

Use of Generative Artificial Intelligence in the Australian Education System

Response to The House of Representatives Standing Committee on Employment, Education and Training's Inquiry into the use of generative artificial intelligence in the Australian education system.

Submitted by the Australian Research Council Centre of Excellence for the Digital Child
(www.digitalchild.org.au)

Contact

Professor Susan Danby, Centre Director,
Dr Tara Roberson, Communications and Stakeholder Engagement Manager,

With thanks to

Dr. Anna Bunn (Curtin University), Professor Michael Dezuanni (QUT), Dr. Madeleine Dobson (Curtin University), Professor Tama Leaver (Curtin University), Dr Myrto Mavilidi (University of Wollongong), Dr Maria Nicholas (Deakin University), and Professor Leon Straker (Curtin University).

Submission from the Digital Child

Ms Lisa Chesters MP
Chair
Standing Committee on Employment, Education, and Training

Dear Ms Chesters

We are making this submission on behalf of the Australian Research Council (ARC) Centre of Excellence for the Digital Child (Digital Child).

The Digital Child comprises almost 200 researchers across six Australian universities, 14 international universities, and over 20 partners including The Smith Family, Early Childhood Australia, the Office of the e-Safety Commissioner, and Google.

We deliver evidence-based research on the impacts of digital technologies on children's development, learning, and well-being. We aim to enhance public understanding, inform policy, and provide guidance for families, educators, and technology creators with the goal of supporting children to be confident growing up in a rapidly changing digital world.

[Young children are growing up with smart speakers and AI tools](#) that can generate words, images, voices, music, and video. Just as the written word or the printing press changed the relationships that people have with memory, stories, play and work, changes of a similar magnitude are happening today through machine learning tools.

There are many questions to consider when exploring these new tools and we welcome the Inquiry focus on generative AI in educational settings. Our submission responds to **Considerations 1-4 and 6** as identified by the House of Representatives Standing Committee on Employment, Education, and Training.

Consideration 1: The strengths and benefits of generative AI tools for children, students, educators and systems and the ways in which they can be used to improve education outcomes.

All Australian children live in an increasingly digital world. The use of generative AI in educational settings should be designed to support and empower children, parents and carers, and educators to engage with the role of digital media and technologies and enable students to be proficient users.

Generative AI use in education could include adoption as a tool for teaching critical literacy. Students could be supported to use AI generated texts as a springboard to develop or further their own critical literacies, e.g., developing skills in validating claims/facts, identifying plagiarism, identifying silences, and/or skewed arguments.

Consideration 2: The future impact generative AI tools will have on teaching and assessment practices in all education sectors, the role of educators, and the education workforce generally.

Knowledge and understanding about digital technology are valued in the early childhood education curriculum. While digital technology use with children can be controversial, and sometimes considered at odds with play-based approaches that underpin Early Childhood

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Education and Care (ECEC) programs, their inclusion in early years curriculum documents has prompted reflection about how best to use them with and for children.

Early childhood education is underpinned by two Approved Learning Frameworks (ALFs) – Belonging, Being and Becoming: The Early Years Learning Framework for Australia; and My Time Our Place: Framework for School Age Care. Both inform curriculum and pedagogy in ECEC. These frameworks were recently updated (2021-2022, endorsed by the Education Ministers Meeting in December 2022) with a new vision for children's learning, including recognition that young children should be introduced to digital technologies as a learning tool in the preschool years.

Generative AI poses challenges for assessing students' overall learning and progression and their understanding of academic integrity. Educators will need support to consider how to support students' acquisition of essential knowledge and skills in this area. A lack of preparedness regarding how to help students thoughtfully and ethically engage in learning could pose risks relating to career preparedness. Professional learning and development will be essential for preparing educators in all sectors for the use of generative AI. In our response to **Consideration 6**, we provide additional, related recommendations.

Consideration 3: The risks and challenges presented by generative AI tools, including in ensuring their safe and ethical use and in promoting ongoing academic and research integrity.

Generative AI poses a range of challenges. These challenges include support children to judge the accuracy/veracity of content, the risk of plagiarism, reinforcement of socio-economic barriers and disadvantages, and a range of legal risks.

Helping children judge the veracity of content: A challenge for families and professionals working with young children is how to help children understand and develop skills in identifying the authenticity of content. Generative AI content is probabilistic, meaning the model learns 'facts' based on quantity, not quality, of content and outputs can be factually incorrect. This poses the question of how children will learn to judge what AI content is factually correct or fictional.

The risk of plagiarism: Generative AI tools [need to be used carefully](#). Importantly, users must consider the potential issues of plagiarism, factual errors, and credibility of sources used to produce outputs.

Reinforcing socio-economic barriers and disadvantages: Digital inequalities in rural, urban, and economically marginalised communities present risks for children's learning, just as other social and cultural inequities have in our past and present. There is a significant risk that students from marginalised communities will be further disadvantaged by generative AI use and it is important for there to be an appropriate policy response.

Legal risks and challenges: There are various legal risks and challenges presented by generative AI in the context of education. These dilemmas reinforce the need to educate students and educators on how these tools work, what the legal and ethical issues are, what the business models behind them are, and so on to ensure *critical* digital/data literacy.

The legal risks include:

- Terms and conditions applicable to these tools may preclude the use by certain age-groups (e.g., under 13s) or require parental consent where a person is under 18. Educators and other professionals will need to consider how to manage this in educational settings. This poses challenges around intended use by young people in school or early years of tertiary education. Institutions will need to consider where and when parental/carer consent is required to use generative AI and how

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parameters of consent influence young people's ability to participate in digital environments and use of EdTech.

- Companies providing generative AI tools can reserve the right to change terms and conditions from time to time, often without notice. This presents an inherent and ongoing risk to institutions that require use by students of such tools. However, there may be less of risk if they negotiate an enterprise licence/agreement that does not permit unilateral alteration of terms by the provider.
- Use of generative AI tools in teaching or assessment may present issues if a student (or parent/carer, where consent is required) is not willing to accept the applicable terms and conditions, privacy policy, and so on. Institutions will need support on how to navigate this with a specific focus on providing alternatives to ensure students are not adversely affected by a lack of participation.
- Inputting content into a generative AI tool *could* constitute an infringement of copyright or intellectual property rights. Similarly, how can users judge whether the outputs of generative AI have or have not infringed on copyright or intellectual property? Additionally, inputting information into a generative AI tool could potentially breach laws on confidential information or threaten an individual's privacy. For example, inputting information could increase the risk of de-anonymisation of datasets.

Consideration 4: How cohorts of children, students and families experiencing disadvantage can access the benefits of AI

Inclusion and access should be a central focus for policy responses on the use of generative AI in Australian education systems.

In Australia, many children do not have access to digital technologies. Access and usage differ according to socio- economic, gender and age characteristics. In Australia, the Australian Bureau of Statistics reports that while nearly all families have access to the Internet (97%), mobile phones (86%) and the majority have tablets (62%), children in households without Internet are excluded from digital connection and attendant access to knowledge and diverse social interactions. Further, some children do not have access due to their geographic location.

To realise the benefits of generative AI, we should seek to improve digital connectedness for all children in rural and remote areas, and for those vulnerable families who have limited economic resources.

Consideration 6: Recommendations to manage the risks, seize the opportunities, and guide the potential development of generative AI tools including in the area of standards.

Recommendations for education systems

- **Support students to develop critical literacy:** If generative AI tools are to be integrated effectively into learning, teaching, and assessment, it will be essential for learners to be equipped to think critically and ethically about when and how to use these types of tools.
- **Provide professional learning and development to educators:** Educators will need support to assist them in understanding generative AI in terms of potential applications, progression as a tool, and how to fit generative AI within their practice and their context. To facilitate this, educators at all levels will benefit from accessible, quality professional learning and development and resources to support them in their work.
- **Maintain an open dialogue on use of generative AI:** This is a contentious area requiring ongoing exploration. Continued conversations between learners, educators,

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and leaders are essential in navigating this space; these discussions should be guided by evidence and consider multiple perspectives.

Recommendations for technology development

- **Age-appropriate access and design:** If young children are in settings where generative AI tools are used, then these need to be carefully scaffolded in their learning, literacy, and curriculum. Critical understanding of how these tools work should be baked into the whole K-12 system, long before they enter higher education. These tools should also, ideally, be designed in ways that can recognise the age of users.
- **Transparency:** It is important for any generative AI system/offering to be transparent regarding the data it has been trained on. This is important both in terms of recognising what perspectives are already accounted for and, vitally, what's going to be missing. For media outputs (images, voice, video, etc), answering questions around ownership and even copyright are also important.
- **Sustainability/Environmental Costs:** Many generative AI systems are power- and resource- hungry. Their use needs to be balanced with the environmental costs. Their use should not displace existing and future commitments to sustainability.

Thank you for the opportunity to response to this Inquiry. Please contact me at [redacted], CC [redacted], if you have questions on any aspect of this submission. Our researchers would be delighted to assist.

Kind regards,

Professor Susan Danby
Director,
Australian Research Council Centre of Excellence for the Digital Child
digitalchild.org.au

About the Australian Research Council Centre of Excellence for the Digital Child

The Australian Research Council Centre of Excellence for the Digital Child, funded by the Australian Research Council with AU\$34.9M over its seven-year life, is charged with leading national and global research, policy, and practice to ensure that all Australian children are healthy, educated and connected in a rapidly expanding digital world.

The Australian Research Council Centre of Excellence for the Digital Child is committed to creating positive digital childhoods for all Australian children. Our research is led by an internationally esteemed team of interdisciplinary researchers. Our collective expertise addresses the significant risks and opportunities of digital technologies in everyday lives of families and educators, including screen time, children's digital rights, e-privacy, commercialisation, digital technology innovation, relationships, health and wellbeing, sociality, education and learning, and digital play.

The Digital Child involves six Australian universities, 13 international universities, and 20 global partners such as Google, and national partners such as the Office of the e-Safety Commissioner, Early Childhood Australia, and The Smith Family.

The Digital Child recognises that significant engagement with digital technologies and media begins before birth. Babies emerge into a digital world, setting a life-long trajectory with connected technologies based on early experiences.

The Digital Child recognises that young children benefit from digital technologies, even though public and policy discourses often focus on attendant risks. These foundation years determine physical, emotional, social, and educational development, informing every child's understanding of themselves and of their place in the world, and building their connectedness and relationships with people and place.

Find out more about the Digital Child through our website (digitalchild.org.au). We publish policy- and research- focused working papers as freely available, evidence-based resources on our website: www.digitalchild.org.au.