Challenges

Generative AI presents several challenges in an educational context:

- **Equity**: access is costly and inequitable
- **Privacy**: data should not be used for AI training
- **Control**: educators can’t easily steer AI behavior
- **Transparency**: no visibility over AI usage
- **Reliability**: not grounded in course content
- **Difficulty**: need to know how to prompt well
- **Equity**: institutionally-provisioned access to powerful AI models like GPT-4
- **Privacy**: hosted (SaaS or self-host) on Azure; data not used for AI training
- **Control**: instructor fully steers AI behavior by controlling the instructions to the AI model
- **Transparency**: de-identified conversation histories visible to instructors
- **Reliability**: course resources can be provided to improve response accuracy
- **Difficulty**: lower barrier to entry for AI use; LMS integration via LTI

Solution

Cogniti is a web-based generative AI platform built by educators at the University of Sydney. Educators can create their own AI ‘agents’ for their students. Instructors control the AI by providing plain-language instructions and uploading resources. These agents are their ‘AI doubles’, built by instructors to answer questions, provide feedback, give advice, explain concepts, encourage creativity, do role plays, and more.

We’ve always wanted to clone ourselves — and now we can, in a small way, with Cogniti — and leverage AI to be more available to help students when they need it. Our AI agents do not replace us, they augment us.

As an AI platform, Cogniti helps educators build their own AI agents for different purposes. A few examples:

- **Personalized feedback**: AI agents designed with course-specific assignment guidance and rubrics helped students improve quality of work and thinking
- **Authentic scenarios**: AI agents designed to act as clients or patients helped students apply knowledge and skills in a safe, feedback-rich environment
- **Essay topic development**: AI agents designed to provoke critical thinking accelerated discovery and topic refinement
- **Socratic tutor**: AI agents provided with course content and learning outcomes helped students learn through dialogue
- **Universal design**: AI agents designed by instructional designers helped faculty unpack barriers to learning and apply UDL principles

Learning impact outcomes

Since a soft launch in October 2023:

- 600+ AI agents created by educators from 30 institutions across Australia, New Zealand, Singapore
- 31,500+ conversation with 10,000+ users
- Equitable access to GPT-4 model for faculty and students
- Increased student engagement in in-class activities where they interact with Cogniti agents designed by their instructor
- Thousands of syllabus and content questions answered, improving student learning & experience
- Improved personalized feedback for thousands of students
- Increased AI literacy amongst students and faculty

Cogniti helps you analyze at-a-glance what students are talking with the AI about to help inform your teaching.