

AI in Academia: Breakthrough or Black Box Threat to Scientific Integrity? ¹

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Introduction

In recent years, the emergence of generative artificial intelligence technologies in the field of academic research has represented one of the fastest and most pervasive changes in the recent history of management sciences. Within an extremely short time span, tools capable of generating text, analyzing large amounts of data, and supporting complex decision-making processes have become firmly embedded in the daily practices of researchers, reviewers, and editors. This transformation is not merely technological: it affects the epistemological, ethical, and methodological foundations of management research.

Leading international scientific journals have taken a stance through guidelines and editorial policies, acknowledging both the transformative potential of AI and its systemic risks, as well as the need to govern its use responsibly. A shared principle clearly emerges from these documents: artificial intelligence can be a powerful support tool for research, but it cannot and must not replace the critical judgment, responsibility, and creativity of the researcher.

AI as a Cognitive Infrastructure for Research

From the perspective of opportunities, artificial intelligence is increasingly taking shape as a true cognitive infrastructure supporting management research. Generative and analytical tools can contribute to all stages of the scientific process: from formulating research questions to literature review, from data analysis to the linguistic revision of manuscripts. In a field such as management, characterized by multidimensional complexity and the growing availability of data, these tools make it possible to accelerate discovery processes, expand the informational base, and identify theoretical connections that may support the identification of theoretical connections that would be difficult to detect through traditional approaches alone.

AI also opens new perspectives for theory building and empirical analysis. The ability to synthesize large amounts of knowledge and identify emerging patterns fosters the development of new theoretical perspectives and new interpretations of managerial phenomena, while advanced analytical techniques allow for more precise examination of

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complex and multilevel dynamics. Equally relevant is its contribution to the democratization of research: widely accessible tools can help reduce certain barriers to entry, broaden participation, and promote greater inclusivity within the scientific community.

Risks: Opacity, Bias, and Scientific Integrity

Alongside these opportunities, significant risks emerge that directly challenge the academic community. A first issue concerns the often opaque nature of AI systems—a kind of “black box”—which makes it difficult to understand the processes through which results are generated. This characteristic raises crucial questions in terms of transparency, verifiability, and replicability, which are fundamental pillars of scientific research.

A second set of concerns relates to algorithmic bias and distortions in training data, which can result in misleading interpretations or the unintentional reproduction of stereotypes. As highlighted in the literature on AI ethics, issues such as fairness, accountability, and transparency represent central challenges for the conscious adoption of these technologies. These concerns are particularly relevant in management, a discipline inherently linked to social, cultural, and organizational contexts.

Even more critical are the risks related to research integrity. The uncritical use of AI can foster phenomena such as unintentional plagiarism, misattribution of ideas, standardization of contributions, and—in the most extreme cases—the production of inadequately verified results that bypass scientific validation mechanisms. In this context, trust in scientific output - an essential element of the academic system - may be undermined if rigorous and transparent practices are not adopted. In management research, these risks are heightened by the context-specific nature of data and the inherently interpretive character of organizational phenomena.

Institutional Responses and the Role of Editorial Policies

Responses from academic communities and scientific journals converge around some fundamental principles: transparency, accountability, and the centrality of human contribution. Authors are increasingly required to explicitly declare whether and how they have used artificial intelligence tools, while retaining full responsibility for the accuracy, originality, and integrity of the content produced.

At the same time, particular attention is paid to safeguarding the peer review process, ensuring data confidentiality, and preventing the improper use of AI in manuscript evaluation. This outlines a framework in which artificial intelligence is recognized as a useful resource, but one that must be integrated within a system of established rules and values.

However, recent evidence suggests that these policies, although widespread, do not always translate into effective practices of disclosure and control, highlighting a gap between formal regulation and actual behaviors within the scientific community. This misalignment points to the need for a more proactive role of editorial policies, which should not only prescribe acceptable uses of AI but also foster responsible adoption through clearer operational guidelines, reviewer awareness, and mechanisms of accountability.

In this context, *Sinergie Italian Journal of Management* has recently introduced its own policy on the use of artificial intelligence in research and editorial processes. This policy aligns with international best practices and is based on several key principles.

First, the use of generative AI tools is permitted for authors only for linguistic improvement and, where appropriate, for data analysis, provided that the underlying methods are fully documented, reproducible, and transparently reported. Any such use must be explicitly declared in the cover letter and in an “AI Statement” section of the manuscript. Second, it is reiterated that AI cannot be considered a co-author, as it lacks the responsibility and accountability required for scientific authorship. Authors are expected to provide sufficient detail on the type of AI tools used, their function, and the extent of their contribution, to ensure transparency and reproducibility. The policy also emphasizes that ultimate responsibility for the content rests entirely with the authors, who remain fully accountable for all aspects of the work, including those supported by AI tools.

Regarding the review process, the use of generative AI tools for the analysis of unpublished manuscripts is prohibited, in order to preserve confidentiality and protect intellectual property. This restriction does not apply to standard editorial tools already integrated into journal workflows (e.g., plagiarism detection systems).

Toward a New Epistemology of Management?

The adoption of artificial intelligence in academic research is not merely a technical or regulatory issue, but raises deeper questions about the very nature of knowledge in the field of management. In a context characterized by increasing informational abundance, it becomes crucial to redefine the distinctive value of scientific contribution and the role of the researcher in society.

The risk lies not only in the improper use of technology, but also in the progressive homogenization of thought, where originality may be indirectly constrained by models trained on existing knowledge. At the same time, significant opportunities arise to rethink disciplinary boundaries, integrate diverse approaches, and address complex problems with new tools.

Ultimately, the future of management research will depend on the ability of the academic community to govern the integration of AI responsibly, preserving rigor, transparency, and integrity, while at the same time leveraging the opportunities offered by these emerging technologies. In this evolving landscape, editorial policies will play a critical role not only as regulatory instruments, but as key mechanisms for preserving the epistemic integrity and distinctiveness of management research.

Academic or professional positions and contacts

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