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**Resources and Guidelines for Using Generative Artificial Intelligence (AI) in Academic Research**

University of Westminster

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This guidance should be read in conjunction with the University of Westminster's Policy in Relation to the Safe Use of Generative AI (2024). Available [here](https://www.westminster.ac.uk/sites/default/public-files/general-documents/Generative-AI-Policy-2024.pdf).

**1. Introduction**

Generative artificial intelligence (Generative AI, or simply AI)[[1]](#footnote-1) is a powerful tool capable of producing content such as text, images, music, videos, and code by learning from large datasets. These tools offer new opportunities in terms of creativity and efficiency that in turn could significantly enhance research processes. The University of Westminster supports the responsible use of generative AI tools while maintaining high standards of academic integrity, privacy, and ethical considerations. These guidelines aim to assist researchers and academic staff in the appropriate and responsible use of generative AI in their work.

**2. Key Principles**

The use of Generative AI by academic colleagues should be guided by the following key principles.

**Protect Confidential Data**

* Do not enter confidential or sensitive data, including non-public research data, personal information, or any other data classified as confidential, into public or commercial generative AI tools.
* Any information you provide to public or commercial generative AI tools is considered in the public domain and may be stored and used by anyone else. Specialist AI tools that protect privacy may exist but will require careful research.
* If you use specialist AI tools with confidential data, make sure this has been assessed by University ISS colleagues *and* that permission has been sought from any data owners, funders or other research partners.

**Accountability and Verification**

* You are accountable and have oversight for the content generated using AI tools, including responsibility for IP infringement.
* AI-generated content can be inaccurate, misleading, or fabricated. Researchers are expected to have reviewed AI outputs and assured themselves of the veracity and integrity of the outputs.
* Review and critically evaluate all AI-generated material before publication or dissemination, especially with regard to accuracy and IP infringement.

**Risk Identification**

* AI tools potentially bring great benefits but also risks.
* Identify the risks of using AI before using AI, including concepts such as hallucination, inbuilt bias, privacy, intellectual property, citations, and reproducibility. Extensive or conditional use of AI should be flagged up in research ethics applications.

**Ethics Review and Approval**

* The use of generative AI in research must be assessed against the current University ethics review criteria. At this time, no new review levels exist specifically for AI research; however, researchers should ensure that any intended use of AI (especially where participant data, generative output influencing people, or automated decision-making is involved) is flagged in ethics applications. The same ethical principles apply as for all research. Where uncertainty exists, researchers should consult with the relevant ethics committee.

**Ethical Use and Transparency**

* Use AI tools ethically, ensuring compliance with university regulations and ethical standards, including data security, IP integrity and subject confidentiality.
* Projects that aim to use AI for research purposes must declare this in an ethics application at the relevant RKE Ethics Committee.

**Communication and Publication**

* When presenting work that has used AI tools, follow the guidelines and regulations provided by the research funder, conference organizer, or publisher on the scope of their use in the context.
* Good practice requires researchers to acknowledge AI-generated content is clearly identified in presentations, publications, and other communications.

**Reproducibility**

* AI output may not be reproducible. Many algorithms have random noise factors that result in different outputs when similar inputs are used and change in real time as more datasets are added.
* Ensure that you save and archive important information, workflows, iterations and outputs derived from AI tools on which you may eventually rely.

**Values Alignment**

* The use of AI tools should align with the University of Westminster's values of being progressive, compassionate and responsible. We celebrate diversity and foster inclusion and equality of opportunity. Using AI tools in research must continue to enable a supportive and safe working environment among colleagues.

**3. Risk of Limitations of AI tools**

AI tools are new and constantly evolving. It is important that users understand the risks and limitations that are associated with AI tools and that new ones emerge with novel applications and technological developments. The below risk factors are not exhaustive but should be understood and evaluated carefully before using AI tools in research.

**Accuracy and Reliability**: AI tools can produce incorrect, biased, or misleading outputs. Always independently verify the truthfulness and accuracy of AI-generated content.

**Bias**: AI tools can reflect and amplify biases present in the datasets and models they are trained on. Use AI tools critically and be aware of potential biases. AI does not produce ‘objective’ outputs, but reflect the underlying data on which they are trained.

**Privacy and Data Security**: AI tools may expose your data to unauthorized access or misuse. Avoid inputting sensitive or personal data into AI tools, especially those hosted externally. Protect participant information and confidentiality at all times.

**Intellectual Property**: Be cautious of copyright issues when using AI tools. Ensure that AI-generated content complies with copyright laws and University policies on intellectual property. Be sure that licence protections are adequate for any form of dissemination.

**Hallucinations**: AI tools may generate plausible-sounding but incorrect or nonsensical information. Cross-check and validate AI outputs against reliable sources or for inadvertent offence given by the outputs.

**Ethical Considerations**: Ensure that the use of AI tools aligns with ethical standards and does not compromise academic or research integrity.

**Dependence on Input Quality**: The quality and clarity of AI outputs are directly related to the quality and clarity of the inputs provided. Poorly framed prompts can result in poor outputs and unsubstantiated conclusions.

**Regulatory Compliance**: Ensure that the use of AI tools complies with relevant data protection regulations, including GDPR and other local laws.

**Limited Understanding**: AI tools do not understand context or nuance as humans do. They generate content based on patterns and predictions, not comprehension.

**4. Citation and Acknowledgement of AI Tools**

AI tools are generally not considered authors of academic work.[[2]](#footnote-2) They should not be added as co-authors since such tools cannot produce original ideas *and* take responsibility for such ideas. However, it remains important to cite AI contributions in all text and other output formats. Citation and acknowledgement rules may differ by publisher or scientific field, but general rules are:

**Citation**: For greater reproducibility and precision, include the AI model, subscription level and engine, as well as the full date of use. Treat AI tools as personal correspondence in citations.

*Example (Harvard style):*

In-text citation*: “This content was generated using ChatGPT-4o mini (Plus), accessed 2 May 2025 (OpenAI, 2025).”*

Reference list*: OpenAI. 2025. ChatGPT-4o mini (Plus) response to [Your Name], 2 May 2025. OpenAI.*

For different citation styles using AI, please check [citethemright](https://www.citethemrightonline.com/sourcetype?docid=b-9781350927964&tocid=b-9781350927964-217&st=ai).

**Acknowledgement**: Acknowledge the use of AI tools in your work, providing details on the AI system used, the company that made the AI system, the URL of the AI system, and a brief description of how the tool was used and the iterations or prompt engineering that was employed.

**5. AI Products and Tools**

To effectively leverage AI tools, researchers and academic colleagues need to know where to find reliable and suitable AI products for their specific needs. The market for AI tools is constantly evolving, and it is important that colleagues search carefully to find the right tools for their research.

**University resources**

Colleagues can currently access the following AI-powered resources for free via the University using their university logins:

* + [Bing Copilot](https://www.bing.com/chat) chat is a GPT-based text AI that can assist with research assistance, language translation, code generation, writing assistance, creative content generation and smart recommendations.
	+ [Grammarly AI Writing Assistance](https://www.grammarly.com/ai-writing-assistant) provides advanced grammar and style checking, plagiarism detection, tone detection, vocabulary and writing enhancement features to improve the clarity, correctness, and effectiveness of your written communications.

**Public resources**

There is a plethora of AI products available, and new products are entering the market daily. An extensive list of AI products for research would likely be quickly outdated. It is recommended that colleagues search and explore compilation websites such as [Ithaka SR’s AI Product Tracker](https://sr.ithaka.org/our-work/generative-ai-product-tracker/) and its associated [brief](https://sr.ithaka.org/publications/generative-ai-in-higher-education/). Other compilation links and resource guides include:

* [Cambridge Libraries Guide on AI Tools](https://libguides.cam.ac.uk/AI/tools)
* [Georgetown University’s list of AI Tools](https://guides.library.georgetown.edu/ai/tools)
* [Texas Tech University Libraries on AI Tools](https://guides.library.ttu.edu/artificialintelligencetools/aitools)
* [Gov.uk AI Ethics and Safety Guidance](https://www.gov.uk/data-ethics-guidance/understanding-artificial-intelligence-ethics-and-safety)
* [European Commission AI Guidelines](https://research-and-innovation.ec.europa.eu/document/download/2b6cf7e5-36ac-41cb-aab5-0d32050143dc_en?filename=ec_rtd_ai-guidelines.pdf)
* [University of Glasgow AI for Researchers](https://www.gla.ac.uk/research/strategy/ourpolicies/ai-for-researchers/)
* [City, University of London, AI in Doctoral Research](https://www.city.ac.uk/research/city-doctoral-college/doctoral-training-resources/use-of-generative-ai-tools-in-doctoral-research)
* [National Centre for AI (Jisc)](https://nationalcentreforai.jiscinvolve.org/wp/2024/08/28/ai-tools/)
* [University of Oxford Ethical Framework for AI in Research](https://www.ox.ac.uk/news/2024-11-13-new-ethical-framework-help-navigate-use-ai-academic-research)
* [University of Leeds AI Use in Research](https://generative-ai.leeds.ac.uk/ai-use-in-research/)

**Costs**Many AI tools require subscriptions or payments to access their full capabilities. There is no university fund or central allocation that pays for AI tools. If colleagues wish to integrate paid AI tools into their research projects, they will be required to make requests locally, including school budgets or college budgets, or to include their costs in grant applications. They will need to talk to the appropriate budget holder or funder and be able to justify the expense by demonstrating how the tool will significantly benefit their research productivity or improve the quality of their outputs. Local and college research leaders will often need to be consulted.

**6. Learning Resources**

Learning how to use AI tools productively for research purposes will likely require significant training and skill acquisition by colleagues. For example, concepts such as “prompt engineering” or “GPT” need to be well understood to use many popular AI tools successfully. The University of Westminster is committed to providing the necessary resources and support to help researchers and academic staff effectively integrate AI tools into their work. Below are some of the learning resources available:

**University resources**

* The Research Data Manager and ISS provide training and approved tools for data protection and AI integration. Researchers should check with these teams before using external tools, especially for handling research participant data or transcription services.
* [LinkedIn Learning](https://www.westminster.ac.uk/current-students/studies/study-skills-and-training/digital-skills/linkedin-learning) is available to all colleagues, and it is recommended that users explore some of the newly developed [AI learning pathways](https://www.linkedin.com/learning/topics/artificial-intelligence?u=42314660).
* Workshops or specialized training programmes may be run by schools, colleges or via the RKEO. Colleagues are advised to regularly check the [RKEO Researcher Development Hub](https://blog.westminster.ac.uk/researchoffice/live-sessions/), the RKEO newsletter and other school or college communication. For example, here are presentations from the June 2024 Westminster AI for Research workshop. [Video 1](https://westminster.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=15315d1f-f005-498e-ba7a-b19200959a1d), [Video 2](https://westminster.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=0e8710f4-0953-41d7-ba3f-b1920099e5a9), [Video 3](https://westminster.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=8bd6cbea-8065-45d1-9783-b192009ec42d)

**Free External platforms**

* External platforms such as YouTube, Google, Google Scholar, LinkedIn and various Blogs will often host content that can aid users in specific AI queries. Colleagues are advised to search such platforms using search terms such as:
	+ “How to use ChatGPT”
	+ “AI tools for academic research”
	+ “Prompt Engineering”
	+ “Research papers on AI applications”

Some examples of learning materials that might return from such searches include:

* + [Here](https://www.jasoncollins.blog/posts/using-generative-AI-as-academic-july-2024-edition) is a very useful blog post on how generative AI can be used by academics.
	+ [Here](https://www.nature.com/articles/s41551-024-01185-8) is a comment article in *Nature Biomedical Engineering* on how AI can be used for academic writing.
	+ [Here](https://midas.umich.edu/generative-ai-user-guide/) is an AI research guide from the University of Michigan MIDAS Institute.
	+ [Here](https://www.youtube.com/watch?v=wjZofJX0v4M) is a deep-dive video into what transformers actually do by 3Blue1Brown.
* Open Source AI platforms, such as [HuggingFace](https://huggingface.co/), [TensorFlow](https://www.tensorflow.org/) or [PYtorch](https://pytorch.org/) have large online communities dedicated to their development. As such, there are many tutorials publicly available on their use and potential application as well as sources of information about problem solving and licence issues.
* A free, open-source book on how to use Chatgpt in scientific research is available [here](https://lnkd.in/erPicX5g). Han, J, Wei, Q. and Lichtfouse, E (2025) *ChatGPT in Scientific Research and Writing: A Beginner’s Guide*, Springer, https://doi.org/10.1007/978-3-031-66940-8
1. For the purposes of this document AI (Artificial Intelligence) refers to bespoke AI tools, public AI tools, generative AI tools, Large Language Models (LLMs), Neural Networks, GPT (generative pre-trained transformers) and other Algorithms that could be reasonably be considered as AI. [↑](#footnote-ref-1)
2. See, for example, [COPE](https://publicationethics.org/cope-position-statements/ai-author) (Committee on Publication Ethics). [↑](#footnote-ref-2)