



INTERVIEW

Interview with Dr. Fernanda Beigel: Latin America wants to strengthen regional science through new global open access configurations

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Sociologist Fernanda Beigel is an active voice on open science in Latin America. Photo: Personal Archive.

Latin America is a cultural power composed of almost 40 countries (when the Caribbean is included) and with over 660 million inhabitants. In spite of political instability and severe cuts in investments in science and technology, the Latin American region shares sociocultural richness and an open access culture that aims to democratize knowledge from nonprofit publishers of public universities and scientific societies that work to strengthen regional science output. About 60% of the science output indexed in international databases is available in open access and much of it is diamond, which means that it does not include any Article Processing Charge (APC) for authors.

Argentinian sociologist Fernanda Beigel is an active voice in open science in Latin America. She has studied phenomena related to scientific development from a set of perspectives, populations and fields of knowledge. She holds a PhD in Political and Social Sciences and Fernanda is a professor at the National University of Cuyo, where she directs the Center of Research in International Circulation of Knowledge (CECIC¹), a principal researcher at the National Council for Scientific and Technological Research (CONICET) and coordinates the Open and Citizen Science Committee of the Ministry of Science and Technology in Argentina. In 2020 she was the Chair of the UNESCO Open Science Advisory Committee and has been one of the key contributors to the Latin American Forum on Research Assessment (FOLEC²) of the Latin American Council for Social Sciences (CLACSO). Apart from being notable academic in Latin America, she is also an activist for open science, gender equity and more relevant research output in the region. In this bilingual conversation—with questions in Portuguese and answers in Spanish—held through Meet, Fernanda spoke from her home in Mendoza with Germana Barata, a researcher and science journalist from the State University of Campinas (Unicamp) in Brazil³.

Germana Barata: Fernanda, Plan S formally began in January 2021 and has been celebrated by the international scholarly community. It is the result of a coalition of funding agencies that decided that results from research funded with their resources had to be available in open access. What will be the impacts of Plan S in Latin America, considering the pioneer policies in open access in the region?

Fernanda Beigel: I believe that Plan S had already begun to enter the international discussion upon its public launch in 2018 and, until it was implemented, its evolution had several twists and turns due to the tensions and pressures it provoked from its beginning. The first players that this plan wished to include were evidently the European scientific publishers, and for that reason its first impulse was to develop commercial open access, encouraging journals to change their business model towards APC. The largest publishers, for their part, moved towards read and publish agreements, which also began to spread worldwide. Had this remained intact after implementation and had the original project not suffered any fracture, we would be facing a whirlwind—without any chance of stopping it—of an increasingly strong commercial industry in the academic world. However, I believe that the Covid-19 pandemic and the UNESCO recommendation on open science⁴ were key elements in the growth of a global groundswell critical of commodification within the scientific publishing system. That means that even though Plan S has clearly driven the transformation of mainstream

¹ <https://cecic.fcp.uncuyo.edu.ar/>.

² <https://www.clacso.org/en/folec/>.

³ The original transcript of the interview in Spanish and Portuguese is available here: <https://doi.org/10.5281/zenodo.7387195>.

⁴ <https://en.unesco.org/science-sustainable-future/open-science/recommendation>.

journals into the open access model with APC, this process has not been free from fractures and criticism, both from the South and from the North.

One of the paths that contribute to this critical movement of the commoditized trends of scientific publishing is the problem of hypercentralization of the English language. There is an increasingly strong current—with France leading the way in Europe—that discusses the loss of interculturality it means for scientific development, especially when the need to replace the evaluation of production through the impact factor of journals with an evaluation of the social impact of research begins to spread. The Organization of Ibero-American States has also contributed with a strong campaign for multilingualism. Thus, I believe that Plan S, which is created with a clear perspective from funding and governmental agencies to favor open access in a commercial manner, also needs to acknowledge these other tensions that have arisen, facing, for example, a study first, and then lines of funding for diamond access journals.

Unlike other regions of the South, Latin America has a very long history of publishing initiatives alternative to the mainstream circuit, which involves many governmental resources and has a different impact on the publication practices of researchers in that region. There is an elite of academics who are definitely very oriented to this type of mainstream publication, and for that reason the growth of APC journals is directly affecting certain scientific areas, and not all of them equally. It will be important to evaluate the different aspects that this policy may affect. For example, in Argentina, where we recently conducted an empirical study, biological and health sciences are the areas most affected by APC increases and there is no possibility that public subsidies will cover these costs. Also, it is currently not possible to finance a read and publish agreement at the country level, let alone at the level of public universities individually. I am not aware of how many universities in Latin America are able to do so and the publishers clearly understand this, which is why they offer different negotiating conditions to those proposed in the global North. However, they are still unacceptable. It seems to me that in the region there is an increasingly strong will to regain what we have in terms of our own scientific communication space. At the same time, there are different initiatives to generate agreements and academic diplomacy actions with other countries, actors, and organizations promoting an alternative, noncommercial, multilingual, and bibliodiverse way of communication to return the management of their journals to the academic community.

Germana: So-called Bronze open access⁵ and higher APC for open access have increased among large commercial publishers. In this scenario, will developing countries, such as Latin American ones, become even more excluded?

Fernanda: Yes, definitely. If we analyze this from the perspective of the origin of the open access movement and the 2022 Budapest Declaration⁶, open access was understood as being **immediate and free**. However, the transition to the APC model of the mainstream journals circuit has colonized the golden path and generated multiple new paths for paid open access, which generate new and more complex inequalities for scientific communities in nonhegemonic countries. However, they generate all these tensions and asymmetries because in Latin America, the categorization systems for researchers have required publication in these types of journals, which are precisely the most rewarded in the evaluation system. At the same time, there is a strong movement that is increasingly entering evaluative culture discussions. That is to say, even though the [journal] impact factor, the *h*-index, Scopus, or Web of Science indicators, and especially the indicators of European publishers remain hegemonic, there is a trend

⁵ Bronze open access defines papers without a defined open access policy, but which can be accessed for free.

⁶ <https://www.budapestopenaccessinitiative.org/read/>.

towards reflection and differentiated trends. It seems to me that all the activism of DORA⁷, FOLEC⁸, and other manifestos and networks are attracting the attention of our governments and of our research agencies, and researchers are seriously considering whether it will be possible to continue publishing in these commercial circuits. Therefore, I see that we are living in complicated times, but it is also a juncture that shows potential for an in-depth discussion of what it means to prioritize evaluation through the impact factor of journals and where we want to redirect that evaluation.

Germana: In February 2022 you gave a lecture at the Paris Open Science European Conference and stated that it is necessary to balance global standards with what is relevant to Latin America. Is it possible to change the reward system and recognition of academic careers towards open access and science relevant to our region when developed countries' standards continue to be the reference?

Fernanda: I believe that the key is to rebuild the link between two systems that could collaborate and be complementary, but which are currently going opposite directions. On the one hand, there are the researcher categorization systems used by 10 countries in our region, and which are nationwide, where the mainstream publishing circuit prevails. On the other hand, there is a scientific communication ecosystem in the region that not only has thousands of diamond-access journals, but also a huge network of institutional repositories nucleated within LA Referencia⁹, which is also developed with local and proprietary technology. Several countries in Latin America have open access laws and are slowly implementing mandatory deposit in the repository for all institutions—I am not only referring to publications, but also to open data.

However, when analyzed from the perspective of evaluation systems, this dominantly public regional circuit, endowed with human resources and collaborative infrastructures, seems alienated, in philosophical terms. The weight of uncritical internationalization policies and fervent belief in rankings and impact indicators as a measure of international prestige render our academic communities incapable of responding to their own reality. For that reason, one of the most difficult tasks is to raise awareness of the need for change among researchers, who are the ones who form the evaluation committees.

Evaluative cultures are processes of accumulation over many years. Therefore, it is essential to take a first step from the evaluative policies, incorporating rewards that are feasible for researchers who are in an unequal position and cannot afford APC payments for open access journals on their own. As repositories play a fundamental role, the green [open access] path strategy is very relevant.

Now, these changes have different effects depending on the academic field. There are disciplines that still publish mostly in subscription journals, and for that reason it is necessary to train and support researchers to demand that these publishers comply with national open access laws, which require them to deposit their publications in open access. There are other fields that are predominantly publishing in gold-access journals with APC, which are mainly the biological and health sciences. Demanding immediate open access publication as a requirement to enter a career or be promoted may, thus, deepen the pressing problems that these subjects are currently experiencing with indiscriminate increases in APCs. Thus, first, I believe that actions to change evaluation systems require targeted policies for these most affected areas. Gradually modifying publication practices is one of several strategies to open

⁷ <https://sfdora.org/>.

⁸ <https://www.clacso.org/folec/>.

⁹ <https://www.lareferencia.info/es/>.

a new landscape of intraregional and international conversations, which could contribute to turning our gaze to research agendas more closely linked to the needs of our societies.

Germana: In a preprint¹⁰ in which you and colleagues analyzed Latin American output from 1909 to 2019, you showed that publication patterns are highly regionalized, with greater contributions within each country or in partnership with Latin American countries. In Humanities, authors publish more within Latin America and in native languages, while in the Exact, Biological, and Medical Sciences, there is a cultural shift towards publishing in English. What is preventing Latin America's science from making a leap?

Fernanda: Yes, this preprint you mention, which is about to be published in the journal *Dados* in Brazil, is the first published¹¹ result of the OLIVA project [Latin American Observatory of Evaluation Indicators]¹² to which we have dedicated 2 years of work. A few days ago, we deposited the open data set of the first stage of OLIVA 1.0, which we hope will be a contribution to the visibility of the regional circuit because there was little history of joint studies of publications in the databases Redalyc and SciELO, as Redalyc data are not available for automatic gathering.

This project seeks to show the scope of the corpus of production published in journals that are indexed in Latin America, and which have quality standards comparable to other indexing systems with long regional experience in the area. I could even say that these are more dependable indicators of quality if we measure them in relation to the low incidence of predatory journals in our region. If you compare how journals are evaluated on SciELO¹³ [Scientific Electronic Library Online], Redalyc¹⁴ [Network of Scientific Journals of Latin America and the Caribbean, Spain, and Portugal], or in the 2.0 Latindex¹⁵ [Regional Online Information System for Scientific Journals in Latin America, the Caribbean, Spain, and Portugal] catalog with respect to how some Scopus¹⁶ journals are evaluated and the role played by editorial committees in separating what is useful from what is not, it seems to me that there is a difference that greatly favors the self-managed indexing by the academic community that we see in Latin America.

The expectation and projection of OLIVA is to collaborate in the dissemination of the scope of this Latin American corpus so that we can advance in an interoperable platform with all indexing services. We have just finished the second stage of OLIVA, which includes the production of journals from Spain and Portugal and is important in the battle for multilingualism.

We are also finishing an exploratory study of the crossover between BIBLAT¹⁷ [Latin American Bibliography] and Latindex, two very important indexing systems in the region. BIBLAT joins the oldest indexing systems (CLASE and PERIÓDICA), which were created in the 1970s at Universidad Nacional de México. This is being done jointly with Latindex—a much more recent journal portal, created in the mid-1990s, which has cataloged more than 3,000 journals, many of which are neither in SciELO nor in Redalyc, and which we have analyzed from the overlaps to locate the joint BIBLAT-Latindex core. While Latindex is a portal that does not offer document-level metadata for journals, BIBLAT has document-level records. Just showing

¹⁰ <https://doi.org/10.1590/SciELOPreprints.2653>.

¹¹ <https://ri.conicet.gov.ar/handle/11336/175850>.

¹² <https://cecic.fcp.uncuyo.edu.ar/oliva/>.

¹³ <https://scielo.org>.

¹⁴ <https://www.redalyc.org>.

¹⁵ <https://latindex.org/latindex/>.

¹⁶ <https://www.scopus.com/>.

¹⁷ <https://biblat.unam.mx/pt>.

the results of this exploratory exercise will demonstrate the importance of mobilizing a regional project for all journals indexed in the Latindex 1.0 catalog and in BIBLAT to have visibility and interoperability with other types of indexing databases. I believe that this is a very important challenge, because if we had a regional platform like CRIS¹⁸—and I believe that there is a will in many Latin American actors—it seems to me that the legitimacy and circulation of Latin American journals would improve significantly.

Germana: The pandemic made it clear that open science is the key to democratize knowledge and speed up science development. Will OS get stronger and keep growing after the pandemic?

Fernanda: With respect to the first [question] yes, I do have the same impression that these changes during the pandemic, and the regional and global valuation of open access as a fundamental need, linked open access with the human right to scientific progress already established in the Universal Declaration of Human Rights in 1948. This change, which occurred in the context of the global health crisis, will not be reversed in terms of what it meant in terms of insertion into the public debate and for citizenship.

For the academic community, at the same time, it meant a substantial change in their own work practices, because the use of SciHub became very widespread when remote work was required—that is to say that universal and immediate access to scientific literature began to be an indispensable situation for scientists, governments, citizens, and the general public alike.

In Latin America, I believe that we have the opportunity to expand the open access path in several directions. First, a basically noncommercial, truly collaborative, open access path that builds bridges towards multilingualism disputing the hypercentrality of the English language. And this may have effects on straightening the evaluation towards the social relevance of science. Because diversifying the journals, publication languages, and the discussion agenda opens new perspectives for a science more attentive to local needs.

Latin America has much potential and tradition to develop an open and citizen science, which goes beyond the academic discussion and enters the world of a discussion with the public, with communities, and with different social sectors. We have a tradition of participatory action research, of continuous education programs at universities, which is a tradition that has not been developed in other continents, and which shows another form of coproduction between science and society, where the social community is conceived as a producer of knowledge.

Germana: Fernanda, how is open access part of your daily scholarship? What advice would you give to colleagues who have not yet embraced open access?

Fernanda: On the one hand, it is important to differentiate according to the field. In Latin America, the social and human sciences may choose among a wide range of diamond journals, and in these disciplines, books also survive dynamically. However, to participate in international discussions, we lack multilingual journals that allow us to publish in several languages. This leads many colleagues to English-language journals, which narrow the diamond publishing alternatives. For "hard" sciences, the scenario is narrower and more complicated. But to answer your question, more in the realm of experience, I would say that I, personally, have never paid an APC and I hope I never have to pay one. Naturally, the APC phenomenon is growing in the social sciences as well, but whenever I have been invited to

¹⁸ Current Research Information System (CRIS), o Sistema de Información de Búsqueda Actual, es una herramienta utilizada para gestionar la información de búsqueda.

journals that charge APCs, I have been offered waivers. And that is a very arbitrary practice, without transparent rules, used by journals. But I think that to prioritize open access to publications, we should promote a wider circulation in different types of journals. For example, once or twice a year I choose a journal that is not indexed, but which has immediate dissemination and circulates in other environments, not only in the academic world. I also think it is valuable to go outside the strictly academic sphere to choose media that circulate more among students, librarians, civil servants, and other professionals. It depends on the discipline we work in, but there is always a margin of freedom to make decisions prioritizing open access and letting editors and researchers who invite us to write for a dossier know that accessibility is essential. And with those publications we have from the past, in closed access journals or which only offered *Online first* for a fee, what I do is to formally request a version to deposit in my repository. I invoke the national law and have always been successful. I talk to the publisher and explain that there is a national law that obliges me to deposit my article in open access in the repository, and that they must access the publication and send a version for that purpose.

Germana: One of your scientometric studies (Beigel, Packer et al., 2022) has compared gender issues between researchers from Argentina and Brazil, and concluded that the so-called glass ceiling persists, and therefore women still find huge barriers to rise in their academic careers. Have these data helped to promote equity policies or are we just verifying that meritocracy has not been enough to promote gender equity in Latin American science?

Fernanda: Indeed, more and more detailed research is helping us to understand this phenomenon. It is true that there are two well-proven gender gaps at a global level: One is the glass ceiling that occurs in institutions, where in general there are fewer women in the highest hierarchies; and the other refers to the level of publications and productivity, which produces effects for promotion in academic careers and for obtaining grants for projects. We were able to verify that for the 10,600 CONICET¹⁹ researchers in Argentina and for the more than 14,000 Productivity Scholarship Holders [in Brazil] that there is clearly higher productivity of men over women, and that the difference in this gap is also greater when we separate the number of publications in English, which could imply that men are capitalizing more on international projects and networks. However, this does not imply a directly proportional relationship with prestige and legitimacy. To study the circulation and specifically the citation of men and women, beyond the number of articles published, we have worked together with CoLaV²⁰ of the Universidad de Antioquía [Medellín, Colombia] to examine Google Scholar and try to overcome the limitations of traditional databases such as Scopus and WoS. On the one hand, this study shows substantial differences in the productivity gap and offers the possibility of assuming that women choose much more where, when, and how they will publish. At the same time, we note that they participate more exceptionally in the top 10 or top 10% of the most quoted people in their fields, even in highly feminized disciplines. We have also investigated the sex ratio between first authorship, intermediate position, and the last position, which varies according to disciplinary areas between men and women. Our sociological approach, based on specific researcher universes rather than “article populations,” allows us to relate institutional gender gaps to asymmetries in publications and quotations.

All these studies, which have been conducted using different methodologies and sources throughout the world, affect institutional policies, although still more slowly than is desirable. The most widespread changes are some gender policies to compensate for equity, such as

¹⁹ <https://www.conicet.gov.ar/>.

²⁰ <https://colav.udea.edu.co/>.

maternity periods for women when they are in a career, with regard to progression. There are gender policies in the composition of evaluation commissions that are beginning to be observed, but very few actions in relation to how productivity is measured and less in terms of authorship positions in publications.

Germana: To conclude, are you optimistic about the changes in Latin American open science, considering times of great cuts in investments in science and political instability?

Fernanda: I understand that it is difficult to be optimistic about public investment in science and technology in countries such as Brazil or many others that have undergone serious institutional instabilities, and with restrictive economic and social policies. But at the same time, there are public policies—which have been in place for several years and decades—in terms of collaborative infrastructure, which are sustained and are a beacon for the region. For example, La Referencia²¹, which has been supported by 12 governments since 2012, allows regional agreements and developments with our own technology that places us in an advantageous position, which other regions of the South do not have—even those that are not so subject to political and economic ups and downs. There are public policies on open access and regional efforts to develop repositories, and where progress is lacking in the evaluative policies in favor of noncommercial open access, it is a matter that is not subject to resources, but to institutional will and changes in the mentality of our peers. This sort of divorce between scientific policy linked to open access and science evaluation policies requires a change of culture, which is always slow²². But there is a growing awareness among researchers in our region and we are seeing changes, little by little.

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REFERENCE

Beigel, F., Packer, A. L., Gallardo, O., & Salatino, M. (2022). OLIVA: The scientific production indexed in Latin America and the Caribbean. Disciplinary diversity, institutional

collaboration, and multilingualism in SciELO and Redalyc (1995–2018). In *SciELO Preprints*. <https://doi.org/10.1590/SciELOPreprints.4637>

²¹ <https://www.lareferencia.info/en/>.

²² See FOLEC for proposals for changing research assessment in Latin America: <https://www.clacso.org/en/folec/>.