



Responsible use of Generative Artificial Intelligence in Research Publication: A case study of Indian research journals in Scopus

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INTRODUCTION :

Generative Artificial Intelligence (GAI), refers to AI systems capable of generating new content by learning patterns from large datasets. These systems create outputs such as text, images, or audio that resemble human-produced work.

The rapid rise of **Generative AI (GAI)** in research publishing has sparked both excitement and ethical concerns. While GAI offers increased efficiency and productivity, it raises critical questions about **authorship**, **credibility**, and **ethical standards** in academic work. In **India**, where research output often measures institutional success, misuse of GAI could threaten the **integrity** and **authenticity** of scholarly publications. Addressing these challenges is essential as AI continues to reshape academic landscapes.



OBJECTIVES:

The study has been designed to address the following objective:

To analyze the nature of the guidelines on the responsible use of generative artificial intelligence in research publications of top Indian academic journals indexed in the Scopus database.

METHODOLOGY:

- To assess the top Indian journals, the **h-index** from Scopus was used as a quality measure.
- Data was collected between February and March 2024 from the **Scimago Journal and Country Rank** portal, focusing on four Scopus subject categories: **Mathematics, Medicine, Social Science, and Business, Management & Accounting.**
- The top 20 Indian journals from each of these fields were reviewed manually to check for guidelines on AI tools, specifically **Generative AI (GAI)**, such as GPTs or large language models. If a journal lacked GAI guidelines, the publisher's guidelines were used as a proxy, provided they were linked directly.
- The evaluation applied a ten-point criteria from **Ganjavi et al. (2024)** to score GAI use in research publications.

Parameters on responsible use of GAI in research publications :

Parameters	Notation for the parameter
Guidance available on GAI	P1
Guidance available on What to disclose	P2
Guidance on GAI assisted writing process	P3
Guidance specific for ChatGPT use	P4
Guidance for any LLMs use	P5
Guidance for ethical GAI use (COPE-AI statement)	P6
Authors accountability statement required	P7
Discloser of GAI use required	P8
Images generated by GAI is prohibited	P9
GAI generated content Prohibited	P10

RESULTS:

Presence of GAI Guidelines:

Key Findings:

Mathematics & Business Management: 70% of journals have GAI guidelines.

Medicine: Only 40% have GAI guidelines.

Social Sciences: Least presence of guidelines.

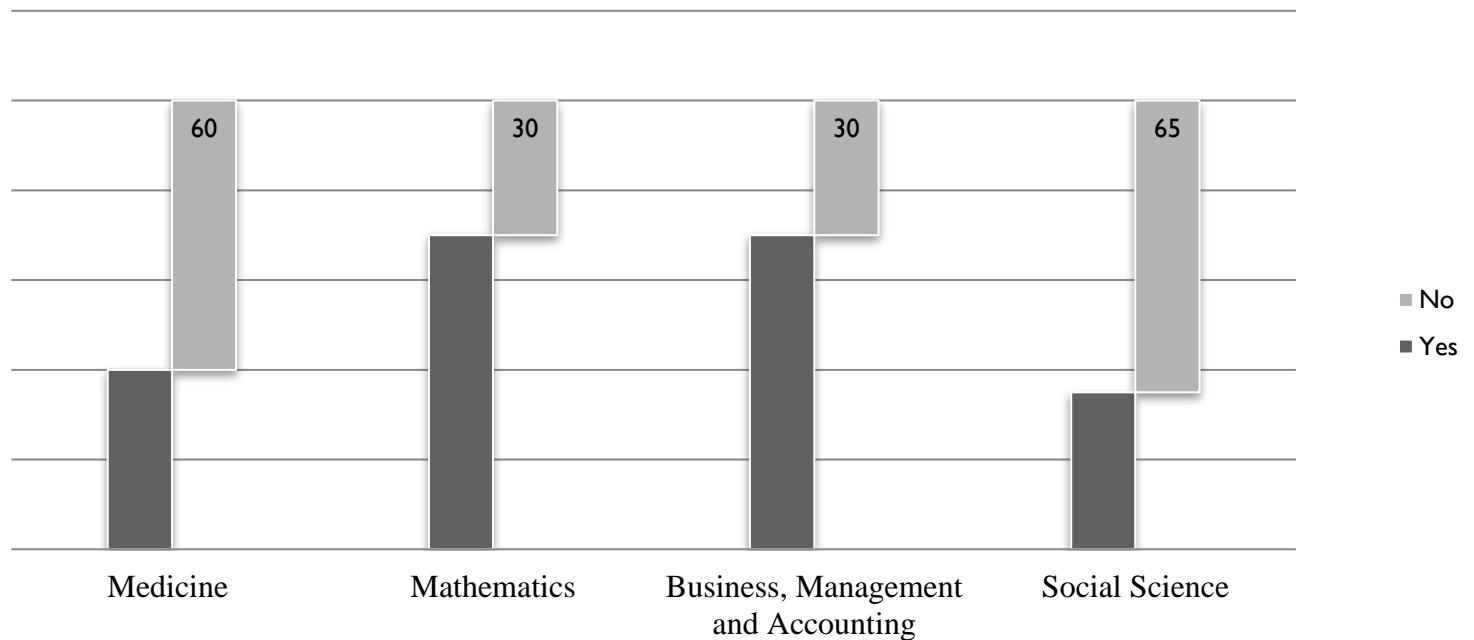


Figure 1: Presence of guidelines regarding use of GAI

Common GAI Parameters Identified :

Most Common Parameters:

P2: Disclosure of GAI use.

P5: Guidance for any LLMs.

P4: Guidance specific for ChatGPT.

P9: Prohibition on GAI-generated images.

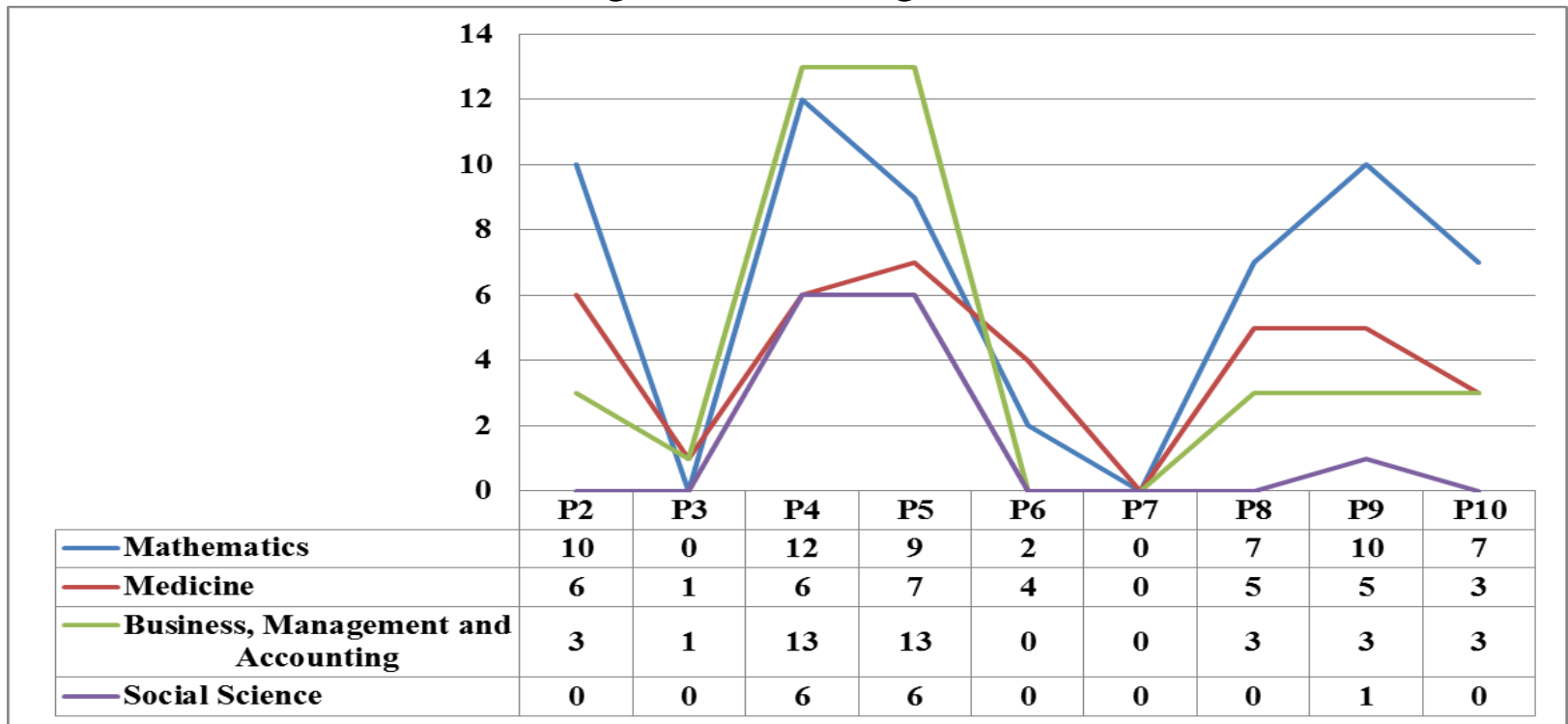


Figure 2: Presence of Parameters in different subject disciplines

Popular GAI parameters across the studied disciplines:

Most Popular Guidelines:

P4,P5,P2,P8,P9

Less Commonly Adopted Guidelines:

P7,P3,P6

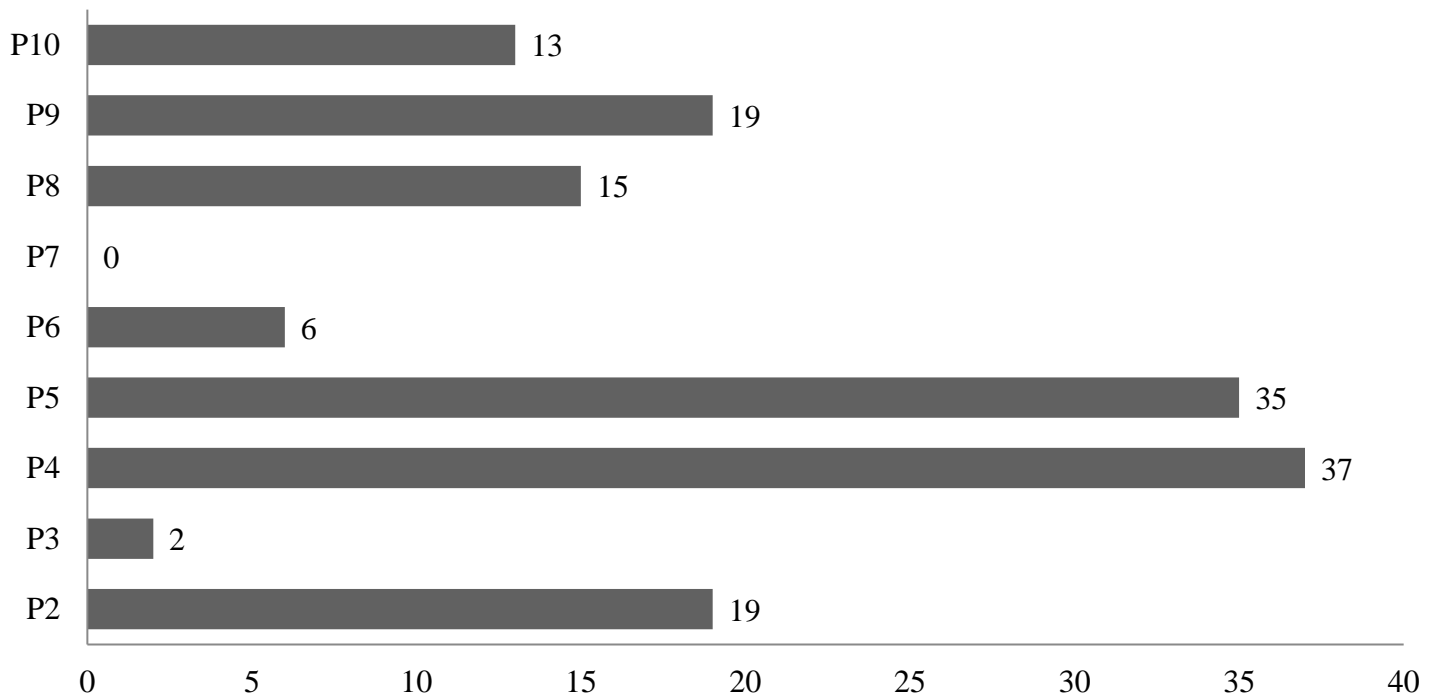


Fig 3: Presence of GAI parameters across the studied disciplines

CONCLUSION:

The study took a parametric approach to find guidelines related to use of GAI in the top Indian journals indexed in Scopus from four subject disciplines. One of the important point observed during the study is the lack of standardized and structured information about GAI guidelines provided by the journals for the authors.

Although more than 50% of the journals have provided guidelines on the use of GAI but non-centralized location for those guidelines can be a major issue for the authors. As GAI technology continues to evolve, establishing uniform guidelines is crucial for maintaining research integrity and preventing inaccurate or misleading outputs in scholarly publications.

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