**Checklist for Authors Using AI in Research and Manuscript Writing**

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| **A. AI Used in Manuscript Preparation** | | | |
| 1. **Disclosure Requirements (in Acknowledgment section):** | | | |
| **Process** | **Initials** | **Date** | **Comments** |
| *Name of AI software platform/program/tool* |  |  |  |
| *Version and extension numbers* |  |  |  |
| *Manufacturer* |  |  |  |
| *Date(s) of use* |  |  |  |
| *Brief description of how AI was used and on which portions* |  |  |  |
| *Statement confirming author responsibility for AI-generated content* |  |  |  |
| *Note: Not required for basic grammar/spelling/reference checking tools* |  |  |  |
| 1. **Copyright and Intellectual Property** | | | |
| *Verify rights for AI-generated content (text, images)* |  |  |  |
| *Obtain necessary permissions for publishing AI-generated content* |  |  |  |
| *Document licensing information for AI-generated content* |  |  |  |
| **B. AI Used in Research Methods** | | | |
| 1. **Study Design Documentation** | | | |
| *Follow relevant AI reporting guidelines for study type* |  |  |  |
| *Provide sufficient detail for reproducibility* |  |  |  |
| *Include study design and methodology* |  |  |  |
| *Detail specific AI applications in study aspects* |  |  |  |
| 1. **For Large Language Models (LLMs)** | | | |
| *Document platform/tool name and version* |  |  |  |
| *Specify dates of LLM use* |  |  |  |
| **Process** | **Initials** | **Date** | **Comments** |
| 1. **For Machine Learning Studies** | | | |
| *Detail datasets used for development/training/validation* |  |  |  |
| *Specify if using existing or new data collection* |  |  |  |
| *Describe machine learning model architecture* |  |  |  |
| *Document variables and outcomes* |  |  |  |
| *List fine-tuning parameters* |  |  |  |
| *State and test model assumptions* |  |  |  |
| *Document performance metrics* |  |  |  |
| *Address missing data handling* |  |  |  |
| 1. **Ethics and Review** |  |  |  |
| *Document IRB/ethics review status* |  |  |  |
| *Address AI-related methodological bias* |  |  |  |
| *Include bias mitigation strategies* |  |  |  |
| *Protect patient privacy (no identifiable information)* |  |  |  |
| **C. AI Used in Results Reporting** | | | |
| 1. **Performance Assessment** |  |  |  |
| *Include comparison metrics* |  |  |  |
| *Report effect sizes* |  |  |  |
| *Provide uncertainty measures (95% CIs)* |  |  |  |
| *Document performance errors* |  |  |  |
| *Report missing/inaccurate data* |  |  |  |
| *Include reproducibility details* |  |  |  |
| 1. **Bias and Representation** |  |  |  |
| *Report results of bias analyses* |  |  |  |
| *Document population representation* |  |  |  |
| *Include sensitivity analyses results* |  |  |  |
| *Report subgroup performance data* |  |  |  |
| **Process** | **Initials** | **Date** | **Comments** |
| 1. **Data Sharing** | | | |
| *Include data sharing statement* |  |  |  |
| *Specify code availability* |  |  |  |
| *Document data access procedures* |  |  |  |
| **D. AI Used in Discussion Elements** | | | |
| 1. **Limitations** | | | |
| *Address potential AI-related bias* |  |  |  |
| *Discuss AI accuracy limitations in terms of omissions, hallucinations, over-interpretation, and misprioritization (focus on irrelevant aspects)* |  |  |  |
| *Explain generalizability constraints* |  |  |  |
| *Document mitigation strategies* |  |  |  |
| 1. **Implications** | | | |
| *Discuss findings across populations* |  |  |  |
| *Address underrepresented groups* |  |  |  |
| *Consider clinical/practical implications* |  |  |  |
| *Suggest future research directions* |  |  |  |

**References:**

1. Flanagin A, Pirracchio R, Khera R, et al. Reporting Use of AI in Research and Scholarly Publication—JAMA Network Guidance. JAMA. 2024;331(13):1096-1098. ([Link](https://jamanetwork.com/journals/jama/fullarticle/2816213))

2. Flanagin A, Kendall-Taylor J, Bibbins-Domingo K. Guidance for authors, peer reviewers, and editors on use of AI, language models, and chatbots. JAMA. 2023;330(8):702-703. ([Link](https://jamanetwork.com/journals/jama/fullarticle/2807956))

3. International Association of Scientific, Technical and Medical Publishers (STM). Generative AI in Scholarly Communications: Ethical and Practical Guidelines for the Use of Generative AI in the Publication Process. December 2023. ([Link](https://stm-assoc.org/document/stm-generative-ai-paper-2023/))

4. Flanagin A, Bibbins-Domingo K, Berkwits M, Christiansen SL. Nonhuman "authors" and implications for the integrity of scientific publication and medical knowledge. JAMA. 2023;329(8):637-639. ([Link](https://jamanetwork.com/journals/jama/fullarticle/2801170))

5. Rivera SC, Liu X, Chan AW, et al. Guidelines for clinical trial protocols for interventions involving artificial intelligence: the SPIRIT-AI Extension. BMJ. 2020;370:m3210. ([Link](https://www.bmj.com/content/370/bmj.m3210))

**Additional Resources:**

* [AI Principles | Wiley](https://www.wiley.com/en-us/terms-of-use/ai-principles)​
* [Authorship and AI tools | COPE: Committee on Publication Ethics](https://publicationethics.org/guidance/cope-position/authorship-and-ai-tools)​
* <https://www.nature.com/nature-portfolio/editorial-policies/ai>​
* <https://www.springer.com/gp/editorial-policies/artificial-intelligence--ai-/25428500>​
* [The SPIRIT-AI and CONSORT-AI initiative | The Alan Turing Institute](https://www.turing.ac.uk/research/research-projects/spirit-ai-and-consort-ai-initiative)