

Advice for the Good-practice Use of Generative Artificial Intelligence (GenAI) in Postgraduate Research

This advice has been compiled by the Graduate Research School (GRS) in consultation with the Graduate Research Committee (GRC), who in turn gathered feedback from the Divisions. We were initially tasked with developing formal Guidelines as part of the University's Policy Library. However, given significant variation in the philosophy and use of Generative Artificial Intelligence (GenAI) across the University coupled with a rapidly changing GenAI field, GRC agreed that instead of a formal policy document, advice should be developed. This advice can be easily updated and customised by supervisors/course coordinators/lecturers to fit disciplinary norms and contexts.

This advice is aligned with the University of Otago's AI Framework, the Royal Society Te Apārangi Best-Practice Guidelines for Using Generative Artificial Intelligence (GenAI) in Aotearoa New Zealand and draws on the University of Auckland guidelines for doctoral candidates (with permission). We first discuss the purpose of the advice, then the organisational scope, followed by key definitions. We then present seven principles for the responsible and ethical use of AI in postgraduate research:

1. AI tools to support research excellence
2. Encouragement for the wise and responsible use of GenAI in postgraduate research
3. The need to maintain academic integrity in writing
4. Ethical use of GenAI
5. Being transparent about the use of GenAI
6. Supervisor/course-coordinator/lecturer consultation and concerns
7. Examiner guidelines

A declaration form is also provided, which can be submitted as part of a report, dissertation or thesis, so that readers are aware of how GenAI has been used in the research process. Alternatively, postgraduate students can elaborate the use of GenAI in the relevant sections of their work.

This advice must be considered alongside statements about the use of GenAI in key University policies such as Academic Integrity, Assessment, Responsible Practice in research – Code of Conduct, and any Ethical Guidelines.

Purpose

This advice is for postgraduate students and their supervisors/course coordinators/lecturers regarding the responsible and ethical use of Generative Artificial Intelligence (GenAI) in their research projects, dissertations, or theses to enhance the research process, to uphold the highest standards of academic integrity and ethical conduct.

Organisational Scope

The advice applies to postgraduate students (and their supervisors/course coordinators/lecturers) doing substantive research projects as part of their degree. This includes graduate research candidates doing Doctoral or Master's theses or exegeses, as well as postgraduates doing projects or dissertations in Postgraduate Certificates, Diplomas, Honours, and taught Master's degrees.

Definitions

Artificial Intelligence (AI) Systems:

Any technology or tool that uses data to make inferences and generate outputs such as predictions, recommendations, decisions, or content (text, images, video, code) with a degree of autonomy. This includes machine learning models, generative AI tools, predictive analytics systems, neural networks, natural language processing designed to enhance efficiency, decision making and automation, and chatbots that generate their own responses.

GenAI:

A type of AI that creates new content, including text, images, videos, and code, by learning from large amounts of data and generating responses to user prompts. Examples include ChatGPT, Claude, Microsoft Copilot, and similar tools. GenAI is a tool with strengths and weaknesses, and the capacity for harm or benefit to research.

Postgraduate students:

Postgraduate students include Postgraduate Certificate, Postgraduate Diploma, Honours, Masters and Doctoral students.

Postgraduate research:

Postgraduate research refers to substantive research done by postgraduate students for projects, dissertations, exegeses and theses.

Data classification:

The categorisation of information based on sensitivity level (Public, Internal, Confidential, Restricted) as defined in the [Information Security Classification Guidelines](#).

Hallucination:

Hallucination refers to the generation of false, nonsensical, or inaccurate information by large language models or other GenAI systems that present as reliable claims or sources of information.

Local or non-local AI system:

A local AI tool runs the model on a device (e.g., downloaded onto a laptop), so prompts and data are not transmitted off it. A non-local AI tool processes prompts on the provider's servers (e.g., most cloud services), even when accessed through a locally installed application.

Principles

1) AI tools as a potential research aid

AI tools can enhance postgraduate research, helping students to develop academic skills. AI tools should support skill development, not replace it in writing or research. Supervisors/course-coordinators/lecturers should guide and critique research, and writing remains vital for developing postgraduates' intellectual growth and communication skills.

2) Using AI wisely and responsibly in postgraduate research

- (a) When considering the use of any AI tool for research activities, postgraduates, in discussion with their supervisor/course coordinator/lecturer, must research the AI tool and evaluate the benefits and limitations. For processing any research data they should determine whether their proposed use of AI is for public, internal use, business

confidential, private confidential or restricted data – see [Guidance for Classifying Information and Data at the University of Otago](#). Restricted data cannot be used with any AI system, and if data sovereignty is needed then only a locally-hosted University-managed AI system can be used (see 4f and Appendix A). University guidance of AI tools is [here](#), and refer to departmental or programme guidance, which may promote certain tools. If considering use of tools other than those above, refer to Appendix A, which has a flowchart to help guide decision-making, noting that permission may need to be sought through cybersecurity@otago.ac.nz.

- (b) Postgraduate students are expected to maintain their critical skills when engaging with the output produced by AI and must be responsive to the tools' limitations, such as cultural limitations, bias, hallucinations, inaccuracies, and potential misuse.
- (c) Postgraduate students should take into account that AI tools may produce different outputs from the same input (in the same way that they should take this into account with human interpretations).
- (d) Postgraduate students should consider the environmental impacts of GenAI, being mindful of the University's Sustainability commitments and [Framework](#):
 - i. Use of GenAI is energy intensive and raises considerations regarding sustainability.
 - ii. Honouring te Tiriti o Waitangi requires protection of te taiao, the environment.

3) The need to maintain academic integrity in writing and research

- (a) Postgraduate students are accountable for the integrity of the AI-generated output that they use in their writing.
- (b) GenAI tools can be used as a study companion to help improve text and grammatical expression, but **not** as a text generator or ghost writer.
- (c) Postgraduate students should be careful if using GenAI to summarise articles; students are expected to critically evaluate articles themselves. Examiners will expect demonstration of mastery of knowledge of their research topic.

4) Ethical use of AI

- (a) Any use of AI in research must be in alignment with University Ethical Procedures.
- (b) GenAI tools can be used to generate images, but the tools must be fully acknowledged, and their use must be carefully reasoned, being mindful of the appropriateness of doing so and the environmental impacts (see 2d)
- (c) Postgraduate students must respect the providers of the raw data, which includes ensuring their rights are not infringed. Uploading personal (private confidential) data can only be done using an approved tool – check [here](#) and if in doubt contact cybersecurity@otago.ac.nz.
- (d) There are technical and ethical issues with the use of AI tools regarding privacy, confidentiality, and intellectual property rights.
- (e) Postgraduate students must remain mindful that generated or uploaded input (text, data, prompts, images, etc.) could be used for other purposes, such as the training of AI models. They should be aware that no non-local AI system can guarantee protection of data, but the University tries to manage risk and implement appropriate safeguards to protect data and users.
- (f) AI use involving Māori or Pacific data, or data held under tikanga-based governance arrangements not otherwise approved under research ethics processes, requires written endorsement from:

- i. The Deputy Vice-Chancellor Māori for Māori data, and/or
- ii. The Deputy Vice-Chancellor Pacific for Pacific data.

5) Being transparent about the use of Gen AI

- (a) Postgraduate students must be transparent about the use of GenAI when it significantly contributes to their research, and/or where required by research ethics approvals, funding bodies or publishers, where stakeholders would have a reasonable expectation of disclosure. This could be achieved through a declaration form (see below) inserted near the beginning of their project report, dissertation or thesis, or they could elaborate the use of GenAI in the relevant sections of their work.
- (b) Postgraduate students need to disclose and discuss the limitations of AI tools used (e.g., authenticity, inaccuracy, privacy breaches), including possible biases in the generated content, as well as possible mitigation measures.

6) Supervisor/course coordinator/lecturer consultation and concerns

- a) Any intended use of GenAI should be discussed and agreed with supervisors or be aligned with the expectations of course coordinators or lecturers, noting that restricted data requires additional approval (see 2a).
- b) Supervisor/course coordinators and lecturers must not upload any portion of a postgraduate student's work to any GenAI platform without the student's knowledge and permission.

7) Examiner guidelines

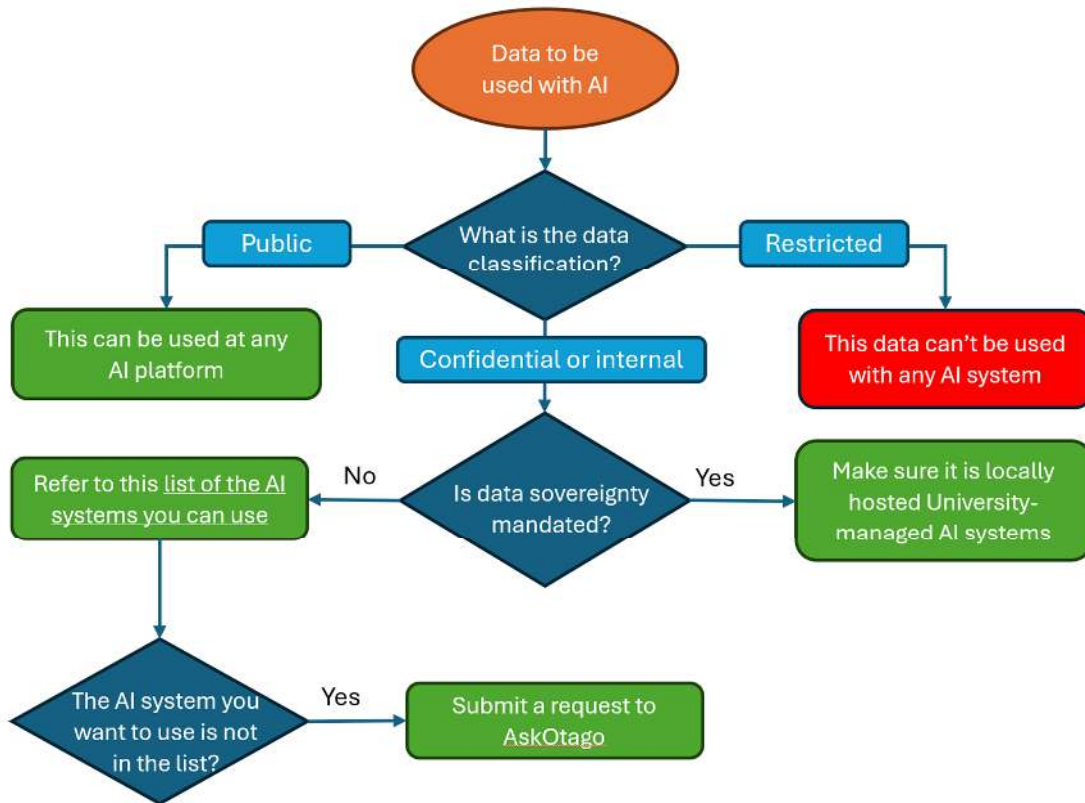
- a) To maintain the integrity and confidentiality of the examination process and protect the student's intellectual property, examiners of postgraduate research must not:
 - i. Employ external GenAI detection software when assessing research work (see 7(b) below)
 - ii. Upload any portion of a student's work to any GenAI platform
 - iii. Use GenAI as a tool to assess the work
- b) Examiners who have concerns about inappropriate or undisclosed GenAI use should raise these in their examiner's report so the University can investigate.

Related Policies and Procedures and Contacts

- AI Governance Policy
- Staff Use of AI Systems Policy and Procedures (once approved)
- [Academic Integrity Policy](#)
- [Responsible Practice in Research – Code of Conduct](#)
- [Ethical Standards for Health and Disability Research and Quality Improvement](#)
- Thesis submission form (to be altered to state whether AI has been used in the thesis)
- [Use of Generative-Artificial Intelligences and Autonomous Content Generation in Learning and Teaching policy](#)
- Student-supervisor agreement (being updated)

If you have any queries regarding the content of this policy, procedure or guideline or need further clarification, contact the Dean of the Graduate Research School on dean.grs@otago.ac.nz.

Appendix A: Flow-chart to assist with decision-making for use of AI tools



For information on data classification see [here](#). If in doubt about the security of an AI system, contact cybersecurity@otago.ac.nz.



DECLARATION OF THE USE OF ARTIFICIAL INTELLIGENCE (AI) IN THESIS

I, [Your Full Name], Student ID: [Your Student ID Number], declare that the intellectual content of this thesis is the product of my own research and effort. While I utilised AI tools, their role was strictly to assist and enhance my work, and not to substitute for my own critical thinking, analysis, or originality.

I have critically reviewed, validated, and integrated any AI-generated content or assistance into my work. Any use of material directly generated by AI tools has been explicitly cited, where appropriate. I understand the limitations of AI tools used (e.g., authenticity, inaccuracy, privacy breaches), including possible biases in the generated content, and have mitigated these risks.

Tick the boxes below regarding your use of AI tools in your research process and thesis, giving details of the tools and how they were used:

- Finding literature: [e.g., Elicit was used to identify possible articles of interest]
- Evaluating literature:
- Refining research questions
- Development of methodology:
- Analysis of data (including generation or improvement of code):
- Generation of images:
- Proofreading and/or copyediting:
- Other:

Signed: _____ Date: _____