Frameworks, approaches and resources to support staff-student-GenAI interactions in learning and teaching at SCU.

CTL and SCU Library

March, 2024

(Image created by Dall-E3, 26/3/24)

Southern Cross University

Transforming › Tomorrow

Acknowledgement of Country

I acknowledge and pay respect to the ancestors and descendants of the Lands upon which we work, meet and study.

I am mindful that within and without the buildings, the Land always was and always will be Aboriginal Land

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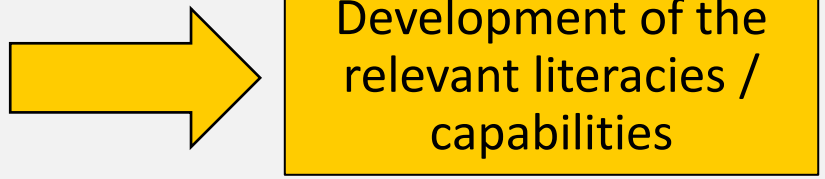
Overview

- Introduction & Background
- GenAI and Academic Integrity
  - Educative approach
  - Academic Integrity Module
  - Referencing v acknowledging
- Supporting students to develop AI literacies
  - Frameworks
  - Library Resources (Libguide, H5P)
- Support strategies and resources
- What else is happening out there?

Introduction & Background

- TEQSA
  - equip students to participate ethically and actively in a society pervaded with AI'
  - appropriate, authentic engagement with AI
  - opportunities for students to work appropriately with each other and AI
  - the process of learning (Lodge et al, 2023)
- SCU Position
  - Educative approach
    - supports and encourages the use of GenAI where it does not pose an unacceptable risk to the assurance of academic standards and integrity
    - educate about the benefits and mitigate against the risks of using GenAI technology
- Growing body of scholarly work
  - Preparedness of students

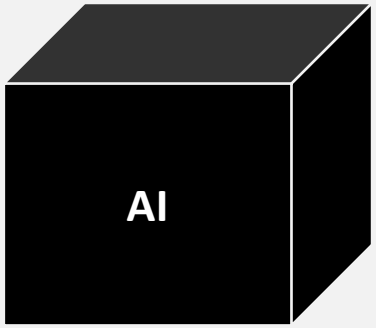


Introduction & Background

Building student literacies in higher education is not new

Artificial Intelligence (Bearman & Ajjawi, 2023, p. 1161)

> 'a particular interaction where a computational artefact provides a judgement about an optimal course of action, which cannot be easily traced. The human-machine interaction is hence critical framework for use and developing capabilities.' (the relationship between the human and the computational output'



- Inputs and outputs are visible but we don't really know what is happening on the inside
- The human–AI interaction is the critical component

AI literacy (Chan & Colloton, 2024)

> '…one's ability to comprehend, interact with, and make informed decisions regarding AI in daily life. It involves understanding basic principles about how AI works, its applications, and skills to critically consider ethical, social, and privacy implications of engaging with AI systems'

GenAI and Academic Integrity

- Academic integrity - behaving with the values of honesty, fairness, trustworthiness, courage, responsibility and respect in relation to academic work.
- Educative approach

- Again, not new- there is just another layer + GenAI

GenAI and Academic Integrity

Academic Integrity Module (AIM)

Academic Integrity matters

- Create a culture of practising academic integrity
- This is not new

Do	Don't
• Check with your UA if you are uncertain about how you can, or can't, use GenAI • Use GenAI with Academic Integrity in mind • Consult the Library's GenAI guide on how to correctly **reference and/ or acknowledge GenAI outputs** • Be **critical of GenAI outputs** • **Fact check GenAI outputs** • **Keep accurate records** of the GenAI tools you have used and transcripts	• Rely on GenAI tools to write your entire assessment • **Blindly trust GenAI information outputs** • Breach the university's Academic Integrity guidelines

GenAI and Academic Integrity

Referencing GenAI use

- Where GenAI content has been incorporated into the assessment submission
- Consistent with how you approach giving credited to other sources
- Stressed:
  - that GenAI outputs re not reliable sources
  - that it needs to be OK to use GenAI outputs in your work

Acknowledging GenAI use

- Where GenAI use has been used in the process of completing your assessment
- Process; clarifying questions, creating outline/ dot points, providing feedback on aspects of work
- Stressed:
  - that it needs to be OK to use GenAI in the ways you have in the process of completing your assessment

Collect evidence on how you use GenAI

- Build-your-skills-using-GenAI.docx (PAIR Framework)
- Acknowledgement statement
- Culture of ‘Practising academic integrity’

Supporting students to develop AI literacies

Ethical use of AI tools	**Knowledge of AI affordances**	**Working effectively with AI & evaluating outputs**	**Use & integration into practice**
Apply critical thinking skills to consider the ethical implications of using GenAI. Some issues to consider are: • data ownership • intellectual property • privacy and security • biases • fraud and cheating • undisclosed plagiarism • digital divide and equity • exploitation.	Awareness of the capabilities and limitations of AI tools will help users choose appropriate tools for their intended purpose.	Capabilities for prompt writing and evaluation of e-generated outputs need developing. Skills for critiquing and making evaluative judgements about information sources are essential and must be applied to GenAI outputs, as they can be unreliable and inaccurate.	GenAI can add value and improve productivity for study, personal and professional purposes.

AI Literacy Framework (adapted from Hillier, 2023)
→a framework for educating students about Gen AI in the higher education context

Supporting students to develop AI literacies

P — A — I — R

PROBLEM	AI	INTERACTION	REFLECTION
What is the problem?	Select suitable GenAI tool/s.	Interact with GenAI tool/s.	Reflect on YOUR experience.
Here, you formulate your problem: - What is it you want GenAI to help with? - Is it within the acceptable limits if you are using GenAI for an assessment?	Here, you identify suitable GenAI tools for the problem: - For help, try Futurepedia.io	Here, you: - try different ways to prompt GenAI - critically evaluate outputs - refine prompts to improve responses.	Here you evaluate: - how GenAI helped or limited what YOU were trying to do - how it impacted YOUR learning.

The PAIR Framework (adapted from Acar, 2023)

→ A framework for student to use to support AI literacy development and guide their use with GenAI (within acceptable limits). An accompanying template is also provided to record and reflect on GenAI use.

Supporting students to develop AI literacies - SCU Library

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SCU Library / Library guides / GenAI / What is Generative Artificial Intelligence?

GenAI

Search this Guide | Search guides

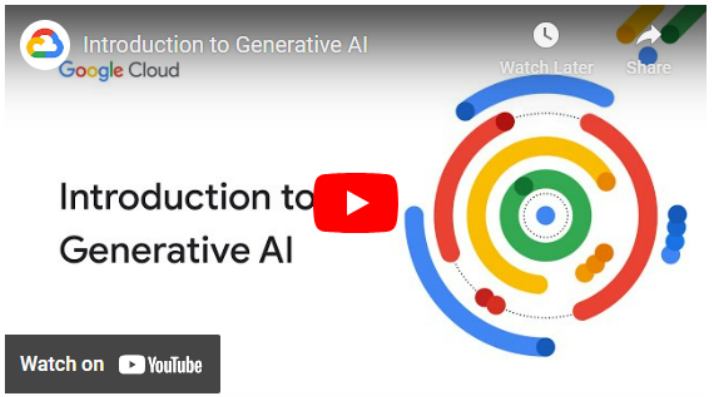
- What is Generative Artificial Intelligence?
  - What is Generative Artificial Intelligence?
  - Can I use GenAI in my studies?
  - Academic Integrity
- When is it safe to use ChatGPT?
- How to use GenAI
  - ChatGPT and prompting
  - Evaluating GenAI
- Ethics of GenAI
- Referencing GenAI
  - APA7
  - Harvard
  - AGLC4
- Further learning

What is Generative Artificial Intelligence?

Generative Artificial Intelligence (GenAI) is a type of Artificial Intelligence that can create a wide variety of information in response to prompts, including images, videos, audio, code, text, and more. GenAI tools learn patterns from existing data, and then re-generates it to create new data outputs. The result is realistic, human-like data - making it valuable tool for many different industries and applications. Some GenAI tools include: ChatGPT, DALL-E, Gemini, Copilot, and Perplexity AI.

GenAI is an emerging and rapidly evolving technology, therefore it's important that you develop your digital literacy skills so that you can use these tools effectively and ethically at university.

Watch the video below from Google Cloud Teach to learn more about GenAI, including common applications, model types, and the fundamentals of its use.



Can I use GenAI in my studies?

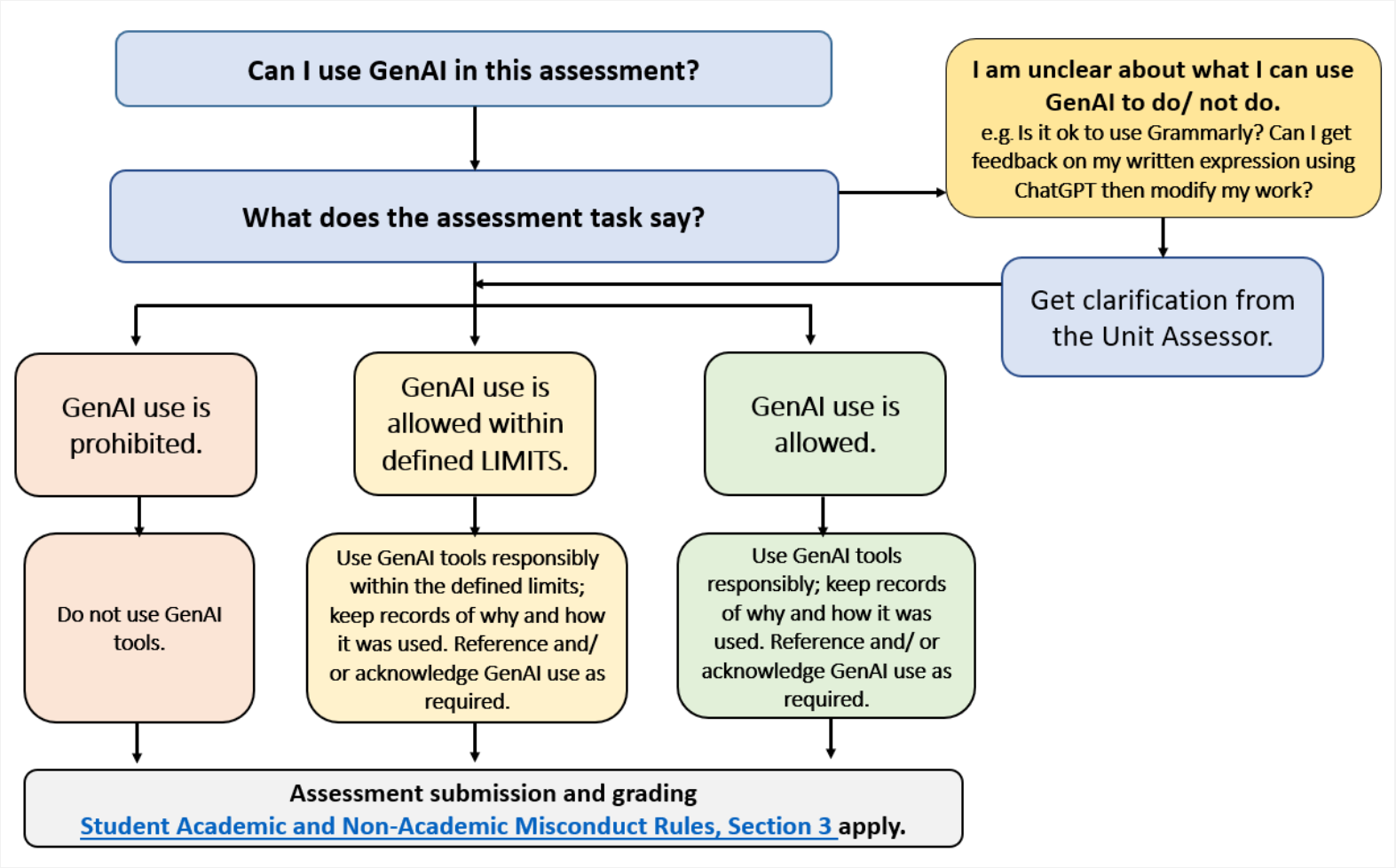
At SCU, the use of GenAI is acceptable provided it is appropriately acknowledged, and unless it is beyond the acceptable limits as defined in the Assessment task. These parameters are determined by the course you are enrolled in and each individual assessment you are completing.

Your Unit Assessor will inform you in writing if the use of GenAI tools is explicitly prohibited. This information will appear in your Unit information, your assessment

The Learning Zone

Using generative AI tools such as ChatGPT

- Build your skills using GenAI - PAIR Framework
- Acknowledging and Referencing GenAI Use
- Links to SCU Library resources



General principles for developing student ‘academic’ literacies

Context:

- SCU- educative approach
- SCU- student profile
- SCM- intensive delivery

Guiding principles:

- Analysis & Mapping- what do students need to know/ be able to do and where?
- Embedded approaches- learning activities as part of the unit's content
- Scaffold assessments and align learning activities
- Provide templates
- Provide examples
- Utilise assessment feedback as an opportunity for students to learn

Guiding principles for embedding GenAI use

1. Take responsibility for developing student GenAI capabilities.
2. Embed GenAI capability development into the curriculum.
3. Leverage examples of how GenAI is being used within disciplines/ professions to assist productivity and to stimulate student engagement through authenticity.
4. Connect learning activities with what is required in assessment tasks.
5. Provide a safe space for students to ask questions, to educate, without the punitive element of feeling threatened by academic misconduct.

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AI Literacy Framework: An overview with resources to support learning and teaching activities in the SCM (adapted from Hillier, 2023)

Ethical use of AI tools	Knowledge of AI affordances	Working effectively with AI & evaluating outputs	Use and integration into practice
Apply critical thinking skills to consider the ethical implications of using GenAI. Some issues to consider are: • data ownership • intellectual property • privacy and security • biases • fraud and cheating • undisclosed plagiarism • digital divide and equity • exploitation.	Awareness of the capabilities and limitations of AI tools will help users choose appropriate tools for their intended purpose.	Capabilities for prompt writing and evaluation of e-generated outputs need developing. Skills for critiquing and making evaluative judgements about information sources are essential and must be applied to GenAI outputs, as they can be unreliable and inaccurate.	GenAI can add value and improve productivity for study, personal and professional purposes.
Learning & Teaching suggestions • Explore ethical issues from multiple perspectives. For example, how was the LLM trained, what information is the tool drawing from, what happens to the user's data, what are the terms of use of the tool, and what biases are you noticing? • Discuss with students the importance of learning critical thinking and academic skills to be able to make critical judgements about GenAI tools and their outputs.	**Learning & Teaching suggestions** • Explore the capabilities and limitations of different tools relevant to their unit content and tasks (e.g. for images, coding, text, what's free and available at SCU). • Students could be detectives and investigate tools while critically considering ethics and outputs generated.	**Learning & Teaching suggestions** • Target students' prompt writing (and refinement) skills by incorporating targeted learning activities requiring GeneAI use. • Use frameworks such as the ROBOT test (Wheatly & Hervieux, 2022) to critically evaluate GenAI outputs, looking for biases, hallucinations, and false information. • Incorporate fact-checking tasks against scholarly sources identified from traditional database searching.	**Learning & Teaching suggestions** • Explore how industries/disciplines adopt GenAI and its impacts (explore through existing WIL opportunities). • Use assessment design to incorporate purposeful and authentic use of GenAI (e.g. proposition 1, Lodge et al., 2023). • Integrate GenAI to support learning in the context of unit content, e.g. study support/feedback • Use GenAI as a teaching assistant to help with academic tasks such as creating lesson plans or writing rubrics.

Ethical use of AI tools	Knowledge of AI affordances	Working effectively with AI & evaluating outputs	Use and integration into practice
Learn more & resource suggestions Recommendations on the ethical use of Artificial Intelligence in Education (Foltynek et al., 2023, paper) Ethics of GenAI – SCU GenAI Libguide (includes image hotspot H5P) Limitations and Considerations – University of Sydney (webpage) TEQSA Conversation starters (pdf)	**Learn more & resource suggestions** Futurepedia - Find The Best AI Tools & Software (website) Different GenAI Options – University of Sydney (webpage) Also see resources in adjacent columns: - "Ethical use" resources - "Working effectively resources - Build your skills using GenAI - PAIR framework (for students)	**Learn more & resource suggestions** *Prompt writing:* ChatGPT and prompting SCU – GenAI Libguide (including Test your Prompting H5P) Maximizing your Course Success: Utilizing ChatGPT & Prompt Engineering) (free e-book download) How to write effective prompts for large language models (Lin, 2024) Learn Prompting: Basics *Evaluation:* Evaluating GenAI – SCU GenAI Libguides (including Test your GenAI and Critical Thinking H5P)	**Learn more & resource suggestion:** Build your skills using GenAI - PAIR Framework (for students) (adapted from Acar, 2023) SCU GenAI Libguide Assessment Adaptation Model: GenAI GenAI in the classroom (Dr Ali Reza Alaei- video recording) Gen AI for Development and Delivery (Dr Chris Lawler- video recording) Five strategies for using GenAI in the classroom (Mollick & Mollick, 2023, paper) 2024 AI in Higher Education Symposium Australia & New Zealand showcasing how teachers are using GenAI

Resource: Gen AI in HE: Contemporary Approaches to University Teaching CAUT S1 2024 (Hillier, 2024)

References

Acar, O. A. (2023, June 15). *Are your students ready for AI? A 4-step framework to prepare learners for a ChatGPT world*. Harvard Business Publishing Education. https://hbsp.harvard.edu/inspiring-minds/are-your-students-ready-for-ai

Hillier, M. A. (2023, March 30). A proposed AI literacy framework. TECHE. https://teche.mq.edu.au/2023/03/a-proposed-ai-literacy-framework/

Wheatley. A., & Hervieux, S. (2022). Separating artificial intelligence from science fiction: Creating an academic library workshop series on AI literacy. In S. Hervieux & A. Wheatley (Eds.), *The rise of AI: Implications and applications of artificial intelligence in academic libraries* (pp. 65–66). Chicago, IL: Association of College and Research Libraries. https://escholarship.mcgill.ca/concern/books/0r9678471

What else is happening out there?

Practice Share- how are you using or planning to use GenAI in learning activities with your students? Please post a brief example of online or in class activities with GenAI tools and let us know how they went if you have run them. Thanks!
From the menu on the left 1/2 way down, select a sticky note, pop it on the whiteboard and start typing.
You can use the zoom tool on the bottom right menu to orientate where you are on the screen.

example: in a class, my 2nd yr health students get GenAI to provide examples that a apply concepts we are covering. e.g we might ask GenAI to create a case study for a common injury we are covering, eg. anterior cruciate ligament rupture. GenAI, please provide a patient profile, mechanism of injury, past history, physical examination findings, other investigations for an ACL injury. We discuss the outputs, and I use my expertise to guide the critical evaluation of the outputs. A follow up task is to find a research paper that supports or refutes one of the "controversial" points or potential biases. In preparation students will have completed the H5P activities (from the library) around Prompting, ethics and evaluation of outputs. In the case study presentation assessment I am allowing students to use GenAI to get ideas for their case but they must "fact check" and the synchronous presentation allows me to check their depth, application and accuracy of knowledge, where the Q&A component has significant weighting.

Jo Munn 14/03/2024, 8:34:45 am - Zoom

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Question time?

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Gold Coast

Southern Cross Drive
Bilinga
QLD 4225

Lismore

Military Road
East Lismore
NSW 2480

Coffs Harbour

Hogbin Drive
Coffs Harbour
NSW 2450

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CRICOS Provider: 01241G | TEQSA Provider Code: PRV12043 Australian University

References

Acar, O. A. (2023, June 15). *Are your students ready for AI? A 4-step framework to prepare learners for a ChatGPT world*. Harvard Business Publishing Education. https://hbsp.harvard.edu/inspiring-minds/are-your-students-ready-for-ai

Chan, C.K.Y., & Colloton, T. (2024). *AI literacy*. AI in Education@HKU. https://aied.talic.hku.hk/ai-literacy/

Bearman, M. & Ajjawi, R. (2023). Learning to work with the black box: Pedagogy for a world with artificial intelligence. *British Journal of Educational Technology*, *54,* 1160–1173. *https://doi.org/10.1111/bjet.13337*

Hillier, M. A. (2023, March 30). A proposed AI literacy framework. TECHE. https://teche.mq.edu.au/2023/03/a-proposed-ai-literacy-framework/

Lodge, J. M., Howard, S., Bearman, M., Dawson, P, & Associates. (2023). *Assessment reform for the age of Artificial Intelligence*. Tertiary Education Quality and Standards Agency. https://www.teqsa.gov.au/sites/default/files/2023-09/assessment-reform-age-artificial-intelligence-discussion-paper.pdf

Other links

Educating students on GenAI use (CTL KBA)

SCU Library Guide-GenAI

Acknowledging and Referencing GenAI Use (Leaning Zone Quick Guide resource)

Build your skills using GenAI - PAIR Framework (Leaning Zone resource)