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*college of design and social
context +
rmit library*

AI for *research*

Library presentation – AI in Research

DSC Symposium

Date: 2 June 2025

Teaching and Research Librarian (Research): Julian Blake

Academic Skills Advisors (Research): Dr Huong Phan, Barbara Yazbeck

Library Research Services



Acknowledgement of Country

RMIT University acknowledges the people of the Woi wurrung and Boon wurrung language groups of the eastern Kulin Nation on whose unceded lands we conduct the business of the University.

RMIT University respectfully acknowledges their Ancestors and Elders, past and present.

RMIT also acknowledges the Traditional Custodians and their Ancestors of the lands and waters across Australia where we conduct our business.

Artwork 'Sentient' by Hollie Johnson

Hollie is a Gunaikurnai and Monero Ngarigo woman from Gippsland who graduated from RMIT with a BA in Photography in 2016.

Session Outline

- Quick survey, discussion, and experience sharing
- AI and research integrity
- AI and literature searching
- AI and research writing: Creating effective prompts and acknowledging AI use
- RMIT resources and services
- Case Studies Scenarios



A note on terminology

- **AI** refers to computer systems or software that can perform tasks commonly associated with human intelligence (e.g. predictive text, electronic maps, search engines).
- Gen AI is an AI subfield focused on systems capable of **creating new content** based on patterns generated from existing data (e.g. text, images, code, music, video).
- Here, we are using the two terms interchangeably, but we are mainly talking about Gen AI.



Quick poll

Option 1:

Join at menti.com

Use code: **2610 4931**

Option 2: Scan the QR code below

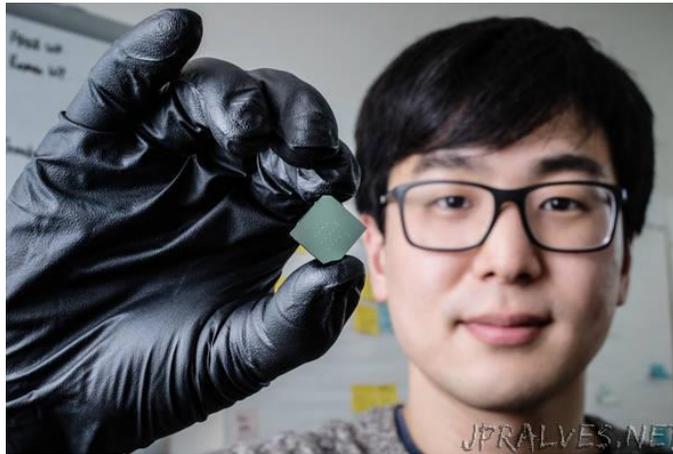


Discussion

- What has worked well for you when using AI in your research?
- Have you encountered any challenges or limitations when using AI? How did you address them?
- Have you ever felt uncertain about whether using AI in a particular research task was appropriate? How did you decide?



Research integrity



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Summary

Graduates at this level will have systematic and critical understanding of a complex field of learning and specialised research skills for the advancement of learning and/or for professional practice.

Knowledge

Graduates at this level will have systemic and critical understanding of a substantial and complex body of knowledge at the frontier of a discipline or area of professional practice.

Skills

Graduates at this level will have expert, specialised cognitive, technical and research skills in a discipline area to independently and systematically:

- engage in critical reflection, synthesis and evaluation
- develop, adapt and implement research methodologies to extend and redefine existing knowledge or professional practice
- disseminate and promote new insights to peers and the community
- generate original knowledge and understanding to make a substantial contribution to a discipline or area of professional practice

Application of knowledge and skills

AQF levels

AQF level 1 criteria

AQF level 2 criteria

AQF level 3 criteria

AQF level 4 criteria

AQF level 5 criteria

AQF level 6 criteria

AQF level 7 criteria

AQF level 8 criteria

AQF level 9 criteria

AQF level 10 criteria

Established integrity principles are:

The Australian Code for the Responsible Conduct of Research (2018)

- Honesty
- Rigour
- Transparency
- Fairness
- Respect
- Recognition
- Accountability.



- *Asia-Pacific Economic Cooperation APEC Guiding Principles for Research Integrity (2022)*



Gen AI Risks to Research Integrity

1. Falsification of research
2. Proliferation of misinformation
3. Lack of transparency
4. Lack of reproducibility
5. Entrenching of bias
6. Expansion of utility
7. Sharing of private data



RMIT Library Guide: AI for Researchers



Library subject guides

Library / All guides / Artificial intelligence for researchers / Introduction

Artificial intelligence for researchers

Provides an overview of artificial intelligence (AI) for academic staff and researchers

Introduction

Artificial intelligence: an overview

What is Generative AI?

Using Generative AI for research

Research integrity

Using AI for literature reviews

Using AI for writing

Best practice

Further help

Artificial intelligence: an overview

Artificial intelligence (AI) refers to the field of computer science focused on creating machines or software that can perform tasks that would normally require human intelligence. These tasks include data analysis, pattern recognition, and repetitive task automation.

At its core, AI is about creating systems that can mimic cognitive functions such as learning from data (machine learning), analysing and processing language (natural language processing), and even supporting decisions (autonomous systems). AI can be classified into two broad categories:

Narrow AI (or Weak AI): This refers to systems designed to perform a specific task or a limited range of tasks. Examples include chatbots, recommendation systems (like those on Netflix or Amazon), or autonomous vehicles.

General AI (or Strong AI): This would be an AI system capable of performing any cognitive task that a human can do. It remains largely theoretical and has not been achieved yet.

While the concept of AI has existed for centuries in philosophical thought, the field of artificial intelligence has been actively developing for about 70 years, with significant advancements in the past two decades. The study of AI itself— its implications, risks, and governance— has become a major area of academic research, ensuring that AI technologies are developed and deployed in an ethical and responsible manner. For an excellent overview of the AI field, enrol in Sage Campus' [Introduction to Artificial Intelligence course](#).

Addressing AI Risks for Research Integrity

University research policy

- [RMIT Research Policy](#)
- <https://www.rmit.edu.au/students/my-course/research-students/researcher-responsibilities>

Relevant external policies on the use of Gen AI

- Funding bodies
 - [Australian Research Council - Grants](#)
 - [National Health and Medical Research Council - Grants](#)
- Academic publishers
 - [Elsevier - Generative AI policies for journals](#)
 - [Taylor & Francis - AI policy](#)
 - [Springer](#)

Gen AI and your thesis

RMIT's position is that we can use Generative Artificial Intelligence (Gen AI) tools for research and innovation, but they should be engaged ethically and in accordance with RMIT's established principles for the responsible conduct of research.

When used appropriately, these tools offer researchers various opportunities for assisting and enhancing the research process. This includes assistance with data analysis and interpretation of results, and planning, drafting and editing text.

When using Gen AI in thesis preparation, it is important to ensure good practice and compliance with research integrity and HDR Policy requirements (see Table 1).

Detailed guidance about using Gen AI in your thesis and publishing is provided [here](#). In summary:

- Your thesis should be **your own work**.
- Any use of Gen AI tools should be
 - Declared, attributed and acknowledged, to adhere with research integrity requirements
- Any assistance in thesis writing should be supplementary only, and therefore limited to:
 - Initial drafting, such as brainstorming and planning;
 - Minor editorial work, such as grammar and spelling, and;
 - Assistance with overall coherence and clarity.
- Images included in the thesis should be created by you.

Addressing AI Risks for Research Integrity

Research Practice with AI at RMIT Home Research Integrity Learning Hub Video library Public group Not following 25 members

Writing with generative AI
Literature reviews with generative AI
Working with data and generative AI
Managing research integrity risks

Welcome to RePAIR

Research Practice with AI at RMIT (RePAIR) is a community of research staff, research students, and professional staff with a shared interest in using AI tools and techniques in their research practices. RePAIR focuses on the application of AI in research design and implementation, including critical and ethical approaches to adopting AI in research practice.

News
Events

What is RePAIR?
Start here →

AI and research integrity

Research AI Learning Hub

Addressing AI Risks for Research Integrity: Key Tips

Accuracy

- Assume factual incorrectness in AI generated output, no matter how confident sounding
- Fact-check any information generated with other trusted sources

Bias

- Choose linguistically inclusive prompts (e.g. "firefighter" vs "fireman")
- Critically evaluate AI generated content with diversity and inclusion perspective

Reproducibility and transparency

- Ensure working understanding of background and operation of any used AI tool
- Plan ahead for reproducibility and transparency limitations of tool

Intellectual property and privacy

- Use RMIT approved generative AI tools (e.g. [Val](#); log in with RMIT credentials)
- Never share any private, sensitive, or confidential research data
- Structure prompts to minimise data contained in prompt



RMIT resources and services

- [Research Practice with AI at RMIT \(RePAIR\)](#): A community of research staff, research students, and professional staff with a shared interest in using AI tools and techniques in their research practices. RePAIR focuses on the application of AI in research design and implementation, including critical and ethical approaches to adopting AI in research practice. It also provides valuable resources on using AI in research practice.
- [RMIT Researcher Portal](#): Information, resources, training, and advice on Research Integrity and connections to the Research Integrity Advisers (RIAs) in Schools (accessible to supervisors and research candidates).
- [RMIT Researcher Capability Development](#): Extensive resources for researchers, including several [online training modules](#) for research integrity training and education (RITE).
- [RMIT Research Integrity web page](#): Further information and links to research integrity at RMIT.
- [RMIT's Research Integrity and Generative AI white paper](#): A comprehensive paper written by an expert group of RMIT researchers and discussing key features of research integrity and the use of AI at the university.
- [Research @ RMIT Vietnam](#): Information on research ethics and integrity specifically designed for researchers working in RMIT Vietnam.
- [RMIT Library Research Integrity Libguide](#): A guide outlining Library support available to Researchers and Higher Degree by Research students on aspects of research integrity.
- [RMIT Library HDR Students Libguide](#): An introductory guide for Higher Degree by Research (HDR) students to various Library resources, services and training activities including the use of Generative AI in research, HDR theses, and grant applications.
- [RMIT Library referencing Libguide](#): A guide outlining how to acknowledge and reference AI tools and outputs.



Using AI for literature searching

Current state in May 2025

- It is becoming impossible to keep up
- Proliferation in models and tools
- Shift from fast response to slower "reasoning" and "Deep Research" tools
- Specialization and variation in strength across models for various tasks, emergence of agentic AI
- Wider scale in pricing
- Much of what different models do can be replicated in VAL with enough time and effort



Searching tools

- [Perplexity](#)
- [Scite](#)
- [Semantic Scholar](#)
- [Elicit](#)
- [Consensus](#)

Tools for literature searching

[Selected tools](#)

[Tips](#)

[Cautions](#)

Some of the more popular tools you might like to explore are below. Note that there are many more, and new developments are happening all the time. You can search the web to investigate what is available.

Tool	Access/Cost	Data Source	Notes
Elicit	An account is required to use Elicit. There is a free basic plan, and paid plans for extra features and capabilities	Semantic Scholar . Elicit can base answers on abstracts, plus the full text of open access papers	Enter your topic or question in natural language
Scite	Scite requires a login and payment to use Scite Assistant, or to see the full Scite Search results	Agreements with selected partners .	Scite has two main components. Scite Search lets you explore citation links between papers, and whether citations are positive, negative etc. Scite Assistant is the AI research assistant
Semantic Scholar	You can search Semantic Scholar and create account for free.	Agreements with selected partners .	Search for topics and authors. Semantic Scholar also provides metrics including citation counts, h-index, and highly influential citations.
Consensus	You can search Consensus without creating an account, although certain features do require an account. There is a free basic plan, and paid plans for extra features and capabilities	Semantic Scholar	Enter your topic or question in natural language. Turning the Copilot feature on enables you to give conversational commands such as 'Write a 3 paragraph literature review on...' or 'Give me a two sentence summary in simple language on...'



AI tools for Literature Searching: Key tips

- Generative AI tools can help you to discover research. They can help suggest keywords and synonyms, inspire a new approach, or organise a search query.
- Look for generative AI tools that search reputable scholarly databases, such as PubMed, SAGE and Wiley.
- Some reputable academic catalogues offer integrated generative AI assistants and AI-powered tools, such as [Scopus AI](#), [Semantic Scholar](#), and [ProQuest Research Assistant](#).
- You can also use generative AI to help categorise and organise academic works.
- Use these tools as an **extra technique** for research and not to replace a thorough search.
- **Verify** any information provided by generative AI tools with credible sources and check for missing information.
- You should **acknowledge** your use of AI tools to complete your work. See our [artificial intelligence referencing guidelines](#) for more information.



Summarising tools

- [VAL](#)
- [Copilot](#)
 - [Using Copilot with Edge](#)
- [NotebookLM](#)
- Others mentioned in [Library guide](#)
- Additional cautions
 - Not all generative AI tools search and link to reputable databases. Some AI tools will simply fabricate references. Check that the tools provide a hyperlink to any document, which you need to download and verify.
 - The use of generative AI should supplement but not replace your own systematic, structured searching in scholarly databases.
 - Avoid relying directly on any information presented by generative AI. Generative AI is prone to generate inaccurate information, including irrelevant and non-existent references.
 - Many AI tools will incorporate anything you upload into their underlying software. In general:
 - **Don't upload** materials from Library resources such as databases. This is in breach of copyright, and license agreements
 - **Don't upload** your own sensitive or private documents. It's possible another user of the tool might retrieve your information from the underlying software



Using AI in research writing

AI tools for research writing

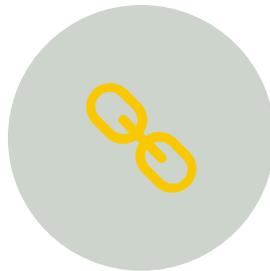
Various tools are available for writing tasks, including [ChatGPT](#), [Perplexity AI](#), [Microsoft Copilot](#), [Google Gemini](#), and [RMIT-approved VAL](#).



RMIT's version of GPT Chat is called VAL



VAL is a **closed system** designed to be a secure place for your research (data).



Go to [Researcher Portal](#) to find out more



Whenever you use GenAI in writing it needs to be acknowledged.



Creating effective text-based prompts

- The three-stage process



- Components of effective prompts

- Role
- Detailed context
- Request
- Defined output
- Examples



Including all these elements is not always necessary, but clear instructions, detailed context, and well-defined expectations can enhance the effectiveness of AI interactions.



Acknowledging the use of AI

[RMIT Artificial intelligence - referencing guidelines](#)

From a copyright perspective an AI tool cannot be recognised as the creator of a work, however it is important to explain that an AI tool was used in the creation of the work.

[Nature's statement on AI use:](#)

The use of an LLM (or other AI-tool) for “**AI assisted copy editing**” purposes **does not need to be declared**. In this context, we define the term "AI assisted copy editing" as **AI-assisted improvements to human-generated texts for readability and style**, and to ensure that the texts are free of errors in grammar, spelling, punctuation and tone. These AI-assisted improvements **may include wording and formatting changes to the texts**, but **do not include generative editorial work and autonomous content creation**.



Acknowledging the use of AI

- **General acknowledgement that AI tools have been used in the creation of a work, e.g. for background research or generating an outline**

Example: On the 26th June 2023, I used the May 24 version of OpenAI's ChatGPT to perform background research by using the following prompt "explain the difference between deep learning and machine learning".

- **Referencing specific text generated by AI tools**

Currently, only the editors of the [APA style manual have provided advice on referencing AI-generated content](#).

If you are referring to content generated by AI tools within your work, we recommend that you **include the shareable link to the content if available, or otherwise include this AI-generated content as an appendix or supplemental information.**

It is also good practice to include the question or prompt that generated the response to provide context for your readers.



Acknowledging the use of AI

Footnote example - shareable URL generated by the AI tool:

Rule: ^{Note number} Response generated using the AI tool to Recipient, full date, URL

Example: ¹ Response generated using OpenAI's ChatGPT to Matt Smith, 23 June 2023, <https://chat.openai.com/share/5a1327c0-e637-4b3c-a3db-c380b8008ca8>.

Footnote example - non-shareable AI-generated content:

Rule: ^{Note number} Response generated using the AI tool to Recipient, full date, Appendix.

Example: ¹ Response generated using RMIT's Val to Matt Smith, 27 February 2024, see Appendix for prompt used and output generated.



Referencing AI – APA 7th

The [current \(April 2023\) guidelines](#) from the APA style manual editors are to **reference outputs from AI tools** such as ChatGPT in a **similar way to referencing software outputs**.

- Use the name of the creator of the tool as the author.
- Include both an in-text citation and a reference list entry.
- If a shareable URL to the content is available: include it in your reference list entry.
- If the content is not shareable: include the prompt used and the generated output in an appendix; include the general URL for the tool and a note about the appendix in the reference list entry.



Referencing AI: Examples

In-text citations:

- **OpenAI (2025) outlines** the main arguments presented in...
- The main findings highlight a shift toward more participatory models of education (**RMIT, 2025**).

Note:

- Common reporting verbs you can use: **summarise, outline, describe, present, provide**
- **Avoid verbs like argue, claim, assert, or believe** as these imply a personal or critical stance that GenAI tools do not have.



Reference list entry examples

Shareable URL to content generated by the AI tool:

Rule: Author. (Year). *Title of software program* (Version) [Format]. Publisher*. URL

Example: OpenAI. (2023). *ChatGPT* (May 24 version) [Large language model]. <https://chat.openai.com/share/81f2e81f-f137-41b6-9881-39af1672ae3c>

Non-shareable AI-generated content:

Rule: Author. (Year). *Title of software program* (Version) [Format]. Publisher*. URL. Appendix.

Example:

RMIT. (2024). *Val* [Large language model]. <https://val.rmit.edu.au/>. See Appendix for prompt used and output generate.



Summing Up

Using generative AI in research

10 Tips



- 1 Tools**
Make it your responsibility to get to know the different generative AI tools and how they can be used and misused.
- 2 Accountability**
Understand that you, as the researcher, remain accountable for what you publish.
- 3 Frameworks**
Understand how your institution's research integrity and data security frameworks apply to the use of AI tools.
- 4 Disclosure**
Be upfront about the use of AI tools in your research, in accordance with relevant policies and procedures.
- 5 Limitations**
Keep in mind the limitations - including biases and inaccuracies - of the tools you use.
- 6 Implications**
Seek to understand the intellectual property implications, to you and others, of uploading content to a third-party platform.
- 7 Privacy**
Remember that some types of information, such as sensitive patient data, should never be uploaded to commercial external platforms.
- 8 Change**
Speak up and lead change at your institution if the appropriate and inappropriate use of tools is not being communicated.
- 9 External requirements**
Make sure you understand the requirements of scholarly publishers and funding bodies.
- 10 Culture**
Help grow a culture of integrity in Higher Degree by Research students, by promoting open and honest discussions about the appropriate use of AI tools.

Responsible use

- **Take legal and ethical responsibility** for your use of GenAI in research.
- **Comply with relevant conduct policies.**
- **Review GenAI tools' terms of use**, including privacy policies.
- **Be cautious about sharing research questions**, as open GenAI tools may collect prompts.
- **Include a plan to ensure privacy and anonymity** in ethics applications and participant consent forms if GenAI is used.
- **Cross-check AI-generated research ideas** through literature searches.
- **Assess AI-generated content** for inaccuracy and bias.
- **Be transparent:** Declare when and how you use GenAI.
- **Record all GenAI use**, including prompts and outputs.
- **Review publisher's guidelines** and ensure compliance before submitting your manuscript.



Cautions

- **Do not share confidential or sensitive data** (e.g., human research data, private or personal information) with GenAI tools without ethics approval.
- **Do not upload copyrighted or licensed material** or use third-party content without permission.
- **Do not share grant applications** with GenAI tools, as this may breach grant guidelines.
- **Do not misrepresent GenAI-generated material** as your own work.
- **Do not rely solely on GenAI output** - Cross-check for accuracy, originality, and valid references.



Further resources

Student guidelines

- RMIT Library has created "[Artificial Intelligence – referencing guidelines](#)" to support students to appropriately reference text and images generated by AI, these guidelines are also included in Easy Cite
- RMIT Library has created the *Generative AI for students at RMIT* module ([available for self-enrolment by students and staff](#))
- A lot of FAQs are answered on the [VAL portal site](https://rmit.edu.au/val) (rmit.edu.au/val)



Hypothetical scenarios

Hypothetical scenario 1

Leila is preparing the literature review chapter for her PhD thesis on the role of urban green spaces in promoting mental wellbeing. She uses a generative AI tool to help her summarise the articles she has already downloaded and then asks it to group the studies by theme and to suggest a coherent structure for the chapter.

The AI suggests organising the literature into three main themes: psychological benefits, social cohesion, and policy implications. Leila finds this helpful as a starting point but reviews the full texts herself to refine the structure. She discards a few suggestions that don't fit with her interpretation of the literature.

She documents her process in her research notes and mentions in her methodology chapter that AI was used to support thematic categorisation during the literature review phase.



Analysis/Ethical implications

Leila's use of GenAI does not compromise ethical standards or academic quality:

- Leila doesn't accept the AI's categorisation at face value. She revisits the source materials and applies her own judgment.
- Leila's clear documentation and acknowledgement of how AI was used aligns with ethical best practices in research transparency.
- However, researchers should be cautious when uploading any text into external AI tools. Many journal articles are protected, and sharing them outside of licensed platforms might be illegal unless you have permission.



Hypothetical scenario 2

Jin is completing a practice-based PhD in creative writing, exploring narratives of migration through autofiction. His final submission is a blend of written text and visuals.

To create the visuals, Jin uses a generative AI image tool. He uploads short excerpts from his manuscript and prompts the tool to generate abstract images that reflect the emotional tone of each scene.

Jin curates the outputs carefully, selecting only those that align with his artistic vision and editing some of them further using image-editing software.

He includes a detailed process log in his exegesis, explaining how the AI was used and the rationale behind his choices. He explicitly credits the AI tool and clarifies the human-AI collaboration involved in the visual elements.



Analysis/Ethical implications

Jin's use of AI helps enrich his work, not to determine or replace his creative expression.

- He does not accept AI outputs passively—he selects, edits, and integrates them based on his own artistic judgment.
- Jin provides a clear explanation of how AI was used, thus avoiding misleading claims about authorship or originality. His process log helps examiners and readers understand the boundary between human authorship and AI assistance.
- Caution: If the AI tool had used training data from culturally specific visual sources, there could be risks of unacknowledged appropriation or stereotyping. Jin's careful curation helps reduce this risk, but awareness of AI's training data is important in these contexts.



Hypothetical scenario 3

Mandy is finalising a research article for submission to a high-impact journal. She has written a solid first draft but is struggling with making the discussion section more compelling.

A friend suggests using ChatGPT to refine the argument and improve the flow. Mandy inputs key points and asks the AI to generate a polished version of the section.

The result is well-written, aligns with her ideas, and significantly enhances clarity. Since the AI only restructured and refined her own thoughts, she decides not to mention its use in the acknowledgments or methodology section.



Analysis/Ethical implications

Mandy's use of GenAI to refine her writing raises ethical concerns:

- Using AI for minor refinements is generally acceptable. However, failing to disclose substantial AI involvement in shaping the manuscript could be considered unethical.
- If AI significantly restructures the discussion, it may subtly alter meaning in ways Mandy might overlook. While her core ideas remain intact, AI's influence on phrasing and argumentation may lead to authorship integrity concerns.



FAQs

- As Academic Skill Advisors, we often hear these questions:
 - Can I use GenAI to make summaries of my reading? Can I use those summaries to 'compose' a lit review for assessment (i.e. CoC)?
 - Can I ask GenAI to paraphrase original text for me?
 - Do I have to cite or reference AI?



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