University of Southern Queensland

Inquiry into the use of Generative Artificial Intelligence
in the Australian Education System

July 2023

The University of Southern Queensland (UniSQ) welcomes the opportunity make a submission in relation to the inquiry into the use of Generative Artificial Intelligence in the Australian Education System.

Like all technologies, Artificial Intelligence (AI) capability will continue to grow exponentially, and how it is used will have major impacts in education. AI will impact educational processes and systems, the knowledge and skills required by employers, and the expectations of university students around both what they are learning, and how they are learning.

Feedback in relation to the areas under consideration as part of the inquiry is detailed below.

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.**

   There are numerous benefits of Generative AI for higher education students. These include:

   ☐ The prospect of a highly personalised learning experience and provision of customised content, with AI used to adapt curriculum and content to support students on the learning journey, starting from where they are at, and being provided with targeted learning opportunities in areas needing development in a way that is very closely aligned with their desired outcomes, learning needs and their approaches to learning. Such a personalised learning experience could include adaptive assessment mechanisms to again support students from where they are at in their learning journey;

   ☐ Additional tutor-like supports through 24/7, immediate response systems (for questions around course content), which would help students receive 'just-in-time' advice, information and support;

   ☐ Presentation support (speaker notes generation);

   ☐ On-demand feedback/tutoring;

   ☐ Obtaining timely highly contextualised advice and information regarding their studies in the desired format;

   ☐ An enhanced online learning experience; and

   ☐ Preparing students of today for their future world, which will, without a doubt, include the use of AI (see, for example, the June 2023 McKinsey report *The economic potential of generative AI: The next productivity frontier.*)

   A key consideration is ensuring that higher education students are supported to develop inherent knowledge of the benefits, risks and use of AI in higher education and their future careers. It will be necessary to focus on the development of information literacy skills and knowledge that is attuned to a Generative AI environment.

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.**

   Generative AI tools could enhance productivity through:

   ☐ Content curation: developing and improving curriculum and assessment, saving time for academics developing curriculum. To ensure quality, it would be imperative that the educator still retains a central role, not only in designing the learning and developing the content, but also in adapting the content generated by AI to ensure

it is both fit for, and a good fit for, their students. Quality will need to be assured by professionals trained to do this work and staff who curate and verify content;

☐ Developing assessment items to ensure that AI is not used to complete assessment items. This requires assessment to be re-imagined, to ensure it remains valid and verified;

☐ Assisting in assessing student work and providing feedback. This would only be able to be done for 'low-risk', objective/one correct answer type assessment items such as quizzes and would still require a check by the educator to ensure accuracy. Here the educator could act as a moderator. In relation to feedback, a number of tools such as Turnitin already provide the opportunity for makers to develop a bank of feedback comments, and AI will see increased automation of such functions; and

☐ AI can be used to offload administrative tasks. Staff will be able to focus on value adding activities and work best suited to their human skills and contextual knowledge.

A key consideration is ensuring that teaching staff are fully versed in the benefits, risks and use of AI in higher education, so academic staff development must be undertaken.

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.**

As noted, there are a number of risks that need to be addressed, including:

☐ Ethical use of AI, particularly around assessment, to be able to provide an assurance of student learning outcomes. Other ethical considerations including data bias, misrepresented sources, and intellectual property infringement;

☐ If someone uses Generative AI to generate and write a literature review, this could be quick, and it could be a time saver in many aspects of research. Conducting a literature review requires both analysis and synthesis within the context of the investigation. To do this the person (staff or student) must understand the content sufficiently to be able to build their research on this. It is unlikely that we can stop people using Generative AI tools for the first step (and maybe the second), so how do we ensure they understand what is being done? In the case of a PhD student for example, an oral presentation and questioning at the Confirmation of Candidature is required and they should declare whether and to what extent they have used any Generative AI tools in the preparation of their Confirmation. The introduction of formal Oral Exams for Doctoral candidates and possibly for Masters by Research may also need to be considered, again focussing on students demonstrating they understand what is in their thesis;

☐ Academic Integrity – students and staff using Generative AI to do the work for them and the potential for increases in Academic Misconduct;

☐ User adoption occurring faster than organisations – and governments – are able to respond, leading to too little, too slow, or too fixed responses;

☐ Accessibility – can all students access it and do paid versions provide a better experience?;

☐ Training - if staff are using the product, are they using it to its fullest potential and how are we teaching students to use it?;

☐ AI accuracy and hallucinations; and

☐ Intellectual property rights.

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

There is a risk that AI could further increase the digital divide. Thought needs to be given to any use of AI in education, to ensure equality of access and to mitigate any risk of further embedding disadvantage through the loss of access to information. Other considerations include:

☐ Institutional licenses; and

☐ Embedding AI as a digital literacy throughout the education ecosystem.

5. **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.**

This needs to occur and will be useful in providing guidance to the education sector. In terms of international practices, see, for example, the *UNESCO International Institute for Higher Education in Latin America and the Caribbean ChatGPT and Artificial Intelligence in higher education Quick start guide*.

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

This needs to occur and will be useful in providing guidance to the education sector. Considerations include:

☐ Usage guidelines, preferably consistent throughout the sector;

☐ Clear internal use policies;

☐ Education/professional development; and

☐ Privacy and data protection – need a clear understanding of whether data is used to improve the AI and where data is stored.