University of Reading

Doctoral and Researcher College

Guidance on the responsible use of generative AI in doctoral research

1. Introduction

Generative Artificial Intelligence (AI) tools—including Copilot, ChatGPT, and Gemini—offer new opportunities to support research, writing, and analysis. This guidance outlines responsible practices for using such tools during your doctoral studies, in alignment with the University's academic integrity standards (Section 9: Academic integrity and academic misconduct).

You should also note that many publishers have their own guidance on the use of AI that you will need to comply with when submitting articles, papers or monographs during or after your doctoral research.

It is your responsibility to ensure that all your activities using AI are carried out ethically and within the University's regulations. As a doctoral researcher, you are responsible for, amongst other things:

a) The intellectual content of your project.

Your studies are more than "doing" research, it is also about developing the broader skills of "how to" research. For example, these skills are developed by undertaking a comprehensive literature search, or when analysing data, or setting your research into the broader context of prior literature. Using AI to write research questions or analyse data will not support the development of these skills.

b) Keeping critical oversight of your use of AI.

For example, could you justify and explain why you used AI in your project to your examiners in the viva?

c) Being transparent about your use of AI

AI tools are developing rapidly, as is their capability and reach. They can be a powerful research tool but their use should be openly acknowledged (see below).

d) Responsible research

The research you present for examinations must result from your own efforts and must have integrity (i.e. not falsified).

2. Permissible Use

This guidance aims to illustrate the principles of appropriate use of AI for doctoral researchers. As a broad-based University, it is not possible to define all specific approved uses for AI; where a doctoral researcher is unsure as to whether AI use is appropriate at any stage of their project, they should seek the advice of their subject specialist supervisor(s) and/or the School Director for Postgraduate Research Studies.

By way of examples, doctoral researchers may use generative AI to:

- Brainstorm research questions and explore topic areas
- Improve grammar, structure, and clarity of their own writing
- Interpret code and troubleshoot scripts
- Summarise and simplify technical texts
- Plan project milestones and timelines

3. Prohibited Use

Researchers **must not**:

- Present AI-generated content as original work without proper acknowledgment
- Fabricate data, sources, or citations using AI tools
- Depend on AI to develop arguments without independent analysis
- Upload confidential, proprietary, or ethically sensitive data to public platforms

4. Best Practices

To ensure responsible use:

- Verify outputs - especially factual claims, citations, or code - for accuracy
- Use AI platforms approved by University IT Services for any data-sensitive tasks; the University currently offers access to Copilot.
- Protect personal and confidential information by avoiding uploads of unpublished material
- Declaration of AI use. Material that is wholly or partially generated by an AI tool should be declared clearly in the document in which it occurs. Indeed, many publishers are now asking authors for a statement of AI use in their research papers.

At the moment, there is no standard method to declare AI use but good practice includes citing the:

- User's name
- Name and version of the AI software
- Publisher of the AI software
- Date the AI tool was used
- Whether the output has been validated
- The text prompts you used from which the generative AI provided its response (since different prompts produce different results).

If the prompt texts are recorded and shared, then this is similar to a researcher clearly explaining their methodology, and is in line with our commitments to research transparency, integrity and open practices.

5. The limitations of generative AI

There are many important limitations to AI tools that you should be aware of; you are responsible for the accuracy of your work and so "errors" introduced by AI are your responsibility.

- ***Generative AI can ignore intellectual property rights***
  AI may "generate" or provide materials that are protected by intellectual property rights but may fail to give you appropriate acknowledgement of where the material has been sourced. This could lead to breaches of copyright.

Equally, if you upload or input articles or books, including those you have authored yourself, this may then be freely available for other to use. You need to ensure that you do not break the terms of use set by the publisher or other rights holders.

Use of a generative AI output may prompt plagiarism if text, an image or an idea are used without appropriate acknowledgement.

- ***Generative AI can be wrong***
  AI may produce outputs that are incorrect or nonsensical.
- ***Generative AI can make things up***
  AI can produce outputs that include 'hallucinations' - information that is made up by the generative AI platform. This is commonly seen in a list of references that AI includes in text.
- ***Generative AI can exhibit bias***
  AI can produce outputs that are biased or based on stereotypes, and may be weighted towards Western perspectives. There have been multiple examples where AI draws on selective information which can be from the Anglosphere.

- ***Generative AI is not infallible***
  AI outputs may be missing key information or be outdated if drawing on older information that has recently been superseded.
- ***Generative AI is affected by the competency of the user***
  Outputs from AI are determined by the prompt that a user inputs: an unclear prompt may produce an output that does not achieve what the user intends.
- ***Ethical concerns regarding the use of generative AI***

Concerns have been raised regarding ethical issues relating to the use of AI, including the environmental impacts of data centres and workers' rights.

6. Academic integrity

The University expects students to uphold principles of honesty, rigour, and independence. Generative AI should complement - not substitute - your intellectual contribution.

7. Seeking Support

If you're unsure about the use of AI in your research, consult your:

- Academic supervisor
- School PGR Director

Engaging in these conversations early ensures clarity, transparency, and ethical research practices.

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