Aslib Proceedings

Emerald Article: Latin American scholarly journal databases: a look back to the way forward

José Octavio Alonso-Gamboa, Jane M. Russell

Latin American scholarly journal databases: a look back to the way forward

José Octavio Alonso-Gamboa
Departamento de Bibliografía Latinoamericana, Universidad Autónoma de México (UNAM), Mexico City, Mexico, and
Jane M. Russell
Centro Universitario de Investigaciones Bibliotecológicas, Universidad Autónoma de México (UNAM), Mexico City, Mexico

Abstract

Purpose – Scholarly journals from Latin America have aspired to reach an adequate level of visibility and impact not only locally, but also in the international arena. Editors have not been alone in this endeavour, other actors in the information chain have also played their part. This article aims to examine the databases (indexing and abstracting services, directories, catalogues and electronic journal portals) produced in Latin America between 1970 and 2009.

Design/methodology/approach – The paper begins with an historical review of the relevant regional initiatives and leads up to an assessment of the present day situation by analysing the contribution made by the databases in the identification, register, visibility, access and use of Latin American scholarly journals.

Findings – The creation of Latin American databases has improved communication and knowledge on publications in the region as useful additions to the scant information provided by international sources. The recent adherence to the principles of the Open Access movement has also potentially improved the visibility and access to publications from the region.

Originality/value – This is the first study to analyse the development of Latin American databases over a period of some 40 years.

Keywords Scholarly journals, Latin America, Information services, Databases, Visibility

Paper type General review

1. Introduction

In 1996 Ana María Cetto made reference to the "ostracism" to which scientific journals published in the Latin American region are subjected[1]. By using the term, she alluded to the exclusion, voluntary or unavoidable, experienced by regional titles in the international information sources most frequently used by scientists and other scholars to anchor their work. Moreover, she argued, Latin American journals are little known and read even within their own region. The meagre presence in the international indexing and abstracting services, most particularly in the famed citation indexes from Thomson Reuters in Philadelphia, is at the centre of this debate. According to Cetto one way of reverting or at least, mitigating this situation, was to promote initiatives from within Latin America to identify and document the regional scholarly publications with a view to improving their access and use. At that time, several national and regional databases had been created but these were little known and utilised.

Aslib Proceedings: New Information Perspectives
Vol. 64 No. 1, 2012
pp. 32-45

0001-253X
DOI 10.1108/00012531211196693

In the present paper we review the evolution of scholarly journal databases produced in the region, including indexing and abstracting services, directories and catalogues of periodical publications, as well as the more recent collections of full-text journals. We begin with well-documented pioneering efforts continuing on through bibliographical compilations which gave rise to the first reference databases, to the construction of the Latindex journal directory and finally to the appearance of online libraries of full-text journals.

Our intention is to evaluate the contributions made by the different databases developed in Latin America towards better detection, register, access and use of scientific and scholary journals edited in the region.

2. Forerunner efforts

The desire to know more about scholarly journals published in Latin America is not new. From the 60s onwards at the very least, we can easily find documents expressing concern over different aspects of the prevailing situation, such as: How many scholarly journals are edited in the region? Where can we find out about them? What are their principal editorial characteristics? What indexing and abstracting services are they covered in? In what libraries are they held? Who reads them? How many are included in international services? How should we evaluate them? (Unión Panamericana y Centro de Documentación Científica y Técnica, 1962; UNESCO, Centro de Cooperación de la UNESCO para América Latina y Universidad de Puerto Rico, 1964).

One of the principal concerns initially was to know how many journals are produced in the region. To answer this question, the Centre for Scientific and Technical Documentation in Mexico edited in 1962 "The guide to scientific and technical periodicals of Latin America. An annotated list". This appears to be the first compilation, which was more or less far-reaching. The list included 950 titles, 60 per cent of which were published in only three countries: Argentina, Brazil and Mexico.

An analysis which accompanied the Guide, led to the identification of several main characteristics of the journals:

- They were difficult to locate.
- They had reduced circulation outside their home countries.
- They were poorly used by scientists, both nationally, and regionally.

Mention was made of the need to reach a wider, more global audience, through coverage in existing international indexing and abstracting services. Of the 950 titles, only 40 per cent, namely 380, were present in at least one of the 13 relevant services of the time (Unión Panamericana, 1962).

Two years later, between April and May, 1964, an important group of editors, scientists, librarians, information professionals and those from the publishing industry, the so-called "Working group for the selection of Latin American scientific journals", met in Río Piedras, Puerto Rico. They took into consideration recommendations approved during the Conference on the Organization of Scientific Research in Latin America, celebrated in Caracas in October 1960, as well as those from the Latin American Documentation Seminar, held in Lima in September 1962. This interdisciplinary group in their final report highlighted the problems surrounding the immense proliferation of scientific journals in the region and the consequent need for selection of the best through the application of appropriate evaluation methods

(UNESCO, Centro de Cooperación de la UNESCO para América Latina y Universidad de Puerto Rico, 1964).

These two occurrences reveal the interest in Latin American scholarly journals by diverse organizations at that time. In spite of this, the fact that the initiatives took place in a climate unaccustomed to making decisions on the access and use of information, meant that it was not until the 1970s that these first efforts materialised into systematic compilations of the content of Latin American journals.

3. Bibliographic compilations

As the different academic institutions and science and technology bodies became increasingly aware of the importance of information as an essential ingredient in decision making and in defining public policy, we begin to see the emergence in some countries of the region, of the first databases designed to record the content of regional journals. These were eminently bibliographic tools offering analytical records for the retrieval of information using diverse indexes, such as author, title, keyword, document type; some also included abstracts. Implementation procedures in the countries of the region followed the traditional models of the industrialised nations but not without production problems related to the high cost of telecommunications, deficient infrastructure and uneven levels of development between countries and even within regions of the same country (Brito, 1988). Other challenges had to be faced, such as the identification of the best journals, distribution costs and the need to employ specialist personnel. Even when production procedures became computer automated, distribution was principally via print material.

The databases developed at this time were edited mainly in the large public universities or by international organisations in the region with little participation from the private sector (Brito, 1988). The likelihood of remote storage and access was undermined by the high costs involved in securing online access, on top of other issues such as saturated connections and slow response times (Ainsworth, 1995-1996). Come the 80s, the dissemination of the MicroISIS software facilitated the modernisation of information systems in the region and contributed to the development of numerous information products.

The advent of CD-ROM technology, towards the end of the 1980s, opened up the possibility of reaching much wider audiences. Various regional projects were created at this time, including the CD-ROM version of LILACS (Latin American and Caribbean Health Sciences Literature) in 1988, which was to be the first Latin American database developed using this technology (Biblioteca Virtual em Saúde, n.d.). Finally, a third stage in the development of bibliographic compilations appears towards the end of the second half of the 1990s when these started to be available online, thanks to the consolidation of Internet in the region.

Database systems that assembled the content of Latin American journals were born as much by the efforts of individual institutions as from cooperation in the region. As was the case with journals, we cannot affirm a scant production of regional databases but rather a proliferation and atomisation of initiatives, as witnessed by the inventories and studies carried out in the region during the 1990s (Barberena, 1992; Alonso Gamboa and Reyna Espinosa, 1995; Ainsworth, 1995-1996).

In spite of the vicissitudes characteristic of the institutions in the region and the enormous amount of work required to create a database and keep it up-to-date, some of

pioneering efforts have survived to the present day and have even evolved. Of special note, is the contribution made by the National Autonomous University of Mexico (UNAM), and the work carried out by several of its departments, to create different initiatives such as CLASE (created in 1975); PERIÓDICA (1978); IRESIE (1979) and INFOBILA (1985). Several other smaller databases were also produced but with basically local impact.

In terms of regional cooperation, the initiative launched by the then Regional Library of Medicine (BIREME) sets itself apart in its effort to confer regional and international visibility to the scientific and technical production in health sciences from the Latin American and Caribbean area. In 1979, BIREME introduced the Index Medicus Latinoamericano (IMLA) which indexed approximately 150 journals: by doing so, the regional body sought to compensate for the poor coverage of biomedical journals from the region in specialised databases such as MEDLINE which in that same year covered only 44 of the regional titles. IMLA was the immediate forerunner of LILACS, a name adopted in 1982 and whose focus was on issues relating to public health (Biblioteca Virtual em Saúde, n.d.). Subsequently, other services were implemented as a result of regional cooperation, such was the case of the aforementioned INFOBILA. At the level of national journals, we must not leave aside the creation in 1999 of CubaCiencias by the Cuban Institute for Scientific and Technological Information (IDICT). This database is temporarily offline due to its transformation into a portal of the Cuban science[2].

Of course, other databases were created in a variety of countries nonetheless as what happened with journals, many survived only a few years and in other cases they remained as products developed only at local level with limited diffusion and use.

The substantial contribution that Latin American journal databases have made towards providing access to information from and about the region has not been achieved without meeting several important challenges. In our experience among the most frequent misgivings expressed at the time were the scant knowledge and awareness of the existence of these databases, coupled with a poor level of distribution considering the expense and time involved which often resulted in production delays. Bases were poorly used due not only to limited diffusion but also to meagre and incomplete coverage of titles. Inadequate control and standardisation of content were other drawbacks in addition to difficulties to secure financing to underpin development as most had only a limited number of subscribers.

Nonetheless, these criticisms were gradually overcome by developments such as greater coverage and visibility, particularly to those titles not included in international databases, and the listing of relevant articles prior to electronic publication. Undeniably, these databases provide us with a valuable retrospective vision, especially in the case of publications without electronic versions. Registries of publications were created at the time, which for diverse reasons are unfortunately not longer edited.

4. Inventories of journals

In spite of the existence of these databases, it was evident that resources were not forthcoming to offer a more complete panorama of Latin American scholarly publication, neither from within the region nor from outside. To paraphrase Aleixandre Benavent and Valderrama Zurián (2004) when appraising the Spanish IME database, these types of databases fell victim to the lack of sensibility with regard to

bibliographical issues on the part of those responsible for science policy and the assignation of resources in the region. However, in the mid 90s, a new wave of discussions began to take place on the future of the regional journals. In 1994 and 1997 workshops were held in Mexico during which issues were debated, such as the meagre presence of our regional scientific publications on the world stage, their limited distribution even within the region, and how little in general was known about them (Cetto and Hillerud, 1995; Cetto and Alonso, 1999).

Participants at the 1994 meeting called on national bodies responsible for science and technology to contribute to the elaboration of an inventory of scientific journals. They also called for the construction of suitable indicators for measuring the quality of regional journals, stressing the need for developing "our own evaluation criteria".

Most particularly, editors and others responsible for scientific journals were asked to increase dissemination, especially within the region. The fundamental role that Latin American journals could play was acknowledged for many reasons, among them: as essential resources for knowledge transmission and teaching; as a means of communicating new discoveries; for the popularisation of science, its history, ideas and advancement; to promote scientific discovery; as an indicator of the science produced in the region, and as a way of defining and spreading scientific vocabulary in the regional languages. The recommendations from 1994 started to crystallise when in 1995, again the UNAM, created Latindex.

A critical element was for Latindex to operate as a cooperative, regional enterprise. Experience had already shown that this type of set-up could work in Latin America. The fact that tasks were not centralised in one institution made the identification, register and updating of data easier to achieve.

From the point of view of bibliographic control, Latindex was able to assembly and integrate on one site, titles that were previously scattered over several different regional resources. This was achieved by using the archives of CLASE, PERIÓDICA and LILACS. However, Latindex coverage went much further and throughout its 15 years of existence, has recorded many more publications above and beyond those included in these collections and in some cases, even those not represented in national bibliographies.

Latindex's policy ever since then has been all-embracing with regard to what is produced in the region and from 1998 onwards also with respect to Spain and Portugal. The main requirement is that the content has to be academic in the broad sense of the term. Naturally, as with any large-scale information resource, Latindex has faced difficulties associated with the identification, register and updating of entries, problems also experienced by directories with worldwide coverage. However, in the Latin American environment these difficulties are more acute due to the particular characteristics of journal publishing in the region. While decentralised national clearinghouses do make for a closer relationship with the journals in their catchment areas, the downside is reflected in the different work rates, institutional changes and the application of distinct standards and quality controls.

In spite of these difficulties, Latindex has succeeded in amassing important fundamental data, which reveal a changing and dynamic environment in which new titles are created, mergers take place, titles change and journals are discontinued. To illustrate this, so far in this century 5,400 new titles have appeared with only 400 discontinued. As of January 2011, Latindex registered 16,606 current journals of which 12,741 were Latin American, a figure superior 11 times that for 1962.

The Directory, Latindex's first product, provides a similar entry for journals with a long tradition as it does for lesser titles; journals with wide international distribution are treated the same as those which are barely read within their own institutions; journals with impact factors, those with peer esteem, prize recipients, the same as those with only small readership.

As measure to balance the wide scope of the Directory, the Latindex Catalogue was devised to provide users with information on the content and formal aspects of journals, which satisfy editorial quality criteria. Seen in retrospect, the Catalogue in a certain way fulfills the ideal set by the Río Piedras group to establish a subgroup of quality journals. In January 2011, 4,823 titles registered in the Directory had Catalogue status, of which 3,245 (67 per cent), were from Latin America. The Latindex Catalogue list of editorial characteristics has been used as a benchmark for the incorporation of Ibero-American journals, in full-text portals, as well as by subscription agents worldwide. This is possibly the service provided by Latindex that has had the greatest impact.

5. Towards full-text

Electronic edition of scholarly journals impacted the publishing industry of the region in at least two important ways:

(1) The potential to increase the dissemination and use of our journals.

(2) A change in user attitude requiring full-text access from their computer terminals.

For journal editors, it opened up the possibility of reaching a wider audience and at the same time reducing production and distribution costs. As in the industrialised world we were witness in the region to two forms of publication: initially, electronic versions were offered of existing print journals and later on, we saw the appearance of journals available exclusively in electronic format.

In Latin America, on the one hand, electronic journals began to appear on institutional web sites that housed just one journal or a group of journals edited by the same university or organisation. On the other, we saw the materialisation of digital collections of journals (also termed portals, virtual libraries, virtual or electronic periodicals library or aggregate systems). These collections were created to offer a unique point of access to a group of journals in the same subject field or coming from the same geographic area; they shared a common methodology and were the result of inter-institutional or even international, cooperation. Almost 12 years after the start of these events in Latin America, we can appreciate that many of the journals first available in electronic format were the result of a desire to adopt a new publishing trend but without necessarily having the essential technological support and know-how. Consequently, many sites were never updated and many actually disappeared. Despite this, many initiatives matured and gained recognition; in the following paragraphs we will make reference to these.

The adoption of electronic journal publishing in the region became more evident in the late 90s. However, not all countries shared the same motivation. Some saw it primarily as a way of reducing the high costs of print publishing; this was the case of Cuba where the number of print journals diminished from 700 titles in 1989 to just 262 in 1991. Cuban editors saw electronic edition as a means of survival for their journal

production so they could continue to reach national and international audiences alike. The start of this adventure was not without problems, nonetheless, by 1998 26 Cuban medical journals were available in electronic format with back numbers to 1995, in both PDF and HTML formats (Garriga, 1999).

In Brazil, a country with a long tradition of fomenting information policies, electronic journal publication was viewed as an opportunity to increase the visibility of national titles, as well as a way to potentiate local capabilities for scientific communication. This country which edits the largest number of journals in the region, created in 1997 the SciELO project (Scientific Electronic Library Online), which with time has become one of the best known and most used, both inside and outside the region. Characteristic of the initiative is the development of a methodology centred on international standards and an intensive use of information technology (Packer, 1999). With these objectives in mind, SciELO considered journal selection essential as a first step in the development of the project. Also visualised was the creation of a bibliometric module, something that was already being called for in the region. The SciELO methodology did not distinguish between the electronic and the print versions of a journal as *bona fide* means of scientific communication.

The project rapidly extended to other countries in the region but with different levels of success. Support at the highest level of national policy allowed Chile to become the second site in the SciELO network in number of journals, issues and articles. Subsequently, other countries joined the network making a total of 15, conforming 763 titles, 19,808 issues and almost 300,000 full-text articles as of January 2011. Content includes specialised subject collections, such as proceedings or related to science and culture.

In Mexico, one of the first instances of the use of technology to distribute journals in full-text occurred in 1992 with the first edition in CD-ROM of *Artemisa* (Articles Edited in Mexico on Health Information) which contained full-text digitilised versions of articles from 12 Mexican journals (Faba Beaumont, 2000). Over the years the initiative served to encourage editors to adopt the intensive use of electronic publishing as an ideal means of potentiating visibility and use of their publications. Subsequently, other collections of full-text biomedical journals came onto the Mexican scene (Alonso Gamboa and Sánchez Islas, 2005) such that in the present century we have seen the appearance of several of these, such as Redalyc from the Autonomous University of the State of Mexico (UAEM) created in 2003 which by January 2011 had attained a total of 732 titles from 18 countries and almost 162,000 articles. Redalyc has also announced the launch of a bibliometric module and has established alliances with similar initiatives in the region such as CLACSO.

A recent study carried out at the UNAM to identify potential collections of Latin American journals suitable for inclusion in the project "Portal de Portales Latindex (PPL)" identified 27 collections and confirms that at the end of the first decade of the new century, the region (including Spain and Portugal) can lay claim to a number of journal portals with diverse add-on services which in total cover a respectable number of titles, issues and full-text articles.

Even though each portal sets its own objectives, it is clear that the main purpose is to improve access to national and regional scholarly literature through electronic journal publication and free access via Internet. Among the main features found are: collections are recent, only six of the 27 were in operation before 2000; universities

continue to play a relevant role in their construction as they have done with bibliographic databases; collections have an equal tendency to be multidisciplinary or mono-disciplinary; availability of back numbers is variable but on average these go back to 1997; journals included in the portals are generally submitted to a selection process and finally, no clearly identifiable retrospective digitalization projects are perceptible, even though various portals profess the intention to facilitate means for the digital preservation of journals. A preliminary figure indicates that some 1,700 titles are presently available on these portals with almost a million full-text articles.

6. Institutional repositories

As a way of publication, preservation and access to national scientific heritage, in many countries of the region efforts have been directed towards the construction and development of the so-called institutional repositories (IR). These normally seek to store, disseminate and give access to the scholarly production of a particular university; however, some subject-specific repositories do exist which gather scientific documents from many institutions (De Volder, 2008). IRs consist of interoperable digital archives, which allow free access to information, usually housed within the same institutions that produce them.

In countries such as ours, IRs represent a viable alternative to the commercial publishing model that endures to the present day. The source for IRs can be preprints or preliminary versions of articles that scientists have submitted for publication in non Open Access international journals but which allow preprints, or sometimes even postprints, to be deposited on IRs or personal pages. Actions such as these aid the recovery to some extent of public investment in scientific research.

The values associated with IRs are intrinsically linked to the Open Access movement, which seeks to ensure that the results of scientific research are available at no cost to the user. In our region where research is mainly funded by public money, it is seen as a way of returning the benefits to society.

Even though as yet there appears to be no consensus as to the type of documents that should be harvested by an IR (Sánchez and Melero, 2006) it is clear that entire journals or miscellaneous OA articles have their place in repositories. However, studies carried out in Mexico (Galina and Giménez, 2008) and in Argentina (De Volder, 2008) found few instances of IRs comprising full-text OA journals.

In the Registry of Open Access Repositories (http://roar.eprints.org) Ibero-America is credited with 323 repositories making up 15 per cent of the total of 2,105 as of January 2011. Brazil tops the regional list (78), followed by Spain (74), Portugal (46), Colombia (23) and Mexico (17). The top five non Ibero-American countries are the USA (363); United Kingdom (187); Germany (125); Japan (132) and Taiwan (70) indicating that Brazil occupies fifth place worldwide and Spain, sixth. In the Directory of Open Access Repositories (www.opendoar.org) Ibero-America is listed with 183 with Spain at the head (68) followed by Portugal (38), Brazil (32), Colombia, Ecuador and Mexico (14 each).

In spite of these numbers there appears not to be as yet an implicit recognition by the authorities of the national organizations of science and technology (ONCYTs) nor of the universities in the region, of the importance of constructing and maintaining IRs (Galina and Giménez, 2008). Nonetheless, the situation seems to be changing. In Brazil for instance, the construction of IRs is likely to become mandatory (Suaiden, 2009).

The development of IRs in Latin America has a far-reaching future allied to the fact that the universities and research centres which are supported by public funds, are the main knowledge producers in the region. This intellectual legacy should be circulated on the web and made available to the society which finances it (Dávila *et al.*, 2006). In this way, journals and journal content will be provided with a means of access and distribution of great social benefit.

7. The end of ostracism?

Towards the end of decade of the 1990s the mere discovery of the existence of scholarly journals from Latin American was a difficult task; specifically it was necessary to look up foreign directories (such as Ulrich's, The Serials Directory) which required a subscription and which had only poor coverage of publications from the region. In spite of the existence of regional bibliographic databases that brought together a little over 3,000 titles (Clase, Periódica, LILACS) users referred more to the less appropriate international sources. Today we might well ask if anything has changed.

The region now has, for example, a fairly comprehensive, freely available journal directory whose coverage has multiplied sevenfold in the last 12 years. In addition, it provides access to more than 3,800 full-text journals, of which just over half are found on portals with authenticated infrastructure and methodologies, with retrospective coverage on average of eight years. Similarly, the reference databases have evolved by incorporating links to full-text. Nowadays, it is also possible to find several documented experiences useful in the evaluation of print and electronic journals. Another area of progress is the development and growth of core lists of journals, which are awarded recognition and given priority when assigning subsidies, mainly by the national science councils. Countries with core journal lists are Argentina, Brazil, Colombia, Mexico and Venezuela. As far as our users are concerned, the application of selection criteria guarantees peer-reviewed content or compliance with some other evaluation procedure, independently of whether or not this is available free of charge.

Selective and improved coverage of quality local journals has meant that Latin American databases are now being used also as a source for bibliometric studies and the development of regional indicators (see for example: Michán, 2009). Studies on the behavioural characteristics of regional journals using both local and mainstream sources, has led to increased knowledge on their publication performance and impact (see for example: Collazo-Reyes *et al.*, 2008). Potential authors and policy makers now have tools available which prove essential for decision-making (For notable examples see Table I). Consequently the current scenario is clearly different from that existing before the middle of the 1990s. Today in Internet it is possible to find Latin American journals occupying different niches, in the form of bibliographic references, in lists of quality editorial criteria, through analytical summaries of published articles or via a link to full-text. Points of access appear to be on the increase, something, which has been a constant in the region for more than ten years. All this leads us to judge that certain progress has been made in terms of documentation, bibliographic control, access and use.

Nonetheless, it is possible that the number of titles available via portals is not likely to increase much in the immediate future, partly because of strict inclusion criteria but mainly due to investment costs associated with continually incorporating more titles and being able to assure users and editors of the timely availability of issues and

Name and URL	Coverage	Organization	Date of creation
Artemisa www.artemisaenlinea.org.mx/ 57 journals with 4,719 full text articles	México Public health	National Institute of Public Health (INSP)	1992
CLACSO www.biblioteca.clacso.edu.ar/ Links to full text articles and other resources (videos, researchers, etc.)	Latin America Social Sciences	Latin American Council of Social Sciences (CLACSO)	1998
CLASE clase.unam.mx 320,000 bibliographic references from 1,700 journals; 36,000 links to full text articles; bibliometric indicators	Latin America, Caribbean Social Sciences and Humanities	National University of Mexico (UNAM)	1975
Infobila cuib.unam.mx/infobila/infobila.html 17,000 records (7,040 articles plus book chapters, proceedings, theses, grey literature and other documents)	Latin America Library and Information Sciences	National University of Mexico (UNAM)	1985
IRESIE (URL see below) 66,000 bibliographic references from 780 journals. URL: www.iisue.unam.mx/seccion/bd_iresie/index.php?lg = aHR0cDovLzEzMi4yNDguMTkyLjIwMS9zZWNjaW9uL2JkX2lyZXNpZS9jb25zX2xpbmVhLnBocA = =	Latin America, Caribbean, Spain, Education, social sciences	National University of Mexico (UNAM)	1979
Latindex www.latindex.org Directory of scholarly journals (19,000 current and ceased titles), Bibliographic references, system of editorial quality criteria for journals; 3,800 links to full text articles, Portal to the Ibero-American full text and open access initiatives with access to more than 772,000 full text articles	Latin America, Caribbean, Spain and Portugal, Multidisciplinary	National University of Mexico (UNAM) plus other scholarly and governmental institutions in 18 countries	1995
LILACS lilacs.bvsalud.org/es/ 537,000 bibliographic records from 813 journals	Latin America, Caribbean Biomedicine & Health	Latin American & Caribbean Information Centre for Health Sciences (BIREME)	1982
Periódica periodica.unam.mx 330,000 bibliographic references from 1,600 journals; 72,000 links to full text articles; bibliometric indicators	Latin America, Caribbean Science, Medicine, Technology	National University of Mexico (UNAM)	1978

(*continued*)

Table I.
Current main initiatives in Latin America

Name and URL	Coverage	Organization	Date of creation
Redalyc redalyc.uaemex.mx	Latin America, Caribbean, Spain and Portugal Multidisciplinary	University of the State of Mexico (UAEM)	2003
160,000 full text articles published in 13,100 issues from 732 journals, bibliometric indicators			
SciELO www.scielo.org	Latin America, Caribbean, Spain and Portugal Multidisciplinary	Brazil: State of Sao Paulo Science Foundation (FAPESP) and the Latin America and Caribbean Centre on Health Sciences Information (BIREME) as well as national and international institutions related to scientific communication and editors in other 14 countries	1997
293,000 full text articles published in 20,000 issues from 753 journals, bibliometric indicators			

Table I.

Source: Table made by the authors with data compiled on January 10, 2011

articles. Consequently, cooperative projects have a better likelihood of success as well as mitigating duplicity of efforts.

Another phenomenon worthy of mention which we have seen evolve in this century is the apparent change in policy of some of the international commercial information services favouring an increase in the coverage of Latin American journals. An example of this is the decision taken in 2006 by Thomson Reuters, editors of the *Web of Science (WoS)* to include more regional titles. This change can be interpreted in different ways: one points to the fact that these journals are now more visible thanks to the different efforts arising from the region; alternatively, it could be due to the well-documented underrepresentation of Latin American journals in these services or finally, perhaps to the arrival in 2004 of a strong competitor to WoS and Thomson Reuters, namely *Scopus*, a citation database created by the publishers Elsevier. From the beginning, *Scopus* attracted the attention of editors, authors, scientists and librarians by the fact that it included several titles from Latin America as if making an effort to respond to the objections to WoS coming from Latin America. By the end of 2008 *Scopus* included 284 Latin American titles, almost double that of the WoS.

Commercial database services from English-speaking countries are now also developing resources based specifically on journals in Spanish and Portuguese. Companies, which before had no such product, are currently commercializing these worldwide. Some examples are: EBSCO with *Economía y Negocios*; Fuente *Académica* y *Medic Latina*; Proquest with *Prisma* and Cengage Learning with *Consulta*. OCLC (Online Computer Library Center) has incorporated CLASE and PERIÓDICA into their *FirstSearch* service from 2004 and SciELO is included in *WorldCat*. The increasing coverage of Ibero-American titles and their global exposure has undoubtedly contributed to the fact that the world-renowned journal directory *Ulrich's* has increased the number of journals included from the region, providing on their main page graphs showing the growth of journals in Spanish.

The ultimate test, in any case, would be to find out if our users, scientists, editors, information professionals and science policy bodies, consider regional journal databases to be of a similar quality and importance as their counterparts from the industrialized world. Whatever the outcome might be, our task remains clear: to strengthen the dissemination and quality of our own resources to avoid what has happened so frequently in the past that we remain unknown and unrecognised even in our home territory.

Notes

1. Interview with Ana María Cetto published in U2000 bulletin, Monday June 24, 1996.
2. IDICT, personal communication, January 2011.

References

Ainsworth, S. (1995-1996), "Redressing the balance accessing Latin American databases", *REDIAL*, Nos 6-7, pp. 107-20, available at: http://dialnet.unirioja.es/servlet/articulo?codigo=2743081 (accessed 1 June 2009).

Aleixandre Benavent, R. and Valderrama Zurián, J.C. (2004), "IME, Índice Médico Español: perspectivas y retos tras 40 años de tradición bibliográfica en ciencias de la salud (1964-2003)", *Revista General de Información y Documentación*, Vol. 14 No. 1, pp. 153-66, available at: www.ucm.es/BUCM/revistas/byd/11321873/articulos/RGID0404120153A.PDF (accessed 3 November 2008).

Alonso Gamboa, J.O. and Reyna Espinosa, F.R. (1995), "Latin American databases: an analysis in the social sciences and humanities", *Online and CDROM Review*, Vol. 19 No. 5, pp. 247-53.

Alonso Gamboa, J.O. and Sánchez Islas, L.A. (2005), "Revistas electrónicas en América Latina: un panorama general", *Revista Digital Universitaria*, Vol. 6 No. 2, available at: www.revista.unam.mx/vol.6/num2/art11/int11.htm (accessed 19 February 2009).

Barberena, E. (1992), *DIBALC. Directorio de bases de datos de América Latina y el Caribe*, UNAM, Facultad de Filosofía y Letras, Mexico City.

Biblioteca Virtual em Saúde (n.d.), available at: http://regional.bvsalud.org/php/index.php (accessed 7 April 2009).

Brito, C.J. (1988), "Disseminação de informação e a tecnologia do CD-ROM", *Ciência da Informação*, Vol. 17 No. 1, pp. 3-13.

Cetto, A.M. and Alonso, O. (1999), *Revistas Científicas en América Latina/Scientific Journals in Latin America*, ICSU, FCE, CONACYT and UNAM, Mexico City.

Cetto, A.M. and Hillerud, K.I. (1995), *Publicaciones científicas en América Latina/Scientific publications in Latin America*, ICSU, UNESCO, UNAM, AIC y FCE, Mexico City, p. 305.

Collazo-Reyes, F., Luna-Morales, M.E., Russell, J.M. and Pérez-Angón, M.A. (2008), "Publication and citation patterns of Latin American and Caribbean journals in the SCI and SSCI from 1995 to 2004", *Scientometrics*, Vol. 75 No. 1, pp. 145-61.

Dávila, J., Núñez, L.A., Sandia, B. and Torréns, R. (2006), "Los repositorios institucionales y la preservación del patrimonio intelectual académico", *Interciencia*, Vol. 31 No. 1, pp. 22-8, available at: www.scielo.org.ve/scielo.php?script=sci_arttext&pid=S0378-18442006000100006&lng=es&nrm=iso&tlng=es (accessed 10 February 2010).

De Volder, C. (2008), "Los repositorios de acceso abierto en Argentina: situación actual", *Información, cultura y sociedad*, Vol. 19, pp. 79-98, available at: www.scielo.org.ar/pdf/ics/n19/n19a05.pdf (accessed 16 February 2010).

Faba Beaumont, G. (2000), "Artemisa: una experiencia de evaluación de revistas biomédicas", in Octavio, J., Gamboa, A. and Espinosa, F.R.R. (Eds), *Las revistas científicas latinoamericanas: su difusión y acceso a través de bases de datos [CD-ROM]*, UNAM, Dirección General de Bibliotecas, Mexico City.

Galina, I. and Giménez, J. (2008), "An overview of the development of open access journals and repositories in Mexico", *Proceedings ELPUB 2008 Conference on Electronic Publishing, Toronto*, available at: http://elpub.scix.net/cgi-bin/works/Show?_id=280_elpub2008&sort=DEFAULT&search=%2ftype%3a%22normal%20paper%22&hits=151 (accessed 4 February 2010).

Garriga, N. (1999), "Las publicaciones electrónicas: una posibilidad para aumentar la visibilidad de la ciencia y la tecnología cubanas", in Cetto, A.M. and Alonso, O. (Eds), *Revistas Científicas en América Latina/Scientific Journals in Latin America*, ICSU, FCE, CONACYT and UNAM, Mexico City, pp. 72-89.

Michán, L. (2009), "Las revistas y la institucionalización de la sistemática en América Latina", *Revista Mexicana de Biodiversidad*, Vol. 80 No. 1, pp. 105-17.

Packer, A. (1999), "Hacia una metodología común para revistas electrónicas", in Cetto, A.M. and Alonso, O. (Eds), *Revistas Científicas en América Latina/Scientific Journals in Latin America*, ICSU, FCE, CONACYT y UNAM, Mexico City, pp. 105-18.

Sánchez, S. and Melero, R. (2006), *La denominación y el contenido de los Repositorios Institucionales en Acceso Abierto: base teórica para la 'Ruta Verde'*, available at: http://eprints.rclis.org/archive/00006368/01/Denominaci%C3%B3n_contenido_OA.pdf (accessed 8 February 2010).

Suaiden, E. (2009), "O crescimento da produção científica e sua visibilidade internacional", paper presented at the Congress: Quality and Impact of Ibero-American Scientific Journals, San José, October.

UNESCO, Centro de Cooperación de la UNESCO para América Latina y Universidad de Puerto Rico (1964), *Grupo de trabajo para la selección de revistas científicas latinoamericanas*, UNESCO, Universidad de Puerto Rico, Mayaguez.

Unión Panamericana y Centro de Documentación Científica y Técnica (1962), *Guía de Publicaciones Periódicas Científicas y Técnicas de América Latina*, Unión Panamericana y Centro Documentación Científica y Técnica, México City, p. 193.

Further reading

Alonso Gamboa, J.O. (1998), "Acceso a revistas latinoamericanas en Internet. Una opción a través de las bases de datos clase y periódica", *Ciência da Informação*, Vol. 27 No. 1, pp. 90-5, available at: www.scielo.br/pdf/ci/v27n1/12.pdf (accessed 16 October 2008).

Cetto, A.M. and Alonso-Gamboa, J.O. (2009), "Latindex: Hacia un portal para las revistas iberoamericanas", paper presented at the Congress: Quality and Impact of Ibero-American Scientific Journals, San José, October.

Gómez, I., Sánchez, R., Moreno, L. and Fernández, M.T. (1999), "Influence of Latin American journals coverage by international databases", *Scientometrics*, Vol. 46 No. 3, pp. 443-56.

Krauskopf, M. and Vera, M.I. (1999), "Las revistas científicas de América Latina acreditadas en el ISI", in Cetto, A.M. and Hillerud, K.I. (Eds), *Publicaciones científicas en América Latina*, ICSU, UNESCO, UNAM, AIC, FCE, Mexico City, pp. 168-76.

Rodríguez Yunta, L. (2009), "Las bases de datos documentales del CSIC en el desarrollo histórico del mercado de la información en España (desde sus antecedentes hasta 2008)", in Rodríguez Yunta, L. and Giménez Toledo, E. (Eds), *La documentación como servicio público. Estudios en homenaje a Adelaida Román*, Consejo Superior de Investigaciones Científicas, Madrid, pp. 133-74.

About the authors

José Octavio Alonso-Gamboa gained his undergraduate degree in Geography and Master in Library Science from the Universidad Nacional Autónoma de México (UNAM). He is a specialist in the content development of databases of Latin American journals and in journal evaluation, working in the Department of Latin American Bibliography at the Library Directorate of the UNAM. He is author of more than 40 contributions to specialist journals and proceedings and speaker in over 50 national and international meetings. José played a leading role in the creation and development of Latindex: Regional System for Online Information on Latin American, Caribbean, Spanish and Portuguese Scientific Journals and has been project coordinator since 2005, instrumental in the acquisition of funding from international bodies and in the organization of workshops for journal editors. José Octavio Alonso-Gamboa is the corresponding author and can be contacted at: oalonso@unam.mx

Jane M. Russell gained her undergraduate degree in Physiology and Biochemistry from the University of Southampton, and her Master's and PhD in Information Science from City University, London. Since 1997, she has been Senior Researcher at the University Centre for Library Research at the UNAM. She is lecturer and tutor of the UNAM's postgraduate programme in Library and Information Studies, graduating students at both Master's and doctoral level. Her research interests are focused on the communication, production, and impact of Latin American science. Jane is author of two books, over 40 articles in national and mainstream journals and more than 30 in proceedings publications. She is editorial committee member of five international journals, instrumental in the organization of international meetings on the quantitative and qualitative study of science and technology and active member of the International Society for Scientometrics and Informetrics.