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# Learning about AI, learning with AI: Integrating AI ethical reflection and skill development into the Master of Clinical Psychology Program

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Artificial Intelligence (AI) is increasingly embedded in daily life and professional practice, offering both transformative potential and ethical challenges. While AI supports efficiency and innovation, it also presents risks, including bias, misinformation, and limited situational judgment. A recent global survey found that although 86% of university students use AI, many feel unprepared to engage with it critically or ethically. At the University of Sydney, AI is taught across most disciplines, yet gaps remain, particularly in programs like the Master of Clinical Psychology (MCP). As AI continues to reshape healthcare and psychological practice, future clinical psychologists must develop AI literacy to navigate this evolving landscape responsibly. This proposal introduces a framework for embedding AI ethics and practical applications into the MCP curriculum, equipping students with the critical skills needed to engage with AI ethically and effectively in their future roles.

Keywords: Artificial intelligence, digital literacy, ethics, Al agents, clinical psychology, learning with Al

#### Introduction

Artificial intelligence (AI) is ingrained in our daily lives. It can correct our spelling, filter our email, help us avoid traffic; and suggest what we should watch. The countless micro-decisions made by AI occur constantly and seamlessly to enrich our lives. Mostly, they happen without us thinking twice about it. AI is already second nature in our lives and as advancements in AI technology occur, it is bound to enhance how we work, live and play.

With all the benefits that come with AI, there are boundless pitfalls. Amazon once used an AI recruiting tool to screen job applications that ended up favouring men; ChatGPT has been known to hallucinate information; and a Microsoft powered chatbot used by entrepreneurs in New York encouraged its users to break the law. Autonomously driven vehicles are 5.2 times more likely than human driven vehicles to have accidents during dawn or dusk (Abdel-Aty & Ding, 2024). In these situations, AI cannot evaluate complex scenarios or conditions. It is for this reason humans need to be able to critically evaluate, learn with, and think about AI.

A 2024 global AI student survey, by the Digital Education Council, revealed that across 16 countries, 86% of university students use AI in their studies. However, of the students surveyed, 1 in 2 do not feel AI ready and 72% feel that their universities should provide more training on how to use AI effectively. Digital literacy is one of the 9 graduate qualities that undergraduate and postgraduate students will develop while studying at The University of Sydney (USYD) and while the majority of disciplines have incorporated teaching of AI into their courses, there are still some, like the Master of Clinical Psychology (MCP), which have not. This is leaving students unprepared for their future roles as clinical psychologists in a constantly evolving AI landscape.

Al is predicted to bring unprecedented transformation to organisations and professional settings as it rapidly commercialises (Berg, Raj et al. 2023). For example, Al has already revolutionised healthcare by assisting with patient diagnosis and treatment, as well as administrative work by summarising clinical notes and medication history (Goodman et al., 2024). This raises an urgent need for future clinical psychologists to develop critical Al literacy, ensuring they can navigate a future where Al is integrated into their workplaces in an ethically responsible manner.

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This proposal outlines a pedagogical framework for integrating AI literacy into the MCP at USYD. By embedding AI ethics and practical AI applications into the MCP curriculum, we aim to ensure students not only understand AI but can also use it responsibly and ethically.

#### **Problem**

#### The rise of Generative AI: Impacts on healthcare and implications for higher education

Generative AI, such as ChatGPT, have rapidly emerged as technological innovations over the past three years. ChatGPT, released by Open AI at the end of 2022, attracted one million users within five days of its launch (Lim, Gunasekara et al. 2023) and was followed by Microsoft and Google developing their own AI models and by a plethora of other AI-based tools.

Al has been defined as the design of intelligent machines that can reason, learn, communicate and act in complex contexts and "can do these things as well as humans can, or possibly even better" (Nilsson, 1998, p. 1). In healthcare settings, Al has been used as "clinical decision support systems" to assist with patient diagnosis (Musen et al., 2016), because it can detect illnesses like malignant melanomas as well as human dermatologists (Esteva et al., 2017). In clinical psychology, Al has been used for patient diagnosis, prognosis, and risk assessment. For example, Lopez and Hurley (2023) reported Al use in suicide risk identification, predicting patterns of behaviour in people with substance use disorders, and assessing disease progression in people with neurodegenerative conditions.

While there are significant potential benefits to patients in improving quality of care, AI also has the potential to reduce administrative burden and burnout among healthcare practitioners (AHPRA, 2025). For example, AI has been argued to increase productivity and efficiency by automating repetitive tasks and augmenting human capabilities (Raisch & Fomina, 2024; Raisch & Krakowski, 2021). It can generate clinical reports using audio recorded patient appointments, concise summarises of a patient's medication history, and discharge documents to be shared between physicians (Scott et al., 2013; Goodman et al., 2024). It can also simulate complex patients to better educate clinical trainees (Ajluni, 2025). Such integration of AI in professional practice has led Karaca et al. (2021) to claim that "almost every type of clinician will be using AI technology for various purposes in the near future" (p. 2). However, there currently seems to be a "lack of guidelines, policies, and resources to assist instructors in efficiently and ethically integrating AI into teaching and learning practices" in higher education (Ren & Wu, 2025, p. 1).

These changes in professional practice and students' access to these tools have produced challenges and opportunities in the higher education sector. The Australian Government's Tertiary Education Quality and Standards Agency (TEQSA) has been monitoring the impact of such change on teaching and learning, and it has proposed some guidelines in response to the growing influence of AI (Tertiary Education Quality and Standards Agency, 2024). These guidelines emphasise the importance of designing learning experiences that foster authentic and appropriate student engagement with AI, promote inclusive and trustworthy evaluation practices, and encourage the responsible and ethical use of AI tools (Lodge, Howard, Bearman, Dawson, & Associates, 2023). TEQSA further highlights that assessment of learning should not only uphold academic integrity but also prepare students to navigate an AI-mediated society, framing these capabilities as essential graduate attributes for the future of work and learning (Lodge et al., 2023). These guidelines suggest that learning and assessment with AI needs to be ethically grounded, reflexive (i.e., "learners critically engage with AI... and reflect on the learning process", Lodge et al., 2023, p. 4), and situated in real-world practice.

#### The University of Sydney's response to Al

Following TEQSA guidelines, USYD has recently implemented several initiatives to facilitate integration of AI in its courses. First, USYD has developed and released its own AI tool called Cogniti, a generative AI platform specifically tailored for educational settings (AI for Educators, 2025). Cogniti enables staff to create custom AI

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chatbot agents that can be embedded into learning management systems like Canvas. Agents can therefore be programmed to provide students with instant, personalised feedback and support at any time. Staff may specify Cogniti agents to be "Socratic tutors, providing targeted and personalised feedback, role playing as clients, coaching for good groupwork, etc" (Wright, 2024, p. 3).

Second, USYD has updated its policies to better prepare students for an Al-enabled future. Rather than prohibiting or discouraging Al use, educators are "strongly recommended" to "set clear guidelines about whether and how these technologies might be appropriately used" to support student learning in their unit (Liu & Bridgeman, 2024). Resources have been developed and published for USYD students and staff describing how Al might be used productively and responsibly to learn and teach in higher education (Al in Education, 2025; Al for Educators, 2025). Providing these resources crucially sets "coherent and consistent rules to students around generative Al use", which reduces student confusion regarding their institution's rules around Al (Digital Education Council, 2024).

Apart from policy changes regarding student AI use for learning, USYD has also changed its policy regarding student AI use in assessments. The new "two-lane" approach to assessment design aims to "provide students with opportunities to engage with it productively and responsibly", while simultaneously "managing the risk of generative AI" to assure learning (Liu & Bridgeman, 2023). Therefore, "lane 1" assessments are secured assessments of learning, which aligns with TEQSA guidelines regarding an approach to assessment design which allows "forming trustworthy judgement about student learning" (TEQSA, 2023, p. 3). "Lane 2" assessments are unsecured assessments for learning, which aligns with TEQSA guidelines regarding the design of assessments and learning experiences that will "equip students to participate ethically and actively in a society where AI is ubiquitous" (TEQSA, 2023, p. 2). These USYD initiatives based on TEQSA guidelines suggest an approach to higher education which emphasises ethical AI use, critical reflection of AI, and "authentic" application of AI to real-world practice (AI in Education, 2025; Liu & Bridgeman, 2023).

#### Teaching Context: Integrating AI into the Master of Clinical Psychology (MCP) program

The teaching context is the MCP program, within the Clinical Psychology Unit (CPU) in the School of Psychology. The MCP is a two-year postgraduate degree designed to prepare students for professional practice.

Despite the ubiquity of AI, and the advent of the "two-lane approach" to assessment at USYD, pedagogy in the CPU has not kept pace with the reality of AI use by practising psychologists and students outside the classroom. To date, the CPU has disallowed the use of AI for assessments due to ethical concerns about confidentiality of client material. While these concerns are valid, current pedagogy will not be viable under the two-lane approach at USYD, nor will it help prepare students for their professional lives in the rapidly evolving AI-mediated healthcare sector.

We identify two major concerns regarding the current exclusion of AI into teaching within the MCP. First, students are not being encouraged to explore ethical principles as they apply to AI use, despite the prevalence of AI use in healthcare and TEQSA guidelines for higher education. Second, students are not being provided with opportunities to capitalise on the benefits of AI for supporting their clinical practice.

#### Pedagogical principles for integrating Al into out teaching context

As mentioned, TEQSA and USYD both emphasise that meaningful AI integration in higher education requires a shift away from traditional digital literacy. Such emphasis on "AI literacy" is reflected in two theoretical perspectives, which we will use to develop a set of pedagogical principles to guide integration of AI into the MCP.

#### Postdigital and "More-Than-Digital" Al Literacy

The first theoretical perspective by Jiang et al. (2024) calls for a postdigital and "more-than-digital" approach to AI literacy. This perspective follows Knox (2019) in moving beyond traditional separation between the digital and human. Rather, it describes AI as embedded within complex sociotechnical

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ecosystems. Technology is understood to be deeply entwined with educational (and professional) processes and practices, rather than being external to them.

Jiang et al. (2024) also advocates for "more-than-digital" Al literacy, which emphasises critical, reflective, and contextually situated engagement with Al tools, rather than simply their functional use. Two key elements define this approach: distributed agency and the "fair position" (Latour 2004). Distributed agency views authorship and action as co-produced by humans and non-humans, recognising Al as a collaborator rather than a passive tool. The "fair position" encourages students and educators to adopt a balanced view that neither overstates Al's capacities nor reduces it to mere human control.

The pedagogical implication of this perspective is to position AI tools as learning partners that enable students to co-construct knowledge when applied critically and ethically in complex, real-world tasks. Using AI as a learning partner can enhance student competence and promote deeper learning by fostering intrinsic motivation (Ryan & Deci, 2000). This approach aligns with TEQSA guidelines by encouraging student engagement with AI, and recent USYD initiatives endorsing AI use for learning.

#### Relational Epistemology and the "Black Box"

The second theoretical perspective by Bearman and Ajjawi (2023) proposes a relational epistemology, which encourages educators to teach students how to work with Al as a "black box". This perspective argues that knowledge is neither possessed by individuals nor machines alone but emerges through the dynamic interplay of people, practices, technologies, and environments (Foucault, 1963).

Although AI systems often operate opaquely, students must learn to engage with them productively, even when the internal logic behind outputs is not transparent. Moreover, since AI is not merely a technical tool but part of a broader sociotechnical system, its use is inherently shaped by norms, regulations, and professional values. In clinical psychology, this means students should not simply be taught how to use AI. They must also learn how to critically evaluate the disciplinary standards within which AI operates.

The pedagogical implication of this perspective is to highlight the educator's responsibility in developing students' evaluative judgement – i.e., the ability to discern when and how to trust AI systems, work within uncertainty, and identify ethical challenges. This approach to AI integration aligns with TEQSA guidelines by encouraging ethical use of AI tools, and recent USYD initiatives promoting critical analysis of AI responses by students in lane 2 assessments (Liu & Bridgeman, 2023). Cultivating students' evaluative judgments should produce learners who can navigate, challenge, and co-construct meaning in AI-mediated clinical practice.

Together, the theoretical perspectives support a pedagogy that is: situated in real-world practice (e.g., Al use in therapeutic settings), reflexive (e.g. critically evaluating Al use) and ethically grounded (e.g. reinforcing professional values and its implications for Al use, discipline-specific quality standards). Next, we will apply these principles to two units of study in the MCP as exemplars for how Al might be meaningfully integrated across the curriculum.

#### Solution

The pedagogical principles introduced above will be used to innovate two units within the MCP (PSYC6089 and PSYC6086). This innovation will serve as exemplars for broader AI integration within the program.

#### Learning about AI: Critically reflecting on ethical AI use in PSYC6089

PSYC6089 is a semester one, first year unit within the MCP that provides students with an introduction to contemporary ethical and professional standards in clinical psychology. Students gain the skills to interpret and apply relevant legal frameworks, mental health practice guidelines, and ethical codes. The unit also enhances the integration of theoretical knowledge with clinical application by exploring a variety of topics related to ethical and professional challenges. The existing ethical and professional practice domains are covered with a focus on applying relevant principles to scenario-based vignettes that present ethical challenges.

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To date, PSYC6089 has not extended teaching of ethical and legal principles to AI use in Clinical Psychology. However, there is a rapidly expanding literature regarding ethical frameworks for integrating AI ethics into education across the healthcare sector. For example, Weidener and Fischer (2024) outline a comprehensive principle-based approach that integrates traditional principles of medical ethics (autonomy, beneficence, nonmaleficence, and justice) with public health ethics principles (efficiency, common good orientation, and proportionality). We propose this ethical framework could be adapted to clinical psychology as this principle-based model aligns with core values in psychological training and emphasises adaptability in an evolving AI landscape (Chenneville et al., 2024). It also aligns with a pedagogy grounded in ethics from Jiang et al. (2024) and Bearman and Ajjawi (2023). Importantly, emphasis is placed in the literature on case-based learning (CBL) in the ethics of AI in healthcare, especially in medicine (Ossa et al., 2023; Weidener & Fischer, 2023). Such emphasis aligns with a pedagogy in which AI is situated in real-world practice as defined by Jiang et al. (2024) and Bearman and Ajjawi (2023).

Hence, we propose introducing to PSYC6089 students the key principles of ethical and professional AI use using CBL to help them understand the ethical issues involved in using AI in practice. By working through realistic clinical scenarios where AI is already being used—like in diagnostic tools, risk assessments, or digital mental health apps—students can explore how ethical principles apply in real-life situations. These cases give students a chance to think through complex questions around consent, data privacy, bias, and the limits of technology in understanding human behaviour. This may include real cases of AI use in clinical practice that have resulted in disciplinary action, thus highlighting the real-world consequences of unethical AI use. Allowing cultivation of AI literacy to occur in a clinical context will allow students to connect technical and ethical knowledge with their developing professional skills. Over time, we anticipate this style of learning will support case-based reasoning, where students spontaneously draw on past cases to make sense of new ones. Rather than treating AI as something separate, CBL helps students see it as part of the clinical world they're preparing to enter—something to understand, question, and use responsibly.

Weidener and Fischer's (2024) principle-based approach to AI ethics coupled with CBL aligns with the postdigital perspective on AI (Jiang et al., 2024) by embedding AI within complex clinical scenarios where human judgment, ethics, and technology are closely intertwined. It also reflects relational epistemology (Bearman & Ajjawi, 2023) by viewing knowledge as co-created through the dynamic interactions between clinicians, patients, technologies, and their ethical contexts. In practice, introducing students to the ethical, legal, and professional practice frameworks relevant to AI use will enable the development of competencies in ethical decision-making and critical thinking related to digital tools, aligning with the learning objectives of the existing ethics curriculum (Beauchamp & Childress, 2013), and reflexive pedagogy informed by Jiang et al. (2024) and Bearman and Ajjawi (2023). This approach is designed to mitigate the likelihood of unethical or unprofessional behaviour due to ignorance or poor reflective practice, as well as reducing fear-based avoidance. Integration using this method would enhance students' digital literacy, ethical competence, and readiness to navigate real-world challenges involving technology in practice. Moreover, as students work through cases involving AI, they are also shaping their professional identities in relation to AI – exploring what kind of clinician they want to be in a world with AI.

Assessment for this unit currently consists of a clinical viva where students individually discuss two ethical dilemma vignettes with a staff member, demonstrating their reasoning using the Code of Ethics and relevant legislation. We propose continuing with assessment of learning in this unit using clinical vivas but incorporating Al-related ethical dilemmas into the vignettes as an effective way to assess the new content and skills we plan to introduce. This proposal is consistent with TEQSA and USYD guidelines regarding inclusion of some assessments to assure learning, and it aligns with the pedagogical principles derived from Jiang et al. (2024) and Bearman and Ajjawi (2023) by asking students to demonstrate ethically grounded application of professional values in clinical psychology through their critical reflection on Al.

#### Learning with AI: Practising clinical skills with AI chatbots in PSYC6086

PSYC6086 is a semester one, second year unit within the MCP that builds on clinical skills developed in the training clinic, with a focus on enhancing competencies in assessment, formulation, treatment planning, and

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intervention for both adult and child clients. The unit aims to prepare students to assess and treat complex or chronic mental health conditions. The unit also incorporates students' second placement in the training clinic, including individual client work as well as weekly individual and group supervision.

To date, AI has not been incorporated as a teaching tool to enhance clinical practice in PSYC6086. While there are many ways to do this, we propose to begin this process by developing AI chatbots to provide opportunities for students to practice new clinical skills. This unit is designed to support the development of skills for working with complex or risky clients, but in practice these types of clients are not generally seen in the training clinic, limiting student ability to hone the new skills they are learning. The development of a Cogniti agent programmed to present with clinical complexity (e.g., resistance to engaging in therapy, anger, or undermining behaviour toward the therapist) will offer interactive, adaptive learning experiences that support the transition from theoretical knowledge to applied competence. Using AI chatbots to practice therapy skills exemplifies a postdigital perspective (Jiang et al., 2024) by integrating technology into the learning process, where human judgment and digital tools are closely intertwined rather than separate. Furthermore, it aligns with relational epistemology (Bearman & Ajjawi, 2023) because the knowledge and skills gained emerge through the interactive relationship between student and chatbot such that learning is co-constructed.

In healthcare education, AI chatbots have been reported to simulate diverse client scenarios, enabling repeated practice without adverse consequences to real patients (Kleinsmith et al, 2015). AI chatbots also align with experiential learning models and provide immediate, personalised feedback, which leads to enhanced student engagement and information retention (Labadze et al, 2023). Chatbots in counselling education have been employed in favour of traditional student role plays, where it can be difficult for role play partners to accurately portray a complex patient; and simulation using trained medical actors, which is a costly resource. Using these chatbots enabled the counselling students to practice their skills in their own time and at their own convenience, with minimal pressure (Maurya, 2024). Nursing students at a Singaporean University trialled the use of AI chatbots to enhance students' communication skills in different clinical situations (e.g. a post-operative patient; a pregnant woman). These effectively enhanced the students' preparedness for placements, increased confidence in interview skills and allowed for safe, objective and instant feedback (Shorey et al, 2019).

In PSYC6086, students will be encouraged to repeatedly engage with the AI chatbot (Cogniti agent) to hone their clinical skills on complex patients. They will also be required to submit one Cogniti transcript for assessment which demonstrates their ability to engage the "client" during the session and learn a new skill. Students will need to introduce skills that are relevant to the concerns the "client" is expressing, explain the skill clearly and concisely using examples and experiential practice, advance the "client's" understanding, and express confidence in further practicing the skill (prompt for this agent is provided in Appendix 1). This approach introduces assessment for learning to PSYC6086 in line with TEQSA and USYD guidelines (Bridgeman & Liu, 2025), and it illustrates human-AI collaboration in acquiring and practicing skills as described in Jiang et al's (2024) "more-than-digital" perspective to AI literacy.

#### Conclusion

Rather than banning and fearing AI use, the MCP should lead the way in modelling ethical, evidence-based integration of technology to prepare their students for an AI integrated workplace. By embedding ethical AI use into the curriculum and creating safe, simulated environments for skill development (e.g., using Cogniti chatbots), we can preserve professional standards while advancing educational quality. This proposal aligns with contemporary calls for innovation in higher education. It supports students in becoming both competent and conscientious practitioners who can understand and identify the potential bias, ethical, security and privacy concerns that go hand in hand with using AI in practice.

Having students learning and thinking about AI, over both years of the MCP program, will allow them to develop their technical proficiency using AI and encourages them to explore and demonstrate their critical thinking skills while using AI. However, successful implementation of this proposal may encounter some challenges as staff within the MCP may not yet have sufficient understanding of AI to be able to effectively develop intricate chatbots that can replicate complex patients. The additional time and cognitive load needed to learn this may place a strain on already time poor staff. Addressing this challenge will require investment in

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training and collaboration with educational innovation to ensure staff are equipped to effectively engage and understand AI.

Despite this challenge, embracing AI rather than considering it as a threat will place the MCP in good stead so that it can continue to be one of the most highly regarded clinical psychology programs in the country. This proposal aims to create clinical psychology graduates who are competent, conscientious, and critically engaged with AI in an ever-evolving technological landscape. By taking a proactive stance on AI integration, the MCP can not only prepare students for an AI-integrated future but also set the standard for ethical and effective AI education.

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Educating in an Era of Continuous Change

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