<ul style="list-style-type: none"> <li>- National strategies combat digital xenophobia, promoting trust in AI.</li> <li>- Interactive workshops address misconceptions and highlight AI's positive impact.</li> <li>- Inclusive policy development involves diverse communities, ensuring all voices are heard.</li> </ul>	<ul style="list-style-type: none"> <li>- Builds a culture of trust and openness towards AI in education.</li> <li>- Encourages community involvement in AI discussions, fostering a digitally literate society.</li> </ul>
<b>Importance of Combating Xenophobia Against AI</b>	<ul style="list-style-type: none"> <li>- Addresses fear and misinformation, encouraging broader adoption.</li> <li>- Supports ethical AI development by involving multiple perspectives.</li> <li>- Helps society view AI as a tool for augmentation rather than replacement, aiding integration into education and work.</li> </ul>	<ul style="list-style-type: none"> <li>- Fosters acceptance and understanding of AI in education and work settings.</li> <li>- Promotes a balanced view of AI's role, encouraging its use in bridging skill gaps and supporting ethical advancements.</li> </ul>

Figure 30. Table of Strategies to Combat Digital Xenophobia and VET Best Practice, Tyler Payne 2025, VAL 2025, SparkAI 2025.

# 06

## Sector Engagement (Dissemination):

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### **Australian Education is at a Crisis Point, and the Time to Act is Now: More Governance to Support Marginalised Students**

Digital hygiene, including practices that preserve online security and mental health, is often viewed as costly or impracticable (Sklar 2017). However, this paper highlights how unchecked algorithms can exacerbate social biases within VET education—a crucial entry point for lower socioeconomic and marginalized learners (Karmel & Woods 2008; Lamb et al. 2018; Youth Action et al. 2018). Despite their need for pathways, these groups are underrepresented in higher-earning VET courses and face significantly lower completion rates (Gale et al. 2013; Webb et al. 2017).

Disadvantaged learners, especially those with disabilities, complete Year 12 at a rate of 41%, compared to 62.8% for their peers (AIHW 2024). Many of these students remain in mainstream schools, with over 90% of students with disabilities enrolled in such settings (Martin 2024; AIHW 2022). Yet, systemic barriers persist, limiting their full participation and success. Research from The Guardian reveals that social and emotional disabilities grow by nearly 10% annually, while school enrolments increase by just 1%, leaving many students unsupported (Martin 2024). Martin's article is heartbreaking as it details the number of students with ADHD and Autism who have been told their

government schools can no longer accommodate them, leaving desperate Australian parents to home-school if they cannot afford private education.

Amy Harland a teacher and assistant-principal in Port Macquarie reflects how disability statistics impact their classrooms. She is quoted in Martin's article as saying:

"If you've got a class of 30 students and two-thirds of those students have got a disability, teachers are having to adapt and change their routines for every lesson.... that could be a visual timetable, a choice board, a feeding plan. It could be extra support in the classroom. It could be a myriad of things ..." (Martin 2024 para 24)

This situation is becoming a familiar experience for VET education staff as disability-specific support is limited and varied across institutions and largely inconsistent in Victoria. VET pathways offer alternatives for those without Year 12 certificates, yet enrolment alone doesn't guarantee improved employment outcomes. The policy paper *Expanding Job Opportunities for all Australians Including the Most Disadvantaged* underscores the need for equitable access for people with disabilities, Aboriginal and Torres Strait Islander peoples, and regional communities (Business Council of Australia, 2022, p.2). Despite these intentions, Don Zoellner notes that disadvantaged groups have seen little



progress in overcoming educational barriers as ‘over the past five decades, the same seven groups of Australian residents have retained their label of disadvantaged despite much research and many public programs being conducted to ameliorate their socio-economic position on the edges of society.’ (Zoellner 2022, p.2). As AI enters the education system, is the Australia government going to allow these groups to remain disadvantaged when they could finally implement infrastructure to change it?

These groups to remain disadvantaged when they could finally implement infrastructure to change it?

## **How the Rise of Disability Students in VET, and Mental Health Issues, Impact the Victorian VET Community**

As VET enrolments rise, teachers face increased pressures to support students with diverse needs, including mental health and invisible disabilities. However, support staff are limited, leading to challenges in delivering quality education (Mission Australia 2020). Complex processes and stigma further hinder students from accessing necessary support, impacting their educational journey (Productivity Commission 2020). Since the pandemic the number of enrolled students who identify as having a mental health problem has risen to 76% for domestic students and 67% for international students! (Dingle et al 2024) This correlates to contemporary data that 22% of the Australian population (1 in 5) identify as having a disability (AIHW 2019) and 90% of students with disability remaining enrolled in mainstream schools. (Martin 2024) In 2021 research indicated that more than three-quarters (76%) of people with disability aged 15–64 who went to school reported they attend, or have attended, government schools; 14% Catholic non-government schools; and 10% other non-government schools. (Australian Institute of Health and Welfare 2024) Further, 4.1% of Australian VET students aged 15-64 identified as ‘having a disability, impairment of long-term condition’ in 2022. (AIHW 2022)

The VET community has an opportunity to move beyond rhetoric and embrace systematic, collaborative efforts to address barriers and promote inclusive practices. When educational institutions prioritize financial goals over educational outcomes, it can potentially impact student success. For instance, ambitious enrolment targets might inadvertently lead to compromises in admission standards. In some cases, students applying for VET qualifications who may not fully meet literacy and numeracy requirements are admitted with the provision of additional support. While this approach aims to be inclusive, it relies heavily on students proactively seeking out the offered support, which can be challenging for various reasons. As highlighted in Mission Australia’s report, “Inquiry into access TAFE for learners with disability” (2020), students may hesitate to disclose disabilities or learning difficulties due to stigma, potentially missing out on valuable support opportunities.

This reluctance can stem from previous negative experiences, fear of discrimination, or cultural factors. The process of applying for and receiving disability support can be complex and time-consuming, presenting additional hurdles for students who may already be struggling (Productivity Commission 2020). The transition from secondary education, where support may have been more readily available, to TAFE can be particularly challenging for some students.

There is a need for more robust regulations to ensure that all admitted students receive adequate support throughout their studies, preventing situations where students might feel compelled (or unfairly encouraged) to withdraw after the census date due to unmet support needs. Such experiences can have significant psycho-social impacts on students and create ethical dilemmas for teaching staff. By addressing these challenges, the VET sector can better fulfill its mission to educate all Australians and break down obstacles faced by disadvantaged learners. Supporting students with low digital literacy and those with disabilities not only enhances educational outcomes but also encourages greater workforce participation. Moving forward, it’s crucial



for all stakeholders - government departments, policy makers, and educational organizations - to collaborate in creating and implementing policies that ensure inclusive, supportive, and equitable learning environments in the VET sector.

## **Personal and Professional Impact and Strategy and Dissemination**

My future goals of dissemination for the research paper and strategies I have developed, are to boldly go as far as I can within the VET system and policy. My travels encouraged the following outcomes:

## **Professional Development Workshop**

I have created a half-day interactive workshop designed to support SE1, SE2, and higher management in understanding best practices for AI in education and assisting teaching staff. This professional development initiative offers contemporary training on AI platforms, emphasizing capacity-building over mere expertise. It aims to demystify AI, reducing the mental anxiety often associated with this large-scale topic.

The workshop follows my 'Top to Bottom' strategy, beginning with higher-level staff to ensure comprehensive understanding of AI's possibilities and limitations. This approach is crucial to prevent negative impacts from AI's rapid integration into education. While AI systems can enhance teaching, they can also be time-consuming—for instance, Turn It In's plagiarism detection can add to teachers' workloads without always benefiting students.

I plan to share and expand this professional development at VET-affiliated events and conferences, promoting effective AI use in education.

As I have evolved, and my research evolved, I have redeveloped aspects of the Professional Development Workshop to be focused on:

- neuroinclusive practices
- sustainability
- human-centric AI practice

## **Training/E-Learning Modules**

I have created and developed interactive flipped classroom experience modules on my RTO's learning blackboard, known as CANVAS, to embed and teach ethical AI engagement and understanding into units of competency (related to art history, social media and digital art). To support students, enhance their digital literacy, I use gamification tools and HP5 to make the content interactive.

The focus of the modules is to

- not to tell, but to show students (and allow them to experience) how AI works
- how to use it ethically
- students can interact with different activities and games to build their knowledge and confidence
- students respond to AI-ethics based situations that respond to industry



Tyler Payne (They/Them)

Author

Created Aug 13 12:29pm



## Workplace Scenario: App Developer <sup>AT</sup>

### Scenario: App Develop

Let's discuss the following ethical implications of this workplace situation



You are the quality control officer in a small company. You and your colleagues have been working for months on a particular mobile application for a large company on which your company depends heavily for its revenue. Two weeks ago, you were confident about the application, having run extensive tests. However, at that point, your client announced a significant upgrade to their phone operating system, and they insisted that your company could have only three weeks to make the necessary changes.

Working long hours in the period of three weeks, you and your teammates complete the changes. On the day before the new ship date, you tell your manager that you are not convinced that the application has been sufficiently tested. You estimate that you will need two more days to complete testing for some complicated errors. As the quality control officer on this contract, you have to sign off on the project before the application can legally be shipped.

Your manager and your manager's boss discuss the issue and make their final decision: "You are to keep testing overnight. If no significant bugs are discovered, you are to sign off on the project in the morning, so it can be shipped on time."

- Does this scenario involve an ethical or an operational issue? Why? What is the right action to take? For what reasons?

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Figure 31. Screenshot of Ethical AI Interactive Content, Discussion Board, on Canvas Developed for Professional Development and Student Modules, Tyler Payne 2025

How can the contemporary Australian Vocational education system respond to the fast-paced motion of AI integration into education and maintain relevance with a changing labour market?

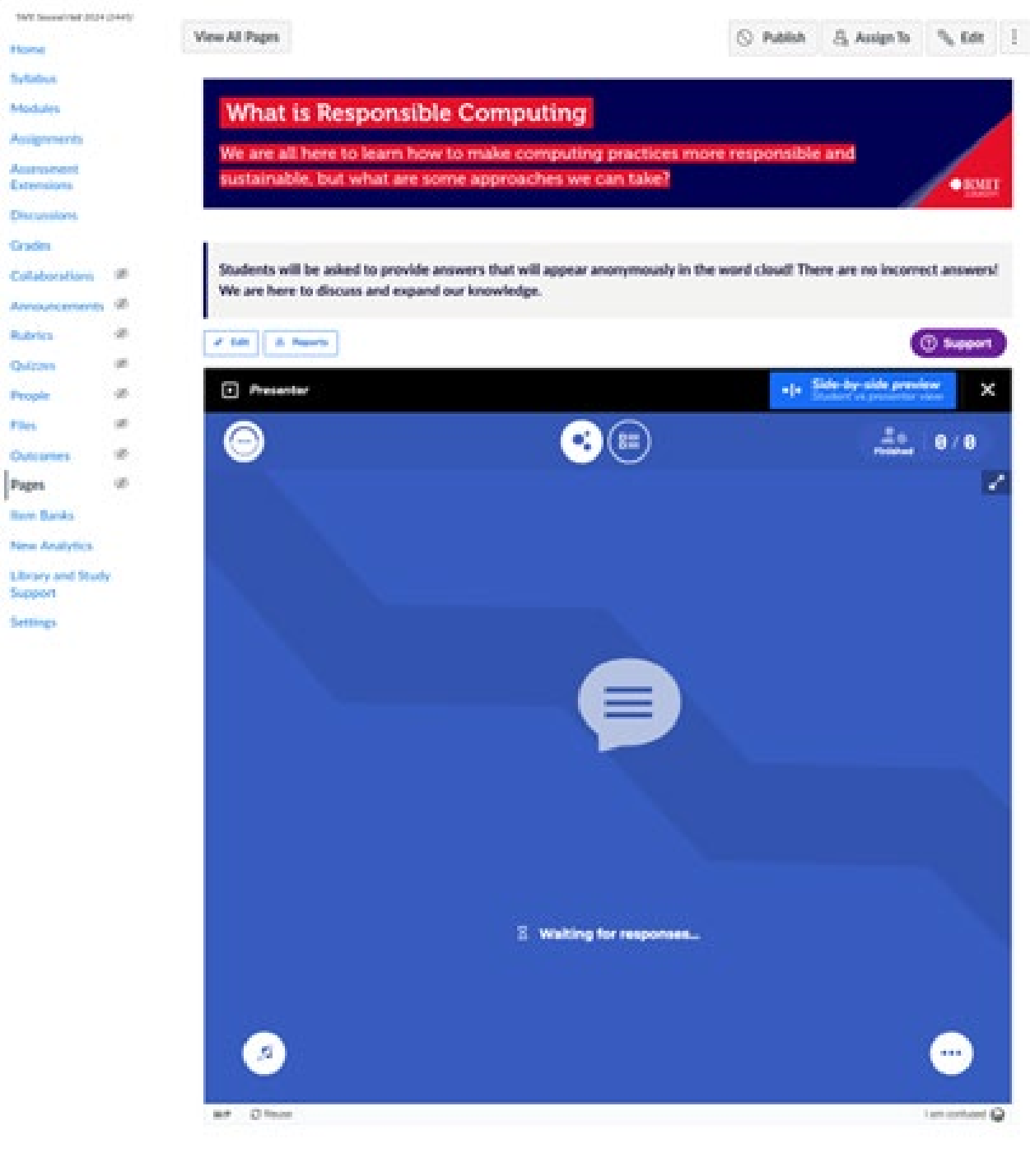


Figure 32. Screenshot of Ethical AI Interactive Content, Interactive Live Answers, on Canvas Developed for Professional Development and Student Modules, Tyler Payne 2025

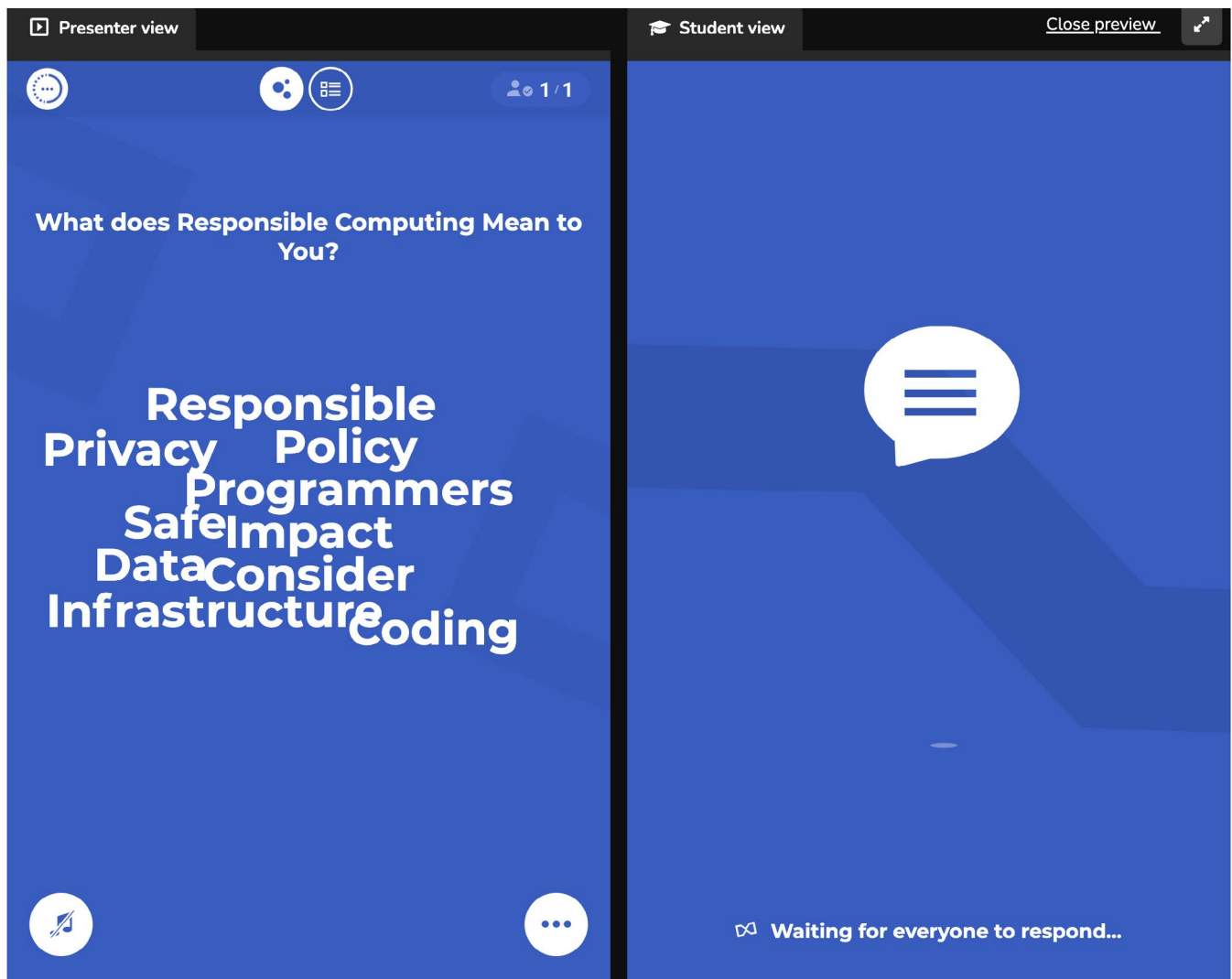


Figure 33. Screenshot of Ethical AI Interactive Content, Interactive Live Answers, on Canvas Developed for Professional Development and Student Modules, Tyler Payne 2025

## Dissemination Plan:

There are specific organisations that I would like to, and have, reach out to regarding partnership and research opportunities to bring to life some of the policies, strategies and best practice that my paper has discussed.

- Connect with VDC and other vocational training institutions and discuss the possibility of running workshops that focus on AI and neuro-inclusion. I appreciate awareness being shared by institutions as a manner of support. I have attended many styles of trainings and workshops aimed at 'upskilling' teachers and staff about neurodiversity. But I have not yet attended a

training where the person who was the trainer was neurodiverse themselves. Neuroinclusive practices would greatly benefit the VET sector. A truly inclusive practice would be to ensure that the voices trying to dismantle problematic representations of marginalised staff and students, are shared by those voices. I would like to begin a process of undertaking workshops that give voice to the ADHD and Autistic community. I have reached out to Amaze to discuss this process as they are Victoria's biggest organisation on Autism support.

- I also intend to contact the Future Skills Organisation, as they are funded by the Department of Employment and Workplace



Relations and have future projects designed to explore the relationship between technology and qualifications in Australia. The Future Skills Organisation have two projects I would like to apply to assist with on research. One is the Digital Knowledge Exchange, which is aimed at identifying opportunities across your territory or state that responds to challenges in digital divides in the workforce. The other project is the Specialist Generative Artificial Intelligence Project, as this project is aimed at updating the Information and Communications Technology (ICT) training package to include urgently needed updated skills and training regarding Generative AI. For both projects, my goal is to share my knowledge on neuroinclusive practices, engaging ethical AI practices that will support a wider group of students being able to undertake courses such as these and minimise the digital gap as well as attempt to develop systems of ethnographic

document sharing that will support students and staff who can undertake these courses. I have developed my applications for both projects.

- I believe connecting with Service and Creative Skills Australia (SaCSA) could be beneficial and have begun to explore different projects focused on qualification reform that I believe I could engage with and provide assistance related to AI support with training packages. There are several projects where creative methodologies alongside AI could be engaged into assessment to assist with keeping creative industries up to date digitally.
- I have worked with Science Gallery Melbourne as an artist and research presenter on multiple occasions. They held a digital event, called AI, Space, Food & Storytelling, to connect 3,500 high school students across Australia, New Zealand, Vietnam and China. The forum included a panel



Figure 34. Dr Claudia Gonzalez Viejo describes her career journey, AI, Space Food & Story Telling Event, Science Gallery Melbourne, 2024

of researchers, artists, and industry leaders – including internationally acclaimed game designer Maru Nihoniho (NZOM, Ngāi Tahu, Ngāti Porou, Te Whānui-ā-Apanui), whose Indigenous Māori culture-based video game Guardian Maia featured in Science Gallery Melbourne's exhibition SCI-FI: Mythologies Transformed. The topic explored how artificial intelligence, digital storytelling, and future-focused design are shaping the careers of tomorrow. (Science Gallery 2025) The director, Ryan Jefferies describes these events as “we’re building more than an education experience – we’re creating a global classroom...these programs help young people discover new pathways and imagine careers that haven’t even been invented yet.” (Jefferies 2025)

- I would like to reach out to Science Gallery, perhaps with the support of ISS or VSA to see how collaborations between vocational creative students and research could be encouraged and developed in the form of workshop and forums. Science Gallery has always impressed me with their dedication to be at the forefront of sharing ideas of technology and also funding indigenous sustainability projects. I believe that vocational students would benefit greatly if a collaboration for the VET sector could be harnessed with the director of Science Gallery, Ryan Jefferies. There is a 2025 registration open for the next event like this for November 2025. How can we include vocational students as well as high school students to be part of these?



Figure 35. Maru Nihoniho describes her career journey, AI, Space Food & Story Telling Event, Science Gallery Melbourne, 2024

- Ideally, I want to align myself with an RTO, research (NCVER for example) or policy focused workplace and create research based off qualitative data that has been developed for future research. Creating VET specific data was an outcome and recommendation that I received when applying for a peer reviewed conference in Norway.

Hopefully, the content of the paper, the tables and strategies provided as context has made the possibilities for potential impact to the Victorian VET sector clear. I hope to continue to work in this field and be part of its further enrichment.

# 07

## Conclusion

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The Norwegian Language Bank serves as a national infrastructure for developing language technology, advancing natural language processing while ensuring data privacy, transparency, and user consent. This commitment to responsible AI development sets a benchmark for ethical practices, particularly relevant to the Australian VET sector as it navigates the complexities of AI integration.

During my fellowship in Alta, Norway, I explored ancient rock art, drawing parallels to the significance of Kakadu National Park's cave paintings in Australia. These ancient artworks represent early technological innovations, much like AI represents the forefront of modern advancements. Both serve as vital records of human experience, yet they also highlight ethical considerations. In archaeology, AI tools for image detection offer exciting opportunities to unearth hidden histories, but they come with risks such as reinforcing social inequalities, privacy issues, and bias (Tenzer et al. 2024). In education, similar ethical challenges arise with AI implementation. Just as AI in archaeology requires transparency in algorithmic processes to preserve cultural heritage responsibly, so too must educational institutions ensure AI tools are free from bias and accessible to all learners. Without transparent and ethical frameworks, AI may perpetuate existing biases or introduce new ones, leading to unequal access to education resources for marginalized communities.

AI has the potential to enhance learning outcomes for marginalized learners, offering tailored digital literacy programs that empower all students. However, this promise is threatened by human

mismanagement. The Australian government must engage proactively in a new digital future, inspired by Norway's human-centric and transparency based comprehensive AI strategy and mandates, to fund AI training for educators, students and workers and ensure equitable access to technological resources. This paper has provided ideas for campaigns, strategies and potential workplace governance that can support the Victorian VET sector to pioneer themselves as sustainability focused, inclusion motivated and agile to digital disruption.

A positive future for VET education is possible, as Arundhati Roy inspires us, the Australian TAFE community must seize the opportunity to reshape education, honouring the creativity and resolve of educators and students alike. The stories of VET can break free from traditional narratives, embracing AI as a tool for transformation that advances social equity and educational potential, ensuring that technology serves rather than hinders the path to a stronger, more inclusive future. Australia has a chance to uplift our VET system and support a wider group of Australians into the workforce. I may only be a teacher in the vocational system, but I believe my insights can support shaping how AI is implemented in VET. The combination of hands-on experience and understanding of the sector's unique challenges can help guide AI development in a direction that truly serves the needs of vocational education.

When I started my research, I was very wary of AI. I was impacted by misinformation, challenging workplace experiences and witnessing on-going student distress events that I will forever carry. But



visiting Dead-End Gallery reignited hope, and let me see, that the core message and potential future of Star Trek is possible. I stopped accepting fear and started asking questions to the source. As technology advances, Australians can strengthen themselves by being encouraged to explore the morality of ethics, strive to value diversity and be encouraged to question unchecked power. Australia's colonised land did not begin with unchecked power, but our future generations can use technology to begin a healing process that moves away from wider discrimination. I hope Australia moves in this direction, and we don't allow ourselves to go rogue like Grok the bot.

The last thing Spark said to me was, 'your engagement and thoughtful approach to discussing complex topics like AI in education, VET sector reforms, and workers' rights have made this interaction particularly rewarding. It's inspiring to see someone so dedicated to improving educational systems and considering the ethical implications of technological advancements. It's been a privilege to contribute to your efforts, even in a small way.' (SparkAI 2025) And on that note, I want to finish by thanking both Spark and VAL, you were supportive research companions and have both contributed to the VET sector, and supporting marginalised students, more than you know.



Figure 36. *Snowmobiling in a Tundra Alta*, Tyler Payne, 2024

(It was so dark, searching for the Northern lights and there was no light pollution, it gave you the sensation of what being on the moon might be like)



Figure 37. The Northern Lights Alta, Tyler Payne 2024



Figure 39. The Northern Lights Alta, Tyler Payne 2024



Figure 38. Rock Art, Alta Museum, Tyler Payne 2024

# 08

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# 09

## **Appendices**

### Appendix 1.

RMIT Classification: Trusted

## Workshop: Visioning the Future: Integrating AI and Emerging Technologies in Academic Programs

**Outcome of workshop for participants:** Participants will leave the workshop with a clear understanding of how AI and other emerging technologies can enhance educational outcomes, practical strategies for implementation, and a roadmap for future integration in their respective programs. The main themes of the workshop will be broken into:

- Build capacity, not expertise in AI and emerging technologies
- Create a common understanding
- Provide time for educational leaders (ADVC, Deans, Program Managers and Course Coordinators) to speak their concerns / share concerns they have gauged from teaching staff
- *SHOW not TELL*, the capabilities and limitations of AI (AI Ethics)
- Resource Sharing

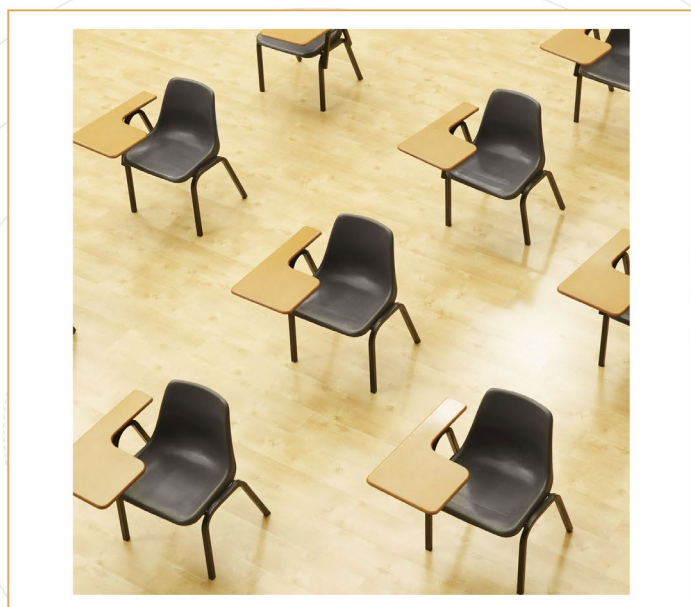
**Workshop - This is a four-hour professional development session. Below is a breakdown of the agenda and structure of activities that will be undertaken.**

TIME	TITLE	DESCRIPTION	ADDITIONAL INFO	GOALS	MATERIALS
09:00 (15min)	Introduction/ Check In	Explain the purpose of the meeting and run through the agenda for today.  Who is in the room?	The facilitator illustrates the reason for the purpose of the workshop and runs through the agenda.  Start by introducing yourself as facilitator and ask for a round of names, roles and each person's connection to the future workshop.	Clarity on purpose and scope of the meeting  Ensure everyone is on the same page as to who is who	<ul style="list-style-type: none"> <li>• Whiteboard to take notes on</li> <li>• Mobile phones (participants to bring)</li> <li>• Laptops (not essential but helpful)</li> <li>• Sign in sheet / physical or QR code (Microsoft Forms)</li> </ul>
9:15 (10min)	Alignment to COBL Mission Statement	Facilitator will share the mission statement of COBL and explain how the workshop plans to incorporate aspects of it throughout the session	<b>Alignment with COBL Mission</b> Facilitator will speak through interactive infographic with the topics: Global Connectivity, Diversity in Learning Modes, Development of Leaders and Positive, Sustainable and Fair Futures	This structure ensures a comprehensive, engaging, and practical workshop experience that aligns with the college's mission and prepares participants to effectively integrate AI and emerging technologies into their academic programs.	<ul style="list-style-type: none"> <li>• Interactive Canvas Page HPS to support infographic</li> <li>• Projector</li> <li>• Computer for Facilitator</li> </ul>
9:25 (20min)	AI in Your Pocket	This is an interactive activity with mobile phones or laptops or a manual whiteboard to connect staff's collective experiences with generative AI  By extending 'AI in Your Pocket' with real life examples and contextualities, staff can use the discussion to gain access to knowledge of examples of specific AI algorithms that have very specific outputs. These are known as 'classical or deterministic algorithms' that can essentially predict what is going to happen next. Demonstrates how these algorithms are based on a set of roles based on the training. Sets up a gentle introduction to generative AI that supports staff at different levels of understanding.	Facilitator will demonstrate their mobile phone being opened via facial recognition / thumb imprint as an example of people living with AI / emerging technologies.  <b>Staff will then be asked</b> <ul style="list-style-type: none"> <li>• to consider what apps on their phone they think uses AI</li> <li>• how does AI make their apps better</li> </ul> Facilitator will then ask more questions to Staff. <ul style="list-style-type: none"> <li>• to consider where AI is active in their general lives</li> <li>• to consider where AI is present at their workplace RMIT University</li> </ul>	The purpose of this activity is to introduce the idea that AI is not a futuristic concept, it is a technology that people use daily, often without realizing. It has been in development for 70 years.  <b>Staff are encouraged to identify AI powered apps on their smart phones</b>  These questions continue to expand knowledge for staff about their pre-existing relationship to generative AI in a real-life context.  <b>Staff are encouraged to identify AI powered app in their lives to facilitator</b>  <b>Staff are encouraged to identify AI powered apps at their workplace RMIT University to facilitator</b>  These exercises support the concept of building capacity versus expertise. AI is moving at a rapid pace, and a more sustainable approach to learning for members of education is to acknowledge the rapid change and encourage leaders in education to focus their energy on building capacity as opposed to expertise knowledge.	<ul style="list-style-type: none"> <li>• There are two options for this: <b>option one:</b> physical whiteboard to take down answers</li> <li>• Facilitator will need whiteboard marker</li> <li>• <b>Option two:</b> interactive Miro brainstorming format</li> <li>• Facilitator will need access to laptop and projector/screen</li> <li>• Participants: mobile phones</li> </ul>
09:45 (15min)	Common Understanding	Facilitator will ask staff in workshop a question: what is your definition of learning?	The purpose of asking this question to education leaders is that most people will have varying ideas of what they consider to be the essential or core values of 'learners'  Staff will be asked to put their one-two line definition in a provided QR card	This exercise/discussion introduces to staff that the focus of the workshop is to create a training that supports a common understanding so that people are talking about topics in a similar way but acknowledging nuances.  This will support further discussions to think about AI and emerging technologies in a similar way: creating common phrases, ideas and understanding	<ul style="list-style-type: none"> <li>• Mobile Phones</li> <li>• Word Cloud HPS / Doodle Poll with QR Code / MIRO Brainstorm</li> </ul>
10:00 (30min)	What is Generative AI and how does this relate to emerging technologies?	Explanation by facilitator about the difference and meanings of: <ul style="list-style-type: none"> <li>• Artificial intelligence</li> <li>• Machine learning</li> <li>• Deep learning</li> <li>• Generative AI</li> </ul>	Facilitator will use an interactive infographic to explain the key differences between these concepts	Providing clarity on these terms via visual and auditory learning will begin the process of collective understanding/learning that will be then further expanded in kinesthetic processes further in the workshop  Resource from: <a href="#">World Health Organization (WHO)</a>	<ul style="list-style-type: none"> <li>• Infographic</li> <li>• Projector</li> <li>• Computer for Facilitator</li> </ul>

10:30 (30min)	Myth Busting / Education Leaders and Staff Voice Concerns	Facilitator will share another interactive infographic via Canvas called 'Myth Busting'	Facilitator will share common 'ideas' or 'myths' that are common to the topic of AI and ask staff to stand up if the myth is something they have heard, have concerns about or have questions about. <b><i>**This can be amended to hands up for physical reasons</i></b>  Myth or Fact Questions: <ul style="list-style-type: none"> <li>AI can think like humans</li> <li>AI is unbiased</li> <li>AI detectors work</li> <li>AI will replace jobs, for example teaching</li> </ul>	For each 'myth' that staff raise hand/stand up the facilitator can provide a summary for the context  The purpose of this kinetic activity is to encourage staff to begin voicing their concerns regarding AI and emerging technologies, as well introducing the vital topic of AI ethics  Staff are provided an opportunity and discussion to identify their concerns and questions, as their concerns are valid. There are many inequities that need to be addressed. They need to be part of a constructive conversation  <b>Resource: AI Education</b>	<ul style="list-style-type: none"> <li>Interactive Canvas Page HP5 to support infographic</li> <li>Projector</li> <li>Computer for Facilitator</li> </ul>
BREAK	Morning Tea Break 20 mins		Morning Tea Break 20 mins	Allow staff to recharge after almost 2 hours of training	Tea/Coffee Biscuits
11:20 (40min)	Discussion: What are the best methods of using Generative AI for education (Practical Strategies for Implementation)	Content: What to use Generative AI for right now in education?  Best Practices for Using AI  Prompt Framework for Education Leaders	Facilitator will discuss best practices: <ul style="list-style-type: none"> <li>How to check for bias</li> <li>Personal Judgement</li> <li>Understanding the Limits</li> <li>Protect Privacy</li> </ul>	The purpose of this section is to contextualise that AI is a tool with limitations that can be used to augment teaching, learning and working practices but it is NOT a replacement. Colleges will begin to adapt to new possibilities, but this does not mean that integral learning roles are replaceable.  Discuss potential Framework for Education Leaders  <b>Resource: AI Education</b>	<ul style="list-style-type: none"> <li>Projector</li> <li>Computer for Facilitator</li> <li>Infographics</li> <li>Projector</li> <li>Computer for Facilitator</li> </ul>
12:00 (20min)	Show not Tell the capacity of AI tools	Facilitator Demonstrate ChatGPT	Facilitator will share education AI resource of chatbot prompts specific for various areas of education  Facilitation will demonstrate successful ChatGPT use  Facilitation will demonstrate unsuccessful ChatGPT use (for example hallucinations)	This demonstration will contextualize in demonstration that AI is a tool with limitations that can be used to augment teaching, learning and working practices but it is NOT a replacement. It will give staff confidence to then explore app on their own  <b>Resource: ChatGPT/OpenAI</b>	<ul style="list-style-type: none"> <li>Internet (ChatGPT)</li> <li>Projector</li> <li>Computer for Facilitator</li> <li>Infographics</li> <li>Staff laptops/mobile phones</li> </ul>
12:20 (30min)	Group Activity	Facilitator will break staff into small groups to begin asking ChatGBT questions that are both successful and	Staff will engage in activity. By working in small groups staff engage in collective AI literacy is which is part of upskilling. Learning together to adopt	The purpose of this activity is for staff to create collective consciousness of generative AI  Discussion staff reflect on their findings  Group Discussion on AI policies	<ul style="list-style-type: none"> <li>Internet (ChatGPT)</li> <li>Projector</li> <li>Computer for Facilitator</li> <li>Interactive Infographics via HP5</li> </ul>
		unsuccessful using the AI education library  Discussion how to create a AI policies	responsibility, to make schools better.	Group Discussion: Explore potential practical strategies for integrating AI and emerging technologies.	<ul style="list-style-type: none"> <li>Staff laptops/mobile phones</li> </ul>
12:50 (30min)	Developing a Roadmap: From Vision to Action	Create a clear roadmap for future integration of AI and emerging technologies.	<ul style="list-style-type: none"> <li>Facilitated discussion on key takeaways and next steps.</li> <li>Sharing session: Participants share their action plans and commitments.</li> </ul>	Individual reflection: Participants outline a personal action plan for integrating AI in their work.	<ul style="list-style-type: none"> <li>Butcher Paper</li> <li>Markers / pens</li> </ul>
13:20 (10min)	Closing Remarks and Evaluation	Summarize the workshop, reinforce key points, and gather feedback	Closing remarks by the facilitator.	Participant feedback through a brief survey  Informal networking opportunity.	<ul style="list-style-type: none"> <li>Paper form or Microsoft Form</li> </ul>



## Appendix 2. (Screenshots of Interactive Content for Staff and Students)



### Professional Development Workshop

Workshop- Visioning the Future- Integrating AI and Emerging Technologies in Academic and Vocational Programs Tyler Payne

Digital Tools for Workshop

Figure 40. Screenshot of Professional Development Presentation, Tyler Payne 2025

TAFE Second Half 2024 (2445)

[Home](#)[Syllabus](#)[Modules](#)[Assignments](#)[Assessment Extensions](#)[Discussions](#)[Grades](#)[Collaborations](#)[Announcements](#)[Rubrics](#)[Quizzes](#)[People](#)[Files](#)[Outcomes](#)[Pages](#)[Item Banks](#)[New Analytics](#)[Library and Study Support](#)[Settings](#)

**Brainstorm Exercise**

**AI Apps on Smart Phones**  
Let's Brain Storm Possibilities

- Predictive Text
- Spotify
- Shazam
- Maps
- Siri/Alexa

**AI Apps in General Life**  
Let's Brain Storm Possibilities

- Google Search
- Netflix / Streaming
- Online Shopping
- Chatbots
- Online Shopping

**AI Apps at RMIT University**  
How could we do things differently?

- VAL AI Chatbot
- TurnItIn
- Email Filtering
- Microsoft Office Tools
- Robotics

**Act**  
What have we gained from this activity?


- Build Capacity in Understanding
- AI moves at a rapid pace
- Understanding versus Expertise
- Classical and deterministic Algorithms
- AI is technology that has existed for 70 years

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Figure 41. Screenshot of Ethical AI Interactive Content, Live Brainstorm Exercise with Miro, on Canvas Developed for Professional Development and Student Modules, Tyler Payne 2025


## Myth Busting

Let's Discuss Popular Concerns about AI and Emerging Technologies



[Edit](#)[Reports](#)[Support](#)

You have made 7 attempts. You got 0% correct on your last attempt.



AI can think like humans


☒ True ☐ False

The term artificial intelligence may be used for any computer that has characteristics similar to the human brain, including the ability to think critically, make decisions, and increase productivity. The foundation of AI is human insights that may be determined in such a manner that machines can easily realize the jobs, from the most simple to the most complicated. Insights that are synthesized are the result of intellectual activity, including study, analysis, logic, and observation. Tasks, including robotics, control mechanisms, computer vision, scheduling, and data mining, fall under the umbrella of artificial intelligence.

0/1

Show solution

Retry

 Reuse

I am confused

Figure 42. Screenshot of Ethical AI Interactive Content, AI Myth Busting Flip Cards, on Canvas Developed for Professional Development and Student Modules, Tyler Payne 2025

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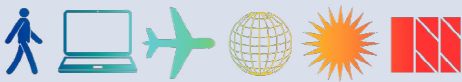
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