

▶ **Facilitating the ethical:  
collaborative support for  
researchers' responsible  
use of genAI**

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Deakin University acknowledges the Traditional Custodians of all the unceded lands, skies and waterways on which Deakin students, staff and communities come together.

We pay our deep respect to the Ancestors and Elders of Wadawurrung Country, Eastern Maar Country, and Wurundjeri Country where our campuses are located.





**Let me introduce myself**



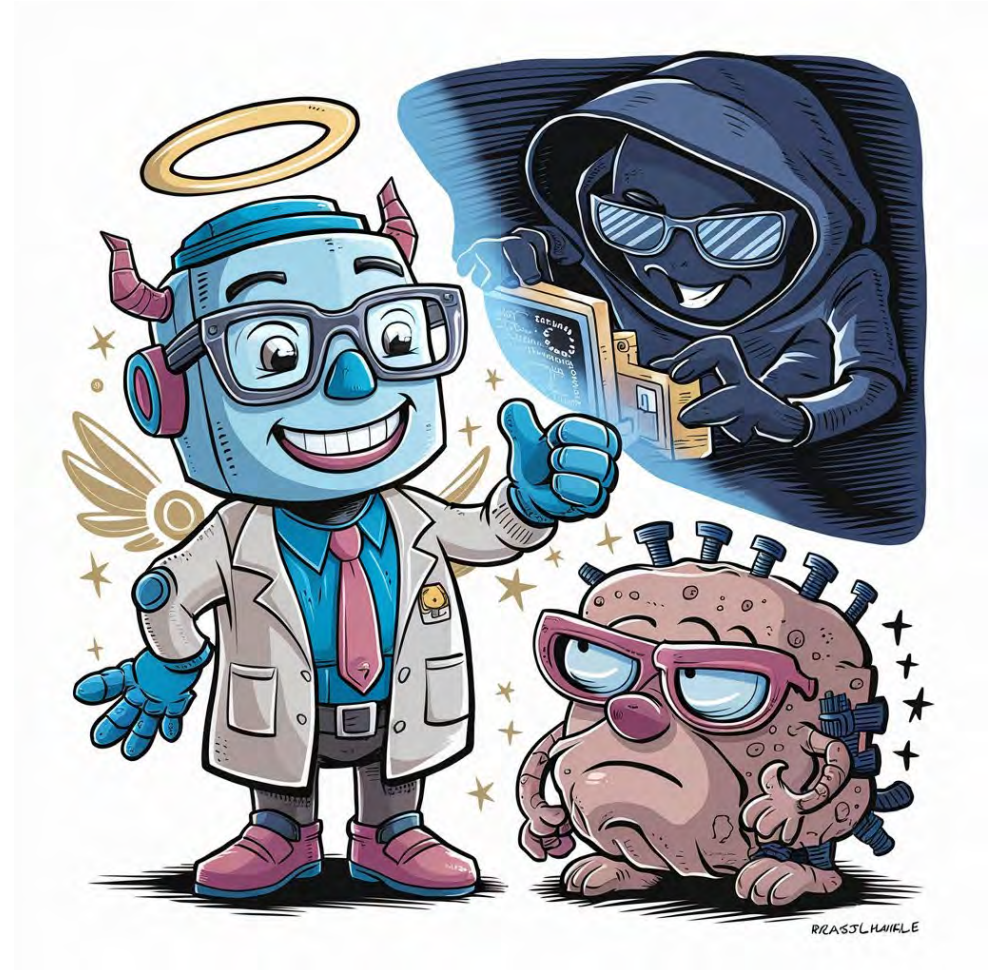
**Fiona Russell**

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**Deakin University Library**

# Generative Artificial Intelligence (genAI): the good, the bad, the ugly

- Technological paradigm shift
- Wide variety of applications
- Wicked problem-solving potential
- Critical need for safeguards



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# Libraries as leaders

- Natural intersection between genAI and libraries
- Early adopters of AI technology
  - Resource recommenders
  - Chatbots
- Leadership in social and technological change
  - genAI literacies leadership



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- Ethical considerations in genAI use
  - Authorship (taking responsibility for studies)
  - Peer review (potential breach of confidentiality)
  - Lack of transparency
  - Bias, misinformation and hallucinations
- Guiding principles from the Australian Code for the Responsible Conduct of Research

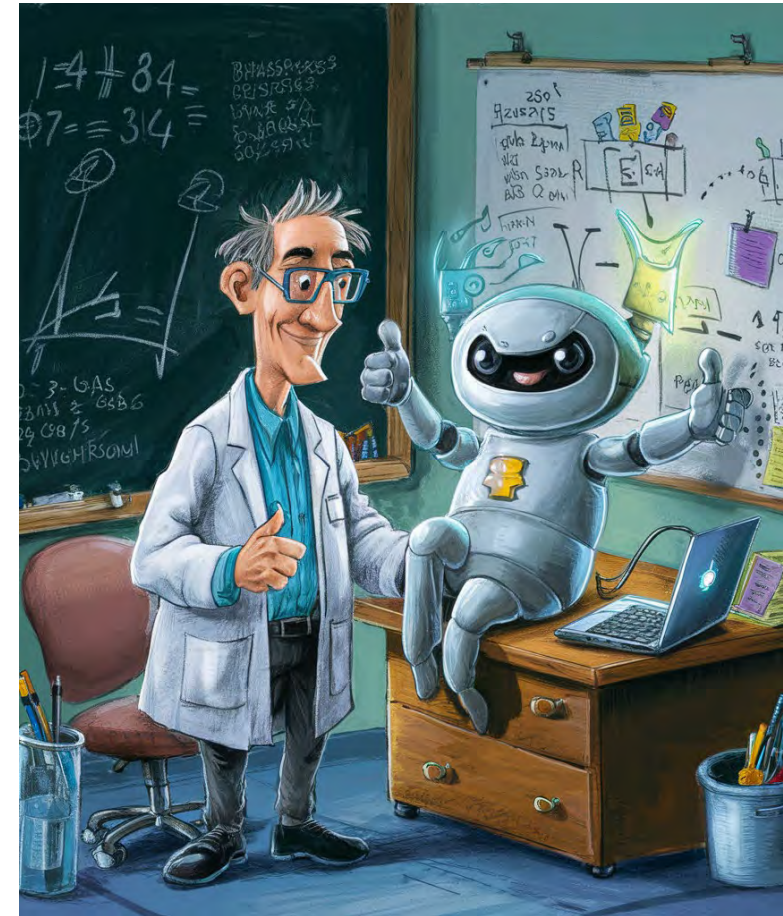
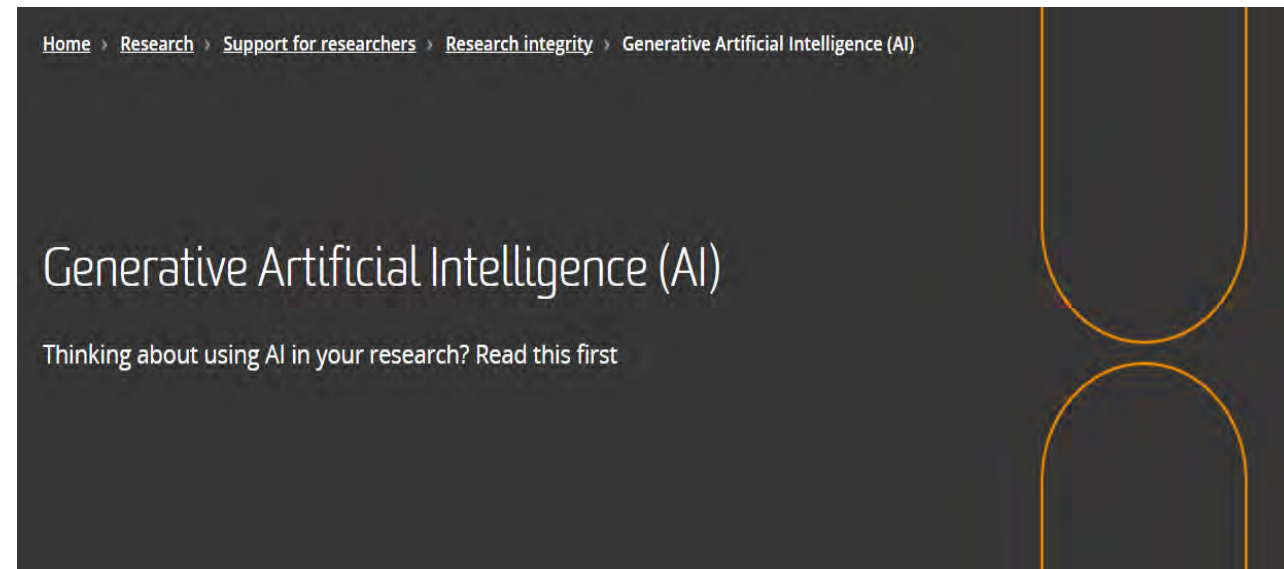


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# Deakin's genAI guidelines for research

- Deakin specific guidelines
- Acknowledge genAI potential
- Aligned with , Australian Code for the Responsible Conduct of Research
- Focus on data-sharing considerations:
  - Confidentiality
  - Privacy
  - Copyright and licensing conditions



[Deakin Generative Artificial Intelligence \(AI\) guidelines for research](#)

# Deakin's contextualised guidance and capacity building

- Library Libguide
- Collaboration with Deakin Research  
Bringing Research guidelines to life
- Hypothetical scenarios
- Rapid development
- Builds on Library's burgeoning AI literacy expertise

## Responsible use of GenAI in Research

- About
- Before you begin
- Starting your research
- Reviewing the literature
- Collecting or generating data
- Analysing data
- Writing publications
- Publishing your research
- Peer reviewing and editing research

### About this guide

This guide aligns with the [Deakin Generative Artificial Intelligence \(AI\) guidelines for research](#) to support researchers in identifying responsible use of GenAI throughout the research lifecycle. It provides practical suggestions and hypothetical case scenarios to contextualise the guidelines.



### Related guides

- Using generative AI
- GenAI basics
- GenAI limitations
- GenAI prompts
- GenAI and study hub

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<https://deakin.libguides.com/generative-ai-research/about>



# Designing the guide

- Library led with Deakin Research partners
- Inspired by other library genAI guides
- Guided by discussion papers and policy
- Research lifecycle skeleton structure

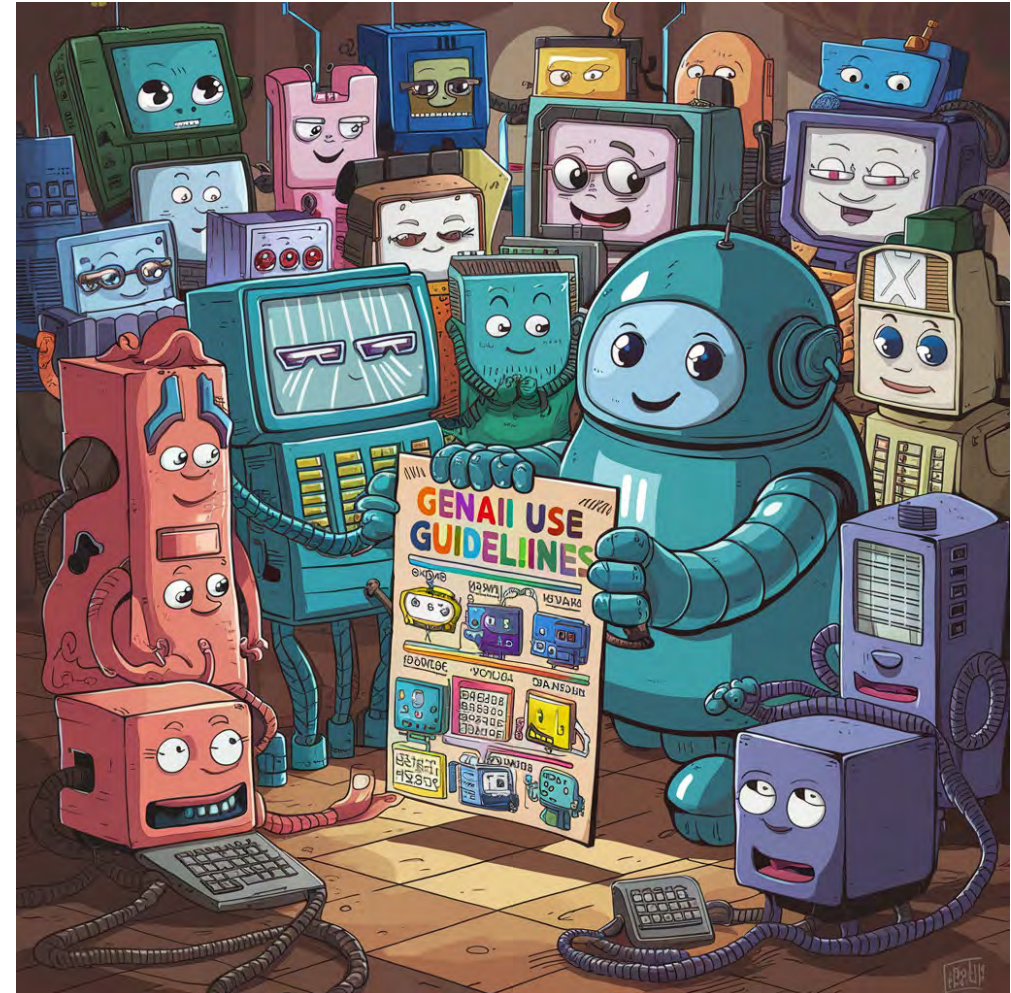


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# Developing the guide: Research lifecycle structure

- Before you begin
- Starting your research
- Reviewing the literature
- Collecting or generating data
- Analysing data
- Writing publications
- Publishing your research
- Peer reviewing and editing research



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# Exemplars and Cautionary Tales

## Exemplars

- Aarifa uses GenAI for proofreading, discloses use
- Omar uses GenAI to generate synthetic data, discloses use

## Cautionary tales

- Jurgen uploads a draft to GenAI to rewrite as scholarly style, fails to declare use
- Michaela uploads a manuscript to GenAI to for peer review, breaches guidelines



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# genAI ethics in research

- Transparency is crucial
- Take ethical and legal responsibility
- Don't breach privacy or confidentiality
- Disclose GenAI use to research participants
- Appraise output for inaccuracies and misinformation



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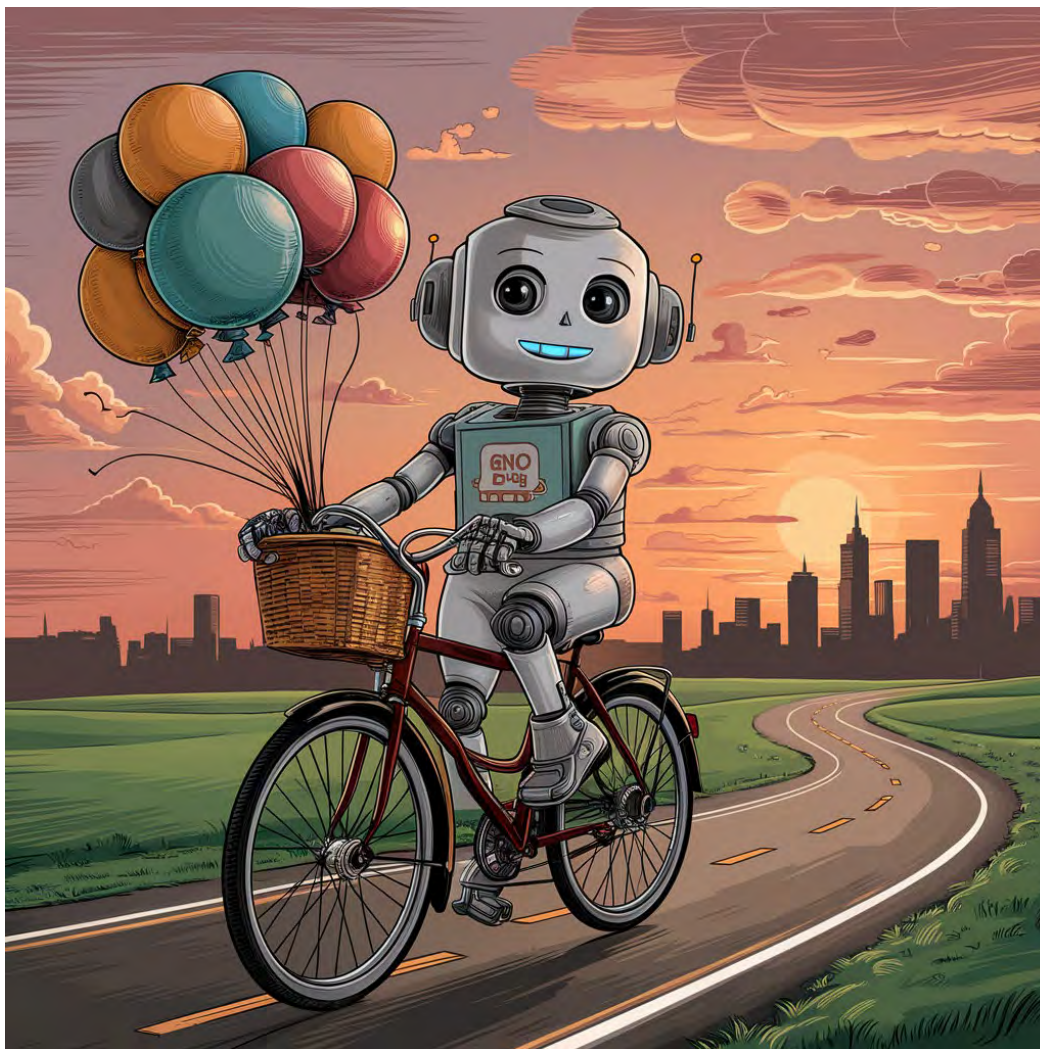
# Reflections and learnings

- Necessarily cautious approach
- Safeguards may change over time
- Tension between possibilities and ethical considerations
- Continued development of enablement of researchers and associated safeguards



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# Moving right along





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# References and Further Reading

ABC Radio Melbourne (16 January 2023). 'Deakin University academics explain how they will approach students using AI like ChatGPT', ABC Listen, accessed 27 April 2024. <https://www.abc.net.au/listen/programs/melbourne-mornings/how-will-universities-confront-the-rising-use-of-ai-in-academia/101862702>

Attewell S (2024). *Student perceptions of generative AI*, Jisc, accessed 22 June 2024. <https://www.jisc.ac.uk/reports/student-perceptions-of-generative-ai>

ARC (2023). *Policy on Use of Generative Artificial Intelligence in the ARC's grants programs*, Australian Government Australian Research Council, accessed 5 May 2024. [www.arc.gov.au](http://www.arc.gov.au)

ASKUON (2023). *What is the University's current stance on ChatGPT and generative AI?* University of Newcastle, accessed 29 April 2024. [https://askuon.newcastle.edu.au/app/answers/detail/a\\_id/2500/~/~what-is-the-university%E2%80%99s-current-stance-on-chatgpt-and-generative-ai%3F](https://askuon.newcastle.edu.au/app/answers/detail/a_id/2500/~/~what-is-the-university%E2%80%99s-current-stance-on-chatgpt-and-generative-ai%3F)

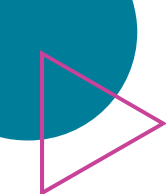
Bearman M, Ajjawi R, Boud D, Tai J and Dawson P (2023). *CRADLE Suggests... assessment and genAI*, Centre for Research in Assessment and Digital Learning, Deakin University, accessed 5 May 2024. <https://blogs.deakin.edu.au/cradle/wp-content/uploads/sites/188/2023/06/CRADLE-Suggests-Assessment-and-genAI.pdf>

Bell G, Burgess J, Thomas J, and Sadiq S (24 March 2023). *Rapid response information report: Generative AI – language models (LLMs) and multimodal foundation models (MFMs)*, Australian Council of Learned Academies, accessed 27 April 2024. <https://www.chiefscientist.gov.au/GenerativeAI>

Carey A (22 March 2023). 'Victoria banned ChatGPT in state schools. But Catholic schools took a surprising stance.' *The Age*, accessed 5 May 2024. <https://www.theage.com.au/national/victoria/victoria-banned-chatgpt-in-state-schools-but-catholic-schools-embraced-a-surprising-stance-20230321-p5ctv3.html>

Chelsea (7 February 2023). 'Covidence Product Updates and Bug Fixes,' Covidence product updates blog, accessed 27 April 2024. <https://www.covidence.org/blog/machine-learning-the-game-changer-for-trustworthy-evidence/>

Cornell University Task Force (2023). *Generative AI in Academic Research: Perspectives and Cultural Norms*, Cornell University, accessed 5 May 2024. <https://research-and-innovation.cornell.edu/generative-ai-in-academic-research/>

A decorative graphic in the top-left corner consisting of a teal circle and a pink triangle.

Covidence (n.d.). 'Top Ranked U.S. Teaching Hospital Delivers Effective Systematic Review Management,' Covidence, accessed 5 May 2024. <https://www.covidence.org/case-studies/top-ranked-u-s-teaching-hospital-delivers-effective-systematic-review-management/>

Deakin Library (2023a). *GenAI and study hub*, Deakin University, accessed 27 April 2024. <https://deakin.libguides.com/GenAI-study-hub>

Deakin Library (2023b). *Responsible Use of GenAI in Research*, Deakin University, accessed 27 April 2024. <https://deakin.libguides.com/generative-ai-research/>

Deakin Library (2023c). *Using Generative AI*, Deakin University, accessed 30 April 2024. <https://deakin.libguides.com/generative-AI>

Deakin Life (2 February 2023). 'What you need to know about ChatGPT and other AI tools,' Deakin Life blog, accessed 27 April 2024. <https://blogs.deakin.edu.au/deakinlife/2023/02/02/what-you-need-to-know-about-chatgpt-and-other-ai-tools/>

Deakin Policy Library (2018). *Research Conduct Policy*, Deakin University, accessed 5 May 2024. <https://policy.deakin.edu.au/document/view-current.php?id=92&version=4>

Deakin Policy Library (2021). *Research Data Management Procedure*, Deakin University, accessed 5 May 2024. <https://policy.deakin.edu.au/view.current.php?id=00023#:~:text=other%20legal%20requirements,-.Data%20reuse%20and%20sharing,the%20privacy%20of%20research%20participants>

Deakin University (2023). *Generative Artificial Intelligence (AI)*, Deakin University, accessed 27 April 2024. <https://www.deakin.edu.au/research/support-for-researchers/research-integrity/generative-artificial-intelligence-ai>

Deakin University (2024a). *DeakinDesign learning principles and practices*, Deakin University, accessed 28 June 2024. <https://www.deakin.edu.au/students/study-support/study-resources/deakindesign-principles-and-practices>

Deakin University (2024b). *Generative AI Steering Group*, Deakin University, accessed 25 June 2024. <https://www.deakin.edu.au/about-deakin/vision-and-values/generative-ai-steering-group>

Dempsey L (12 November 2023). 'Generative AI and libraries: seven contexts,' LorcanDempsey.Net blog. <https://www.lorcandempsey.net/generative-ai-and-libraries-7-contexts/>



Department of Industry, Science and Resources (17 January 2024). *Safe and responsible AI in Australia Discussion paper*, Australian Government Department of Industry, Science and Resources. <https://consult.industry.gov.au/supporting-responsible-ai>



Ehrenpreis M, and DeLooper JP (2022). *Implementing a chatbot on a library website*, City University of New York (CUNY) Academic Works, accessed 5 May 2024. [https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1400&context=le\\_pubs](https://academicworks.cuny.edu/cgi/viewcontent.cgi?article=1400&context=le_pubs)

Emsley, R (2023). 'ChatGPT: these are not hallucinations – they're fabrications and falsifications', *Schizophrenia*, 9(52). <https://doi.org/10.1038/s41537-023-00379-4>

Hillier M (20 February 2023). *Why does ChatGPT generate fake references?* TECHE, accessed 5 May 2024. <https://teche.mq.edu.au/2023/02/why-does-chatgpt-generate-fake-references/>

Johnson L (10 July 2023). 'A new digital world requires collaboration to create new professional practice standards,' *Needed Now in Learning and Teaching blog*, accessed 5 May 2024. <https://needednowlt.substack.com/p/a-new-digital-world-requires-collaboration>

Kabuka T (21 February 2024). 'Guest post – There is more to reliable chatbots than providing scientific references: the case of ScopusAI', the Scholarly Kitchen, accessed 8 July 2024. <https://scholarlykitchen.sspnet.org/2024/02/21/guest-post-there-is-more-to-reliable-chatbots-than-providing-scientific-references-the-case-of-scopusai/>

Kiester L and Turp C (2022). 'Artificial intelligence behind the scenes: PubMed's Best Match algorithm', *Journal of the Medical Library Association : JMLA*, 110(1): 15–22, <https://doi.org/10.5195/jmla.2022.1236>

Koh R (11 July 2023). 'A list of AI-generated Barbies from 'every country' gets blasted on Twitter for blatant racism and endless cultural inaccuracies', *Business Insider*, accessed 8 July 2024. <https://www.businessinsider.com/ai-generated-barbie-every-country-criticism-internet-midjourney-racism-2023-7#:~:text=Buzzfeed%20published%20a%20list%20of,of%20these%20Barbies%20are%20whitewashed>

Medlen P (25 February 2018). 'The role of public libraries changing to meet digital world's requirements,' *ABC News*, accessed 27 April 2024. <https://www.abc.net.au/news/2018-02-25/the-future-of-public-libraries/9481540>

NHMRC (2023). *Policy on Use of Generative Artificial Intelligence in Grant Applications and Peer Review*, Australian Government National Health and Medical Research Council, accessed 30 April 2024. <https://www.nhmrc.gov.au/about-us/resources/policy-use-generative-artificial-intelligence>

NHMRC (2018). *Australian Code for the Responsible Conduct of Research 2018*, Australian Government National Health and Medical Research Council accessed 27 April 2024. <https://www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018>

OpenAI (n.d.). *How your data is used to improve model performance*, OpenAI Policy FAQ, accessed 8 July 2024. <https://help.openai.com/en/articles/5722486-how-your-data-is-used-to-improve-model-performance>

Osorio N (2023). 'A Descriptive Analysis of AI Guides in Academic Libraries', *Library Philosophy and Practice*, 8088, <https://digitalcommons.unl.edu/libphilprac/8033>

Pocock K (4 April 2024). *What is ChatGPT, and what is it used for?* PC Guide, accessed 5 May 2024. <https://www.pcguides.com/apps/what-is-chat-gpt/>

Ringman M (6 September 2023). *Preventing Hallucinations In Generative Artificial Intelligence*, Forbes, accessed 27 April 2024. <https://www.forbes.com/sites/forbestechcouncil/2023/09/06/preventing-hallucinations-in-generative-artificial-intelligence/>

Rouse M (15 January 2024). 'Generative AI', Techopedia blog, accessed 5 May 2024. <https://www.techopedia.com/definition/34633/generative-ai>



Southern Cross University (n.d.). *Generative Artificial Intelligence in Learning and Teaching*, Southern Cross University, accessed 29 April 2024. <https://www.scu.edu.au/staff/teaching-and-learning/future-focus/genai/>

Starmans BJ (17 January 2016). 'Public Lending Libraries,' The Social Historian, accessed 27 April 2024. <https://www.thesocialhistorian.com/public-lending-libraries/>

Stokel-Walker C (2023). 'ChatGPT listed as author on research papers: many scientists disapprove', *Nature*, 613(7945): 620–621. <https://doi.org/10.1038/d41586-023-00107-z>

TEQSA (n.d.). *Using generative AI in research: 10 tips*, Australian Government Tertiary Education Quality and Standards Agency. <https://www.teqsa.gov.au/sites/default/files/2023-08/using-generative-AI-in-research-10-tips.pdf>

TEQSA (2024). *Artificial intelligence*, Australian Government Tertiary Education Quality and Standards Agency, accessed 5 May 2024. <https://www.teqsa.gov.au/guides-resources/higher-education-good-practice-hub/artificial-intelligence>

Telus International (7 July 2023). 'Generative AI Hallucinations: Explanation and Prevention', Telus International blog, accessed 27 April 2024. <https://www.telusinternational.com/insights/ai-data/article/generative-ai-hallucinations/p/a-new-digital-world-requires-collaboration>

Thomas J, Noel-Storr A, Marshall I, Wallace B, McDonald S, Mavergames C, Glasziou P, Shemilt I, Synnot A, Turner T, Elliott J, Living Systematic Review Network (2017). 'Living systematic reviews: 2. Combining human and machine effort', *Journal of Clinical Epidemiology*, 91: 31–37. <https://doi.org/10.1016/j.jclinepi.2017.08.011>

Wakeling S, Garner J, Hider P, Jamali H, Lymn J, Mansourian Y, and Randell-Moon H (2022). 'The challenge now is for us to remain relevant': Australian public libraries and the COVID-19 crisis', *IFLA Journal*, 48(1):138-154. <https://doi.org/10.1177/03400352211054115>

Weerts G (2024). *Guest Post - Hanging in the Balance: Generative AI Versus Scholarly Publishing*, The Scholarly Kitchen, accessed 27 April 2024. <https://scholarlykitchen.sspnet.org/2024/01/08/guest-post-hanging-in-the-balance-generative-ai-versus-scholarly-publishing/>

Wegener J, Ghissassi M and Maher H (2024) *Post breakthrough: how AI can lift climate research out of the lab and into the real world*, World Economic Forum, accessed 22 June 2024. <https://www.weforum.org/agenda/2024/05/ai-lift-climate-research-out-lab-and-real-world/>

Wiley Author Services (2024). *Best practice guidelines on research integrity and publishing ethics*, Wiley Author Services, accessed 5 May 2024. <https://authorservices.wiley.com/ethics-guidelines/index.html#15>

Zharovskikh A (2024). *Bias in Generative AI: Types, examples, solutions*. InData Labs, accessed 8 July 2024. <https://indatalabs.com/blog/generative-ai-bias#:~:text=Bias%20in%20generative%20AI%20models,inequalities%20present%20in%20the%20data>

# ▶ GenAI and the Australian Code for the Responsible Conduct of Research 2018

The current **Australian Code for the Responsible Conduct of Research 2018** is framed around eight principles which are useful in determining whether your proposed use case is appropriate.

The principles are:

- Honesty
- Rigour
- Transparency
- Fairness
- Respect
- Recognition
- Accountability
- Promotion of responsible research

Consider the key principles of the Code in the context of using GenAI.



<https://www.nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018>