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Transparency in the Reporting of Artificial Intelligence – The TITAN Guideline

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ABSTRACT

The use of AI in research and the literature is increasing. The need for transparency is clear. Here we present a guideline to transparently report the use of AI in any manuscript in general. The guideline items cover; declaration, purpose and scope, AI tools and configuration, data inputs and safeguards, human oversight and verification, bias, ethics and regulatory compliance and reproducibility and transparency. These items have been confirmed in a recent Delphi consensus exercise with high participation and agreement. This guide will evolve over time as technology, systems and behaviour evolve.

Keywords: AI transparency guidelines, Scholarly publishing, Delphi consensus exercise, SCARE PROCESS STROCSS updates, AI use in research

Introduction

Artificial intelligence (AI) is increasingly being used in research and the development of scholarly literature.^{1–3} With this comes the necessity for transparency in reporting its use. It is now the responsibility of editors, journals, publishers, and the wider scholarly publishing community to ensure authors declare this in a transparent and comprehensive manner. The recent update to the SCARE, PROCESS, and STROCSS guidelines has made significant progress in this direction, and as AI and its use evolve, so will the guidelines.^{4–6} These guidelines were updated through a Delphi consensus exercise, and the papers underwent peer review, AI review, editorial review, and subsequent refinement.

Here, we provide a brief guideline for declaring the use of AI in various article types, including review articles, different experimental studies, editorials, letters, and more, to ensure transparency in their reporting. The guideline items cover; declaration, purpose and scope, AI tools and configuration, data inputs and safeguards, human oversight and verification, bias, ethics and regulatory compliance and reproducibility and transparency.

Methods

The guideline development group responsible for the recent SCARE, PROCESS, and STROCSS guideline updates reconvened to create this general-purpose use of AI guideline. Here, we utilize the same items approved through the SCARE, PROCESS, and STROCSS guideline development process (Table 1). Since these items have already gone through a Delphi consensus exercise among 49 participants with over 90% response and strong agreement, we felt it unnecessary to repeat this exercise.

Conclusion

The authors commend these items to the scholarly community to enhance transparency in reporting AI usage. We will monitor the development of AI use in research and the scholarly literature to ensure these guidelines remain up to date.

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Data availability statement: The Delphi survey data that informed this guideline (individual expert ratings and comments) are confidential and not publicly available, in accordance with the consensus process protocol. All relevant aggregated results are reported in this article

Table 1 | The TITAN guideline items

TITAN Guideline Checklist 2025			
Topic	Item	Description	Page Number
Artificial Intelligence (AI) (some journals may prefer this in the methods and/or acknowledgments section, and it should also be declared in the cover letter)	1	Declaration of whether any AI was used in the research and manuscript development <ul style="list-style-type: none"> State no, if that's the case. If yes, proceed to item 1a. 	1
	1a	Purpose and Scope of AI Use <ul style="list-style-type: none"> Precisely state why AI was employed (e.g., development of research questions, language drafting, statistical analysis/summarisation, image annotation, etc.). Was generative AI utilised, and if so, how? Clarify the stage(s) of the reporting workflow affected (planning, writing, revisions, figure creation). Confirmation that the author(s) take responsibility for the integrity of the content affected/generated 	1
	1b	AI Tool(s) and Configuration <ul style="list-style-type: none"> Name each system (vendor, model, major version/date). State the date it was used Specify relevant parameters (e.g., prompt length, plug-ins, fine-tuning, temperature). Declare whether the tool operated locally on-premises, or via a cloud API and any integrations with other systems. 	1
	1c	Data Inputs and Safeguards <ul style="list-style-type: none"> Describe categories of data provided to the AI (patient text, de-identified images, literature abstracts). Confirm that all inputs were de-identified and compliant with GDPR/HIPAA. Note any institutional approvals or data-sharing agreements obtained. 	1
	1d	Human Oversight and Verification <ul style="list-style-type: none"> Identify the supervising author(s) who reviewed every AI output. Detail the process for fact-checking, clinical accuracy checks State whether any AI-generated text/figures were edited or discarded. Acknowledge the limitations of AI and its use 	1
	1e	Bias, Ethics and Regulatory Compliance <ul style="list-style-type: none"> Outline steps taken to detect and mitigate algorithmic bias (e.g., cross-checking against under-represented populations). Affirm adherence to relevant ethical frameworks. Disclose any conflicts of interest or financial ties to AI vendors. 	1
1f	Reproducibility and Transparency <ul style="list-style-type: none"> Provide the exact prompts or code snippets (as supplementary material if lengthy). Supply version-controlled logs or model cards where possible. If applicable, state repository, hyperlink, or digital object identifier (DOI) where AI-generated artefacts can be accessed, enabling attempts at independently replication of the query/input. 	1	

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