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Submission for:

Inquiry into the use of generative artificial intelligence in the Australian education system

<p>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;</p>	<p>Benefits:</p> <p>Saves time: AI can significantly save time by automating certain tasks that would otherwise require manual effort. For example, AI-powered grading systems can quickly evaluate multiple assignments and provide feedback, saving teachers' time on grading. This time-saving aspect allows educators to allocate their time more efficiently and focus on other important aspects of teaching.</p> <p>Can be an educative tool for developing communication/expressive language if the feedback is analysed, critically processed, and applied in future projects: AI systems can provide feedback on communication and expressive language skills, such as writing or speaking. By analysing the feedback provided by AI systems and critically processing it, students can learn from their mistakes, identify areas of improvement, and apply this knowledge to enhance their future projects. This iterative process of receiving feedback from AI systems can support the development of better communication and language skills over time.</p>
<p>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;</p>	<p>Generative AI tools could facilitate personalised learning experiences by tailoring educational content to individual student needs. These tools can generate customised lesson plans, adaptive assessments, and targeted feedback based on each student's unique profile. Educators will play a crucial role in leveraging AI-generated insights to provide tailored guidance and support to their students.</p> <p>AI-powered tools can automate administrative tasks, such as grading, data analysis, and content generation. This can free up educators' time, allowing them to focus more on instructional planning, individualised instruction, and fostering meaningful student-teacher interactions. Educators may also rely on AI-generated insights to identify learning gaps, track student progress, and make data-informed instructional decisions.</p> <p>Generative AI tools can serve as powerful teaching aids, providing educators with access to vast repositories of educational resources, including interactive simulations, virtual reality environments, and adaptive learning platforms. Educators can leverage these tools to create engaging and immersive learning experiences, supplement their instruction, and promote active student participation.</p> <p>AI-powered assessment tools can offer more sophisticated and reliable methods of evaluating student performance. These tools can analyse and interpret diverse forms of student work, including written responses, multimedia projects, and even complex problem-solving tasks. By providing</p>

	<p>timely and accurate feedback, AI tools can assist educators in understanding students' strengths and areas for improvement, enabling targeted interventions and fostering continuous growth.</p> <p>The integration of generative AI tools will require educators to adapt and acquire new skills. Educators will need to develop a deeper understanding of AI technologies, data literacy, and ethical considerations surrounding AI in education.</p> <p>Educators will likely collaborate with AI developers and researchers to shape the design and implementation of AI tools in education. This collaboration will involve providing feedback, sharing pedagogical expertise, and ensuring that AI systems align with educational goals and ethical standards. Educators' insights will be essential in designing AI tools that are effective, equitable, and supportive of inclusive learning environments.</p> <p><i>Dependency and atrophy of critical thinking and writing skills: If the engagement with AI is solely focused on the generated response, there is a risk of increased dependency on the AI system. This heavy reliance on AI for answers or solutions can lead to a decline in critical thinking skills. Additionally, AI-generated responses may not provide the same level of depth, nuance, or originality as human-generated responses. Depending solely on AI for responses can hinder the development of critical thinking skills and may result in a decrease in writing skills, such as clarity, conciseness, cohesion, and coherence, which are essential for effective communication.</i></p>
<p>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;</p>	<p>The potential for plagiarism and copyright infringement. AI tools have the capability to generate content that closely resembles existing works, making it crucial to establish clear guidelines and regulations to prevent unauthorised use of copyrighted materials.</p> <p>Educators and institutions need to promote ethical conduct and educate students about proper citation, attribution, and responsible use of AI-generated content, but it might not be enough!</p> <p>Generative AI tools learn from vast amounts of data, which can inadvertently introduce biases, including taking sides in politics and treating religions discriminatorily!</p> <p>The use of generative AI tools can raise concerns about the authenticity and integrity of academic work. It becomes challenging to determine whether a piece of work has been genuinely authored by a student or generated by an AI tool.</p> <p>Generative AI tools often require access to large amounts of data to function effectively. It is crucial to ensure the privacy and security of sensitive student information and data used by these tools. Adequate safeguards, such as data anonymisation and encryption, should be implemented to protect student privacy and prevent unauthorised access or misuse of personal information.</p>

	<p>Generative AI tools can produce outputs that are difficult to understand or explain. It is important to prioritise the explainability of AI-generated content and decisions, especially in educational contexts. Users should have insights into how the AI tool arrived at its conclusions or generated specific content. Educators and developers should work towards creating AI systems that provide clear explanations and justifications for their outputs, allowing for better understanding and trust in the technology.</p> <p>The ongoing monitoring and evaluation of generative AI tools to identify and address any unintended consequences or risks is important and can be time-consuming. Regular assessment of the tool's performance, impact, and adherence to ethical guidelines should be conducted. This includes soliciting feedback from educators, students, and other stakeholders to ensure that generative AI tools align with educational objectives and promote academic and research integrity.</p>
<p>How cohorts of children, students and families experiencing disadvantage can access the benefits of AI;</p>	<p>Through libraries, local community colleges</p>
<p>International and domestic practices and policies in response to the increased use of generative AI tools in education, including examples of best practice implementation, independent evaluation of outcomes, and lessons applicable to the Australian context; and</p>	<p>Ban specific versions/ AI that have very low accuracy</p> <p>Graded work/assignments should state provisions around AI-generated responses</p> <p>Requirements for AI use need to be incorporated into assessments and be used as a starting point with a further element of critical thinking/evaluation/analysis</p>
<p>Recommendations to manage the risks, seize the opportunities, and guide the potential development of generative AI tools including in the</p>	<p>Many duties of teachers and resource developers can be separated into a special department where a limited number of persons supervise/ coordinate AI in those duties</p> <p>Higher level of centralisation of the curriculum with specific norms (not guidelines) still with a focus on modern practices of student-centered education</p> <p>The allowable bank of Tasks involving AI can be pre-approved leaving a small</p>

area of standards.	room for error due to teachers' own improvised activities To have a governing body around the use of AI technology in Education Sectors Compulsory curriculum around AI use for all
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