

Submission
No 23

INQUIRY INTO ARTIFICIAL INTELLIGENCE (AI) IN NEW SOUTH WALES

Organisation: Australian Education Union New South Wales Teachers
Federation Branch

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AUSTRALIAN EDUCATION UNION
NEW SOUTH WALES TEACHERS FEDERATION
BRANCH

SUBMISSION TO

PORTFOLIO COMMITTEE NO. 1 – PREMIER AND FINANCE

INQUIRY INTO

ARTIFICIAL INTELLIGENCE (AI) IN NEW SOUTH WALES

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1. INTRODUCTION

The Australian Education Union NSW Teachers Federation Branch (the Federation) presents this submission on behalf of our members working across NSW, in public schools and preschools, non-school based teaching roles, TAFE colleges and Corrective Services. Counting approximately 65,000 practising teachers and student teachers as members, we are the voice of the teaching profession. We welcome the opportunity to make this submission to the Portfolio Committee No. 1 – Premier and Finance inquiry into artificial intelligence (AI) in New South Wales.

2. ETHICAL CONSIDERATIONS – THE CASE FOR ROBUST PLANNING AND STRONG REGULATION

AI undoubtedly presents opportunities for public schools and other education settings in NSW, and society more broadly. However, there is an urgent need to face the risks and challenges of AI, to ensure it is implemented in a safe, informed and equitable manner which respects the rights of students, teachers and parents. The Federation agrees that “failure to plan and to regulate is simply not an option”.¹ Without effective planning and regulation, the use and expansion of AI technologies may entail damaging consequences for education, the economy and society.

The development and use of AI technologies is already impacting and will continue to impact students, the teaching profession and school communities. Drawing upon a 2023 study and report,² the Australian Education Union (AEU) has highlighted the following dangers:

In Australia, the majority of secondary school students are already using AI tools, largely without understanding the safety concerns or validity of the information provided. Anna Denejkina’s 2023 exploratory study and report, ‘Young People’s Perception and Use of Generative AI’ produced by YouthInsight surveyed young people 14 to 26 across Australia. It found that 65 per cent of those surveyed had used a generative AI tool and that young people were using these tools to support their learning. Secondary school students predominantly used AI for school work or study (59 per cent), experimenting or play without a specific goal (59 per cent), for school assignments (42 per cent), self-learning (39 per cent), information searchers (37 per cent) and content generation (33 per cent).

Concerningly, 42 per cent of secondary school students do not verify the accuracy of the information generated by AI tools, and only 46 per cent of men and 32 per cent of women were somewhat or confident in their ability to tell when content is AI generated. Only 11 per cent of women and 19 per cent of men thought that use of AI did not need to be regulated, with 70 per cent of women in favour of regulation. These statistics demonstrate the need for students to develop critical digital literacy skills and key competencies in AI and indicate that left unregulated, women may not feel safe using AI tools.³

Given the accelerating pace of change in relation to AI and machine learning, underpinned by the vast quantities of data now collected by commercial entities motivated by financial profit, there are serious dangers looming to privacy, human rights and those already

¹ NSW Parliament, Legislative Council, Portfolio Committee No.1 – Premier and Finance, Media release, “Inquiry into Artificial Intelligence (AI) in New South Wales”, 28 June 2023.

² Denejkina, A. (2023). Young People’s Perception and Use of Generative AI, YouthInsight, Student Edge.

³ Australian Education Union, *Submission to the House Standing Committee on Employment, Education and Training Inquiry into the use of Generative Artificial Intelligence in the Australian Education System* (14 July 2023), p.4.

experiencing disadvantage and at risk of being left behind. Further, since the evidence base for the potential impacts of AI will continue to evolve, governments and the public education system must be alert and responsive to important new developments.

On the other hand, when effectively planned and regulated – crucially, through deep engagement with the teaching profession and teacher unions – AI technologies may have the potential to support teaching and learning processes, reduce unnecessary administrative work, and facilitate effective communication between schools, other education institutions and workplaces, teachers, education support staff, students, parents and caregivers.

It is essential that AI, including generative AI in NSW educational settings, is implemented in genuinely responsible and ethical ways that demonstrably benefit students, teachers, schools, and society.

Key considerations must include:

- Human agency and oversight;
- Deep engagement with the teaching profession and teachers' unions;
- Respect for the professional judgment of teachers and the human and social relational nature of teaching and learning;
- Technical robustness and safety;
- Privacy and data governance, students' and parents' rights, and transparency regarding the use of data;
- Equitable access to technology, non-discrimination, fairness and social inclusion, including robust resourcing of TAFE colleges and the public school system;
- Ensuring diverse perspectives and needs are not marginalised through the application of AI technologies;
- Dangers inherent in data-driven algorithms and AI technologies, such as biases (for example, racial and gender biases), and indeed, the significant risk of discrimination and amplification of existing structural disadvantages;
- Societal and environmental wellbeing, including respect for human rights and democracy; and
- Government responsibility and accountability.

The context within which AI is developed and deployed in education settings cannot be ignored. In NSW, the staffing shortages across public schools, driven in great part by teachers' unsustainable workloads, are now widely acknowledged. A rushed and poorly regulated implementation of AI, which pays insufficient attention to the voices of teachers and the Federation, will be counterproductive and add to existing challenges facing the profession.

Several further aspects must be considered, managed, and addressed before the implementation of new AI technologies can occur in a safe and educationally sound way. These include:

- The safety and health of teachers and students;
- Teacher capability and preparedness, including access to professional development relevant to AI;
- Unsustainable administrative workloads, the rapid pace of change, teacher fatigue and burnout, and intersection of these factors with policies and procedures;
- The impact of AI on teacher workload and school structures and processes;
- Perceptions of AI held by students and parents, communities and the media; and
- Ethical and legal challenges such as misuse of data, data breaches, and integrity of student assessment.

To manage and avoid the manifold risks associated with AI in NSW, and seize whatever genuine opportunities might be identified, its implementation in public schools and other public education settings, if it is to occur, must be carefully planned and regulated, including through deep engagement with the teaching profession and the Federation.

3. THE DANGERS OF EDTECH

The implementation of AI must not be driven by the needs of commercial entities such as edu-businesses, which are primarily motivated by the potential financial gains that can be realised through access to student and teacher data. The experience of digital and remote learning during the COVID-19 pandemic is suggestive of how edu-businesses might utilise AI in education to gain access to student data, with limited regard for educational appropriateness or pedagogy, or impacts on teaching and learning, assessment and reporting, student wellbeing, and student privacy, and with insufficient transparency as to the collection and use of sensitive data and the operations and nature of algorithms.

For example, an investigation by Human Rights Watch into remote learning during the COVID-19 lockdowns analysed 164 educational apps and websites, and found that 89% of EdTech products used globally could put children's privacy at risk and that several products used in Australia were found sharing children's data with advertisers. Despite privacy obligations, products requested access to students' contacts and locations and monitored keystrokes. In Australia it was alleged that a number of companies did not meet promises made in their privacy statements.⁴

It would be prudent for the NSW Government to keep in mind the findings of an important UNESCO report released this year, addressing technology in education:

There was little robust research to demonstrate digital technology inherently added value to education, Unesco said in its 2023 Global Education Monitor report. Much of the evidence was funded by private education companies trying to sell digital learning products. Their growing influence on education policy around the world was "a cause for concern", it added.⁵

4. RESPECTING AND SUPPORTING THE TEACHING PROFESSION

The implementation of AI in the NSW public education system cannot be imposed. Teachers must be adequately prepared including through provision of high-quality professional learning (developed and delivered by teachers), and the introduction of technologies cannot bypass deep and ongoing engagement with the profession and its union.

Full and transparent debates must occur, including about the evidence base for AI in education (including as it evolves), the purpose and intent of AI technologies, their efficacy and pedagogical value for students, and the professional and industrial implications for teachers. Teachers must learn *about* AI, before any teaching *about* and/or *with* AI occurs.

⁴ C Duffy and J Stewart, "Investigation reveals tracking by EdTech of millions of Australian school students during COVID lockdowns" (ABC News), 25 May 2022.

⁵ Butler, P. and Farah, H., "'Put learners first': Unesco calls for global ban on smartphones in schools" (The Guardian), 26 July 2023.

This is essential if the NSW Government, schools, teachers, students and parents are to have a thorough understanding of technological and policy developments, harness any benefits and mitigate or eliminate risks. Critically, it will also provide opportunities for opposing points of view to be heard and a broad range of evidence to be considered. All use of AI must be subject to teacher professional judgment, sound educational principles, and genuinely evidence-based education research which is sensitive to differences in school, sector, learning area and individual student contexts. Robust debate also means that any adoption of AI for teaching and learning will likely be more successful and involve better outcomes for students, than if it was simply imposed.

Further, if they are to effectively use AI in their teaching practice, teachers require opportunities to develop a strong understanding of the various systems, tools and applications available. This must include specific guidance and training on the ethical use of AI tools. They must be provided with resourcing, including time to collaborate with each other, plan for AI and engage in professional learning, and the additional funding required to enable genuine and equitable access to collaborative planning and other learning opportunities. Policies will need to be developed, and knowledge built and shared collaboratively within the profession. With systemic support, practical resources will need to be designed by teachers, as the experts in pedagogy, for teachers.

A shortcut approach that leaves schools and teachers with, for example, a set of abstract ethical principles but with no meaningful capacity to act on them, will not serve student outcomes, promote genuinely ethical use of AI, or address the significant dangers posed by AI.

5. TEACHING, LEARNING AND HUMAN RELATIONSHIPS MUST REMAIN THE FOCUS

Teaching and learning are inherently human and social practices. Teachers are innovative, adaptable and future focused professionals guided by their students' learning needs and their sense of dignity and pride in their work. They nurture the inherently social and human relationships they share with their colleagues and students, including the exchange of knowledge. Without this human dimension, effective teaching and learning cannot occur. If AI in education is implemented without input from the teaching profession and without adherence to human and social values, significant harm to communities, workers, students and Australian society is inevitable.

It is imperative that humans – especially workers – direct the use of AI and always remain in control. Human thinking must be central to the design, monitoring and further development of AI tools. Machines cannot think for humans, and for teachers, their professional judgment and independence must continue to drive all stages of the teaching and learning cycle. AI must be recognised for what it is: a *tool* to be used in accordance with a teachers' professional judgment, for the purpose of enhancing educational outcomes. This is especially the case given that "the claims which EdTech products make for enhancing learning remain speculative with little evidence for consistent improvement across educational institutions, individuals, and the learning process."⁶

Fully-qualified teachers, as experts, must therefore retain decision-making power over questions of pedagogy and andragogy, curriculum implementation, teaching strategies and

⁶ Velislava Hillman, "Algorithmic Systems Claim Education and The (Re)Production of Education", in P Jandrić et al. (eds.), *Constructing Postdigital Research* (Springer, Cham, 2023), pp.172.

resources, assessment and reporting, and analysis of student learning data and outcomes. They must retain scope to use their professional judgment, specialist expertise, and knowledge of students and how they learn, to determine *if, when, and how* digital technologies are used.

This extends to the right to critically evaluate, and where necessary, challenge the development, use and outputs of AI tools in education, to determine whether they are fit for purpose and are truly benefiting students. It is essential that all AI processes, purposes, outcomes, and decisions remain contestable by humans. AI or algorithmic outcomes and decisions are not neutral or objective. Incorrect assumptions about data neutrality carry the risk that existing biases and structural disadvantages will be reinforced and encoded, through AI's inherent reliance on past patterns ie datasets arising from an already inequitable society, for its algorithmic decision-making. Such outcomes raise serious concerns around equity, social inclusion and disadvantage which are addressed further below.

It is imperative that teachers must be able to: intervene when AI products, outputs or decisions are inaccurate, wrong or otherwise problematic; provide their own independent professional interpretations and analyses; and play a leading role in contributing to decision-making.

Further, we must value the importance of “uniquely human skills and capabilities in the face of automation and robotisation.”⁷ In particular, education must:

... support students in developing soft skills and non-cognitive skills, such as creativity, communication, curiosity, civic skills, and emotional intelligence. Education in a globalised and digital world must foster values of cooperation, intercultural awareness, democracy and a sense of responsibility.⁸

Caution should be exercised when thinking about the nature of intelligence and AI:

*AI development tends to be predicated around a narrow information-processing model of mind that sees intelligence as something that is brain-based, disembodied, and therefore readily relocated to software and hardware. However, this discounts a wide range of human intelligences – such as embodied cognition, common-sense, emotions, and irrational thoughts that are entwined with the complexities of people’s social lives... we need to remain mindful of risks associated with designing AI systems in ways that make users believe they are encountering real, independent intelligence in a program; when in reality AI systems can do no more than fabricate displays of narrow facets of human behaviour.*⁹

Many fundamentally human qualities and ways of learning, as well as the creativity of teachers and their professional capacity to meet the unique learning needs of their students based on their knowledge of them and how they learn, are potentially at risk of being undermined by AI. This is particularly the case where such technologies supplant human reasoning and relationships.

6. PRIVACY, DATA SECURITY, OWNERSHIP AND SUSTAINABILITY

The privacy and security of student and teacher data is paramount in relation to any technologies rolled out in schools. Transparency is key, both for commercial entities who

⁷ Education International, “Resolution on: the Future of the Teaching Profession” (23 September 2019).

⁸ Ibid.

⁹ N Selwyn, “The future of AI and education: Some cautionary notes”, *European Journal of Education*, 57, 620-631, p.623.

own AI products, and for governments and education systems that implement AI applications for learning. Both collect and use data. Teachers, students and parents must understand what data is being collected and how this data is being used, including via which applications or AI tools. They must understand the nature and operations of these tools and associated algorithms, including how the AI system makes decisions. They have a fundamental right to know if and when they are engaging with AI systems, and the right to challenge any outcomes or decisions based on these systems.

The uses to which student and teacher data may be put is a matter of the public interest. Edu-businesses have incentives to collect, analyse and use such data for purposes beyond the classroom and student learning. This includes commercial purposes such as advertising and training their AI models to improve their products. Appropriate privacy processes and security measures are required to safeguard data, including potentially sensitive and private information. This may necessitate restricting the sharing of student inputs, or restricting the purposes for which data may be collected or used. The NSW Government owes a moral duty to the students of NSW to ensure that their privacy is protected and that they are not exploited through the data collection and usage practices of educational technology companies.

The ethical and legal dangers are many. In addition to the Human Rights Watch investigation referenced above, academics have sounded the alarm about student data, privacy and autonomy. Students are vulnerable, having little agency over data extraction and use on a personal level, as in a classroom setting they have little or no choice but to sign into educational technologies which track their behaviour. Digital applications for learning can generate large quantities of data which are then held in digital systems that schools and students cannot access, raising questions about what the data will be used for now and into the future. Educational technologies can already produce continuous algorithmic profiling, predict and modify user behaviour without the user's knowledge and awareness, and even conduct experiments without user consent or awareness. Finally, owing to the continuously changing terms and types of use of digital learning applications, other forms of data could be collected, such as keystrokes, which could be used for purposes outside of student learning.¹⁰

As the AEU has stated:

*... with AI being a two-way technology largely controlled by a handful of private enterprises, namely Google, Microsoft, IBM, Pearson, and Amazon, it is essential all governments ensure that the privacy and security of students is the key consideration in use. Regulation and transparency on how student data will be collected, stored, protected, and used is required.*¹¹

Teacher data must also be secure. The NSW Government, through its Department of Education, must legally protect teachers from any deliberate or accidental misuse of data by others.

As the AEU has also noted, the way that AI and algorithms broadly source content from across the internet, as well as the fact that content creators are generally unknown in this context, raises pertinent questions around ownership. Essentially, much remains unclear, insofar as the copyright ownership and status of material created by AI is concerned.¹² In

¹⁰ Velislava Hillman, "Algorithmic Systems Claim Education and The (Re)Production of Education", in P Jandrić et al. (eds.), *Constructing Postdigital Research* (Springer, Cham, 2023), pp.169-70.

¹¹ AEU, *Submission to the House Standing Committee on Employment, Education and Training Inquiry into the use of Generative Artificial Intelligence in the Australian Education System* (14 July 2023), p.3.

¹² Ibid.

this respect, the intellectual and emotional work of teachers, students and the public education system requires attention. This would include the teaching and learning resources and other information, generated and held within government and public systems where AI-based learning tools may be used (and trained, using this same public data). Steps must be taken to ensure that government resources and public information serve the public interest, not private financial interests.

To ensure the integrity of data, protect privacy, and protect the public interest, education systems and governments must ultimately be accountable for privacy and security matters. This will necessitate appropriate policy-making, regulation and provision of information and resources to students, teachers and parents.

7. EQUITY, SOCIAL INCLUSION AND ACCESS

Information and communication technology (ICT) is an important part of the provision of quality public education for all. However, access to ICT technologies must be on an equitable and socially inclusive basis. Multiple intersecting forms of disadvantage, exacerbated by disparities in resourcing between public and private education systems, continue to be a structural barrier for many students (and teachers) in accessing ICT on an equitable basis and deriving the full benefits of digital learning tools.

If equity is not at the forefront of the implementation of AI learning tools, there is a significant risk that the students with the most complex learning needs will be left even further behind. The following is one of the key questions asked by UNESCO in its 2023 Global Education Monitoring Report titled “Technology in Education: A Tool on Whose Terms?”:

Is this use of education technology leaving learners behind? Although technology use can enable access to the curriculum for some students and accelerate some learning outcomes, digitalization of education poses a risk of benefiting already privileged learners and further marginalizing others, thus increasing learning inequality.¹³

Public schools will require appropriate funding for ICT infrastructure, including reliable broadband internet access, and advanced digital literacy training for teachers and students, as basic preconditions for the successful implementation of AI for learning. It is imperative, with their diverse contexts and learning needs, that *all* students’ needs are met.

A digital equity audit should therefore be undertaken, to determine the extent and impact of digital inequality on students across various educational settings. In the absence of the above measures, the digital divide, as it relates to both access to ICT and understanding of AI tools, will only be deepened.

One of the biggest risks of AI in education is that students who already experience disadvantage risk it being further entrenched, encoded and amplified. This is due, in great part, to the risk of discriminatory outcomes occurring as a result of the reliance of AI algorithms on data, ie past patterns, to make future decisions.

There is already substantial evidence of AI’s potential to cause social harm and contribute to “engineered inequality” in educational contexts, as demonstrated through numerous examples of minority groups being systematically disadvantaged when “AI models amplify discriminations baked into their training data”. This has resulted in students with non-native accents being judged as cheating on tests, higher automated grades being granted to students who fit the profile of those historically more likely to be awarded higher grades, eye-

¹³ UNESCO, Global Education Monitoring Report Summary, Technology in Education: A Tool on Whose Terms? (2023).

tracking data “that presumes a steady gaze” being used to indicate engagement (advantaging those students who are able-bodied and neuro-typical), and racist outcomes in relation to facial recognition technologies.¹⁴

AI can also lead to the potential marginalisation of diverse perspectives, raising questions of data and its relationship to digital sovereignty. As the AEU has cautioned:

*... most AI training has occurred from a singular dominant cultural perspective and currently does not adequately represent broader society, and that applications such as ChatGPT’s data source is not always current and is sourced outside of Australia, and in particular does not consider Aboriginal and Torres Strait Islander data sovereignty.*¹⁵

Problems such as algorithmic bias and the marginalising of diverse perspectives have been well-documented in the literature on AI. As stated by the AEU:

*The lack of diversity across all aspects of AI – research, development, tools design, information and content design and learning – is of enormous concern considering the trust that young people are putting into AI generated information. Considering AI generates based on popular or dominant thinking, the risk for perpetuating stereotypes, single perspective and ultimately misinformation remains unacceptably high, especially taking into consideration perspectives on gender, non-Anglo cultures, First Nations cultures, non-binary and queerness, disability, people living outside urban centres, as well as intersectionality within underrepresented groups. Currently little is being actioned to change this status quo.*¹⁶

The risks of structural bias tied to AI are also connected to the digital divide in digital and STEM skills, including in relation to teachers and other workers. For example, in relation to gender bias,

*Past research has underscored the gender biases within AI algorithms that reinforce gender stereotypes and potentially perpetuate gender inequities and discrimination against women. Gender biases in AI manifest either during the algorithm’s development, the training of datasets, or via AI-generated decision-making. Further, structural and gender imbalances in the AI workforce and the gender divide in digital and STEM skills have direct implications for the design and implementation of AI applications.*¹⁷

Ultimately, use of AI in schools and broader educational settings must align with the goals of the *Alice Springs (Mparntwe) Education Declaration*, one of which is promoting equity and excellence in education. AI, to the extent that it used, must support and supplement teachers in their work so that every student, regardless of their circumstances and specific learning needs, is able to achieve their potential. This will also require robust support so that every teacher has the understanding and skills necessary to successfully use AI for teaching and learning. It will also require careful planning, regulation and evaluation to ensure that systemic disadvantages are not being reinforced through algorithmic outcomes and decisions.

¹⁴ N Selwyn, “The future of AI and education: Some cautionary notes”, *European Journal of Education*, 57, 620-631, pp.623-24.

¹⁵ AEU, *Submission to the House Standing Committee on Employment, Education and Training Inquiry into the use of Generative Artificial Intelligence in the Australian Education System* (14 July 2023), p.3.

¹⁶ *Ibid*, p.4.

¹⁷ Manasi, A; Panchanadeswaran, S; Sours, E; Ju Lee, S. (2022). *Mirroring the bias: gender and artificial intelligence*, *Gender, Technology and Development*, 26:3, 295-305, quoted in *ibid*, p.5.

8. HUMAN RIGHTS AND DEMOCRATIC INSTITUTIONS AND PROCESSES

AI could have harmful impacts on human rights, democracy, and civil society if left unregulated. A technology of such broad scope and potential must be deeply understood and carefully regulated to ensure policy development and democratic decision-making remain in the hands of human actors, and are not inappropriately influenced or driven by digital tools or algorithms. The risk of hardwiring and encoding existing injustices and structural disadvantages through AI, already discussed above, is one significant example of how human rights can be undermined. It is critical that all data and assumptions about data are interrogated and critically analysed by human beings when using AI.

The special role of public education in this respect must be acknowledged and understood by policymakers. Not only do public schools educate the majority of the most disadvantaged students, who must be protected from algorithmic biases and discriminatory outcomes, but a high-quality public education system is a fundamental public good which forms the foundation of a truly democratic and fair society where human wellbeing can flourish. The use of AI in schools and other education settings must therefore align with another goal of the *Alice Springs (Mparntwe) Education Declaration*: enabling all young Australians to become confident and creative individuals, successful lifelong learners, and active and informed members of the community. It is vital that future generations understand that AI, like any other digital technology, is simply a tool and cannot replace human beings' own creativity, emotional intelligence and critical thinking.

9. SYSTEM RESPONSIBILITIES

It would be dangerous to leave the implementation of AI in schools and other education settings to the operations of markets and private interests. AI must be systemically regulated, monitored and evaluated, on an ongoing basis, and education systems and governments must be accountable for outcomes and decisions, for eliminating and managing risks, and for preventing private for-profit operators from inappropriately influencing education, teaching and learning.

Without sufficient and effective regulation, commercial interests, motivated by profit rather than the educational, psychological and social outcomes of students, will continue to make direct approaches to schools in relation to digital technologies, including AI. Such practices must be avoided and prohibited, and this can only be achieved through scrutiny by education systems and government. This is necessary to ensure that all who use, or are considering using, these products are protected. Further, it would be untenable to simply assume that teachers, support staff, school leaders and schools possess the technical expertise, time, and resources to manage these risks on their own.

The management of providers of AI technology, and the tools used in schools, should be centralised by education systems to ensure that ethical outcomes and quality assurance processes are implemented. This will have the added benefit of giving greater assurance to teachers, students, schools and parents that the use in schools will be ethical and support student learning and teacher professional judgment, and that legal duty of care appropriately resides with education systems and government.

Ongoing oversight of the management and operations of AI systems and tools will be essential to ensure they are fit for purpose and operating as intended. Given the pace of

technological change and inherent risks, the voices of teachers and their unions must inform the decision making of government and systems at every stage.

For example, the NSW Education Standards Authority (NESA) must be responsible for developing policy in consultation with teachers and communicating with schools, including about the implications of AI for curriculum planning, programming and assessment and reporting. AI poses significant risks to academic integrity; for example, existing systems and approaches for detecting and managing plagiarism and academic malpractice are proving inadequate.¹⁸ To preserve academic integrity, teacher professional judgment must be respected where the modification of assessments is concerned.

However, given the existing workload pressures impacting teachers and principals, a key cause of teacher attrition, it cannot fall on teachers and schools alone to undertake such necessary work. Monitoring and regulating AI is a system-level responsibility. Working closely with teachers, education systems have a critical role to play in regulating and providing solutions to ensure when, and if, AI is used for assessment purposes, that such tools allow for a fair and unbiased evaluation of students' performance, skills, and knowledge, and that teacher judgment remains central to student assessment and reporting to parents. Resources and support, including adequate funding, must be provided to assist teachers and schools in identifying and managing inappropriate use of AI, including where it is used by students to generate content.

Finally, transparent accountability mechanisms and procedures for managing and mitigating any potential negative impacts of an AI system or application must be provided, communicated and genuinely accessible, to all teachers in schools, TAFE colleges and other public education workplaces.

10. RECOMMENDATIONS

The recommendations of the AEU's *Submission to the House Standing Committee on Employment, Education and Training Inquiry into the use of Generative Artificial Intelligence in the Australian Education System* should be adopted and adapted for the NSW education context:

Accordingly, the AEU broadly recommends that progress towards the use of generative artificial intelligence in the Australian education system must be human-centred, teacher-led and education department controlled, with a pedagogic focus and a diverse and inclusive social justice lens.

Implementation must be across all public education settings, whilst concurrently commissioning research into the impact on teaching and learning. Additionally suitable controls are required for equitable provision across public schools and TAFE, for ethical considerations, addressing privacy concerns, environmental considerations and legal protection for teachers.

Specifically the AEU, calls on the Federal Government to:

Develop a national government policy framework to provide students with broad, equal access to technology and learning and to equally protect students from any potential harm for the use of such technologies.

Ensure that the Department of Education engages with the teaching profession via their union to develop this national policy framework to address the use of technology and AI in teaching and learning.

¹⁸ G A Fowler, "We tested a new ChatGPT-detector for teachers. It flagged an innocent student." (The Washington Post), 3 April 2023.

This policy framework must:

- *consider the ethics, curriculum and pedagogical issues;*
- *address occupational, health, welfare and safety issues;*
- *ensure that the implementation of AI is equitable, accessible and inclusive;*
- *ensure that AI tools and their implementation is free of cultural, racial and gender biases and that they should not perpetuate or amplify existing biases or discrimination;*
- *ensure that private for-profit operators are prevented from exerting inappropriate influence via platforms and products, on the processes of teaching and learning in educational settings and systems;*
- *ensure that a digital equity audit is undertaken to ascertain the extent of digital inequality experienced by students and educational settings;*
- *consider the issues of data sovereignty and copyright and that the use of AI in public education must be transparent, including its applications, what data is collected and how that data is used;*
- *ensure that the teaching profession is provided with high quality professional development, systemic support and professional autonomy;*
- *ensure that the teaching profession and students are provided with guidance and training on the ethical use of AI tools;*
- *ensure equitable and fair resourcing for all students, including digital access; and*
- *undertake ongoing evaluation of AI implementation to ensure that it supports the needs of students and the teaching profession and aligns with the appropriate ethical standards and guidelines that govern teaching and learning practices.*¹⁹

¹⁹ AEU, *Submission to the House Standing Committee on Employment, Education and Training Inquiry into the use of Generative Artificial Intelligence in the Australian Education System* (14 July 2023), pp.6-7.