

UNESCO-GOAP Global Open Access Portal¹

Open Access in Latin America and the Caribbean – Overview²

In Latin America, two thirds of the investments in research and development are funded by State resources ([UNESCO,2010](#)). Funding for open access initiatives comes, directly or indirectly, from public funds and from international cooperation. Key open access players are national science agencies and universities (mainly libraries, journal editors, press units, ICT units, research/academic areas).

The region has a long tradition of regional information networking to provide open access to its research results, in **regional subject repositories** that started with bibliographic records in the 80's and now added full-texts, and in **multidisciplinary regional peer-review journal portals** developed since the end of the 90's. These two are the most important contributions from the region to the open access movement, together with the introduction in Congress, in Brazil (2007) and in Argentina (2010), of a Parliament bill, still in debate, for open access legislation at national level that mandates deposit of State funded research results in digital repositories.

In the absence of commercial academic publishers, model prevailing in developed regions, free print distribution of scientific and academic publications has been the norm and the printed version has historically suffered from irregular publication and limited circulation, being in general absent from international indexes, producing low visibility of Latin America and the Caribbean science output. In this context, open access has been an opportunity to increase visibility and access, and State funds with international cooperation support have been the great enablers of open access.

In the region there has been a steady progress of regional open access initiatives that offer at no cost for authors and end users, open access to full text scholarly and scientific publications of Latin America and the Caribbean. Among others, the following stand out:

- **Multidisciplinary peer-review journal portals:** These platforms for electronic publication of scientific journals, sponsored mainly by public funds and international cooperation, make it possible for journals to have an online presence, international visibility and improve quality of editorial processes, a

¹ <http://www.unesco.org/new/en/communication-and-information/portals-and-platforms/goap/access-by-region/latin-america-and-the-caribbean/>

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requirement for being accepted in those journal portals. Today, from a total of 7.094 open access journals registered in [DOAJ](#), 18% (1.294 journals) are from Latin America and the Caribbean, of which 49% (635 journals) from Brazil. At regional level [SciELO](#) (since 1997) and [Redalyc](#) (since 2002) have developed open access peer-review journal portals, totaling over 1.000 refereed scientific and scholarly journals from the region in open access, free for authors and for users. These portals are developing bibliometric and scientometric regional indicators (and impact factor in the case of [SciELO](#)) that will complement traditional international indicators used for the evaluation of researchers from Latin America and the Caribbean. Both portals can also be searched in the [Latindex](#) harvester. There are also a few journal portals at national level (ex. in Brazil SEER), and at institutional level (ex. UNAM in México, UNA in Colombia, UChile, Univ.Costa Rica). These initiatives of regional, national and institutional journal portals, are all contributing to improve quality of editorial processes, visibility of scholarly journals edited in Latin America, and growth of adoption of free (for authors and for users) open access (ex. 60% of social science journals in the region are open access).

- **National and regional theses portals.** In digital repositories registered in [ROAR](#) and [OpenDOAR](#), the most frequent full-text content is theses deposited in university repositories, in electronic theses and dissertations repository collections ([Cyberthesis](#), [NDLTD](#)) and in national theses consortia (ex.: [Brazil](#), [Chile](#) and [Peru](#), with initial promotion by [UNESCO](#)).
- **Subject digital repositories.** In the 80's, mainly promoted by United Nations agencies and other organizations (ex. ECLAC/[CLADES](#) and [IDRC-LAC](#)), and developed with [ISIS open source software distributed by UNESCO](#) and customized by [BIREME](#), subject bibliographic networks were developed which in recent years are incorporating links to full-texts, gradually transforming them into thematic digital repositories. As examples may be mentioned, among others: health ([LILACS](#), [BVS](#)), agriculture ([AGRIS](#), [SIDALC](#)), education ([REDUC](#)), nuclear information ([INIS](#)), public management and policies ([CLAD-SIARE](#)), social sciences ([CLACSO](#)), work ([LABORDOC](#)), marine sciences ([OceanDocs](#)). Other open access initiatives have sub-regional partners, as is the case of the [Digital Library of the Caribbean](#), [MANIOC](#), Central America Link ([Enlace Centroamericano](#)) and the [Andean Digital Library](#). More recent regional open access initiatives include [Relpe](#) (education portals) and [FLACSO](#) (social sciences). The region is also participating with contents in international subject repositories that accept authors and institutions self-archiving, ex.: [arXiv.org](#) (Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance and Statistics), [E-LIS](#) (information science), [REPEC](#) (economics, 271 institutions and 1204 authors from South America), [BIOLINE](#) (includes [bioscience journals](#) from Brazil, Chile, Colombia and Venezuela), [e-revist@s](#) (Iberoamerican journals in all subjects), among others.
- And more recently, **institutional repositories**, for each institution to manage, give visibility and access to its own output. In [ROAR](#) are registered 265 digital repositories from Latin America and the Caribbean, a 10% of the

total 2.450 repositories registered. And 188 repositories from the region are registered in [OpenDOAR](#), a 9% of the total 2.085 repositories registered. Brazil (42% of repositories from the region), followed at a distance by Colombia, Mexico, Argentina, Ecuador, Venezuela, Peru and Chile, are the countries with more institutional repositories in the region. A total of 1.109.910 records are included in repositories registered from the region, of which an unknown number are still bibliographic records, not full-texts. The most frequent full-text content is theses, but in numbers journal articles are the main volume in the above-mentioned total, mainly due to full-text journal articles in more than 1.000 journals from the region included in [SciELO](#) and [Redalyc](#). Only a few developments are underway for [scientific data digital repositories](#). The great majority of repositories use open source software [DSpace](#), and a few use Cyberthesis, [Eprints](#), [Greenstone](#) and SciELO.

In [ROARMAP](#), Latin America has [11 mandates registered](#), a 4% of the 300 mandates registered in the world. At institutional level, only 3 universities (from Brazil, Colombia and Venezuela) mandate deposit, the other registered mandates are not mandatory, only general open access information policies. As mentioned before, an important contribution from the region to the international open access movement has been the introduction in Congress, in Brazil (2007) and in Argentina (2010), of proposals for open access legislation at national level that requires deposit of State funded research results in digital repositories, still in debate. As legislation and mandates that require open access to publicly funded research move forward, national and regional repositories will have significant content to build national and regional indicators of value when assessing scientific production of researchers and institutions. These new indicators will complement traditional indicators currently used, which poorly reflect scientific output from the region.

As in Europe, Latin America has recently started initiatives to integrate institutional repositories from the region. The [15 Latin American countries](#) that have created advanced research and education networks, are members of the [Latin American Cooperation of Advanced Research and Education Networks, RedCLARA](#). For open access to scientific production from Latin America, [RedCLARA](#) has submitted to the [IDB](#), the project "[Regional Strategy and Interoperability and Management Framework for a Latin American Federated Network of Institutional Scientific Documentation Repositories](#)". [RedCLARA](#) also supports [CoLaBoRa](#), a Latin America Community of Digital Libraries and Repositories. And [RedCLARA](#) has recently started cooperation with [COAR](#).

Other agencies and programs beyond Latin America that are active in the region for open access initiatives include [PKP](#) (OJS software used by 3.280 journals in the region), [INASP](#) (training support and [LAMJOL](#)), [NECOBELAC](#) (training), [FRIDA](#) (award, research), ALFA ([guidelines for repository development](#)), [IAP](#) (creation and cooperation among science academy repositories and advanced research networks in the Caribbean), among other examples of international cooperation in the region, in many cases with [UNESCO](#) sponsorship.

In Latin America there is an active community of open access advocates among librarians and scholarly communication specialists. Their opinions and experiences can be followed in lists, wikis and blogs related to open access in the region. As well as in regional open access events (ex. [BIREDIAL](#), [UNAM OA Colloquium](#), and the [open access week events](#)). Several regional declarations supporting open access have been issued in the region, ex.: [2005](#) and [2009](#).

Challenges

Although there are clear indications in the region of the existence of a favorable climate for the development of open access institutional and national repositories, it may face multiple problems that can hinder their development. Open access implies policies, funding, infrastructure and ICT availability (for authors and institutions to publish online, and for users to access contents online), methodologies, metadata, contents (including text but also multimedia, data and open education resources), the need to identify peer-reviewed contents, interoperability, training and advocacy for cultural change among stakeholders of the region who know little about open access benefits and lack knowledge about [“green” editors registered in Sherpa-RoMEO](#) concerning articles published in international journals. Open access initiatives in Latin America and the Caribbean show minimal presence in those initiatives of articles published in international journals by researchers from the region. Advances in mandates that require self-archiving in institutional repositories, anticipate that a growing number of these articles could also be available in open access repositories, but it requires negotiations. Another challenge in the region is to develop and promote the use of regional bibliometric indicators as a complement of traditional impact factor when evaluating researchers, and value quality of journals and articles, more than their belonging to the so-called “mainstream” or “peripheral” science ([Guédon, 2008](#)).

Open access initiatives in the region also require improved internet access. Latin America and the Caribbean has in average 30% of population using Internet, and 9,2% of population subscribed to broadband, but access is mainly concentrated in populated urban areas. Levels of connectivity in the Caribbean are relatively low (from 6% in many countries, to 60% in a few exceptions).

Several programs are working towards solving the problems associated with the ‘digital divide’, among them are initiatives sponsored by [RedCLARA](#), [UNESCO](#), [IAP](#), [IDRC](#) and for civil society access [APC](#) and [FUNREDES](#). As connectivity increases, greater interactivity between open access initiatives will be possible.

There is confusion about copyright issues and open access, it needs clarification and support for decision-making and policies. [Creative Commons CC](#), working together with partners in 11 countries of Latin America and the Caribbean, promotes the use of open access licenses. [CC](#) mentions that 75% of open access academic publications in Latin America do not establish open access editorial policies that regulate the use of the open access content and provide a legal

framework for use of the publications, leaving interpretations to the default legislation in each country.

Active participation in open access initiatives is needed from key institutions of the region in terms of scientific output, coupled with coordination from government research policy and funding agencies, with support from regional and international programs and cooperation, to advance open access institutional, national and regional strategies and actions that will benefit education, research and society at large in Latin America and the Caribbean.

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COUNTRY ANALYSIS

[Argentina](#) | [Bolivia](#) | [Brazil](#) | [Caribbean Countries](#) | [Chile](#) | [Colombia](#) | [Costa Rica](#) | [Cuba](#) | [Dominican Republic](#) | [Ecuador](#) | [El Salvador](#) | [Guatemala](#) | [Honduras](#) | [Mexico](#) | [Nicaragua](#) | [Panama](#) | [Paraguay](#) | [Peru](#) | [Puerto Rico](#) | [Uruguay](#) | [Venezuela](#)