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# **Reassembling Scholarly Communications**

## **Histories, Infrastructures, and Global Politics of Open Access**

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## 23 Toward a Global Open-Access Scholarly Communications System: A Developing Region Perspective

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When looking at international research and policy agendas concerned with important sustainable development issues—climate change, hunger and poverty reduction, ensuring health and education services, reducing inequalities, strengthening democratic institutions, sustaining economic growth, among others—it strikes us at the Latin American Council of Social Sciences (CLACSO), a network of more than 700 research institutions in 52 countries, that the development of an inclusive and participatory global open-access scholarly communications system is not given priority. We consider this to be a grave oversight.<sup>1</sup>

After two decades developing collaborative, publicly funded, scholar-led open-access initiatives, with no commercial outsourcing, Latin America is now being invited, together with other developing regions, to join or give an opinion on proposals to accelerate the transition to open-access scholarly communications where article processing charges (APCs) have an important role (OA2020, Plan S). From the perspective of a developing region, these proposals carry a risk of replicating, albeit this time from within open access and with APCs, the traditional international scholarly communications system built in past decades. Such a system would be concentrated upon “mainstream” journals and their evaluative indicators, managed by commercial partners with growing profit margins covered by research funding, with poor diversity and representation from developing regions, and with negative impact upon the evaluative cultures of those developing regions.<sup>2</sup>

Should an increasingly few international commercial publishers, whose exorbitant profits have been among the reasons for the Open Access Movement itself, act as important partners in building the future of open access? In the developing world, where resources for research are extremely scarce,

is it not also an ethical issue that research money is being used to support a for-profit industry with margins of more than 30 percent?

In this context, and around its seventieth anniversary year, it is worth remembering the Universal Declaration of Human Rights (1948). This declaration advanced the right to access and benefit from scientific discovery, as well as the right to participate in scientific advances; and both these rights should be taken into consideration when discussing the future of open-access scholarly communications and open science, in an international context.<sup>3</sup> Indeed, as Czerniewicz puts it, “the open access movement needs to broaden its focus from access to knowledge to full participation in knowledge creation.”<sup>4</sup> Access needs to cut both ways.

For we live in times of international research and of global development agendas. An example is the United Nations Sustainable Development Goals signed by nations worldwide.<sup>5</sup> Research cooperation in support of these international goals would benefit from an international open-access scholarly communications and evaluation system that is more inclusive of a diversity of voices, formats, and contents from less privileged institutions and countries.

Openness provides opportunities for innovation in scholar-led collaboration and cooperation.<sup>6</sup> Indeed, cooperative and collaborative open-access publishing initiatives present in developed regions are challenging commercial solutions with a diversity of nonprofit platforms for journals, as well as repositories and platforms. In fact, we believe it is important to foster “bibliodiversity and innovation without involving the exclusive transfer of journal subscription monies to APC payments,” as stated in the recent Jussieu Call for Open Science and Bibliodiversity.<sup>7</sup>

In the case of developing regions, there are many examples that can provide inspiration along these lines. In Africa these include African Journals Online (AJOL), SciELO South Africa, and a growing number of repositories. In Asia, there are JOL collections of journals in several countries and also a growing number of repositories and repository networking solutions. And in Latin America, whose experience will be described in this chapter, there is the most advanced open-access system of scholarly communications in the world based on percentage of research publications available through publicly funded, collaborative, scholar-led initiatives.<sup>8</sup>

From the perspective of a developing region, accelerating a global transition to openly accessible scholarly communications presents greater possibilities for inclusivity and diversity if it provides public infrastructure and an

opportunity to collaborate and cooperate with publicly funded, community-led initiatives. We further advocate for government agreements for joint negotiations with big publishers under new terms concerning reasonable prices for open-access article/book processing charges. Waivers of such fees are not our favored solution for less privileged institutions and countries because in the long term, they often become a mere sales promotion strategy.

The examples to which I turn in the remainder of this chapter demonstrate how different open-access scholarly communications have evolved in a developing region—Latin America—and illustrate how a scholar-led transition to global open access that is more inclusive and participatory is possible.

### **Open Access in Latin America: Scholar-Led and Publicly Funded**

Latin America has led the way in the development of scholar-led, open-access scholarly communications. The main drivers toward open access in Latin America have been public universities and government organizations, with no outsourcing to commercial publishers, as described in the Global Open Access Portal (UNESCO-GOAP).<sup>9</sup> This is in part due to the lack of interest by commercial publishers in the Latin American and Caribbean (LAC) region.<sup>10</sup> However, it is mainly due to strong publicly funded, scholar-led initiatives that have helped journals in the region improve quality, make the transition to open access without APCs, and provide initial open-access indicators. Regional government agreements and national open-access policies have also spurred the development of repositories, which are the required venue to comply with open-access policies and legislation approved in several countries.

### **Open-Access Journals from Latin America: Regional Directory, Publishing Platforms, and Indexing Services**

One of the main research universities in Latin America, the National Autonomous University of Mexico (UNAM/Universidad Nacional Autónoma de México), has developed several regional databases of journals published in Iberoamerican countries. One of the main services is “Latindex (Online Regional Information System for Scientific Journals from Latin America, the Caribbean, Spain and Portugal),” which started in 1998 as the Latindex Directory, providing basic information about journals in the region. In 2002 it complemented the directory with both the Latindex Catalog

to identify quality journals within the region, and the Latindex Portal of Portals (*Latindex Portal de Portales*), a discovery facility to search full texts within regional open-access journal portals from Iberoamerican countries.

SciELO—the Scientific Electronic Library Online—by contrast, is a cooperative publishing system for peer-reviewed, open-access journals.<sup>11</sup> It was started in Brazil in 1997 for health journals, by the Latin American and Caribbean Center on Health Sciences Information (BIREME). It was supported initially by the publicly funded São Paulo Research Foundation (FAPESP) and later also by the Brazilian National Council for Scientific and Technological Development (CNPq) and the Brazilian federal government agency Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). Today, SciELO has 1,285 active open-access, peer-reviewed journals published in all disciplines by universities and other scholarly institutions from 15 Iberoamerican countries and from South Africa. Countries have developed their own SciELO national collections, which are run in many cases by science policy institutions. Fewer than 5 percent of journals in SciELO charge APCs. Bibliometric indicators are provided at publication, collection, and citation levels. Since 2014, citations are provided by SciELO Citation Index, a partnership of SciELO with Clarivate and it is expected that “the inclusion of SciELO CI into WoS [Web of Science] should, in the short to mid-term, improve compliance with international editing norms and governance structures.”<sup>12</sup> The SciELO-Clarivate alliance for SciELO Citation Index has raised concerns, among others, as to whether initiatives such as SciELO should “be investing in support for open infrastructure instead of enriching private businesses.”<sup>13</sup>

Another public university in Latin America, The Autonomous University of Mexico State (UAEM/Universidad Autónoma del Estado de México), started an initiative in 2002 called Redalyc (Red de Revistas Científicas de América Latina y el Caribe, España y Portugal). This is a publishing system for peer-reviewed, open-access journals from Latin America, the Caribbean, Spain, and Portugal, in collaboration initially with editors of social science journals. Today, Redalyc has 1,294 active open-access, peer-reviewed journals published across all disciplines by universities and other scholarly institutions from 16 Iberoamerican countries. Again, fewer than 5 percent of these journals charge APCs, and recently Redalyc has decided not to accept journals that charge APCs. Thousands of authors have created profiles in Redalyc, linked to ORCID when available. Bibliometric and scientometric

indicators are provided at publication, institution, country, and discipline levels. As a reply to an invitation from Redalyc, 500 journals in their publishing and indexing platform have signed the DORA declaration, which recommends that publishers reduce their emphasis on the journal impact factor as a promotional tool, and instead make available a range of article-level metrics to encourage a shift toward assessment based on the scientific content of an article rather than publication metrics of the journal in which it was published.<sup>14</sup>

Concerned about restrictions on research budgets in Latin America and the need to ensure scholar-led, collaborative open access in the region, rather than alliances with commercial publishing and indexing services, Redalyc together with CLACSO, UNESCO, and a group of universities and institutions with research and development programs concerning open-access publishing and indicators, started a new system in 2018: AmeliCA-Open Knowledge (AmeliCA-Conocimiento Abierto). AmeliCA works to further develop a scholar-led, decentralized collaborative initiative for research and development of open-access scholarly communications and open-access indicators, with no commercial outsourcing and no APCs.

The Latin American open-access initiatives described here work in complement to international traditional services, enriching them with local and regional contents that are necessary if we want to move toward more inclusive and participatory scholarly communications systems. A recent study compared the coverage of journals, by country and topic, from Latin America and the Caribbean included in SciELO, Redalyc and Scopus during the years 2005 through 2009, and the results showed that the three sources are complementary.<sup>15</sup>

Another study in the core collection indexes of the Web of Science (WoS) and the SciELO Citation Index, which was integrated into the larger WoS platform in 2014, concluded that SciELO CI integrates a system of scientific knowledge that otherwise remains invisible in the mainstream journals contained in WoS.<sup>16</sup>

### **Repositories in Latin America: Institutional, National, Regional, and Subject Repositories**

Open-access national legislation that mandates deposit of state-funded research results in open-access digital repositories was approved in Argentina

and Peru in 2013; in Mexico in 2014; and a bill was introduced in Congress in Brazil in 2007 and reintroduced in 2011.

According to the Directory of Open Access Repositories (OpenDOAR), 528 digital repositories have been developed in the region.<sup>17</sup> Complementing approved national legislations, nine Latin American science and technology public agencies (Argentina, Brazil, Colombia, Costa Rica, Chile, Ecuador, El Salvador, Mexico, and Perú) agreed in 2012 to develop in each country a national system of repositories to coordinate funding, training, and national and regional cooperation. These agencies also started, with the initial support of the Interamerican Development Bank, a Latin American Federated Network of Institutional Repositories of Scientific Publications, known simply as *La Referencia*, which has central offices in Chile but a rotating presidency among the national participants. *La Referencia* boosts interoperability agreements in the region and its regional harvester has 1,431,703 full-text, peer-reviewed articles, theses, and research reports. At the international level, *La Referencia* follows OpenAIRE interoperability guidelines, and is an active member of the Confederation of Open Access Repositories (COAR), working together with the participation of repositories worldwide toward an international network of repositories, and functionality for next-generation repositories.<sup>18</sup>

Latin America has also a historical tradition of participating in cooperative subject information systems with national focal points, usually located in research or government institutions, and coordinated by regional research and policy organizations. These cooperative information systems, which started in the 1990s, have evolved from providing online open access to bibliographic information to full-text availability of all kinds of contents (journal articles, reports, books, documents, theses, multimedia). The leading concept is “sharing a little so that all can have more,” as expressed on the webpage of the Alliance of Agricultural Information Services (SIDALC).<sup>19</sup> These regional subject repositories in Latin America have been developed extensively in agriculture, health, and social sciences—disciplines where local information is vital for research, professional, and productive activities, and for informing policies and international cooperation.

As a further example, the Virtual Health Library (VHL) is sponsored by the Pan American Health Organization (PAHO) for management of health information and knowledge in the Latin American and Caribbean region. Developed and operated by BIREME—working in a decentralized mode

with national focal points in institutions related to research, education, and health services—more than 400,000 full text are openly available through this resource.

Finally, CLACSO's social science digital repository (Red de Bibliotecas Virtuales de Ciencias Sociales) provides open access to a collection of 930 peer-reviewed social science and humanities journals, managed by Redalyc (387,018 full texts). Collections from CLACSO members include journals, books, working documents, research reports, theses, and multimedia (103,000 full texts).

### **Declarations on Open Access in Latin America**

Given its strong support for open access, it will come as little surprise that Latin America has issued several regional declarations in support of OA—the Salvador Declaration on Open Access: The Developing World Perspective, in 2005; CLACSO's declaration on open access to knowledge managed as a commons by the scholarly community, in 2015; and the declaration of Mexico in favor of the Latin American noncommercial open-access ecosystem, in 2017.<sup>20</sup>

In relation to APCs, the consortium of government offices making centralized national purchases of international journals, in their First Consortium Assembly in 2017, has agreed that an open-access expansion policy through payment of APCs is “impossible to undertake from a financial point of view for the participant countries” and recommends that institutions not create grants to pay for APCs.<sup>21</sup>

### **Evaluation Systems in Developing Regions**

As Laura Czerniewicz (2015), professor at the University of Cape Town, notes:

Researchers in the Global South are caught in a double bind. They are rewarded for publishing in “international” journals in several ways: through promotions and often even financially. But development imperatives, government policies and their own interests pressurize them to undertake research that is relevant to pressing social and related problems which may not be appealing or even “academic” enough to interest the international journals.<sup>22</sup>

After 20 years of improving the quality of journals and developing successful open-access initiatives in Latin America, a region with “a long tradition of research but a low record of impact of this research,”<sup>23</sup> the evaluation



systems need review because they still reward the impact factor of the “mainstream” journals where research is published, confusing excellence or prestige with quality (to use Vessuri, Guédon, and Cetto’s terms).<sup>24</sup>

Further, as Vasen notes, “while the political discourse promotes a model of researcher committed to knowledge transfer and mobilization activities, academic evaluation practices encourage a classic academic profile.”<sup>25</sup> The use of the impact factor and citation indicators contributes to tenure, promotion, and economic compensation in the region, as well as the position of the universities and countries in rankings.

Disappointingly, Latin America is not applying the recommendations from DORA and, with very few exceptions, is not considering the new open-access indicators being provided for quality journals from developing regions; for example, in Latin America by SciELO and Redalyc,<sup>26</sup> even if there is “a high equivalence between the criteria used by the national systems of evaluation of scientific publications in Latin American countries and the characteristics required by SciELO, Redalyc, and Latindex for indexing journals in their databases.”<sup>27</sup> More research is needed in the region to better understand the hold of Global North-imposed metrics.

These quality open-access journals are used by researchers (30 percent), but also by other publics such as students (50 percent), and individuals interested for professional or personal reasons (20 percent), according to a study on the public impact of Latin America’s approach to open access.<sup>28</sup> They thus contribute to the transition toward open education and open-science information needs in a significant way.

## Conclusion

Successful development and growth of scholar-led and publicly funded open access in Latin America and other developing and developed regions, gives hope to the possibility of building a global transition to open access that will be more inclusive, sustainable, and diverse with respect to knowledge produced in developed and developing countries; a relevant goal for international conversations in science and global sustainable development agendas. We seek to avoid, as mentioned in the introduction to this chapter, the risk of repeating—this time from within open access and with APCs—the traditional international scholarly communications system built in past decades, concentrated in “mainstream” journals of the Global North and

their evaluative indicators, managed by commercial partners with unusually high profit margins, paid out of scarce research money, with poor diversity and low participation from less privileged institutions and countries, and with negative impacts from their evaluation systems.

## Notes

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