



Best Practice Guidelines On The Responsible And Ethical Use Of Artificial Intelligence In Academic Research

1. Overview and Purpose

At our institution, we support the ethical, transparent, and responsible use of Artificial Intelligence (AI) tools to assist with academic writing and research. These guidelines outline best practices for the use of AI in research to preserve academic integrity, research quality, and ethical standards.

- AI-generated content must always be acknowledged with proper referencing.
- AI-generated content may not be presented as original academic work.
- The unethical use of AI is regarded as academic misconduct.
- AI use in research must comply with the NWU Ethical and Responsible Senate Rules (Section 5), as well as other institutional and sectoral guidelines (e.g., NWU Academic Integrity Policy, SciELO, ASSAf). Click here for access to this information: [AI Polices](#).
- Also refer to the [NWU guidelines on the use of Artificial Intelligence - Do's and Don'ts](#).
- AI should be used to augment, not replace, human judgment, expertise, and critical reasoning.

2. Ethical Use of AI Tools

AI tools may be used for the following functions:

- Grammar and spelling correction.
- Language refinement (e.g., improving clarity or flow).
- Reference formatting.
- Supporting data analysis or interpretation (e.g., verifying own thematic ideas or checking statistical models – not generating original themes or conclusions).
- Ideas on the motivation, theory, and frameworks of the paper – if properly referenced.

Note: AI often produces inaccurate, biased, or fabricated information. Ethical use, therefore, requires checking and verifying AI outputs against scholarly sources before inclusion in academic work. Researchers and students will be accountable for any misinformation, incorrect citations, unavailable sources, etc. This may compromise the scientific method and credibility.

3. Unethical Use of AI Tools

The following practices may be regarded as unethical and constitute academic misconduct:

- Using AI to generate core academic content (e.g., literature reviews, proposals, or research articles, or any parts thereof) without verification or citation.
- Using AI as the sole tool to synthesise or generate research findings, themes, or conclusions.
- Relying on AI outputs without fact-checking or verifying originality.
- Uploading or inserting confidential, personal, or institutional data into AI tools (in violation of IPAT's data storage protocols).

4. Documenting AI Workflows

To ensure that the research process remains transparent, reproducible, and ethically sound, researchers must preferably document their use of AI tools throughout the research journey. An AI workflow is a clear record of when, how, and why AI tools were applied, and how the outputs were validated. A crucial element is recording how AI outputs were verified (e.g., fact-checking against peer-reviewed sources).

Suggested strategies for documenting AI workflows:

- Maintain an AI Use Log (like a lab notebook), recording date, tool, and purpose.
- Save screenshots or transcripts of important interactions with AI (e.g., prompts and outputs that influenced your work).
- Document how AI-generated ideas or text were verified, corrected, or adapted.
- Summarise key aspects in the AI Declaration Page, with the full workflow log available if requested by supervisors, ethics committees, or reviewers.

5. AI Declaration Page

If AI is used in accordance with these guidelines, researchers should preferably, as part of best practices and transparency, include a signed AI Declaration Page with their submission. This declaration must specify:

- Whether AI was used or not.
- The purpose of use (e.g., grammar correction, language refinement).
- The specific AI tool(s) used (e.g., Grammarly, ChatGPT, Quillbot).
- How AI was applied within the research process.
- How the accuracy and reliability of AI outputs were verified.

The AI Declaration Page should be signed and attached to the research paper, dissertation, or thesis to ensure transparency and accountability. [Click here to access and download a template of the AI Declaration page.](#)

6. Data Privacy and Confidentiality

Researchers must never upload unpublished, sensitive, or confidential research data into AI tools. Doing so may:

- Violate data ethics and confidentiality agreements
- Breach institutional and legal data protection policies (e.g., POPIA)
- Contravene NWU's data storage protocol

7. Research Supervisor Responsibilities

Supervisors and promoters play a critical role in ensuring responsible AI use. They should play the following roles:

- Guide researchers in understanding and applying ethical AI practices.
- Review and approve the AI Declaration Page during submission processes.

- Encourage students to apply human-led critical reasoning when engaging with AI outputs, ensuring that AI remains a supportive tool rather than a substitute for scholarly expertise and scientific rigorous research processes.

8. Core Principle: Human-Led Critical Reasoning

At all stages of research, human intellectual contribution, originality, and judgment must remain central. AI can assist with routine tasks, but:

- Researchers must critically evaluate AI-generated suggestions or outputs.
- Final interpretations, conclusions, and contributions must be the product of independent scholarly reasoning.
- AI must never replace academic creativity, originality, or ethical responsibility.