Open Science in Higher Education: Building to Transform

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Editorial

The idea that scientific knowledge should be available, understandable, and reusable by society at large is not new; what has changed are the means and the demands required to make it possible. Open science does not represent a paradigm shift, but rather a necessary reorientation toward the principle that should have always guided research: its contribution to the common good. As Robert K. Merton anticipated in his formulation of the four imperatives of the scientific ethos—universalism, communalism, disinterestedness, and organized skepticism—scientific knowledge was meant to be a shared good, evaluated objectively, free from private interests, and subject to the critical judgment of the community. The expansion of digital channels, the consolidation of open technical infrastructures, and international pressure for more responsible science have given rise to:

"An inclusive construct that brings together diverse movements and practices so that scientific knowledge is openly available and accessible to all, as well as reusable by all, increasing scientific collaborations and the exchange of information for the benefit of science and society, and opening up the processes of creation, evaluation, and communication of scientific knowledge to social actors beyond the traditional scientific community." UNESCO, 2021.

This journal aims to gather and disseminate research that analyzes, evaluates, or proposes mechanisms to make the opening of knowledge effective, especially in the field of higher education. It focuses on topics such as open access, data interoperability, responsible research evaluation, digital research infrastructure, open editorial practices, and the regulatory and policy frameworks that govern them. The goal is to articulate evidence and proposals that help understand the real scope of open science as both an academic practice and a model of scientific communication. The journal is conceived as a space for transdisciplinary dialogue, bringing together researchers from various fields (social sciences, natural sciences, engineering, humanities) with information professionals, librarians, research managers, and policymakers. This approach seeks to foster a deeper understanding of the challenges and opportunities that open science presents for transforming the production, dissemination, and use of scientific knowl-

edge.

Talking about openness also requires acknowledging the limitations that still persist. Epistemic exclusions do not simply disappear with free access to content. They remain when the dominant language excludes non-English-speaking communities, when editorial processing fees restrict authorship, or when interoperability standards—though technically necessary—become barriers for those lacking infrastructure. For this reason, critical analysis of these dynamics is a core component of this journal's editorial agenda. Authentic open science cannot replicate the asymmetries consolidated by closed science. Drawing on the work of Miranda Fricker, this journal recognizes that when dominant interpretive frameworks do not incorporate the experiences of marginalized groups, those experiences remain insufficiently intelligible to others and thus cannot be transmitted as knowledge. (Fricker, 2016)

In the spirit of Open Science, we aim to counter this form of epistemic injustice by promoting a more diverse, situated, and inclusive circulation of knowledge.

The opening of scientific knowledge demands deep reflection on the indicators and criteria used to evaluate research. The predominance of the impact factor, citations in high-prestige journals, and other bibliometric indicators has proven insufficient and even counterproductive in measuring the real value of science. This journal aims to contribute to the discussion on alternative metrics that assess methodological quality, social impact, reproducibility of results, and the contribution to advancing knowledge beyond academic circles. Open science, therefore, requires a transformation in evaluation systems that fosters collaboration, transparency, and commitment to society.

Research data represent a turning point in this context. Their openness allows for the verification, replication, and reuse of knowledge—and, when accompanied by the right contexts, can also help reduce structural inequalities. Access to well-documented, real data linked to enriched metadata allows researchers with fewer resources to ask new questions, validate hypotheses, and participate in scientific networks under more symmetrical conditions. Technologies such as Dataverse, DSpace, Zenodo, or interoperable thematic repositories, along with tools like Crossref, ORCID, or OpenAlex, are not merely technical resources, but public infrastructures that must be governed by ethical and equitable principles.

From this perspective, the journal adopts transparency, inclusion, methodological quality, and alignment with open standards as its editorial principles. It will be published on a continuous flow model, open access, and free of charge for authors, using CC BY licenses, assigning DOIs to all content, and ensuring version traceability through services such as Crossmark. Peer review will be double-blind and rigorous, emphasizing both scientific quality and thematic relevance. Manuscripts will be accepted in Spanish or English, with particular value placed on those presenting implementation experiences, comparative analyses, scientometric studies, systematic reviews, and well-founded editorial or policy proposals.

The composition of the editorial board reflects this vision: it is international, interdisciplinary, and includes expertise in open science policy, science evaluation, academic publishing, sociology of knowledge, and digital infrastructure management. Institutional and national endogamy has been deliberately avoided, seeking a balance between researchers from the Global South and North, and considering both academic and technical profiles in line with the transversal nature of open science. In this global context, national institutions have also joined the movement la agencia Nacional de Investigación y Desarrollo de Chile, through its open science policy published in 2022, has aligned its actions with international recommendations from UNESCO and other multilateral bodies. The emergence of this journal is part of that process: a convergence between public policy, institutional technical capabilities, and a strategic editorial vision. As Babini and Rovelli (2020) affirm, "in statements on the subject from Latin America

and the Caribbean, the approach of knowledge as a public good and of open access managed by the academic community as a nonprofit common good stands out."

Open science is not an end in itself, but a necessary condition for achieving more useful, reliable, and just science. It also implies redefining who the recipients of science are: no longer just academic peers, but also students, public decision-makers, technologists, educators, and citizens. Knowledge ceases to circulate exclusively in subscription journals and becomes available on interoperable, visible, linkable, and reusable platforms. It is not about openness for openness' sake, but about doing so with purpose, clear criteria, and responsibility. Recent studies show that open access outputs receive more diverse citations, demonstrating a broader impact across regions, languages, and disciplines that have traditionally been marginalized. (Huang et al., 2024)

We invite researchers, academics, librarians, IT professionals, and other specialists to collaborate actively with this journal—as authors sharing findings and perspectives, as reviewers ensuring content quality and rigor, or as critical readers enriching the debate with their reflections. Every contribution will be considered not as a definitive, closed response, but as a valuable and essential part of an ongoing and evolving conversation about the future of scientific knowledge and its impact on society.

This journal emerges in response to a real gap: until now, there has not been a formal editorial channel that articulates the developments, discussions, and challenges of open science in the context of higher education. What distinguishes it is not only its thematic focus, but also its practical, critical, and transformative vocation. It is designed to host research, experiences, and debates that integrate openness, quality, inclusion, and responsibility. From an ethical standpoint, it aims to actively contribute to the implementation of public policies and the strengthening of open infrastructures that transcend our Latin American borders.

> *Opening science is opening the future. It is also returning to the origin of knowledge: the commitment to society.*

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Héctor García-Leal:
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Conflicts of Interest

The authors declare no competing interests

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