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EDITORIAL

# Science, ethics, and information in the age of artificial intelligence

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Producing science goes far beyond generating knowledge, it involves ensuring that information is properly organized, shared, preserved, and, above all, that the entire process is conducted responsibly. In this context, the convergence of information science and bioethics is no longer merely desirable, but has become essential [1,2].

On the one hand, information science provides the framework through which knowledge can exist in a structured manner: it organizes data, preserves content, and expands access to scientific information [3,4]. On the other hand, bioethics guides how such knowledge should be produced and used, placing values such as respect, justice, transparency, and responsibility at the center of the discussion [1]. When these fields intersect, the quality and reliability of scientific research are strengthened.

Research ethics, once perceived as primarily focused on the conduct of studies, now extends across the entire scientific process, including publication [5]. In a context marked by large volumes of data and increasing demands for transparency and reproducibility, issues such as privacy, informed consent, appropriate data use, and clarity in communication have become even more critical [6]. Producing knowledge is not enough; it must also be shared ethically and responsibly.

Artificial intelligence further expands this landscape. Present across multiple stages of research and scientific publishing, it offers significant gains in speed and analytical capacity. However, it also demands careful oversight. Algorithms may reproduce biases or operate in opaque ways, reinforcing the need for human supervision and clearly defined ethical standards for their use [7,8].

In this dynamic context, the integration of information science and bioethics points toward a clear path: interdisciplinary collaboration. Researchers, peer reviewers, and editors share responsibility for ensuring that science advances with quality, integrity, and social commitment. Good practices—such as transparency, proper authorship attribution, and careful data management—are essential to sustain trust in scientific production [9].

Scientific journals are fundamental in this process. By establishing editorial policies, guiding authors, and adopting recognized standards, they directly contribute to building a more ethical and reliable science. Beyond disseminating results, they help shape how science should be communicated [10].

In this spirit, the Brazilian Federal Council of Medicine is organizing the Second National Meeting of Librarians and Information Science Professionals in 2026, aiming to foster the discussion on essential topics such as digital preservation, the role of libraries in supporting research processes, digital curation, information management, and modernization, among others. By highlighting how libraries contribute to the organization, access, and continuity of scientific information,

the meeting underscores the importance of these professionals in strengthening the production and communication of knowledge, emphasizing that science is a collective effort—one that depends both on those who produce knowledge and on those who organize, preserve, and disseminate it [11].

This editorial is an invitation to reflection. Amid expanding data, technologies, and new possibilities, it is essential to remember that science is not neutral; It carries values and consequences. Integrating information science, bioethics, and artificial intelligence means, above all, ensuring that scientific progress remains aligned with ethics, transparency, and commitment to society.

More than ever, conducting and publishing research is an exercise in responsibility.

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**Data availability:** All data used or generated in this study are described and presented in full in the body of the article.

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