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Navigating the Terrain:

Emerging Frontiers in Learning Spaces, Pedagogies, and Technologies

Students as collaborative partners: Embedding AI literacy in higher education

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In contemporary society, Artificial Intelligence (AI) pervades numerous facets of our lives and is likely to impact many sectors and professions, including education. Tertiary-level students in particular face challenges regarding the use of AI for studies and assessment, including limited understanding of AI tools, as well as a lack of deep critical engagement with AI for learning (Shibani et al., 2024). To respond to emerging developments in generative AI, the recent Australian Tertiary Education Quality and Standards Agency (TEQSA) report suggests tertiary-level learning and assessments be designed to foster responsible and ethical use of AI (Lodge et al., 2023). This involves the development of AI literacy among students to engage with AI in critical, ethical ways that aid their learning and not hinder it.

Our project aims to narrow the AI literacy gap among students from diverse study backgrounds by providing foundational knowledge and developing critical skills for practical use of AI tools for learning and professional practice, in collaboration with students and academics as part of a Students as Partners (SAP) initiative. Staff bring expertise in AI critical engagement and students bring practical, first-hand experiences of learning in this collaboration, supported by the university's SAP program.

Building on the current UNESCO recommendations for the use of generative AI in education (UNESCO, 2023) and prior theoretical frameworks on AI literacy (Chiu et al., 2024; Ng, et al., 2021; Southworth et al., 2023) we target key skills that higher education students should develop to meaningfully engage with AI. By creating accessible and engaging resources, such as instructional videos and comprehensive guides on generative AI applications like ChatGPT and ways to prompt for enhancing learning, we introduce existing AI tools and teach students to use them effectively, promoting a hands-on learning environment.

Using learning design principles, the developed curriculum will be presented in an AI Literacy module on a Canvas site, with supporting instruction workshopped with student participants for evaluation. Student cohorts recruited from diverse disciplines will pilot and assess the effectiveness of the program, and qualitative methods such as focus groups and interviews will be used for evaluation of our intervention and continuous improvements. Findings will inform tertiary students' current level of AI literacy and the effectiveness of interventions to improve key skills beyond their disciplinary knowledge, better preparing them for life beyond university. Indeed, the implementation of similar AI literacy courses has demonstrated statistically significant improvements in AI literacy and understanding of AI concepts amongst university students (Kong, Cheung, & Zhang, 2021).

Our approach underscores the importance of relational engagement in higher education with students as partners (Matthews, 2018) and participatory design with students in a topic that is significant in the current age of AI (Laupichler et al., 2022). The course's flexibility to be accessed directly or embedded into other curricula ensures scalability and broader impact, solidifying the validity of our multifaceted approach. Through utilising relevant research methodologies and learning design principles, we endeavour to create an AI literacy course that is robust, accessible, educational, and engaging to use by tertiary-level students from diverse study backgrounds.

Keywords: Artificial Intelligence, education, AI literacy, critical engagement, student partners

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