The Concordat to Support Research Integrity and Generative AI.

Introduction

AI, and Generative AI (GenAI) in particular, is revolutionising research practice in a similar way to the advent of the world wide web. It brings particular challenges and opportunities for research integrity and the trustworthiness of research. Research can benefit from the introduction of new tools, but the opportunities presented by GenAI must be balanced against the need to conduct research with high integrity, and to maintain a trustworthy scholarly record. Following the publication of the refreshed Concordat to Support Research Integrity, we provide a perspective, with a focus on researchers, on the impact of GenAI on the five concordat principles. The refreshed Concordat affirms UKCORI's belief that the five principles of research integrity maintain their value when GenAI is used as part of the research process.

GenAI is relevant to the entire research community across STEM, humanities, arts, and social sciences. We have consulted widely across the community using seven key themes on how might GenAI affect Research Integrity? including: Governance; Roles and responsibilities; Skills and training; Public understanding and expectations of trustworthiness; Attribution and ownership; Reliability and quality of data inputs and models and Research on Research Integrity. We have also drawn from key documents[1] produced by learned societies, professional bodies and international organisations.

This summary highlights the key considerations the research community should take into account regarding research integrity when using GenAI. Employers, researchers, funders, professional bodies and GenAI developers all have a role to play to encourage the evolution of best practice. We strongly encourage research organisations to use their Annual Statement for Research Integrity (Commitment 5) to record their activities to support the use of GenAI with integrity, including any issues that are discovered such as questionable research practices or misconduct.

More generally, there is a need for the research community and developers of GenAI to build and maintain networks to allow the sharing of experience and best practice. Establishing relationships with developers of GenAI and tools, will provide them with access to the perspective and needs of the breadth of the research community. We note that many research institutions have already published guidance, frameworks, and checklists for GenAI use in research to support their communities. The next steps for the committee will be to publish an independent perspective on GenAI and to develop more detailed guidance and recommendations for researchers, employers and funders, which will be discussed with the community, and published by April 2026.

[1] National Academy of Sciences: Protecting scientific integrity in an age of generative AI | PNAS. The Organisation for Economic Co-operation and Development: The OECD Artificial Intelligence Policy Observatory - OECD.AI. Royal Society: Science in the age of AI | Royal Society. Royal Statistical Society: RSS - Our asks of government. United Nations: governing_ai_for_humanity_final_report_en.pdf

A perspective on the impact of GenAI on the five principles

Honesty

The black-box nature of GenAI poses particular challenges wherever it is used in the research process. Consequently, researchers need to pay additional attention to each of the examples given in the Concordat definition of this foundational principle since integrity problems may unintentionally be introduced. Researchers need to be honest about AI-generated data (including copyrighted materials and images) and the GenAI assisted presentation and interpretation of data.

Rigour

Researchers are accountable for the rigour of their research activities. GenAI generally lacks explainability which can make it harder for researchers to understand its appropriateness to their research and to explain the results. As with any other tool, researchers should ensure appropriate methods are used to confirm the suitability of their use, the validity of results and their interpretation. It is essential to monitor for bias and to be vigilant to the potential for bias at any stage. GenAI can introduce bias through user prompts, algorithms, or training data. Tools are available or are being developed to help identify and prevent bias and should become part of the research tool kit.

GenAI can improve rigour through automating repetitive human tasks that are prone to “copy and paste” errors, cleaning and allowing analysis of larger data sets. As technology develops and the use of GenAI tools expands, it is essential that organisations consider how these tools will impact internal policies and processes related to research rigour. Applicable quality assurance, continuing training and development, and connection with professional networks will promote the development of high standards for rigour.

Transparency and open communication

Research depends on transparency and open communication to enable replicability and user understanding of the strengths and limitations of the research. The research community must be transparent about the use and attribution of GenAI from ideation to research output. Everyone involved in the research process should articulate clearly how AI was used and the steps taken to assess the validity of the outputs. A well-documented issue with GenAI is poor referencing to source material and consequently any AI generated output needs to be carefully checked for potential plagiarism and copyright infringement and to ensure that the citations to referenced literature are correct. Developers of GenAI are seeking to create more explainable AI and improve the quality of referencing. The community has a role to keep up to date with advances in GenAI technology and standards for transparency. Employers, publishers and funders need to have clear policies on what is permissible and the requirements for transparency.

Care and respect

Care and respect as referred to in the Concordat includes everyone involved in the research process. Existing ethical standards that are widely used and accepted by the research community may need to be updated to consider the impact of GenAI. In particular, researchers need to give attention to considerations such as; appropriate explicit consent, respecting relevant cultural norms, justice, fairness, avoiding intentional harm, and privacy. For example, the use of GenAI potentiates certain security and privacy risks, including compromised anonymity resulting from inferences drawn from disparate data sets, and the potential leakage of intellectual property.

There is a responsibility for research leaders and employers to ensure that teams are trained and supported so they use GenAI ethically, suitably, efficiently, responsibly and in compliance with applicable policies and best practices. Ethics committees will have a key role to play in this and should be supported with training. Individuals must also take responsibility for the evolution of best practice through their community.

Accountability

Researchers are accountable for their research practice and outputs. GenAI does not change that. The developers of GenAI are also accountable for providing relevant information to support trustworthy and reproducible research with transparency about the model architecture and training data. Where GenAI is used, it should not be the final call in any research activity; there needs to be a human involved who is accountable for any outputs. For example, the Committee on Publishing and Ethics Council state that AI tools cannot be listed as an author of a paper.[2]

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[2] Committee on Publishing and Ethics Council: Authorship and AI tools | COPE: Committee on Publication Ethics