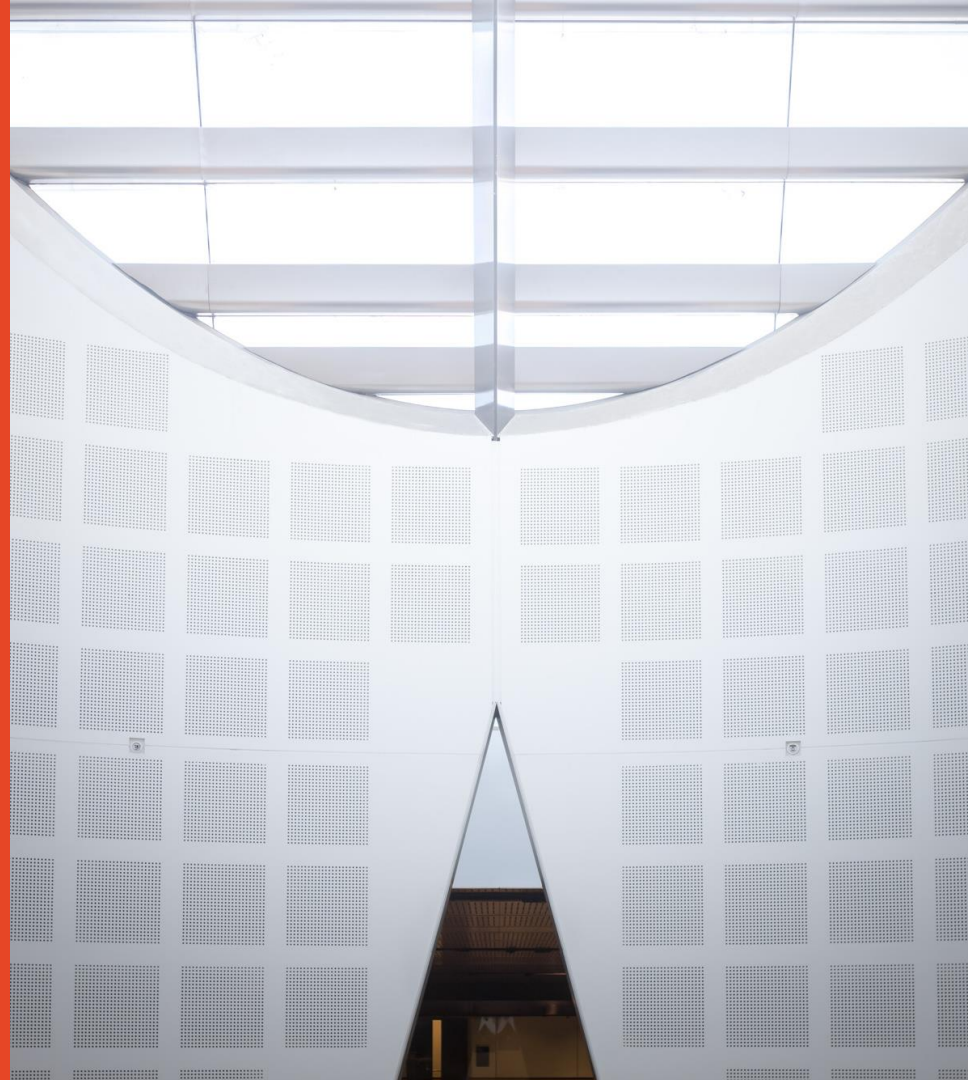


Five key areas of action on generative AI and assessment

Culture, rules, access,
familiarity, and trust

Danny Liu

DVC (Education) Portfolio

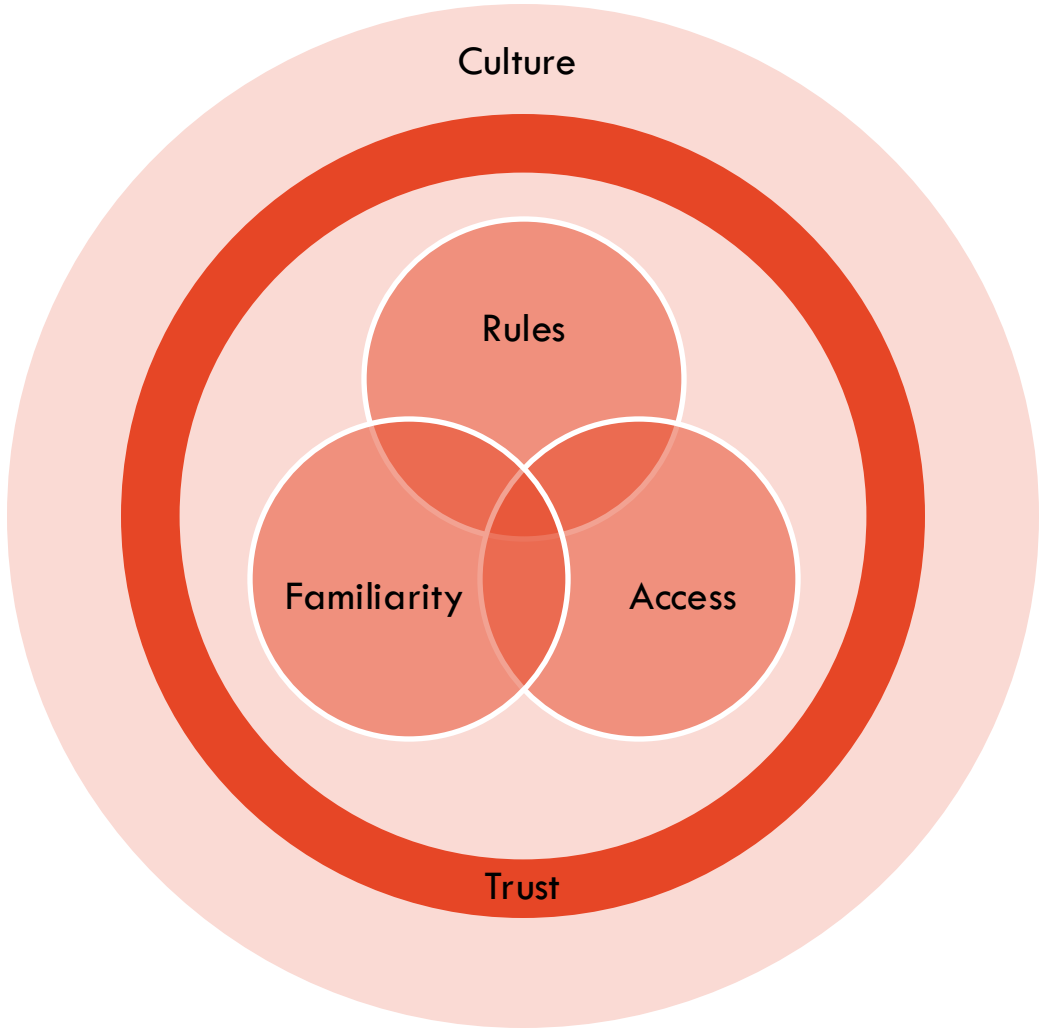


Getting on the same page

Video 1 demonstrating the capabilities of modern GenAI tools and how they might be used to enhance or circumvent learning: [Gen AI and student learning - YouTube](#)

Video 2 demonstrating the capabilities of modern GenAI tools and how they might be used to enhance or circumvent learning: [Multiple modalities and generative AI - YouTube](#)

Five key areas of action



Culture

Rules

Familiarity

Access

Trust

Rules: principles, policies, guardrails, guidelines, etc

- Problem
 - Students and staff fearful, shameful, unsafe
- Leaders
 - Principles, policies, procedures that are as forward-looking as possible
- Educators
 - Clear and consistent guidelines, rules for students

Access: equitable availability of AI & infrastructure

- Problem
 - Only well-off students/staff can afford good AI
- Leaders
 - State-of-the-art AI tooling and infrastructure for students and staff
- Educators
 - Demonstrate safe access to enterprise AI tools

Familiarity: awareness, comfort, skill, etc

- Problem
 - Poor use, misuse, unethical use of AI
- Leaders
 - Awareness of AI capabilities, opportunities, risks; flaws in detection
- Educators
 - How generative AI works, how to leverage it productively

Trust: between teachers, students, leaders, AI, etc

- Problem
 - Mistrust and lack of safe experimentation
- Leaders
 - Risk maturity to support experimentation and failure
- Educators
 - Modelling transparent, responsible use of AI for learning

Culture: departmental, disciplinary, regional, etc

- Problem
 - Ignoring or fearing AI; exceptionalism
- Leaders
 - Address exhaustion and promote diffusion of innovation across institution
- Educators
 - Shift from a policing mindset to a possibilities mindset

CRAFT example: 'Two lane' approach

Are students attaining learning outcomes?

	AI not allowed			AI allowed		
Assessment type	Not considered	Secured assessment	Unsecured assessment	Not considered	Secured assessment	Unsecured assessment
Assignment						
Attendance						
Demonstration						
Online task						
Participation						
Placement						
Presentation						
Skills-based evaluation						
Small continuous assessment						
Small test						
Tutorial quiz						

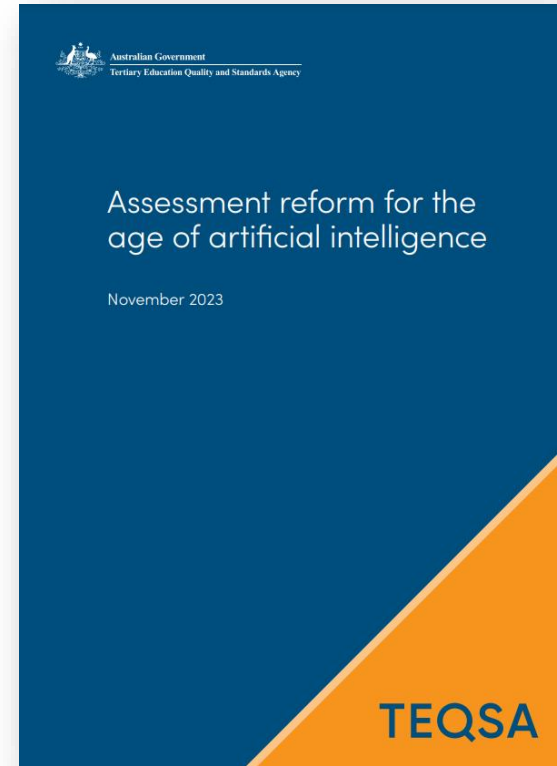
TEQSA assessment reform principles

Principle 1: Assessment and learning experiences equip students to participate ethically and actively in a society pervaded with AI

- E.g. appropriate, authentic engagement with AI

Principle 2: Forming trustworthy judgements about student learning in a time of AI requires multiple, inclusive and contextualised approaches to assessment

- E.g. program approach to assessment
- E.g. assessing the process of learning (not product)



Rules: Two-lane approach to assessment

	Lane 1	Lane 2
Role of assessment	Assessment of learning	Assessment for and as learning
Level of operation	Mainly at program level	Mainly at unit level
Assessment security	Secured, in person	'Open' / unsecured
Role of generative AI	May or may not be allowed by examiner	As relevant, use of AI scaffolded & supported
TEQSA alignment	Principle 2 – forming trustworthy judgements of student learning	Principle 1 – equip students to participate ethically and actively in a society pervaded with AI
Examples	In person interactive oral assessments; viva voces; contemporaneous in-class assessments and skill development; tests and exams.	AI to provoke reflection, suggest structure, brainstorm ideas, summarise literature, make content, suggest counterarguments, improve clarity, provide formative feedback, etc

The problem with traffic lights and scales

1: AI for planning, idea generation, research

2: AI for editing and improving clarity

3: AI for drafting text, refining, evaluating

4: Full AI



How do you know?
How do you restrict?



“Any restrictions that cannot
be enforced harm
assessment validity”
– Phill Dawson



Lights and scales and
numbers imply a linear
gradation of AI use in
assessment.

Adaptable, valid rules: AI ✕ assessment menu

As a critical friend - Soups

- Suggest analyses
- Provoke reflection
- Provide study/organisation tips
- Practicing

Getting started - Entrees

- Suggesting structure
- Brainstorming ideas

Engaging with literature - Bread service

- Suggesting search terms
- Performing searches
- Summarising literature
- Identifying methodologies
- Explaining jargon
- Fixing reference list

Generating content - Mains

- Writing some text
- Making images, video, audio
- Making slidedecks

Analyses - Lighter mains

- Performing analyses of data, text
- Suggesting counterarguments

Editing - Coffees

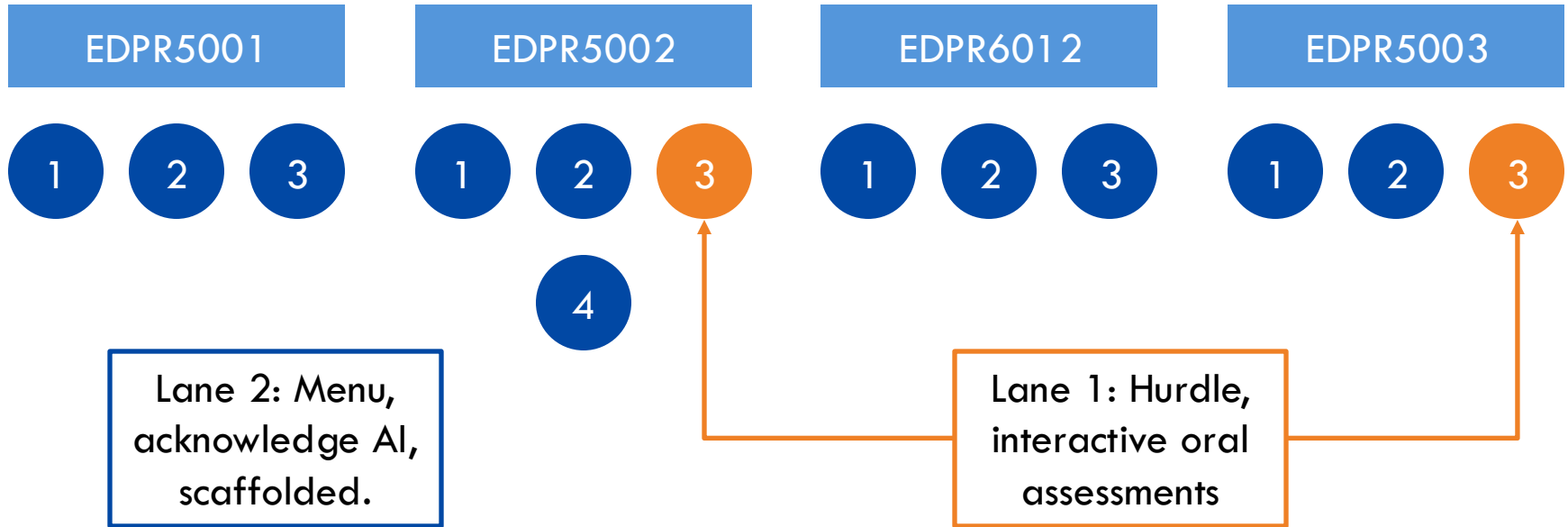
- Editing tone
- Improving clarity and readability
- Fixing grammar
- Shortening

Feedback - Desserts

- On all of the above elements
- Specifically on rubric criteria

Two-lane approach at a program level

– Graduate Certificate in Educational Studies



Building familiarity

Home

- Modules
- Marks
- Assignments
- Discussions
- People
- Pages
- Files
- Syllabus
- Outcomes
- Rubrics
- Quizzes
- Collaborations
- Announcements
- Settings

Welcome to AI in Education!

This site is a resource for students, [built by students](#), to provide ways you can use generative artificial intelligence productively and responsibly in your learning journey in university.

How to use this site

To get started, click on the topic areas in the boxes below. Once there, you can navigate between pages by clicking the page buttons or using the arrows at the bottom of the page. To view an organised set of all the resources available on this site, click the 'Modules' link in the left-hand menu.

What is generative AI?

- [How generative AI works](#)
- [Different generative AI options](#)
- [Writing prompts](#)
- [Limitations and considerations](#)

Using generative AI responsibly

- [Using generative AI responsibly](#)
- [General principles for use of generative AI](#)
- [University of Sydney guidelines](#)
- [Acknowledging & referencing the use of AI](#)

Using generative AI

<ul style="list-style-type: none">Prompts to help you learn<ul style="list-style-type: none">Overview of new conceptLearning through conversations and questionsBreaking down topics using the Feynman TechniquePlanning Your Study	<ul style="list-style-type: none">Prompts to help you with assessments<ul style="list-style-type: none">Overcoming writer's blockSuggesting ideasLooking for literature sourcesGetting standards-based feedbackand more!	<ul style="list-style-type: none">Prompts to help you progress<ul style="list-style-type: none">Creating resumes and cover lettersMaking sense of job descriptionsPreparing for job interviewsand more!
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bit.ly/students-ai

Policy changes 2024 → 2025 semester 1 → 2

	Final exams and in-semester tests	All other assessments
AI allowed	Selectable	Default
AI not allowed	Default	Selectable



	Secure, lane 1 assessment	Open, lane 2 assessment
AI allowed	Secured assessments e.g. interactive orals, viva voces, invigilated exams/tests	All other assessments – AI use is scaffolded and supported
AI not allowed		Not permitted

And no integrity cases for AI use

CRAFT example: Opportunities of AI in assessment

Example of a lane 2 assessment

- Information visualisation unit
 - LO1: design compelling visual narratives using data, including the ability to develop and justify data mappings appropriate for the context.
- Final group project: data journalism interactive webpage
 - Any AI is allowed
 - Some AI tools are demonstrated
 - All AI use to be documented
 - Focus on the storytelling, analytics, and visual design
- AI increases authenticity in data source, visualisation, storytelling elements

More examples of AI in lane 2 assessments

Literature searching for assessment 2

- Engaging with literature
 - [One ranking of e](#)
- [elicit.com](#) / [scite.ai](#)
- [researchrabbit.ai](#)
- [perplexity.ai](#)
- [connectedpapers.com](#)
- [litmaps.com](#)
- This is a 'lane 2' as [on Canvas](#).

The University of Sydney

AI example: Suggesting counterarguments

Tool: <https://copilot.microsoft.com>

Example prompt:


I am preparing a presentation on improving student attendance at university lectures. The main points include understanding the context, identifying issues, and proposing solutions.

Please generate critical feedback on these points and propose potential counterarguments. Additionally, formulate insightful questions that the audience might ask to challenge these points or to delve deeper into the topic. Focus on areas where assumptions may be weak or where additional data might be needed to strengthen the argument. Finally, suggest some questions that I might ask the audience so that they can help me unpack and critique my ideas.

Here is my presentation outline:

The University of Sydney

Page 32



- Account 2
- Help 10
- Admin
- Dashboard
- Courses
- Groups
- Calendar
- Inbox 203
- History
- Commons
- Studio
- Support


2024 Semester 1

- Home
- Announcements
- Unit Outline
- Modules
- Discussions
- Assignments
- Zoom
- Studio
- SSESW Student Portal
- Item Banks
- Outcomes 🔗
- Marks 🔗
- People 🔗
- Files 🔗
- Pages 🔗
- Syllabus 🔗
- Collaborations 🔗
- Quizzes 🔗
- Rubrics 🔗
- Settings

Published
✎ Edit
⋮

Assessment 1 - Pre-submission feedback agent

i I can help give you feedback and tips on your issue posting. Remember that as an AI, I am not always 100% accurate, but can give you useful pointers to consider.


 As a faculty member in an engineering department, teaching large classes presents unique challenges that deeply impact both the educational experience and my instructional strategies. One of the primary struggles I face is effectively engaging each student. In a class of over a hundred students, it becomes difficult to monitor individual progress, address diverse learning needs, and foster a personal connection. Tools like clickers and online discussion boards help, but the sheer scale can dilute the effectiveness of interactive learning. Additionally, assessing student understanding through traditional exams often doesn't capture the depth of each student's comprehension, leading to a reliance on superficial learning metrics. This struggle compels me to continuously explore innovative teaching methods and technologies to bridge the gap between teaching and truly educating each student in such a vast environment.

o Your post is a good start, and you've touched upon some key issues that are common in large classes. However, there are a few areas where you could provide more detail to strengthen your argument and meet the assignment requirements.

1. **Context:** You've mentioned that you teach in an engineering department and that your classes are large, but you could provide more specifics. For instance, what level are these students at (undergraduate, postgraduate)? What mode of teaching are you using (face-to-face lectures, online learning environments)? These details will help others understand your teaching context better.
2. **Issue:** You've identified the issue of engaging each student in a large class, which is indeed a significant challenge. However, try to frame this issue as a barrier to learning in the environment. For example, you might say something like, "The large class size inhibits personalized interaction and feedback, making it difficult for students to engage deeply with the material."
3. **Importance:** You've mentioned that this issue impacts the educational experience and your instructional strategies, but you could go further in explaining why this issue is

Enter your message

➤
⋮

4. **Improvement Goal:** You've mentioned that you're compelled to explore innovative teaching methods, which is great. However, it would be beneficial to provide a specific goal or objective for your teaching methods.

ⓘ You are chatting with a generative artificial intelligence (AI). The AI may provide information which might not be 100% accurate or up to date. Ensure you verify important information with trusted sources. Do not enter any private, personal, or sensitive information. All conversations with the AI are recorded. [Privacy Policy](#) [Terms of Service](#) [AI Transparency Statement](#) [University of Sydney Collection Notice](#)



Hello, please type a feedback prompt (i.e. no error bars) for the BIOL1007 scientific report and I can help you expand on it. Please do not submit students' work.



fig legend vague



Your figure legend could be more informative. Make sure you include the variables being presented with units, the study species, the treatments and their sample sizes, and what the error bars represent. This will allow the reader to understand the data without needing to refer to the main body of the text.

methods lack detail

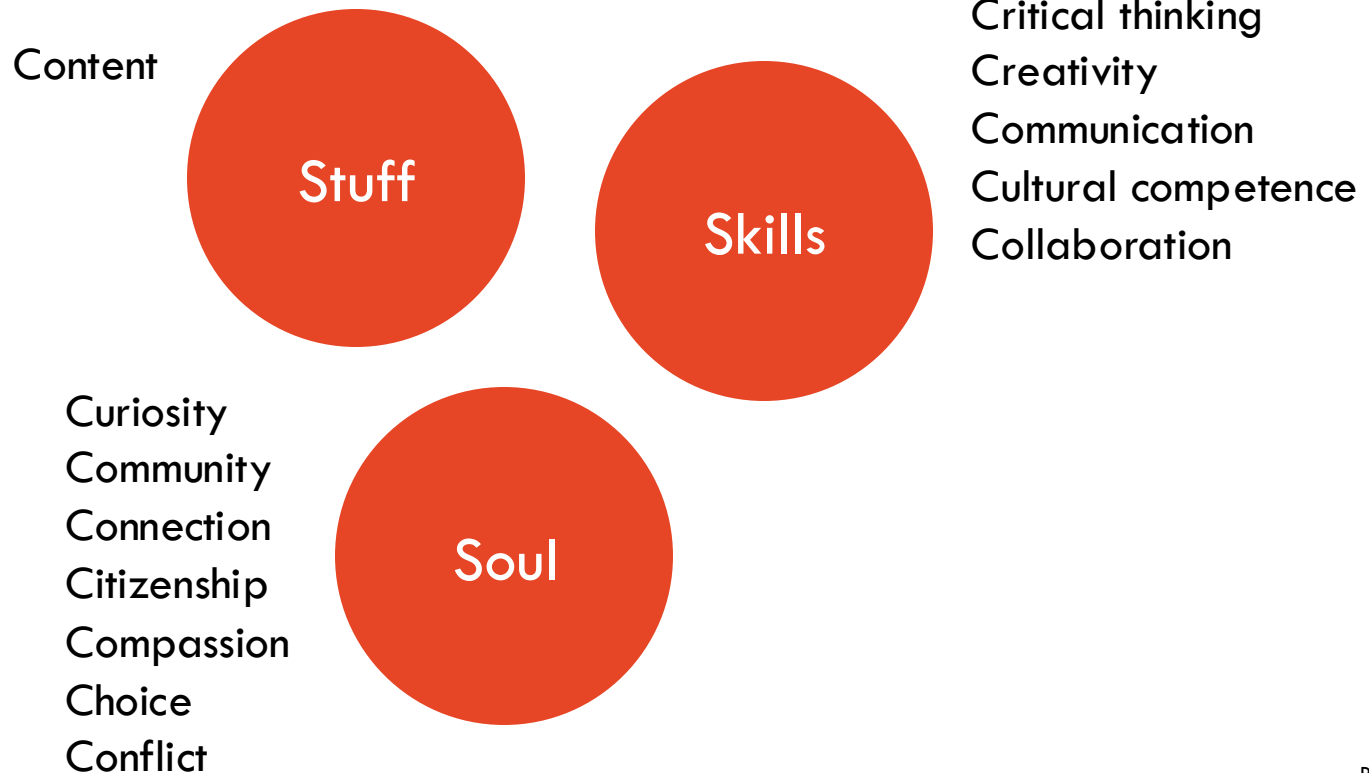
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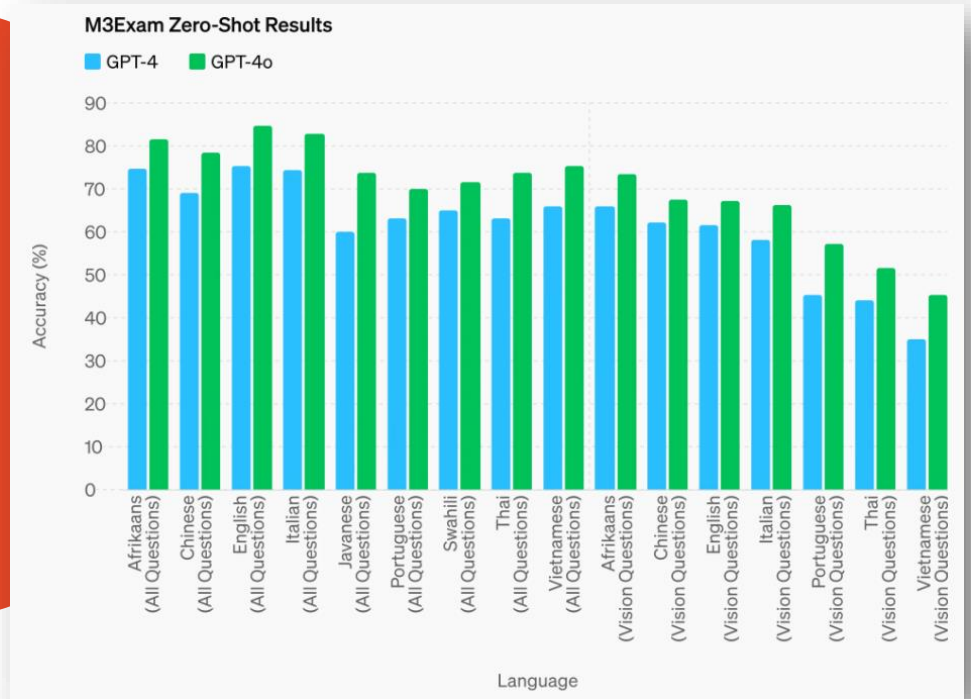
i You are chatting with a generative artificial intelligence (AI). The AI may provide information which might not be 100% accurate or up to date. Ensure you verify important information with trusted sources. **Do not enter any private, personal, or sensitive information. All conversations with the AI are recorded.** [Privacy Policy](#) [Terms of Service](#) [AI Transparency Statement](#)

**What is still important to
learn?**

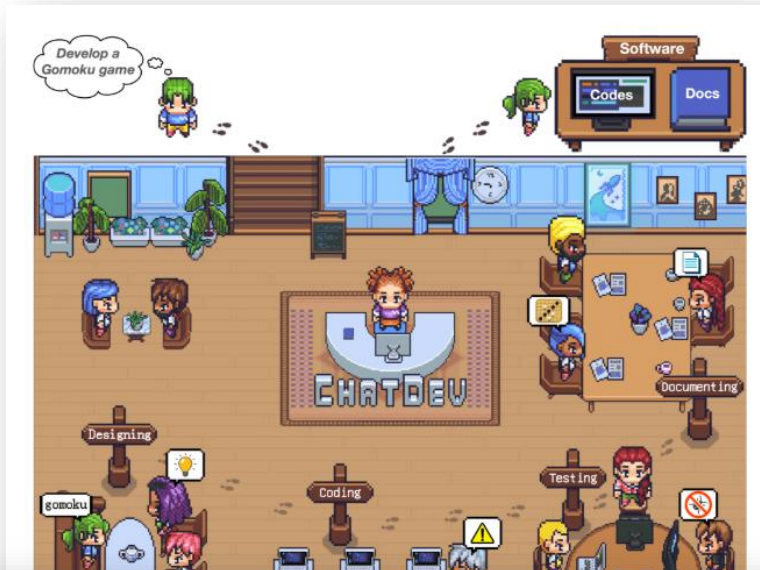
What is important for students to learn in FE/HE?



What is our focus in further & higher education?



What is our focus in further & higher education?

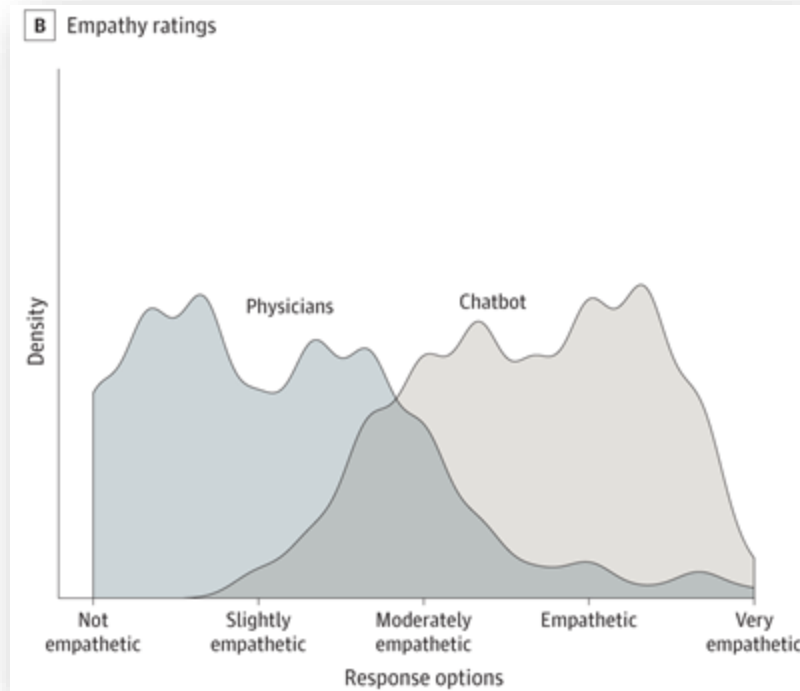


Skills

test engineers, and art designers. When presented with a preliminary task by a human “client” (e.g., “develop a gomoku game”), the software agents at ChatDev engage in effective communication and mutual verification through collaborative chatting. This process enables them to automatically craft

“software agents” from diverse social identities, including chief officers, professional programmers, test engineers, and art designers. When presented with a preliminary task by a human “client” (e.g., “develop a gomoku game”), the software agents at ChatDev engage in effective communication and mutual verification through collaborative chatting. This process enables them to automatically craft comprehensive software solutions that encompass source codes, environment dependencies, and user manuals.

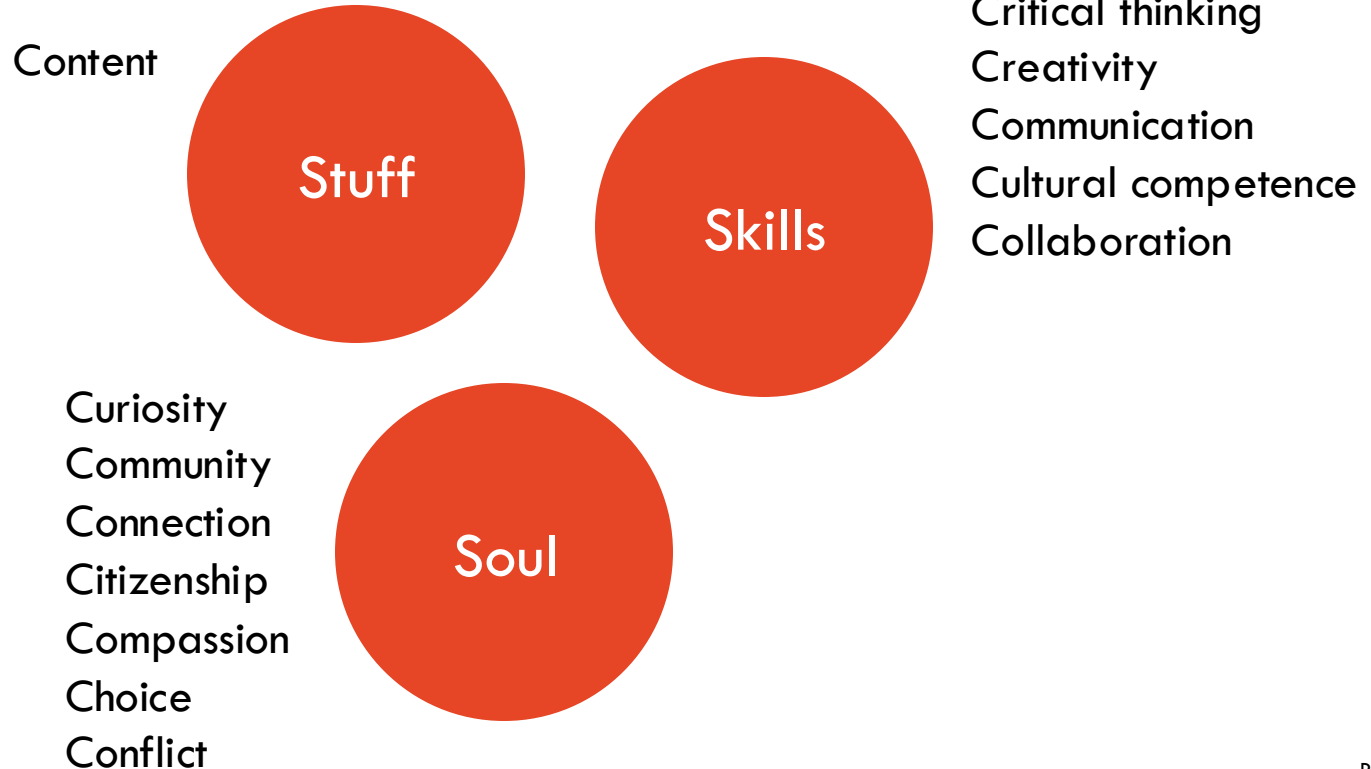
What is our focus in further & higher education?



Skills

Soul

What is important for students to learn?



Next steps:
How is your CRAFT?

How is your institution's CRAFT?

Rules

	Emerging
Leaders	Desire for / initial discussions to drafts of institution-wide policies, such as privacy, security, ethics, and integrity. Formation of some governance structures.
Educators	Uncertainty about permissibility for AI in teaching, learning, and assessment. Ad hoc rules set individual educators. Some acknowledgement of AI use (e.g. course documents). May be used entirely in assessments.
Researchers	Ad hoc use with limited institutional guidance. May be unclear about security requirements.
Students	Basic awareness of rules and around AI use, but some apprehension about appropriate use in different learning contexts.

Access

	Emerging
Leaders	Identifying a need for diverse resources (technology, personnel, investment). Initiating discussions with potential AI vendors and local development teams.
Educators	Limited and / or hesitant use of AI tools relevant to learning, teaching, and assessment used.
Researchers	Use of free or commercial AI tools with limited data privacy considerations.
Students	Limited awareness and use of available AI tools. Reliance on mass-market AI tools.

Familiarity

	Emerging	Established	Evolved	Extending
Leaders	Growing awareness of AI and early development of AI literacies. Focus on risks and their mitigation. No or ad hoc resourcing around training. Limited personal experience with AI.	Well-informed and confident about AI capabilities and ethical considerations.	Well-developed fluency with AI including opportunities and risks. Fostering a culture of AI.	Anticipate and prepare the institution for future AI developments.

Trust

	Emerging	Established	Evolved	Extending
Leaders	Planning and initiating conversations on AI use and impacts. Preliminary engagement with AI vendors. Developing basic AI governance structures.	Clear principles, rules, and feedback loops for AI use.	Fostering an environment that encourages responsible AI use.	Pioneering adaptive AI governance structures.

Culture

	Emerging	Established	Evolved	Extending
Leaders	Recognising differing local / regional attitudes to technology. Acknowledging the digital divide in context. Identifying workforce AI needs.	Aligning AI strategy to local / regional educational philosophies. Implementing measures to address digital divides. Engaging with partners to understand AI skill needs.	Fostering an institutional culture of safe experimentation and failure. Sets the tone for institutional activities and aspirations.	Pioneering culturally sensitive approaches to integrating AI. Leading in ethical AI adoption across diverse cultural contexts. Fostering a future-looking culture to prepare for powerful AI.
Educators	Cautious exploration of AI use. Lacks transparency around use of AI. Seeking clarity on policy.	Exploring how AI fits within existing educational philosophies. Identifying discipline-specific challenges, barriers and stigma around AI.	Adapting teaching methods to include AI while respecting cultural norms and expectations. Addressing discipline-specific concerns around AI use. AI use is destigmatised.	Co-creating cross-institutional culturally sensitive AI education approaches. Pioneering new teaching approaches balancing AI and core disciplinary values.
Researchers	Initial experimentation with AI. Attending workshops or sessions to build basic AI literacy.	Identifying field-specific barriers to AI adoption. Acknowledging cultural implications of AI applications in research practices.	Developing culturally appropriate AI pedagogies, and advocating use amongst peers. Working with industry to align desired AI skills with curriculum.	Leading culturally informed AI-supported research practices. Fostering interactions between different research traditions and AI adoption.
Students	Basic or unsophisticated use of AI, in ways guided by educators, peers, or other influences. Use may be predominantly for providing answers/looking things up rather than scaffolding learning.	Initial guided use of AI tools. Tentative trust in institution-provided AI resources. Guarded about AI use.	Engaging in culturally sensitive discussions on ethical AI use. Developing and embedding AI skills relevant to discipline. Encouraged to demonstrate their uses of AI.	Shaping institutional or cross-institutional practices for culturally sensitive AI integration in research. Co-leading initiatives to bridge cultural gaps in AI literacy while being culturally sensitive.

How is your institution's CRAFT?

- **~5 minutes individually:** Consider the CRAFT rubrics
 - Where does your institution sit?
 - What can you influence?
 - What are the next steps?
 - How will you get there?
- **In small groups:** Share and discuss
 - Examples of where you've moved further along
 - Examples of struggles or challenges in progressing
 - Key actions you might take next
 - Gaps or issues in the rubric itself
- **Share back** to the larger group

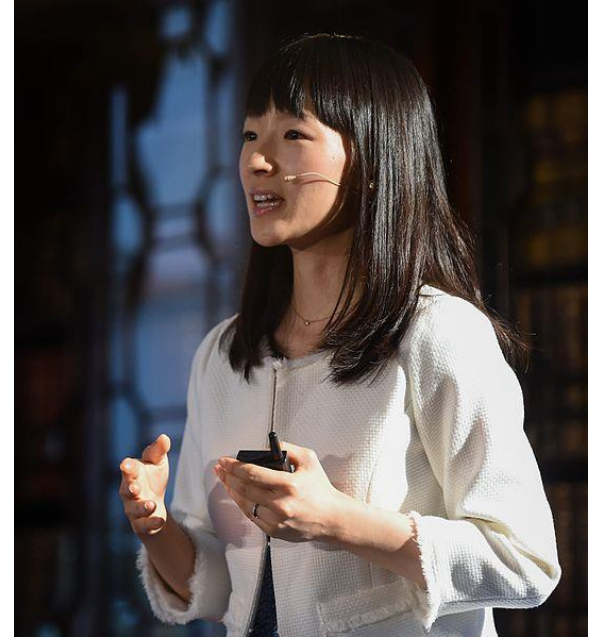
Notes and discussion

Some big questions

What sparks joy?

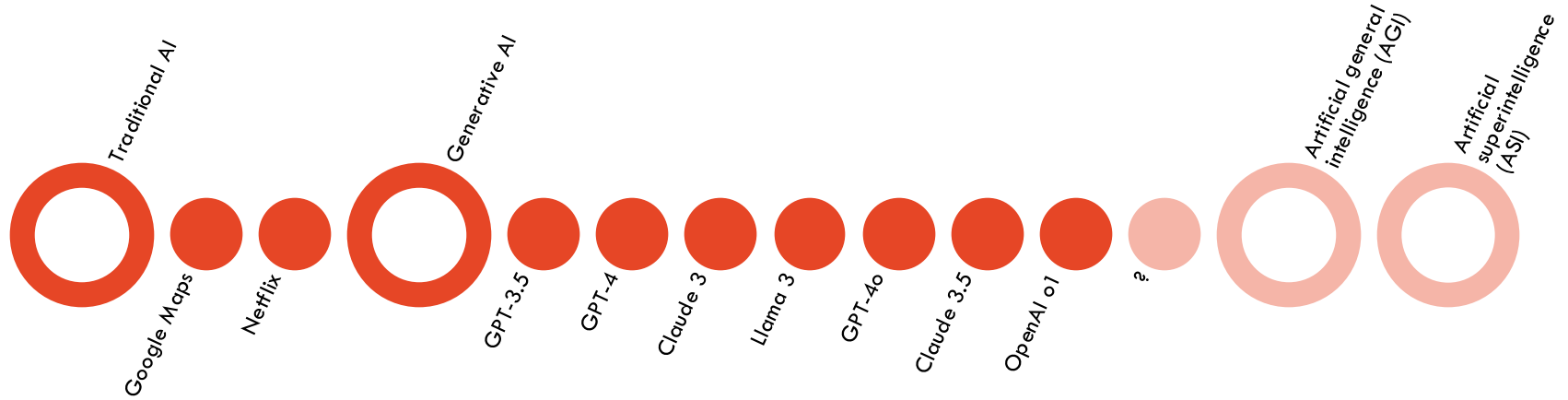
“When we really delve into the reasons for why we can’t let something go, there are only two: an attachment to the past or a fear for the future.”

“To truly cherish the things that are important to you, you must first discard those that have outlived their purpose.”



Marie Kondo

What horizon are we preparing for?



How will we design our future?

“We don’t know the inventive ways that people are going to be using the technology.

“Now that’s the challenge for architects:
to use their imagination,
to use this technology,
to harness it,
and think of inventive ways of
operating with the technology.



Neil Leach

How will we design our future?

Now that's the challenge for *educators*:
to use their imagination,
to use *AI*,
to harness it,
and think of inventive ways of operating with *AI*.

Thank you

danny.liu@sydney.edu.au



THE UNIVERSITY OF
SYDNEY