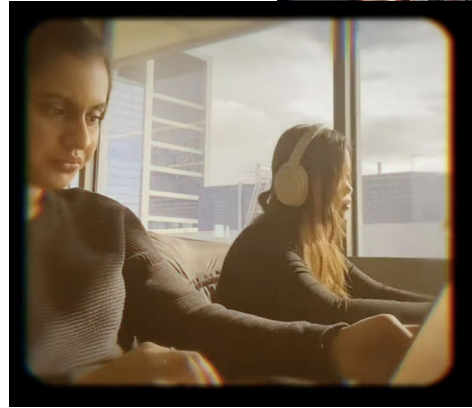


Building learner agency moment by moment in the age of AI



<https://www.youtube.com/watch?v=qdgctd71rXc>



“It is often the seemingly **small** things that we do that have the biggest impacts in students’ lives.”

November 30, 2022 Product



Introducing ChatGPT

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THE SHIFT

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A new chatbot from OpenAI is inspiring awe, fear, stunts and attempts to circumvent its guardrails.

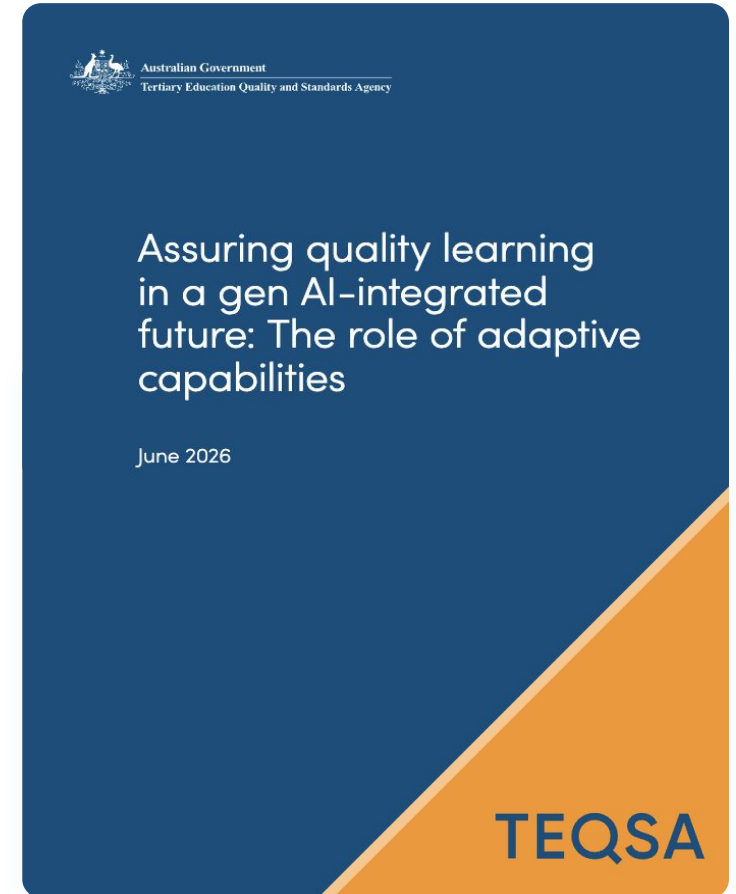
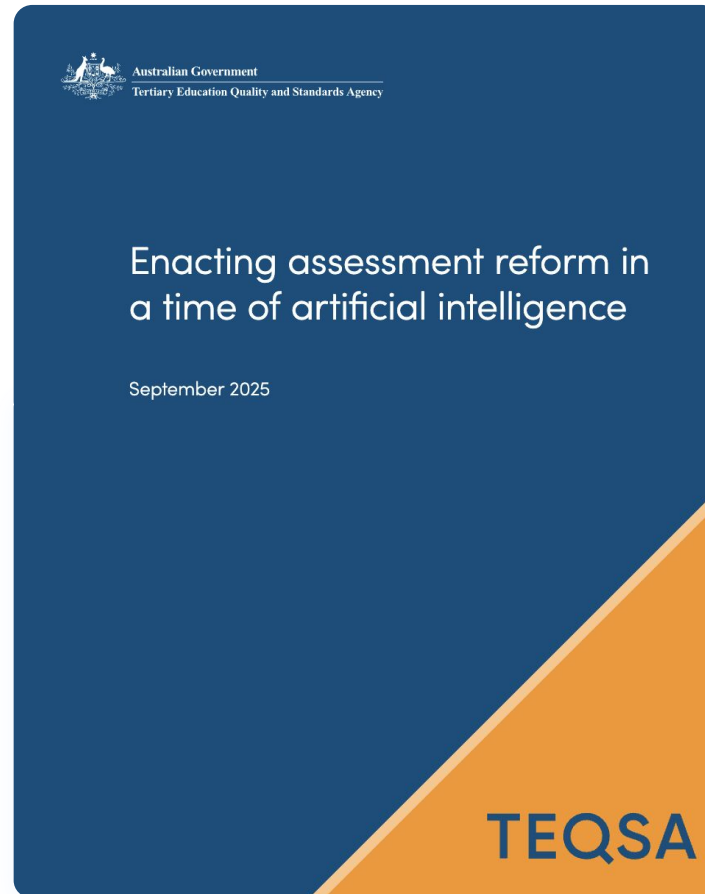
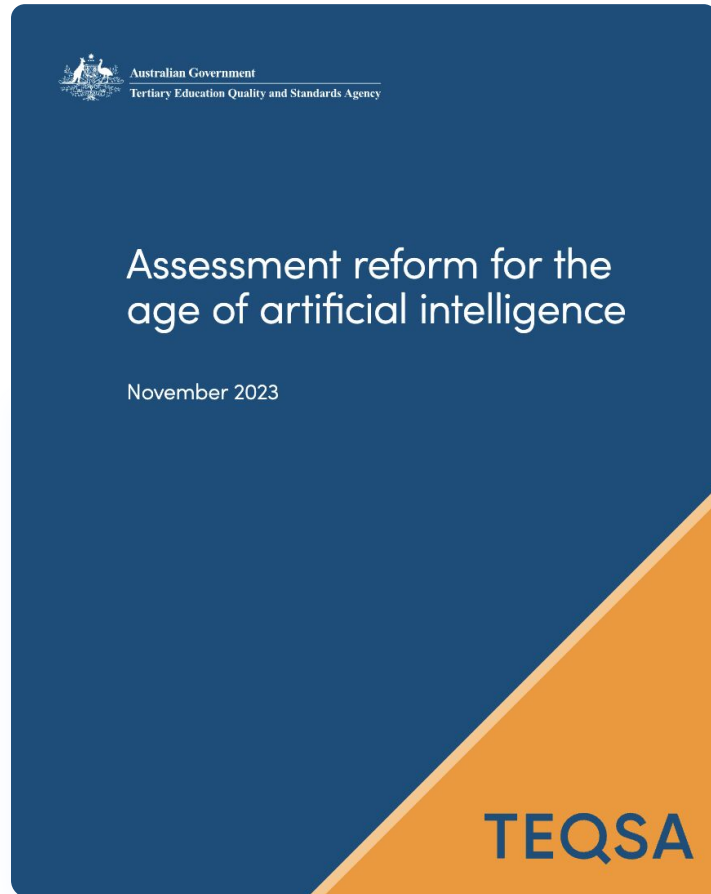
 Claude

 Copilot

 Gemini



HE sector's response to AI



**When AI is in the mix
how can we assure students are learning?**

Intentionally or not.

Adaptive capabilities

For assuring quality learning in an AI-integrated higher education system

DIGITAL LITERACY

- Use digital and AI tools safely
- Manage information and content in ways that make learning decisions transparent
- Create and communicate digitally
- Understand AI limits and risks

DISTRIBUTED COGNITION

- Work in human-AI teams
- Use tools to extend thinking
- Understand and make visible how knowledge and tasks flow across systems
- Coordinator roles and resources

HYBRID METACOGNITION

- Monitor how AI shapes reasoning and decision-making
- Evaluate AI outputs
- Decide when to rely on AI
- Recognise and correct illusions of understanding created by AI

LIFE-LONG LEARNING

- Adapt to evolving contexts
- Acquire new skills
- Apply and articulate learning across domains
- Sustain motivation and growth for continuous learning

DEEP DISCIPLINARY KNOWLEDGE

The epistemic foundation for authentic judgement and expertise



Bicho (1960), de Lygia Clark, alumínio, 35,5 x 57 x 60 cm. Coleção Gilberto Chateaubriand MAM Rio. <https://mam.rio/artistas/lygia-clark/>



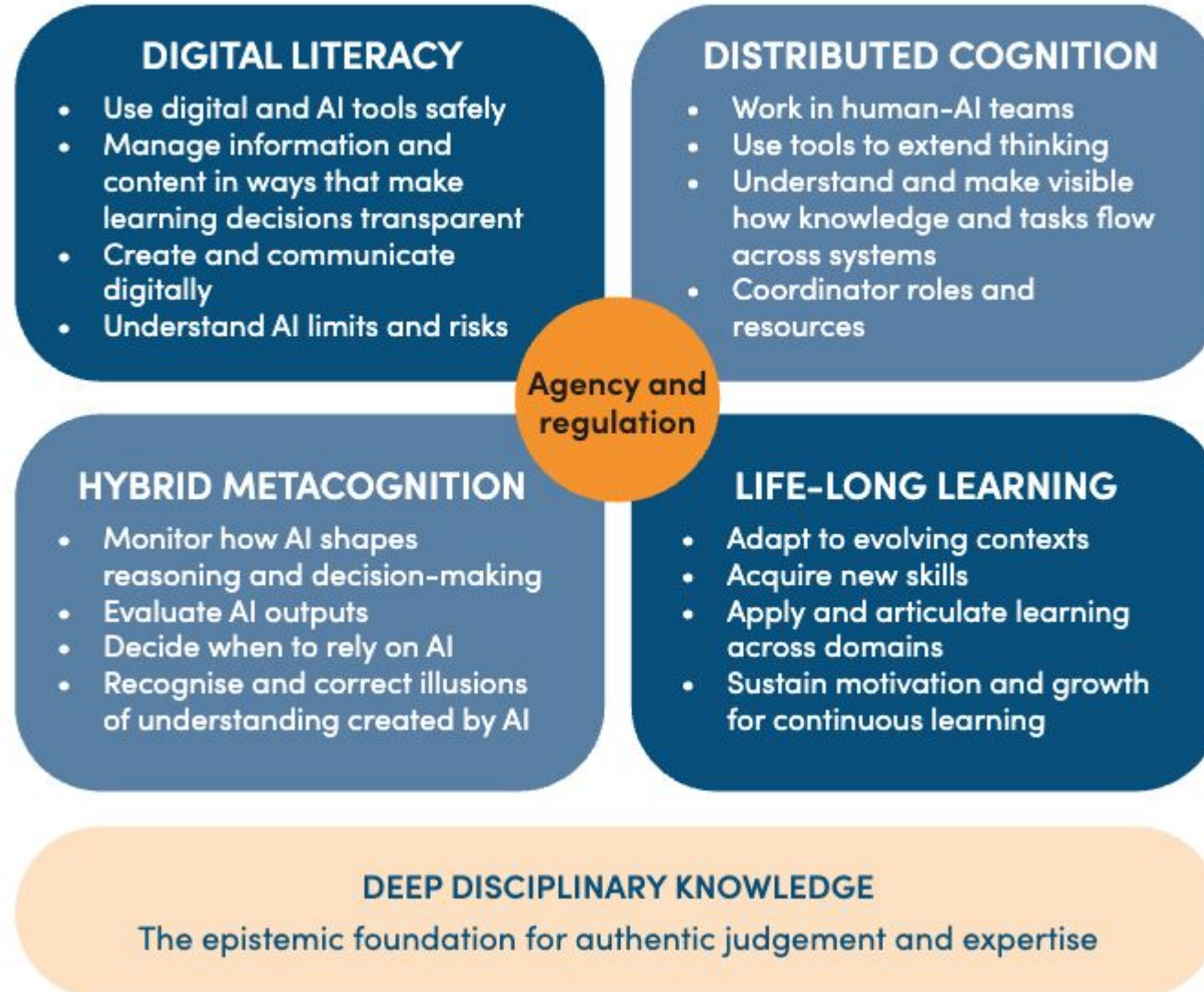
https://www.youtube.com/watch?v=lfitsC4m_dY

AI can increasingly act & make decisions on our behalf.

Who is directing whom?

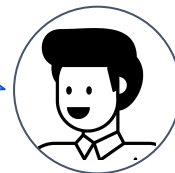
Adaptive capabilities

For assuring quality learning in an AI-integrated higher education system



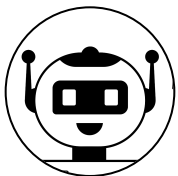
Student A · first session

a 6-node directed cyclic graph

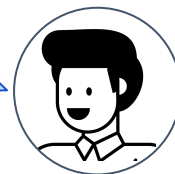


Let's break down what we know ... [EXPLAINS FIRST CONCEPT]

What do you think the graph may look like? Can you visualize a simple example of such a graph?

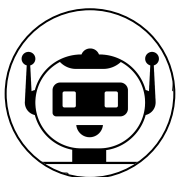


number of Hamiltonian cycles



A Hamiltonian cycle in a graph is a cycle [EXPLAINS CONCEPT]

Are you asking about a specific graph or a general scenario? Can you describe the graph to me?



[END OF CONVERSATION]

Student B · first session

Hello! This is neat. What kind of stuff do you know about the unit?



Hello! I'm here to support you in understanding various foundational topics in computing. For instance, in this unit, you'll learn about ... Would you like to delve into calculus or perhaps you're more interested in statistical analysis and encoding?

INITIATIVE

Actually, could you give me a general overview of each module, from start to finish?



[PROVIDES INFORMATION]

Does this general breakdown help? Would you like to delve into any specific module?

CONTEXTUALISATION

Thanks, this general breakdown is great. Could you explain how Set Theory applies to computer science?



[PROVIDES TWO EXAMPLES] Why not try to explain one of these applications of set theory in your own words? I'm here to guide you if you need it.

*I don't know the first one, but relational databases have primary keys which need to be unique, and **from what I understand, that uniqueness is a big part of set theory.** However, I don't know much about set theory as a topic, and I haven't started the course content yet. How are functions defined in set theory?*

ELABORATION

(...)

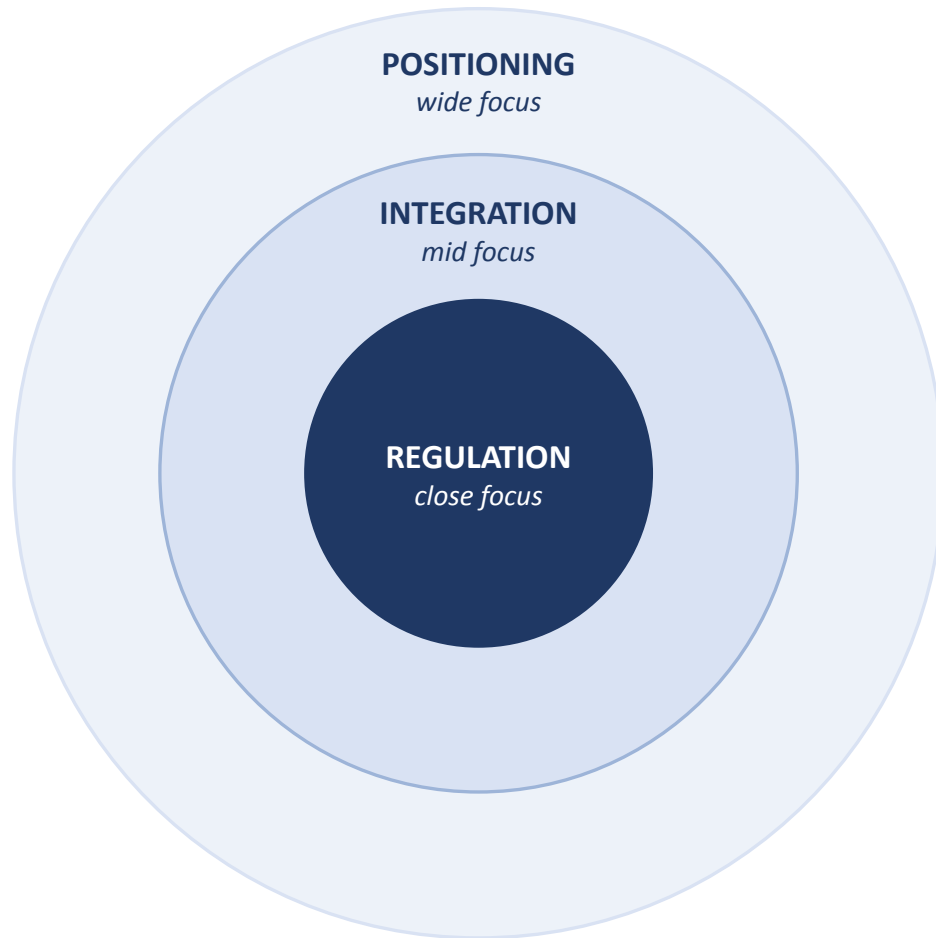


**Students who learn and think well with AI
are good learners first.**

Agency: the capacity to act with intention

How can we promote learner agency?

Learner agency across scales



Positioning

Interrogating their conditions

AI as something students can change



Integration

Making sense of themselves across time and contexts

AI as a mirror of students' patterns



Regulation

Taking the controls of their own learning

AI scaffolding students' learning and thinking

Promoting learner agency in the age of AI

● REGULATION

- **Think first, then prompt.** Students draft, predict or retrieve before opening AI.
- **Socratic mode first.** Give students (or configure) AI that asks questions and gives hints rather than solutions.
- **Judge before you accept.** Students check AI output against a rubric or exemplar before using it.

○ INTEGRATION

- **A capability map revisited each semester.** What I own, share with AI or delegate to AI.
- **AI decision logs that travel.** The per-task accept/reject reflection you already have gets collected across units.
- **Feedback tracked across units.** AI collates past feedback, and the student decides what to act on.

○ POSITIONING

- **Audit the tool.** Students test an AI tool in their discipline for errors/bias/etc, then propose changes.
- **Co-design purpose with students, not rules.** What evidence of learning should look like is shared.
- **From where I stand.** Students read AI outputs against their own context and name what's flattened or absent.

Thank you!

AI acknowledgment

I used Claude Opus 5 and ChatGPT 5.6 Sol Light as thinking partners to develop the narrative and generate the slides.

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