10 July 2023

Parliamentary inquiry into the use of generative artificial intelligence in the education system
The House Standing Committee on Employment, Education and Training

Submission by the Association for Academic Language and Learning

Introduction

The Association for Academic Language and Learning (AALL) welcomes the opportunity to provide a voice to the parliamentary inquiry into the use of generative artificial intelligence in the education system. This submission has been authored by its Executive Committee based on input from its members. It focuses specifically on the higher education and enabling sectors, as this is the association's area of expertise.

Overall, the association:

- Acknowledges the transformative impact that generative artificial intelligence will have on the future of learning in higher education;
- Encourages the ethical and effective use of generative artificial intelligence in language development and learning;
- Advocates for Australian governing bodies and higher education institutions to continue to invest in professionally trained language educators to assist students to engage critically with these tools as *supporting tools* for developing written and oral communication.

The Association for Academic Language and Learning (AALL)

AALL is a professional association committed to representing and supporting tertiary academic language and learning educators in Australia. Founded in 2005, the association provides professional development to practitioners in academic language and learning support and aims to lead national discussions about how diverse students are best supported to develop independent language and learning skills. The association has over 200 members, including representation from every state and territory across Australia.

Current sector challenges in academic language and learning support

There are several challenges that must inform the ways in which generative artificial intelligence tools are adopted for learning in higher education contexts. Some of these sector pressures—such as institutional funding, international student mobility, and shifts in the employment market—are beyond the scope of this submission to explore in adequate detail.

However, there are two key challenges that warrant further exploration: supporting diverse student cohorts and academic integrity. The first consideration is that Australian universities enrol students from a rich variety of socioeconomic, linguistic, and cultural backgrounds. Supporting diverse student cohorts to succeed at university is in the national interest, but the reality is that not all students are academically prepared to succeed when commencing at university (Baker et al., 2022). Similarly, not all students will have the requisite digital literacy skills to engage effectively with different forms of learning technologies (including generative artificial intelligence tools) without significant guidance and support (Smith & Storrs, 2023). It is therefore critical that university students have access to language and learning support at their respective institutions to engage with these tools appropriately, both within and adjacent to the curriculum.

The second major consideration is the academic integrity risks in using these tools. These tools should be used as a support; they should *not* replace teaching students how to write and communicate. Traditionally, universities have relied on the production of written artefacts to infer that the learning outcomes have been met. Now that generative artificial intelligence tools such as ChatGPT can produce these artefacts to a reasonable degree of quality, universities need to rethink the association between learning and performance (Lodge, 2023). Again, the role of language and learning advisers in supporting academic staff to revise assessment tasks to ensure students are still capable of communicating effectively is more important than ever before.

Considerations based on the Inquiry's Terms of Reference

AALL has considered the impact of generative artificial intelligence across each of the Inquiry's Terms of Reference. Each of the following sections is a collated summary of the feedback from AALL members across Australia.

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 several benefits in the use of generative artificial intelligence to improve education outcomes in the higher education sector. These include:

- Support for personalized learning and improving education outcomes for learners with disabilities and experiencing disadvantages (Sullivan et al., 2023);
- Opportunity for assisting in the development of research and critical thinking skills;
- Opportunity for support in stimulating creativity, generating initial ideas and making connections;
- Capacity to minimize cognitive load on 'lower order' thinking skills and focus teaching resources on 'higher order' critical thinking skills once the lower order knowledge and skills have been developed.

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.

As Peter Coaldrake has pointed out (the Chief Commissioner for Australia's Tertiary Education and Quality Standards Agency, also known as TEQSA), the rapid development of generative artificial intelligence tools requires a "deep rethink" of how universities assess students (TEQSA, 2023). In general, AALL member feedback suggests strong support for this type of thinking. Feedback from members included comments such as:

- Generative AI tools will compel educators to design and adopt more robust and authentic assessment practices, including programmatic assessment design;

- The assessment of learning will need to become more process-driven, rather than just product-driven (Mollick & Mollick, 2023);
- Policies, guidelines and practices regarding these tools will need to be continually reviewed and updated as technology continues to develop rapidly;
- Use of these tools needs to be understood as a significant academic literacy. This includes the development of advice and resources to ensure there is ongoing training for educators to be experts in this literacy so that students are supported to use such tools safely, ethically, and effectively;
- Building student literacy in using generative artificial intelligence tools must be taught within other skills and capabilities, such as critical thinking, development of personal authorial voice, clarity of thought and expression.

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.

The key risks in using generative artificial intelligence relate to maintaining academic and research integrity**,** protecting copyright and intellectual property rights, and the extent to which generative artificial intelligence outputs provide factually correct and unbiased responses. The AALL member base have reported specific concerns about:

- Our evolving understanding of integrity in research, including the extent to which students and researchers integrate the use of these tools in academic writing;
- The criticality of teaching students *why* the use of generative artificial intelligence tools must be done in a safe an ethical manner. This includes individuals being mindful of the information that is included in inputs, and whether inputs will contribute to the language database;
- Tools such as ChatGPT do not always produce reliable or ethical information and can fabricate 'evidence' as well as contain inherent bias and prejudice (Lim et al., 2023). Students must be made aware of these risks, understand the requirement for critical thinking and be able to apply it when commencing tertiary study.

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

Generative artificial intelligence tools present an enormous opportunity to improve success rates for key equity cohorts in universities. As Sullivan et. al (2023) explore, examples of the ways in which these tools can improve outcomes include:

- Demystify academic conventions for non-traditional students, such as those who are the first-in-family to study at university;
- Students from non-native English-speaking backgrounds can use generative artificial intelligence tools for grammatical feedback on their writing;
- There is also potential to use it as a quasi-translator, especially for complex terms that may be difficult to understand if English is not a student's native language;
- For students with accessibility needs, such as those with communication disabilities, these tools can understand poorly written commands and pull information together in a digestible summary for those with low literacy skills.

AALL members have suggested that to ensure fair and equitable access to generative artificial intelligence tools, information about its ethical use needs to be as clear and transparent as possible. Moreover, these tools should be freely available.

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.

It is encouraging that the Australian government is taking a proactive interest in how generative artificial intelligence tools are used. Currently, higher education institutions are developing different strategies and guidelines in responses to these emerging tools. Some institutions, for example, are categorising the unacknowledged use of generative artificial intelligence as plagiarism, whereas others categorise it as contract cheating. There needs to be consistent national guidelines for higher education institutions to model best practice. This could occur through TEQSA good practice notes and training modules.

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

Some of the recommendations from AALL members about the use of generative artificial intelligence include a stronger process on learning (rather than production of an artefact), encourage use of these tools to enhance outcomes for diverse students, and to develop resources for consistent practice nationally. These recommendations will be unpacked further in the following section.

Recommendations

Drawing specifically from Term of Reference 6 and other suggestions from the Executive, AALL proposes the following recommendations:

- **Recommendation 1**
  Promote proactive collaboration with language and learning advisers as experts in developing communication skills for the purpose of developing approaches to using these types of tools effectively.
- **Recommendation 2**
  Develop a TEQSA good practice note on the appropriate use of generative artificial intelligence in higher education.
- **Recommendation 3**
  Develop a TEQSA-led national training schedule for the effective use of generative artificial intelligence for assessment and learning, including online modules and masterclasses.
- **Recommendation 4**
  Launch a national body or working group in partnership with key stakeholders in the tertiary sector to monitor the evolution and adoption of generative artificial intelligence in the Australian higher education sector.
- **Recommendation 5**
  Position the use of generative artificial intelligence tools as a benefit for enhancing learning at university (especially for diverse cohorts), but also as tools that have inherent risks in use. These risks include not taking a critical perspective on the reliability of outputs, not maintaining privacy and copyright, and overreliance on outputs to communicate ideas.
- **Recommendation 6**
  Encourage the explicit teaching of using generative artificial intelligence as a key literacy skill that students will need to develop to be successful at university and in the workforce.

In closing, on behalf of the Association for Academic Language and Learning, we thank the Committee for the opportunity to contribute to the shaping of the future of generative artificial intelligence in education.

http://www.aall.org.au

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