Utilising ethical AI in the Australian Education System

Submission to the Standing Committee on Employment, Education and Training

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# Introduction

1. The Australian Human Rights Commission (Commission) welcomes the opportunity to make this submission to the Standing Committee on Employment, Education and Training (Committee)as part of its Inquiry into the Use of Generative Artificial Intelligence in the Australian Education System (Inquiry).
2. The role of the Commission is to work towards a world in which human rights are respected, protected and promoted. While the Commission has expertise and knowledge in the area of human rights generally, relevant to this Inquiry it has also developed specific expertise in respect of human rights and technology. One example of this can be seen in the Human Rights and Technology Project, which was a three-year national investigation that culminated with the release of the [Human Rights and Technology Project Final Report](https://humanrights.gov.au/our-work/rights-and-freedoms/publications/human-rights-and-technology-final-report-2021#:~:text=The%20Report%20sets%20out%20a,with%20robust%20human%20rights%20safeguards.) in 2021 (Final Report).
3. Last year the Commission, in partnership with the Actuaries Institute, published [guidance on artificial intelligence (AI) and discrimination in insurance pricing and underwriting.](https://humanrights.gov.au/sites/default/files/document/publication/ai_guidance_resource_december_2022.pdf)
4. In 2023, the Commission has continued its work on human rights and technology, as reflected in:

* [Human Rights in the Digital Age:](https://humanrights.gov.au/our-work/legal/submission/human-rights-digital-age) submission to the United Nations (UN) Office of the Secretary-General’s Envoy on Technology toward a Global Digital Compact.
* [Tackling Technology-facilitated Slavery:](https://humanrights.gov.au/our-work/legal/submission/tackling-technology-facilitated-slavery) submission to the United Nations Special Rapporteur on Slavery on contemporary forms of slavery, including its causes and consequences in response to its call for input on the use of technology in facilitating and preventing contemporary forms of slavery.
* [Safeguarding the Right to Privacy:](https://humanrights.gov.au/our-work/legal/submission/safeguarding-right-privacy-australia) submission to the Attorney-General’s Department in response to the Privacy Act Review Report 2022.
* [Foreign Interference through Social Media](https://humanrights.gov.au/our-work/legal/submission/inquiry-risk-posed-australias-democracy-foreign-interference-through): submission to the Senate Select Committee on Foreign Interference through Social Media.
* [Privacy Risks in the Metaverse](https://humanrights.gov.au/our-work/legal/submission/privacy-risks-metaverse): submission to the Australian Competition and Consumer Commission as part of the Digital Platform Services Inquiry 2020-25.

1. This submission builds upon the previous work of the Commission to advocate for human rights-centred design and deployment of new and emerging technologies and emphasising the importance of the responsible and ethical use of AI.

# Definitions

1. There is no single agreed upon definition of generative AI. This submission uses the definitions of ‘AI’ and ‘generative AI’ set out in [Safe and Responsible AI in Australia: Discussion Paper](https://consult.industry.gov.au/supporting-responsible-ai) (AI Discussion Paper), Department of Industry, Science and Resources:

* AI refers to an engineered system that generates predictive outputs such as content, forecasts, recommendations or decisions for a given set of human-defined objectives or parameters without explicit programming. AI systems are designed to operate with varying levels of automation.[[1]](#endnote-2)
* Generative AI tools ‘generate novel content such as text, images, audio and code in response to prompts’.[[2]](#endnote-3) This includes tools with a range of different functions, such as [ChatGPT](https://openai.com/blog/chatgpt), [Bard](https://bard.google.com/), [Claude](https://www.anthropic.com/index/introducing-claude), [Synthesia](https://www.synthesia.io/), [DALL-E 2](https://openai.com/dall-e-2), [Soundful](https://soundful.com/) and [Midjourney](https://docs.midjourney.com/).

# AI and the right to education

1. Education is ‘both a human right in itself and an indispensable means of realizing other human rights’.[[3]](#endnote-4) It is fundamental to ensuring the realisation of individual potential, the full enjoyment of other human rights, and the active engagement of citizens in a democratic society.
2. The right to education is recognised in a range of international human rights instruments,[[4]](#endnote-5) and ‘considerable evidence supports the right to education as a norm of international customary law based on the universality of treaty provisions’.[[5]](#endnote-6) It is also reflected in Sustainable Development Goal 4, which aims to [‘ensure inclusive and equitable quality education and promote lifelong learning opportunities for all’](https://sdgs.un.org/goals/goal4). The right to education is recognised as including the ‘interrelated and essential features’ of availability, accessibility, acceptability and adaptability.[[6]](#endnote-7)
3. The UN Committee on Economic, Society and Cultural Rights stated that the introduction to technology in learning ‘should be understood as a component of general education’.[[7]](#endnote-8) More recently, the Special Rapporteur on the right to education urged that ‘the understanding of the right to education should be broadened to include digital competencies and access to the Internet as a means of supporting the right to education, the right to information and cultural rights’.[[8]](#endnote-9) The Special Rapporteur also said that AI was a ‘critical emerging issue … the impact of which remains little understood’.[[9]](#endnote-10)
4. Generative AI has the potential to transform learning and improve educational outcomes in numerous ways. It also presents significant risks and challenges. Adopting a human-rights centred approach to ensure the responsible and ethical use of generative AI in the Australian education system should be a priority.

# Convention on the Rights of the Child

1. Article 3 of the Convention on the Rights of the Child (CRC) provides that in all actions concerning children, ‘the best interests of the child shall be a primary consideration’.[[10]](#endnote-11) This is one of the four guiding principles of the CRC.
2. When considering the best interests of the child, regard should be had to ‘all children’s rights, including their right to seek, receive and impart information, to be protected from harm and to have their views given due weight’ in addition to ensuring transparency over the criteria applied to determine best interests.[[11]](#endnote-12) The best interests of every child should also be a primary consideration in the digital environment.[[12]](#endnote-13)
3. Best interest considerations should not be based on assumptions about what is in the interests of children. Their views should be actively considered.[[13]](#endnote-14) The Special Rapporteur on the right to privacy notes that an ‘adult’s interpretation of children’s privacy needs can impede the healthy development of autonomy and independence, and restrict children’s privacy in the name of protection’:[[14]](#endnote-15)

While children’s dependency, hence vulnerability, can result in risks, risk does not equate to harm and navigating some risk is necessary for children to develop resilience and coping skills. Defining children by their vulnerability only, without consideration of their capacity of potential, is likely to result in overly protectionist agendas, potentially harmful to children’s personality.[[15]](#endnote-16)

**Recommendation 1: Children and young people be specifically consulted in an ongoing way about policy decisions in respect of the use of generative AI in the Australian education system.**

**Recommendation 2: The principle of the ‘best interests of the child’ should be the primary test used to inform all policy decisions about the use of generative AI in Australia’s education system.**

# Strengths and benefits of generative AI tools

1. Some of the key potential benefits of using generative AI tools include personalised and interactive learning, fostering creativity and innovation, advanced assessment and feedback, accessible and inclusive education, administrative efficiencies and data-driven insights.

## Personalised and interactive learning

1. Generative AI tools can be used to create personalised learning experiences for students that are adapted to individual needs, preferences and learning styles. This can help to create personalised learning paths, tailored content and adaptive assessments. This personalised approach can help students to learn more effectively, and gives students greater control over their own learning. Potential benefits include improved academic performance and increased student engagement.

## Fostering creativity and innovation

1. Students can also be encouraged to explore their creative potential by experimenting with AI-generated content (such as artwork, music and writing) through interactive platforms. This helps to foster innovation, problem-solving skills and the ability to think critically. These technologies will become increasingly ubiquitous in our daily lives, which means that learning to engage effectively with them from an early age will help set Australian students up for future success.

## Advanced assessment and feedback

1. Timely and comprehensive feedback can help students to identify and correct mistakes while improving their understanding of content. Generative AI tools can be used to provide immediate and detailed feedback to students enabling continuous and formative assessment. This also benefits teachers by streamlining assessment processes, providing real-time insights into student progress, and allowing for the identification of additional support for students.

## Accessible and inclusive education

1. Generative AI tools have the potential to make education more accessible and inclusive by addressing the diverse needs of learners - including those with learning differences or disabilities. Examples include assistive technology such as speech-to-text or text-to-speech tools (such as [Speechify](https://speechify.com/blog/how-text-to-speech-helps-iep/?landing_url=https%3A%2F%2Fspeechify.com%2Fblog%2Fhow-text-to-speech-helps-iep%2F)), language translation tools (such as [Presentation Translator](https://www.microsoft.com/en-us/translator/APPS/PRESENTATION-TRANSLATOR/)), or virtual teaching assistants (such as [Jill Watson](https://gvu.gatech.edu/research/projects/virtual-teaching-assistant-jill-watson) at Georgia Tech).
2. Generative AI tools can be used to create more personalised learning experiences, adapt curriculum, and provide tailored assessment and feedback. This can also help to overcome geographical or distance barriers by ensuring that high quality educational opportunities are available to students in regional and remote areas.

## Administrative efficiencies

1. There are a range of teaching tasks that could be automated using generative AI tools, including grading assessments and creating lesson plans.[[16]](#endnote-17) Reducing the administrative burden on teachers will allow them to spend more time engaging directly with students.

## Data-driven insights

1. A key strength of generative AI tools is their ability to process vast amounts of information and generate data-drive insights. Educators can use these tools to analyse student performance, engagement patterns or learning trends to make informed decisions about student learning paths, curriculum design, or resource allocation. This can potentially be applied at both the individual and systemic levels, enabling comprehensive reports on individual student progress to be produced as well as the early identification of broader trends.

# Risks and challenges of generative AI tools

1. While generative AI tools may be constructive assets there are also risks and challenges posed by its use in education systems (discussed below).
2. While generative AI tools may be able to replace some of the tasks that are currently performed by teachers, this technology is best used to enhance teaching. It cannot replace the indispensable role of human interaction and cooperation, which must remain at the heart of education in Australia.
3. The 2023 UNESCO publication, [Generative AI and the future of education](https://www.unesco.org/en/articles/generative-artificial-intelligence-education-what-are-opportunities-and-challenges), emphasised the need to ‘be watchful against the potentials of newly powerful generative AI technology, alongside older digital tools and services, to undermine the authority and status of teachers …’. It further noted that while ‘frontier technology’ might be part of the answer to particular challenges in education, ultimately ‘well-run schools, enough teachers, and teachers with the requisite conditions, training and salaries that allow them to be successful remain the main ingredients of a sustainable remedy’.[[17]](#endnote-18)

**Recommendation 3: The principle that generative AI is to supplement and support learning, and not as a replacement for teaching staff, should be adopted as a foundational principle to inform all policy decisions about the use of generative AI in Australia’s education system.**

## Privacy and security

1. The right to privacy is a cornerstone human right[[18]](#endnote-19) and its importance ‘in an increasingly data-centric world is growing’,[[19]](#endnote-20) because generative AI tools may not only facilitate privacy intrusions, but deepen those intrusions in new and concerning ways.[[20]](#endnote-21) Generative AI tools rely on both large data sets to train the technology and the collection of personal data to optimize the individual user experience. This creates a range of privacy risks, particularly given the increased prevalence of cyberattacks and data breaches. The Commission has highlighted these issues in a number of submissions made this year.[[21]](#endnote-22) These concerns are particularly relevant in the context of using generative AI tools in the education system, where many of the users will be children who will have no real option but to use the technology if it is adopted by their schools.
2. There is an urgent need to ensure that generative AI tools are only adopted where concerns related to data privacy, security and consent are being considered and actively addressed.
3. The Attorney-General’s Department is conducting a review of the *Privacy Act 1988* (Cth), having closed submissions to their [Review Report](https://www.ag.gov.au/rights-and-protections/publications/privacy-act-review-report) in April 2023. Several proposals in the Review Report considered strengthening privacy protections for children and in respect of AI. It is likely that outcomes from the Review Report will directly impact privacy, security and data protection for children and certain AI tools.
4. There must be clear guidelines established to expressly protect student data, limit access to sensitive information, and ensure that robust privacy and security measures are in place. Standards should be established to govern the collect, storage and use of personal information in the context of generative AI tools in education.

## Risks of commercialisation

1. A related risk that requires urgent attention is the potential commercialisation of student data obtained from the use of generative AI tools.
2. Practices such as the sale or transfer of children’s personal data to third parties should be banned, or heavily restricted, to protect children’s rights. For example, among other things, General Comment 25 requires parties to:

[P]rohibit by law the profiling or targeting of children of any age for commercial purposes on the basis of a digital record of their actual or inferred characteristics, including group or collective data, targeting by association or affinity profiling. Practices that rely on neuromarketing, emotional analytics, immersive advertising and advertising in virtual and augmented reality environments to promote products, applications and services should also be prohibited from engagement directly or indirectly with children.[[22]](#endnote-23)

1. One example is the use of student search queries being analysed to inform targeted advertising. Another is for student data obtained via educational AI applications to be on-sold to third parties.[[23]](#endnote-24)
2. In 2021 the National Children’s Commissioner warned that by a child’s 13th birthday advertisers will have gathered on average more than 72 million data points about them.[[24]](#endnote-25) It is essential that the data collected through the use of educational technology at schools should not be used for other purposes, and that children are protected from data surveillance.

**Recommendation 4: The personal data of students collected by generative AI tools must not be sold to third parties or provided to interoperable services or tools outside of the product being used in the classroom for which consent has been obtained.**

## Risk of algorithmic bias and discrimination

1. Generative AI tools are trained on large datasets and generate predictive outputs based on algorithms. It is widely recognised that ‘algorithms are not neutral, they are developed using metadata that exclude information on marginalized groups and are therefore unrepresentative or biased’.[[25]](#endnote-26)
2. This means that generative AI tools can generate output that is biased, and potentially perpetuate unfairness or even result in unlawful discrimination.[[26]](#endnote-27) The risks of bias and discrimination are highlighted in the AI Discussion Paper[[27]](#endnote-28) and were examined in detail by the Commission in the [Final Report](https://humanrights.gov.au/our-work/rights-and-freedoms/publications/human-rights-and-technology-final-report-2021#:~:text=The%20Report%20sets%20out%20a,with%20robust%20human%20rights%20safeguards.) and the [Technical Paper, Using artificial intelligence to make decisions: Addressing the problem of algorithmic bias](https://humanrights.gov.au/our-work/rights-and-freedoms/publications/using-artificial-intelligence-make-decisions-addressing). It is essential to ensure that this issue is addressed so that Australia’s education system is fair, inclusive and promotes equal opportunities for all students.

**Recommendation 5: Policies should mandate rigorous and continual evaluation and validation processes, together with regular independent auditing, to identify and mitigate algorithmic bias in any generative AI tools used in the Australian education system.**

## The potential for misuse

1. The AI Discussion Paper highlighted the creation of misinformation and disinformation as one of the key challenges posed by the increased application of AI.[[28]](#endnote-29) The [Rapid Response Information Report](https://www.chiefscientist.gov.au/sites/default/files/2023-06/Rapid%20Response%20Information%20Report%20-%20Generative%20AI%20v1_1.pdf) commissioned by Australia’s National Science and Technology Council similarly identified both large language models (LLMs) and multimodal foundation models (MFMs) as having ‘the potential for misuse by generating high-quality, cheap and personalised content, including for harmful purposes’, with the use of generative AI tools to generate deep fakes.[[29]](#endnote-30)
2. The use of generative AI tools in educational settings necessarily raises ethical considerations in terms of their potential use to create fake or manipulated content, such as ‘deepfakes’.[[30]](#endnote-31)

**Recommendation 6: Policies should explicitly prohibit the use of generative AI tools in educational settings to create deceptive or malicious content.**

**Recommendation 7: Policies should more broadly encourage the development and use of generative AI tools for content verification, allowing individuals to accurately identify AI-generated content.**

1. In isolation, these reforms are insufficient .There is also a need for digital literacy education and training to ensure that users are able to identify fake or manipulated content, and establish that users understand the importance of engaging with the technology in responsible and ethical ways. The importance of promoting digital literacy is discussed further below.

## The risk of undermining educational integrity

1. The ease with which essays, research papers or creative works can be produced using generative AI tools creates risks of plagiarism or intellectual dishonesty. The release of ChatGPT in November last year immediately gave rise to concerns ‘that a tsunami of cheating was on the horizon’.[[31]](#endnote-32)
2. Both around the world, and in Australia, many schools and universities responded by initially banning these technologies from their devices and networks. The New York City public school district became one of the first to temporarily ban ChatGPT from its schools’ devices and networks in January 2023, although this ban was reversed several months later.[[32]](#endnote-33) Many schools and universities in Australia have also introduced bans or restrictions on the use of generative AI tools at various points, including initial bans by the public school systems in all Australian states other than South Australia.[[33]](#endnote-34)
3. There is now growing recognition that an absolute ban on this technology is likely unworkable and disadvantageous for students.[[34]](#endnote-35) In particular any ban that is not consistently applied across the Australian education system will create a digital divide between those who have been taught to use generative AI tools at school, and those who have not.[[35]](#endnote-36) It also forgoes an important opportunity to teach students how to responsibly use new technologies that are becoming increasingly important, and to develop necessary skills for the future.
4. Instead we should aim to encourage the responsible and ethical use of generative AI tools by students, rather than simply banning them. Students should be educated about the importance of academic integrity, and clear guidelines should be established on the appropriate use of AI-generated content, citation practices, and the need for originality in student work.
5. To ensure academic integrity, there must be greater research, development and deployment of digital tools capable of identifying AI-generated content. One example is the development of [Checker AI](https://www.aicheatcheck.com/) which uses its own AI models to predict if text has been written by a human, and to verify the authenticity of student work. This demonstrates the duality of AI tools being both a cause, and solution, to challenges in Australia’s education system.

## Developing standards and guidelines

1. Consistent national standards and guidelines are essential to ensure the responsible and ethical use of generative AI tools in the Australian education system. It is important that students, teachers and parents are taught how to appropriately use this technology, as opposed to simply banning it. The Commission welcomes the announcement in the [Communiqué from the Education Ministers Meeting issued on 6 July 2023](https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjstL_KkP__AhUGHXAKHcR8D44QFnoECBsQAQ&url=https%3A%2F%2Fwww.education.gov.au%2Fdownload%2F16512%2Feducation-ministers-meeting-communique-july-2023%2F33714%2Fdocument%2Fpdf&usg=AOvVaw0M3TA1BIFw9T8hTPF4ns53&opi=89978449) that the National AI Taskforce will undertake consultation on a Draft AI Framework for Schools, and would encourage the timely progression of this work.

**Recommendation 8: The Commission supports the development of consistent national standards and guidelines to ensure the responsible and ethical use of generative AI tools in Australian schools.**

## Providing professional development for teachers

1. Generative AI tools must used in ways that harness the benefits while protecting against the risks in the education system. It is essential that professional development and training be provided to teachers (and the broader education workforce) to allow them to engage effectively with these tools in responsible and ethical ways.

**Recommendation 9: Professional development and training should be provided to teachers to ensure that they are able to engage with generative AI tools in ways that harness its potential benefits while protecting against the recognised risks.**

## Promoting digital literacy

1. It is important for students, teachers and parents to be aware of both the benefits and risks associated with the use of generative AI tools. To encourage the use of these technologies in responsible and ethical ways, digital literacy training should be prioritised.
2. Education systems should incorporate comprehensive digital literacy programs that empower students to critically evaluate AI-generated content, recognise the limitations and potential biases of generative AI tools, and understand the importance of academic integrity.

**Recommendation 10: Schools should introduce comprehensive digital literacy programs to provide students with the skills needed to engage with generative AI tools in a responsible and ethical way.**

## Strict requirements on generative AI tools in educational settings

1. Any generative AI tools being used in an educational setting should be subject to strict requirements relating to privacy, data security, algorithmic bias and discrimination, and content verification. Transparency requirements, regular audits and independent reviews should be required to ensure adherence to these standards and maintain accountability.

**Recommendation 11: Generative AI tools being used in an educational settings should be required to meet minimum requirements relating to privacy, data security, algorithmic bias and discrimination, and content verification, including requirements for regular audits and independent reviews of the tools.**

## Encouraging investment in continued research and development

1. Generative AI is a rapidly developing field, and the impact of these technologies is not yet fully understood. It is important that Australia invests in research and development to support the continued use of generative AI tools for education, and an understanding of their impact.

**Recommendation 12: The Commission recommends continued investment in research and development to support the use of generative AI tools in educational settings, and an understanding of their impact.**

# Ensuring digital equity

1. While generative AI has the potential to improve educational outcomes, it is critical to address the digital divide and ensure that equitable opportunities are created for all students, regardless of their background.
2. The 2021 Australian Digital Inclusion Index shows that there remains a substantial digital divide in Australia.[[36]](#endnote-37) One in four people in Australia were identified as being ‘digitally excluded’ and ‘people with low levels or income, education and employment, those living in some regional areas, people aged over 65 and people with a disability’ being identified as being of particular risk of being left behind.[[37]](#endnote-38)
3. Students who are unable to access the digital tools they need for school risk missing out on crucial learning opportunities that other students take for granted, with the risk of exacerbating educational disadvantage. The Smith Family has estimated that 1 in 6 of the families they work with cannot currently access the digital tools that their children need for school.[[38]](#endnote-39) Research published by the Australian Education Union in 2020 revealed a ‘persistent long-term gap in digital access, affordability and ability experienced by many public school students’.[[39]](#endnote-40) Ensuring digital inclusion and equity needs to be a key principle informing the use of generative AI in the Australian education system.
4. Generative AI tools can also potentially play a significant role in helping to level the playing field for all students, regardless of their backgrounds. These tools can provide access to high-quality educational content to students from disadvantaged or low socio-economic backgrounds, and the potential for AI-powered tutors and translators to assist students with particular needs or challenges is significant.
5. In order to both improve digital equity in the use of generative AI and harness the potential benefits of generative AI tools in reducing educational disadvantage, policies that remove barriers to access, provide targeted training and capacity building, and encourage community engagement and outreach should be pursued.

## Removing barriers to access

1. Ensuring equitable access to technology for students is essential to help close the digital divide. This means that public schools must be resourced to allow them to provide students with access to technology, and also ensuring that digital technology is available for use in community facilities (such as libraries).
2. Collaborations between government agencies, educational institutions, not-for-profit organisations and the private sector are crucial for ensuring access to resources to benefit disadvantaged cohorts.

**Recommendation 13: Policies should encourage partnerships to improve access to resources, expertise, and technology infrastructure, while ensuring that these are pursued in an appropriate way that recognises the particular educational context.**

**Recommendation 14: Policies should also encourage the development and use of AI-enabled educational resources that are specifically designed to address the needs of disadvantaged cohorts.**

1. These resources might include adaptive learning platforms, AI-powered tutoring systems, or content tailored to diverse learning styles and abilities. Special emphasis should be placed on developing culturally relevant and inclusive materials that resonate with the experience and backgrounds of students from diverse communities. Providing relevant AI-enabled educational resources in a targeted way will help ensure that these technologies contribute towards overcoming educational disadvantage.

## Providing targeted training and capacity building

1. Policies should focus on providing targeted training and capacity building programs for teachers and students in schools with a higher proportion of disadvantaged students. These programs should aim to provide training on generative AI tools and applications, assist teachers in effectively integrating generative AI tools into their teaching practices, and encourage schools to foster a culture of technology-enabled learning.

**Recommendation 15: Policies should prioritise providing targeted training and capacity building programs for teachers and students in schools with a higher proportion of disadvantaged students.**

## Encouraging community engagement and outreach

1. Policies should reach beyond training for teachers, and emphasise community engagement and outreach programs that actively involve parents, families and community organisations in understanding and using generative AI tools. Community workshops, awareness campaigns, and digital literacy programs can play a vital role in promoting the benefits of AI and equipping parents with the skills and knowledge needed to support their children’s learning journey.

**Recommendation 16: Addressing the digital divide and ensuring digital equity needs to be a priority in the use of generative AI in the Australian education system. Policies should focus on removing barriers to access, providing targeted training and capacity building, and encouraging community engagement and outreach.**

# International and domestic practices and policies

1. There has recently been significant work done globally and nationally to explore the opportunities and challenges of generative AI in education. Two key examples are the work done by the UNESCO and the current consideration being given to this issue in the United Kingdom (UK).

## UNESCO

1. In May 2023 a UNESCO global survey of over 450 schools and universities ‘found that fewer than 10% have developed institutional policies and/or formal guidance concerning the use of generative AI applications’.[[40]](#endnote-41)
2. UNESCO has developed a range of resources focused on this area. The [UNESCO Recommendations on the Ethics of Artificial Intelligence](https://unesdoc.unesco.org/ark:/48223/pf0000385082.locale=en) (UNESCO Recommendations) were adopted by all 193 UNESCO Member States (including Australia) in November 2021. The UNESCO Recommendations provide guidance around a range of ethical issues related to AI, and encourages governments to establish the necessary institutional and legal frameworks to ensure that these technologies are developed with strong ethical guardrails.
3. The UNESCO Recommendations make specific recommendations with respect to several discrete policy areas, including education. The key recommendation made in respect of education and research was that:

Member States should provide adequate AI literacy education to the public, including awareness programmes on data. In doing so, the participation of marginalised groups should be prioritised. Member States should also encourage research initiatives on ethical AI.[[41]](#endnote-42)

1. UNESCO also published the [AI and education: Guidance for policy-makers](https://unesdoc.unesco.org/ark:/48223/pf0000376709) in 2021. This resource provides detailed guidance on the adoption of AI in education, and advocates for a human-centred approach to be the overarching principle which guides AI and education policies.[[42]](#endnote-43) UNESCO have organised four [international forums on artificial intelligence and education](https://www.unesco.org/en/articles/international-forum-artificial-intelligence-and-education-2022) since 2019.
2. UNESCO is also developing policy guidelines on the use of generative AI in education and research, as well as frameworks of AI competencies for students and teachers, with these new tools being launched during [Digital Learning Week on 4 – 7 September 2023](https://news.un.org/en/story/2023/05/1137117).

## United Kingdom

1. There has been significant consideration given to this issue in the UK. The [UK Department of Education](https://consult.education.gov.uk/digital-strategy/generative-artificial-intelligence-in-education/) is currently engaging in an open consultation about generative AI in education, with the call for evidence closing on 23 August 2023.
2. A [Departmental statement](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1146540/Generative_artificial_intelligence_in_education_.pdf) was published by the UK Department of Education in March 2023, with the key message being that ‘the education sector should make the most of the opportunities that technology provides’ but that there is a need to ensure that it is used ‘effectively, safely and appropriately’.[[43]](#endnote-44)
3. At the university level, the Russell Group, which represents 24 leading UK universities,[[44]](#endnote-45) published [principles on the use of generative AI tools in education](https://www.russellgroup.ac.uk/news/new-principles-on-use-of-ai-in-education/) on 4 July 2023, ‘to recognise the risks and opportunities of generative AI’. The five principles are to:

* support students and staff to become AI-literate
* equip staff to support students in using generative AI tools
* adapt teaching and assessment to incorporate the ethical use of generative AI and ensure equal access
* ensure academic rigour and integrity is upheld
* work collaboratively to share best practice as the technology evolves.

## Australia

1. There has been early work done within the tertiary education sector to address the potential impact of generative AI tools. Examples include a range of resources developed by the [Tertiary Education Quality and Standards Agency](https://www.teqsa.gov.au/guides-resources/higher-education-good-practice-hub/artificial-intelligence) (TEQSA), including the [AAIN Generative Artificial Intelligence Guidelines](https://www.teqsa.gov.au/sites/default/files/2023-04/aain-generative-ai-guidelines.pdf) that were developed by the Australian Academic Integrity Network (AAIN) Generative AI Working Group in March 2023.
2. Individual universities have also begun developing guidelines and policies to address the use of generative AI tools by students and staff, with example guidance being developed by the [Australian National University](https://libguides.anu.edu.au/generative-ai), [Deakin University](https://www.deakin.edu.au/research/support-for-researchers/research-integrity/generative-artificial-intelligence-ai), [Monash University](https://www.monash.edu/learning-teaching/teachhq/Teaching-practices/artificial-intelligence/policy-and-practice-guidance-around-acceptable-and-responsible-use-of-ai-technologies), and [UNSW](https://www.education.unsw.edu.au/teaching/educational-innovation/generative-artificial-intelligence-education-teaching).
3. Resources have also been developed in a number of States and Territories relating directly to the use of generative AI in primary and secondary education. For example, in South Australia [information about AI in schools has been produced by the Department for Education for parents and carers](https://www.education.sa.gov.au/parents-and-families/curriculum-and-learning/ai), and the SACE Board South Australia has developed [Guidelines for using AI in SACE assessments](https://www.sace.sa.edu.au/teaching/assessment/assessment-and-academic-integrity/guidelines-for-using-ai).
4. In New South Wales, while student access to generative AI applications on public school networks continues to be restricted, the Department of Education has developed [Guidelines regarding use of generative AI (ChatGPT)](https://education.nsw.gov.au/teaching-and-learning/education-for-a-changing-world/guidelines-regarding-use-of-generative-ai-chatgpt) for the use of department staff who have access to generative AI tools.
5. While much of this work is promising, it is important to ensure that research into this rapidly developing area continues and that best practice guidance is provided to both staff and students to help ensure that Australian schools can harness the benefits of generative AI while guarding against the risks.

# Recommendations

1. The Commission makes the following recommendations.

**Recommendation 1**

Children and young people be specifically consulted in an ongoing way about policy decisions in respect of the use of generative AI in the Australian education system.

**Recommendation 2**

The principle of the ‘best interests of the child’ should be the primary test used to inform all policy decisions about the use of generative AI in Australia’s education system.

**Recommendation 3**

The principle that generative AI is to supplement and support learning, and not as a replacement for teaching staff, should be adopted as a foundational principle to inform all policy decisions about the use of generative AI in Australia’s education system.

**Recommendation 4**

The personal data of students collected by generative AI tools must not be sold to third parties or provided to interoperable services or tools outside of the product being used in the classroom for which consent has been obtained.

**Recommendation 5**

Policies should mandate rigorous and continual evaluation and validation processes, together with regular independent auditing, to identify and mitigate algorithmic bias in any generative AI tools used in the Australian education system.

**Recommendation 6**

Policies should explicitly prohibit the use of generative AI tools in educational settings to create deceptive or malicious content.

**Recommendation 7**

Policies should more broadly encourage the development and use of generative AI tools for content verification, allowing individuals to accurately identify AI-generated content.

**Recommendation 8**

The Commission supports the development of consistent national standards and guidelines to ensure the responsible and ethical use of generative AI tools in Australian schools.

**Recommendation 9**

Professional development and training should be provided to teachers to ensure that they are able to engage with generative AI tools in ways that harness its potential benefits while protecting against the recognised risks.

**Recommendation 10**

Schools should introduce comprehensive digital literacy programs to provide students with the skills needed to engage with generative AI tools in a responsible and ethical way.

**Recommendation 11**

Generative AI tools being used in an educational settings should be required to meet minimum requirements relating to privacy, data security, algorithmic bias and discrimination, and content verification, including requirements for regular audits and independent reviews of the tools.

**Recommendation 12**

The Commission recommends continued investment in research and development to support the use of generative AI tools in educational settings, and an understanding of their impact.

**Recommendation 13**

Policies should encourage partnerships to improve access to resources, expertise, and technology infrastructure, while ensuring that these are pursued in an appropriate way that recognises the particular educational context.

**Recommendation 14**

Policies should also encourage the development and use of AI-enabled educational resources that are specifically designed to address the needs of disadvantaged cohorts.

**Recommendation 15**

Policies should prioritise providing targeted training and capacity building programs for teachers and students in schools with a higher proportion of disadvantaged students.

**Recommendation 16**

Addressing the digital divide and ensuring digital equity needs to be a priority in the use of generative AI in the Australian education system. Policies should focus on removing barriers to access, providing targeted training and capacity building, and encouraging community engagement and outreach.

**Endnotes**

1. Department of Industry, Science and Resources, *Safe and Responsible AI in Australia: Discussion Paper* (‘Discussion Paper’) (Commonwealth of Australia, Discussion Paper, June 2023) 5. <[Consultation hub | Supporting responsible AI: discussion paper - Department of Industry, Science and Resources](https://consult.industry.gov.au/supporting-responsible-ai)>. [↑](#endnote-ref-2)
2. Ibid, 5. [↑](#endnote-ref-3)
3. Committee on Economic, Social and Cultural Rights, *General Comment No. 13: The right to education* (‘General Comment No. 13’), UN Doc E/C.12/1999/10 (8 December 1999). <[tbinternet.ohchr.org/\_layouts/15/treatybodyexternal/Download.aspx?symbolno=E%2FC.12%2F1999%2F10&Lang=en](https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=E%2FC.12%2F1999%2F10&Lang=en)> [↑](#endnote-ref-4)
4. *International Covenant on Economic, Social and Cultural Rights*, article 13; *Convention on the Rights of the Child*, articles 13, 17, 28 and 29; *Convention on the Rights of Persons with Disabilities*, articles 9, 21, 24 and 26; *Convention on the Elimination of All Forms of Discrimination Against Women*, articles 10 and 14; *International Convention on the Elimination of All Forms of Racial Discrimination*, articles 5 and 7; *Universal Declaration of Human Rights*, article 26. [↑](#endnote-ref-5)
5. Farida Shaheed, Securing the right to education: advances and critical challenges (Report of the Special Rapporteur on the right to education, Farida Shaheed) (‘Special Rapporteur on the right to education report’), 27 June 2023, A/HRS/53/27, [8] < [A/HRC/53/27: Securing the right to education: advances and critical challenges - Report of the Special Rapporteur on the right to education, Farida Shaheed | OHCHR](https://www.ohchr.org/en/documents/thematic-reports/ahrc5327-securing-right-education-advances-and-critical-challenges)> [↑](#endnote-ref-6)
6. General Comment No. 13 (n 3). [↑](#endnote-ref-7)
7. General Comment No. 13 (n 3) [16]. [↑](#endnote-ref-8)
8. Special Rapporteur on the right to education report (n 5) [96]. [↑](#endnote-ref-9)
9. Special Rapporteur on the right to education report (n 5) [95]. [↑](#endnote-ref-10)
10. *Convention on the Rights of the Child,* article 3. [↑](#endnote-ref-11)
11. Committee on the Rights of the Child, *General Comment No. 25 (2021) on children’s rights in relation to the digital environment* (‘General Comment No. 25’)*,* CRC/C/GC/25 (2 March 2021) 13.

    <<https://www.ohchr.org/en/documents/general-comments-and-recommendations/general-comment-no-25-2021-childrens-rights-relation>>. [↑](#endnote-ref-12)
12. General Comment No. 25 (n 11) 12-13. [↑](#endnote-ref-13)
13. General Comment No. 25 (n 11) 16-18. [↑](#endnote-ref-14)
14. Human Rights Council, *Artificial intelligence and privacy, and children’s privacy: Report of the Special Rapporteur on the right to privacy, Joseph A. Cannataci, on* (‘Special Rapporteur on the right to privacy report’), UN Doc A/HRC/46/37 (25 January 2021) 80. <[Artificial intelligence and privacy, and children's privacy : (un.org)](https://digitallibrary.un.org/record/3901302?ln=en)>. [↑](#endnote-ref-15)
15. Special Rapporteur on the right to privacy report (n 14) 118. [↑](#endnote-ref-16)
16. See, for example, United Nations Educational, Scientific and Cultural Organization, *AI and education: Guidance for policy-makers* (‘UNESCO Guidance’) (2021) 18. <[AI and education: guidance for policy-makers - UNESCO Digital Library](https://unesdoc.unesco.org/ark:/48223/pf0000376709)>. [↑](#endnote-ref-17)
17. Stefania Giannini, *Generative AI and the future of education* (July 2023), 7. <<https://www.unesco.org/en/articles/generative-artificial-intelligence-education-what-are-opportunities-and-challenges>>. [↑](#endnote-ref-18)
18. *Universal Declaration of Human Rights*, article 12; *International Covenant on Civil and Political Rights*, article 17; C*onvention on the Rights of the Child,* article 16; *Convention on the Rights of Persons with Disabilities,* article 22.  [↑](#endnote-ref-19)
19. Office of the United Nations High Commissioner for Human Right, *The Right to Privacy In the Digital Age*, UN Doc A/HRC/51/17 (4 August 2022) 3. <<https://www.ohchr.org/en/documents/thematic-reports/ahrc5117-right-privacy-digital-age>> [↑](#endnote-ref-20)
20. Ibid, 4. [↑](#endnote-ref-21)
21. See for example, [Human Rights in the Digital Age](https://humanrights.gov.au/our-work/legal/submission/human-rights-digital-age) (Global Digital Compact submission to the United Nations’ Office of the Secretary-General’s Envoy on Technology); [Safeguarding the Right to Privacy](https://humanrights.gov.au/our-work/legal/submission/safeguarding-right-privacy) (submission to the Attorney-General’s Department in response to the Privacy Act Review Report 2022); [Foreign Interference through Social Media](https://humanrights.gov.au/our-work/legal/submission/foreign-interference-through-social-media) (submission to the Senate Select Committee on Foreign Interference through Social Media); [Privacy Risks in the Metaverse](https://humanrights.gov.au/our-work/legal/submission/privacy-risks-metaverse) (submission to the Australian Competition and Consumer Commission as part of the Digital Platform Services Inquiry 2020-25). [↑](#endnote-ref-22)
22. General Comment No. 25 (n 11) [42]. [↑](#endnote-ref-23)
23. Drew Harwell, ‘Remote learning apps shared children’s data at a dizzying scale’, *The Washington Post,* 24 May 2022. <[Remote learning apps tracked kids for ads - The Washington Post](https://www.washingtonpost.com/technology/2022/05/24/remote-school-app-tracking-privacy/)>. [↑](#endnote-ref-24)
24. Australian Human Rights Commission, *Protect children from data surveillance,* 27 July 2021. <[Protect children from data surveillance | Australian Human Rights Commission](https://humanrights.gov.au/about/news/opinions/protect-children-data-surveillance)>. [↑](#endnote-ref-25)
25. Special Rapporteur on the right to education report (n 5) [95]. [↑](#endnote-ref-26)
26. Australian Human Rights Commission, *Human Rights and Technology Final Report* (‘Final Report’) 2021, 13. <<https://humanrights.gov.au/our-work/rights-and-freedoms/publications/human-rights-and-technology-final-report-2021>>. [↑](#endnote-ref-27)
27. Discussion Paper (n 1) 7-9. [↑](#endnote-ref-28)
28. Discussion Paper (n 1) 7. [↑](#endnote-ref-29)
29. Deep fakes were defined in the report as ‘high-quality artificial images, video and speech for disinformation, including by state actors’: see Australia’s Chief Scientist, *Generative AI: Language models and multimodal foundation models* (Rapid Response Information Report, 24 March 2023) 12. <<https://www.chiefscientist.gov.au/sites/default/files/2023-06/Rapid%20Response%20Information%20Report%20-%20Generative%20AI%20v1_1.pdf>>. [↑](#endnote-ref-30)
30. Discussion Paper (n 1) [2.2]. [↑](#endnote-ref-31)
31. Tess Bennett, ‘This program can tell if ChatGPT did your homework’, *The Austrlaian Financial Review* (12 January 2023). <[ChatGPT detection program can see if a robot did your homework (afr.com)](https://www.afr.com/technology/cheaters-beware-this-program-can-tell-if-chatgpt-did-your-homework-20230110-p5cbl1?utm_source=linkedin&utm_medium=social&utm_campaign=&utm_term=&utm_content=)>. [↑](#endnote-ref-32)
32. Alyssa Lukpat, ‘ChatGPT Banned in New York City Public Schools Over Concerns About Cheating, Learning Development’, *The Wall Street Journal,* 6 January 2023 < [ChatGPT Banned in New York City Public Schools Over Concerns About Cheating, Learning Development - WSJ](https://www.wsj.com/articles/chatgpt-banned-in-new-york-city-public-schools-over-concerns-about-cheating-learning-development-11673024059)>; Kalhan Rosenblatt, ‘New York City public schools remove ChatGPT ban’, *NBC News,* 19 May 2023 <[New York City public schools remove ChatGPT ban (nbcnews.com)](https://www.nbcnews.com/tech/chatgpt-ban-dropped-new-york-city-public-schools-rcna85089)>. [↑](#endnote-ref-33)
33. Alex Anyfantis, Harleen Kaur, ‘Amid ChatGPT bans in Australian schools, educators consider risks and benefits’, *SBS* (6 March 2023) <[Amid ChatGPT bans in Australian schools, educators consider risks and benefits | SBS Punjabi](https://www.sbs.com.au/language/punjabi/en/podcast-episode/amid-chatgpt-bans-in-australian-schools-educators-consider-risks-and-benefits/sh545nl1e)>; Conor Duffy, ‘Public school bans on AI tools like ChatGPT raise fears private school kids are gaining an unfair edge and widening a digital divide’, *ABC News,* 26 May 2023. <[Public school bans on AI tools like ChatGPT raise fears private school kids are gaining an unfair edge and widening a digital divide - ABC News](https://www.abc.net.au/news/2023-05-26/artificial-intelligence-chatgpt-classrooms-schools/102356926)>. [↑](#endnote-ref-34)
34. Kevin Roose, ‘Don’t Ban ChatGPT in Schools. Teach with it’, *The New York Times,* 12 January 2023. <[Don’t Ban ChatGPT in Schools. Teach With It. - The New York Times (nytimes.com)](https://www.nytimes.com/2023/01/12/technology/chatgpt-schools-teachers.html)>. [↑](#endnote-ref-35)
35. See, for example, Conor Duffy, ‘Public school bans on AI tools like ChatGPT raise fears private school kids are gaining an unfair edge and widening a digital divide’, *ABC News,* 26 May 2023. <[Public school bans on AI tools like ChatGPT raise fears private school kids are gaining an unfair edge and widening a digital divide - ABC News](https://www.abc.net.au/news/2023-05-26/artificial-intelligence-chatgpt-classrooms-schools/102356926)>. [↑](#endnote-ref-36)
36. Thomas, J., Barraket, J., Parkinson, S., Wilson, C., Holcombe-James, I., Kennedy, J., Mannell, K., Brydon, A, *Australian Digital Inclusion Index: 2021* (RMIT, Swinburne University of Technology, 2021). <[Digital inclusion: the Australian context in 2021 - Australian Digital Inclusion Index](https://www.digitalinclusionindex.org.au/digital-inclusion-the-australian-context-in-2021/)>. [↑](#endnote-ref-37)
37. Good Things Foundation Australia, *The digital divide.* <[The digital divide - Good Things Foundation Australia](https://www.goodthingsfoundation.org.au/the-digital-divide/)>. (Website accessed 14 July 2023). [↑](#endnote-ref-38)
38. The Smith Family, *The ‘Digital Divide’ and other learning related challenges remain major issues according to a new survey by the Smith Family* (Media release, 17 November 2021). <[The Smith Family Pulse Survey](https://www.thesmithfamily.com.au/media/centre/releases/2021/the-digital-divide-and-other-learning-related-challenges-remain-major-issues)>. [↑](#endnote-ref-39)
39. Barbara Preston Research, *Digital inclusion for all public school students* (June 2020). <[DigitalInclusion\_BPreston.pdf (aeufederal.org.au)](https://www.aeufederal.org.au/application/files/5315/9372/9335/DigitalInclusion_BPreston.pdf)>. [↑](#endnote-ref-40)
40. Giannini (n 17). [↑](#endnote-ref-41)
41. UNESCO, *UNESCO’s Recommendations on the Ethics of Artificial Intelligence: Key Facts* (2023) 14. <<https://unesdoc.unesco.org/ark:/48223/pf0000385082.locale=en>>. [↑](#endnote-ref-42)
42. UNESCO Guidance (n 16) [6.2]. [↑](#endnote-ref-43)
43. UK Department of Education, *Generative artificial intelligence in education: Departmental statement* (March 2023). <[DfE external document template (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1146540/Generative_artificial_intelligence_in_education_.pdf)>. [↑](#endnote-ref-44)
44. The Russell Group universities are the University of Birmingham, University of Bristol, University of Cambridge, Cardiff University, Durham University, University of Edinburgh, University of Exeter, University of Glasgow, Imperial College London, King’s College London, University of Leeds, University of Liverpool, London School of Economics and Political Science, University of Manchester, Newcastle University, University of Nottingham, University of Oxford, Queen Mary University of London, Queen’s University Belfast, University of Sheffield, University of Southampton, University College London, University of Warwick, University of York. [↑](#endnote-ref-45)