

EDITORIAL

Latin American science: debates between diamond open access journals and article processing charges

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Scientific journals are fundamental for the dissemination of knowledge, although in recent years, there has been a debate about the various publication models. The Article Processing Charge (APC) journal system, where authors pay a fee to publish their work, has gained ground. This model emerged in the 1990s with the establishment of the first electronic platforms (Vidal and Zayas, 2018).

Rising costs and shrinking library budgets made it urgent to explore new avenues of funding. Instead of relying on the sale of subscriptions and advertising, these journals began to charge authors a fee for the publication of their articles. This made it possible to provide free access to readers and cover editorial costs.

With the consolidation of digital journals, the APC model became more prevalent. The movement for Open Access to scientific information drove the need for journals that offer free access to articles (Banzato et al., 2022). Many academic and research institutions began to assume APC fees on behalf of their authors, which led to the emergence of numerous journals.

The growth of APC journals has transformed scientific publishing, especially in terms of sustainability, becoming a profitable sector. However, this model has not been free of criticism and challenges. One of the most prominent problems is the lack of access to information for researchers in countries with limited resources, as APC fees can be prohibitive. In addition, some journals may prioritize profit over the quality and integrity of publications.

The APC model has evolved and diversified in its implementation, giving rise to variants such as hybrid publishing (combining open and restricted access articles), library consortia, and publishing agreements between institutions and publishers. APC fees may vary according to different criteria:

- **Traditional APC:** This is the most common model, where authors pay a fee per article upon acceptance of their work. Costs can fluctuate considerably depending on the journal, the area of study, and the reputation of the publication. This model is usually financed through grants, institutional funds, or personal resources of the researchers.
- **APC based on the type of article:** Some journals establish differentiated rates according to the type of article submitted. Original research papers may cost more than reviews or technical reports, reflecting the level of effort and resources required for their review and

editing.

- APC based on the author's income: Some publications apply a system where the fee is adjusted to the author's economic capacity. This allows researchers from low- and middle-income countries to pay less or even no fee, while those from high-income countries pay higher fees. This approach seeks to promote equity in access to publication.
- Hybrid models: Recently, models have emerged that combine open access with the traditional subscription approach. In these cases, authors may choose to make their article available free of charge for an APC fee or restrict it to subscribers, thus seeking to balance open access with subscription income.

Limited access for those who cannot pay or do not belong to subscribing institutions is the main limitation of these publications. This restricts availability to other researchers and the general public (Perdomo and Morales, 2022). Fees can be prohibitive for those in developing countries or with limited resources.

Gold open access refers to a model in which scientific articles are published in open-access journals, making them freely available online. This does not mean that it is free of charge, but it involves the intermediation of the APC. Publication costs are generally covered by the authors or their institutions. This can be an obstacle for researchers from developed and developing countries, in addition to favoring the concentration of publications in journals that impose high fees (Martínez-Galiendo et al., 2022).

Another challenge is to ensure the quality and integrity of gold open-access publications. Some journals seek to benefit from the model without ensuring adequate quality control. Therefore, it is essential that both researchers and institutions carefully evaluate journals before submitting their work.

The diamond open access model promotes transparency and equity in scholarly communication. This model not only focuses on free availability but also seeks to ensure sustainable and equitable funding for scholarly publishing. Unlike traditional open access, the diamond model is funded through various sources, such as grants, donations, or sponsors.

One of the distinguishing features of diamond open access is the transparency of the peer review process. In this model, articles are evaluated by experts, but the process is public, which allows for greater scrutiny and accountability on the quality of research. In addition, it encourages the reuse of data and materials, which promotes collaboration and the development of new knowledge (Borrego, 2022).

Scientific production in Latin America and the Caribbean (LAC) has grown significantly in recent decades. The adoption of open access in scientific journals has been a characteristic of the science generated in the region. By implementing the diamond open access model, knowledge is democratized. It also eliminates economic barriers and promotes the inclusion of researchers from diverse socioeconomic conditions.

Open access fosters collaboration between researchers in LAC and the rest of the world. Free access to scientific articles promotes the creation of international research networks. It also strengthens the quality and impact of research in the region. In LAC, policies have been implemented to promote open access to publicly funded research. Journals that adhere to this

model contribute to transparency and accountability in the use of public resources for scientific research.

Latin American researchers should consider publishing in open-access journals for several reasons. First, this model allows wider and faster dissemination of results, which is crucial for those seeking to increase their visibility and make their work accessible to a global audience. Second, open access promotes equity and inclusion in academia by removing economic barriers that limit access to research. This contributes to reducing the gap between researchers in the region and their international colleagues, improving the quality of research.

In addition, open access favors the preservation and long-term use of research results. Publishing in open-access journals allows researchers to contribute to an accessible and lasting scientific heritage. This is especially relevant in a context where institutions may face difficulties in maintaining paid journal subscriptions. By opting for open access, researchers ensure that their work is available for future generations, promoting the continuous advancement of knowledge in the region.

In addition to these aspects, researchers can also choose to publish in journals that do not charge APC fees. In Latin America and the Caribbean, most publications are exempt from fees. Brazil, for example, has adopted open access as a policy for its scientific journals, where more than 90% do not require payment of fees (Tosar, 2022). This phenomenon is not limited to Brazil; many of the most prestigious journals are associated with higher education institutions that finance them.

It is important to note that, although diamond open-access journals do not charge for access or publication, this does not mean that they do not incur expenses. This is based on the fact that the editors' work must be financed. Generally, these funds come from the universities and centers to which they belong, which can be a burden for these institutions. In this sense, it is not entirely unwise to consider the implementation of APC fees as a possible solution to sustain publications.

REFERENCES

- Banzato, G., Rozemblum, C., and Chavez Ávila, S. (2022). Ni ángel diamante, ni demonio APC. Diversidad de modelos de gestión y financiación en las revistas científicas iberoamericanas en Acceso Abierto. *Informatio*, 27(1), 121-145. <https://doi.org/10.35643/info.27.1.8>
- Borrego, A. (2022). Indicadores de medición del acceso abierto: fuentes y herramientas. *Anuario ThinkEPI*, 16, 1-12. <https://doi.org/10.3145/thinkepi.2022.e16a18>
- Martínez-Galindo, F. J., Rubio, F., and Fernández-Burguete, S. (2022). Monitorización de los mandatos de acceso abierto a través de repositorios institucionales. *Profesional de la información*, 31(2), 1-22. <https://doi.org/10.3145/epi.2022.mar.04>
- Perdomo, B., and Morales, O. A. (2022). Políticas editoriales de revistas de Comunicación en acceso abierto indexadas en Scopus. *Investigación bibliotecológica: Archivonomía, bibliotecología E información*, 36(93), 135-151. <https://doi.org/10.22201/iibi.24488321xe.2022.93.58650>
- Tosar, J. P. (2022). Costo de los cargos por procesamiento de artículo (APC) para Uruguay: el precio desmedido del acceso abierto. *Informatio. Revista Del Instituto De Información De La Facultad De Información Y Comunicación*, 27(1), 226-253. <https://doi.org/10.35643/info.27.1.1>
- Vidal, M. J., and Zayas, R. (2018). Comunicación científica y el acceso abierto. *Educación Médica Superior*, 32(3). <https://ems.sld.cu/index.php/ems/article/view/1601>