

# Decolonizing Scholarly Communications through Bibliodiversity

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## ABSTRACT

Diversity is an important characteristic of any healthy ecosystem. In the field of scholarly communications, diversity in services and platforms, funding mechanisms and evaluation measures will allow the ecosystem to accommodate the different workflows, languages, publication outputs and research topics that support the needs of different research communities. Diversity also reduces the risk of vendor lock-in, which leads to monopolization and high prices. Yet this ‘bibliodiversity’ is undermined by the fact that researchers around the world are evaluated according to journal-based citation measures, which have become the major currency of academic research. Journals seek to maximize their bibliometric measures by adopting editorial policies that increase citation counts, resulting in the predominance of Northern/Western research priorities and perspectives in the literature, and an increasing marginalization of research topics of more narrow or local nature. This contribution examines the distinctive, non-commercial approach to open access (OA) found in Latin America and reflects on how greater diversity in OA infrastructures helps to address inequalities in global knowledge production as well as knowledge access. The authors argue that bibliodiversity, rather than adoption of standardized models of OA, is central to the development of a more equitable system of knowledge production.

## Introduction: Concentration vs Bibliodiversity in Scholarly Publishing

The original vision of the World Wide Web was of a highly distributed environment; a place where all individuals could contribute and access information at any time. However, like many other aspects of the Internet, the services in scholarly communications have become increasingly consolidated over the years, bringing us to the current state in which scholarly communications is now dominated by a handful of large commercial providers, with the top five publishers controlling much of the market, while accruing huge profits.<sup>1</sup>

The consolidation of the publishing industry has had a negative impact on scholarly communications. Most obviously, it has led to very high prices for commercial journals and a trend of excessive increases that has been going on for three decades. For example, from 2011 to 2015, the subscription prices of academic journals rose about 5–7 per cent per year, approximately 25 per cent over the four-year period (Larivière et al., 2015), with similar increases experienced in 2016–18. This situation has ramifications for academic library budgets around the world but is being felt most acutely in lower-income countries, where funds for subscriptions are at best modest and often minimal. Many well-resourced libraries have responded to funding shortfalls by moving money away from smaller journals, monographs and databases, while others with more limited budgets have had no choice but to cancel subscriptions altogether (CARL, 2016).

Less often discussed, but equally important, is how the concentration of publishing services is affecting the diversity of the scholarly communications system, often referred to as bibliodiversity. Diversity is an important characteristic of any healthy ecosystem, including scholarly communications. Diversity in services and platforms, funding mechanisms and evaluation measures will allow the ecosystem to accommodate the different workflows, languages, publication outputs and research topics that support the needs of different research communities. In addition, diversity reduces the risk of vendor lock-in, which inevitably leads to monopolization and high prices (Shearer et al., 2020). In a recent blog post on the London School of Economics *Impact of Social Sciences* blog, Elea Giménez Toledo, Emanuel Kulczycki, Janne Pölönen and Gunnar Sivertsen argue that ‘bibliodiversity ... both at the national and international level is essential for preserving research in a wide range of global and local topics, studied from different epistemic and methodological approaches, inspired by various schools of thought and expressed in a variety of languages’ (Giménez Toledo et al., 2019).

One of the main factors impeding bibliodiversity is that researchers around the world are evaluated according to journal-based citation measures, which have become the major currency of academic research. Journals seek to maximize their bibliometric measures by adopting editorial policies that increase citation counts by publishing ‘hot’ topics, changing the language of

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<sup>1</sup> The top five publishers, who control over 50 per cent of the market and above 70 per cent in some disciplines, have profit margins in the order of 28–38.9 per cent (Larivière et al., 2015).

their journal to English, and covering issues of global interest (Bartoli and Medvet, 2013; see also American Society for Cell Biology, 2013). This, in turn, has resulted in a predominance of Northern/Western research priorities and perspectives reflected in the literature, and an increasing marginalization of research topics of more narrow or local nature. Thus, scholarly communications today functions in a colonized manner, compelling researchers around the world to undertake research of importance to the global North, rather than address the issues that are most relevant in their own regional and local contexts. The value system for research, developed in the Western and Northern context, has been imposed on all researchers and has created implicit (and sometimes explicit) negative biases against researchers in developing countries.<sup>2</sup>

This thought piece examines the distinctive, non-commercial approach to open access (OA) found in Latin America and reflects on how greater diversity in OA infrastructures helps to address inequalities in global knowledge production as well as knowledge access. We argue that bibliodiversity, rather than adoption of standardized models of OA, is central to the development of a more equitable system of knowledge production.

## **Latin America's Non-Commercial Scholarly Communications Infrastructures**

Latin America has charted its own course for scholarly communications and is one of the world's most progressive regions in terms of supporting sustainable, cooperative models for disseminating research — models that ensure that researchers and citizens have access to the results of research conducted in their region and often in their own language. In Latin America, scholarly publishing is based on the concept of 'science as a commons', that is, inherently academy-owned, non-profit and open access. Each academic institution, *de facto*, is part of a cooperative system that is neither formalized nor made explicit. There is a tradition of academic editors running journals and performing these activities as part of their academic work. As a community, they create networks of training and discussion in which they reflect on editorial practices, supporting the complex system that runs scientific publishing but also approaching publishing as a subject of study, discussion and development. In this regional system, platforms and journal portals play a key role, as a set of entities that contribute to the sustainability and visibility of journals, providing quality assurance, journal production software, services of interoperability, metrics and training. As Dominique Babini points out: 'our strength in Latin America is that we are where the commercial publishing industry wants to reach: we have scientific communications managed by the same scientific community, in collaborative ways, without commercial outsourcing' (Babini, 2019).

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<sup>2</sup> As an example, a blog post in 2015 compared Latin American publishing platforms to favelas (Alperin et al., 2015).

Latin America has historically followed a non-commercial OA model that has operated without charges, either to read or publish, and has been principally financed with public funds destined for education and research, in much the same way that other types of research infrastructure are funded. This approach is in contrast with the Northern scholarly publishing system which has been (mainly) commercialized and therefore relies on transactional models, through subscriptions and/or through Article Processing Charges (APCs). In the Latin American context, there are a number of non-commercial platforms which provide publishing functionalities and promote the visibility and discoverability of Latin American research output. Regional directories like Latindex and LA Referencia and publishing platforms such as Redalyc and SciELO have had a major impact on the development of Latin American and Caribbean journals (Delgado, 2011). The SciELO Program, a pioneering cooperative platform that was launched in 1998 to host Brazilian journals, has since been expanded to 15 other countries in Latin America, Europe and South Africa. SciELO promotes the integration of quality journals and the research they communicate in the global flow of scientific information, thus contributing to strengthening and expanding the visibility, impact and credibility of the research (SciELO Program, 2018). Redalyc, another non-commercial platform for Latin American journals, started in 2003 with the goal of increasing the visibility of scientific journals published in the region. Today, Redalyc's collection contains more than half a million full-text articles from 1,360 OA peer-reviewed journals published by 670 publisher institutions from 31 countries. It also provides free access to technology for editorial workflow and electronic journal production to contribute to the sustainability of non-APC OA journals (Becerril-García and Aguado-López, 2018). More recently, a coordinated effort emerged in the Latin American region, called AmeliCA — a cooperative infrastructure for scholarly publishing and open science with a non-profit publishing model aiming to preserve the open nature of scientific communications in Latin America.<sup>3</sup>

Despite the fact that Latin America has been a leader in developing local and regional infrastructures and services for scholarly communications, the region's publishing venues are still considered to have a lower prestige value by researchers and other stakeholders and there is a common misconception that the regional publishing venues are of lower quality than the so-called international journals. This perception seems to persist for local, regional and national journals in other developing countries and regions, regardless of the editorial practices of the journal or the sophistication of the services provided. This demonstrates the need for research assessment systems to move beyond publication-based metrics, in which publishing from the North — and particularly in for-profit publishing venues — has an advantage, towards a more comprehensive assessment of the quality of research output.

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<sup>3</sup> See the website: <http://amelica.org>

## Open Access Models and Global Inequalities in Knowledge Production

The open access and open scholarship (also referred to as open science) movements aspire to redress some of the inequalities of access to knowledge around the world. Open access, which is primarily focused on free and immediate access and re-use of research articles, has been steadily gaining momentum since the Budapest Open Access Initiative Declaration in 2002<sup>4</sup>, with approximately 30% of the total published research articles now available in open access format (Piwowar et al., 2019). Open scholarship/open science extends the concept of openness beyond the research article to include a wide range of research outputs.

But openness in scholarship is about more than just increasing readership and use. It is about democratization of knowledge. In the words of Sarita Albagli, a researcher from the Brazilian Institute of Information in Science and Technology (IBICT):

The present planetary crisis, in its various dimensions, still imposes new agendas on open science. The urgency and complexity in confronting it shows a crisis of solutions, pointing to the need for new ways of approaching problems, new knowledge bases, and other ways of producing science and innovating. It is also a crisis of representation: more sustainable routes to development imply radically democratic processes in their multiple possibilities and meanings, as well as in the scientific-technological paths to be adopted. (Albagli, 2017)

As the community transitions to full and complete open access and open science, there is a risk that the model of APCs will dominate and will perpetuate or even exacerbate the current problems of Western/Northern bias in scholarly communications. As Angela Okune points out in a blog post about decolonizing scholarly data and publishing infrastructures, '[d]espite the revolutionary rhetoric, it appears that much of the mainstream Open Science movement continues to operate under the same values and structures of the pre-crisis era, albeit with new tools and norms to revitalise its credibility' (Okune, 2019). Of particular concern is the potential for a large-scale shift from 'pay to access' to 'pay to publish', through what are called transformational agreements, which could mean that researchers in developing countries and less-resourced domains and institutions will find it even more difficult to publish their research. As Poynder notes, this means that researchers from the global South would be excluded in a different (but more pernicious) way than they are under the subscription system: free to read research published in international journals but unable to publish in them (Poynder, 2019). In Latin America, numerous organizations have publicly expressed their position that such a flip from subscriptions to open access agreements with commercial publishers will have a negative impact on the research communities and also on the existing non-commercial infrastructures that have been developed over recent years (AmeliCA, 2019; CLACSO, 2019; First Consortium Assembly from Ibero-America and the Caribbean, 2017; Redalyc, 2019). Unfortunately, this concern —

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<sup>4</sup> See: <https://www.budapestopenaccessinitiative.org/read>

articulated consistently by different stakeholders in developing countries — has largely fallen on deaf ears among those who are advancing the model of flipping from subscriptions to OA.

Moreover, ‘pay to publish’ models do not return the expenditure on publishing back into the research cycle. The non-profit, academic OA model promoted by Latin America has been shown to be sustainable and much less expensive (Banzato and Rozemblum, 2019), and it keeps the money invested in the academic sector. In developing countries, where research funding is scarce and government funding for research is relatively low, there is an urgent need to keep the current economic resources in the scientific communications system, either to strengthen publishing or for research. As such, there is a conflict between the needs of the global South and the direction of the elite Northern research and publishing framework. A system based on pay-to-publish deals will further disenfranchise researchers in the global South and risks deepening existing inequality and exclusion (Mudditt, 2019). From a geopolitical perspective, there are fundamental differences in the approaches to scientific publishing and scholarly publications; while they appear to be treated as a commodity prone to commercialization in the global North, in Latin America, publishing is conceived of as the community sharing of public goods (Debat and Babini, 2019).

On the other hand, the transition towards openness also presents an opportunity to reimagine scholarly communications; to return to the non-commercial essence of science that favours epistemic, methodological, linguistic, geographic and content bibliodiversity; and to rectify some of the existing biases and inequalities in the system. Open scholarship has the potential to help us address these wicked problems in entirely new ways by breaking down disciplinary boundaries, fostering new, radically open research methods, and expanding the reach of research far beyond the academy. But we also must go beyond the discussion of simply open vs closed. When we talk about decolonizing scholarly communications, we must avoid focusing on the dichotomy of opening or closing access to published science. Rather, the discussion should be about who controls or will control scholarly publishing, who dictates or will dictate the agendas, where the economic investments will be made — especially where public resources will be — and what new restrictions will be created with new OA models. All these issues are of great importance if we are to achieve bibliodiversity and sustainable, inclusive scholarly communications.

## **Conclusion: Building Inclusive Open Access Infrastructures**

One of the United Nations Sustainable Development Goals is to 'build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation'<sup>5</sup>. Local scholarly communications infrastructures allow for central governance of policies, procedures and controls, but are intentionally decentralized to support the development of local capacity and infrastructure, ensuring greater sustainability and alignment with local policies and priorities. By valuing and supporting local infrastructures and services, scholarly communications can take advantage of the widespread adoption of information and communication technologies to be more inclusive. The publishing sector in developing countries has the opportunity to optimize its processes to make scientific communications sustainable and competitive, and even to endure the voracious commercial strategies through which OA is being advanced in developed countries.

How can we begin to build more diversity in the system? We believe that this will require radically rethinking how we assign value to, and invest in, different types of research infrastructures and services, and will only take place if we coordinate and link two simultaneous efforts: (1) to develop new, sustainable funding models for a diverse range of services and publications; and (2) to adopt research assessment measures that incentivize researchers to publish in these venues. Bibliodiversity, by its nature, cannot be pursued through a single, unified approach. It starts with recognition and respect for differences and idiosyncrasies, and with an acceptance that bibliodiversity implies the challenge of connecting diverse services, outputs and perspectives, and fostering their development. This requires significant intentionality and coordination in order to avoid a fragmented system or a growth in centralization. As a first step, we are proposing the adoption of national and/or organizational strategies for scholarly communications, with bibliodiversity and openness as key underlying principles, as mechanisms for developing cohesive approaches that foster healthy scholarly communications by ensuring sustainable funding and incentives. If we do not act now, it is possible that this opportunity will be lost, along with the bibliodiversity needed to ensure that research thrives and can address every society's most pressing problems.

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<sup>5</sup> Sustainable Development Goal 9; see: <https://www.un.org/sustainabledevelopment/infrastructure-industrialization/>

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