

INFOBILA: A regional repository to support LIS education and research in Latin America

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Abstract:

The need of having access to publications in Library and Information Science (LIS) generated in Latin America, has been present at the Institute of Research on Library Science and Information [Instituto de Investigaciones Bibliotecológicas y de la Información, IIBI] of the National Autonomous University of Mexico [Universidad Nacional Autónoma de México, UNAM], since its creation in 1981 like University Center of Research in Library Science [Centro Universitario de Investigaciones Bibliotecológicas, CUIB]. This fact was the reason to build INFOBILA (Información Bibliotecológica Latinoamericana [Latin American Library Science Information), a database that compiles, disseminates and accesses the LIS literature published in Latin America. On the other hand, technology has today facilitated the creation of institutional repositories and IIBI could not ignore this new model of scientific communication and dissemination of academic publications, therefore, it developed an Open Access (OA) institutional repository that includes more than 2,000 publications of different types (books, book chapters, articles, published papers and theses and dissertations). This repository opens the possibility for INFOBILA to evolve from a database with bibliographic information, to a LIS regional repository. Taking into consideration all the above mentioned, the objective of this document is to show the antecedents and main characteristics of this project, as well as its impact on LIS education and research in Latin America.

Keywords: LIS education; LIS databases; OA publications; Latin America cooperation.

The need of having access to publications in Library and Information Science (LIS) generated in Latin America, has been present at the Institute of Research on Library Science

and Information [*Instituto de Investigaciones Bibliotecológicas y de la Información, IIBI*] of the National Autonomous University of Mexico [*Universidad Nacional Autónoma de México, UNAM*], since its creation in 1981 like University Center of Research on Library Science [*Centro Universitario de Investigaciones Bibliotecológicas, CUIB*]. Certainly, for carrying out research about local and regional issues in libraries and information, and to support library education in the region, it was necessary to have access to publications generated in Latin America, which were not indexed in international databases. This was the reason for the creation of INFOBILA, a database capable of compiling, disseminating and having access to the literature published in our discipline in Latin America, which over time, became the central axis of a cooperation network to support LIS research and education.

On the other hand, technology has nowadays facilitated the creation of institutional repositories, and the IIBI could not ignore this new model of scientific communication and dissemination of academic publications, therefore, it has now developed an institutional repository, with more than 2,000 Open Access (OA) publications of different types (books, book chapters, articles, published papers, dissertations, and theses).

This repository opens up the possibility for INFOBILA to evolve from a database with only bibliographic information to a LIS regional repository; where OA publications can be accessed without restriction, except those dealing with the recognition and respect of copyright, as well as the corresponding author citation. Undoubtedly, the fact that the LIS professors and researchers would be able to access the full text of the publications generated in Latin America, will have a great impact on LIS research in the region. Moreover, LIS professors from this region would identify common issues reported in that publications, which would support development of a common curriculum addressing similar problematics in Latin America. Additionally, if the students of LIS schools can access the full-text publications, this will contribute to the strengthening of professional training. Taking the foregoing into account, the purpose of this document is to show the antecedents and main characteristics of this project, as well as its impact on LIS education and research in Latin America.

Emergence and development of INFOBILA

The emergence of INFOBILA is closely linked to the need of having access to different types of LIS literature published in Latin America. The direct antecedent of the current IIBI is the University Center for Library Science Research (CUIB), created in 1981. CUIB sought to develop research to support the solution of different regional problems regarding libraries and information, for that, it was necessary to have publications generated in the region, which were not indexed in international databases. For that reason, in 1985, the INFOBILA project was created with the objective of developing a database of LIS publications in Latin America (Barquet Téllez, Naumis Peña and Romero Tejada, 1997, 4, CUIB 1985, 8), in order to support CUIB research and as a source of information for professionals and professors interested in this subject.

About the importance of INFOBILA, it was stated in 1987 that: "Latin American Information and Librarianship... is a data bank whose purpose is to provide access to the relevant information contained in Latin American materials in the areas of Library Science, Information, Archivology and other related topics. The materials included are: monographs, newspapers articles, conference proceedings, monograph chapters, brochures and working

documents... So far there are more than 1,000 records, and for all interested institutions to use INFOBILA information, it is offered in lists or diskettes... This service will be complemented consulting the document or in its case the photocopy of it" (Barquet Téllez, 1987, 65).

In the 1980s, the databases did not offer network access, nor to more than one user simultaneously. That's why they sometimes were called personal databases. This forced to have copies of INFOBILA on diskettes, in order to offer its consultation to more people. Likewise, the need of having a photocopy of the documents emerged in a context where the technologies at hand did not allow the generation of scanned documents, nor having them available on the network; however, it began the development what we might call a repository, stored in a documents file.

This documents file, derived from INFOBILA, it was constituted by materials with diverse characteristics, by both its format as its content, since a great amount were newspaper cuttings, magazines or bulletins, besides the photocopies of articles. It also consisted of photographs, programs of academic events, unpublished papers, flyers or loose sheets, among other materials. The organization of this documents archive was done by the CUIB staff and a committee generated guidelines and supervised the adequate development of the database. Derived from this work, a Latin American Thesaurus in Library and Information Science was developed in 1999.

After its creation, INFOBILA began to rapidly increase its content and arouse great interest among various institutions in Latin America. In this regard, in 1987 it was observed that: "numerous requests have been received both from the CUIB researchers and from external users, and this service has even been extended to other countries in our region" (CUIB 1987, 48). The user who identified a document of interest after consulting the database, requested a copy of it, and it was sent to him or her by mail. Later on, it was sent via fax.

The purpose of INFOBILA as a tool that allowed collect and disseminate LIS literature approaching diverse topics, published in Latin America, was achieved over the years, and transformed INFOBILA from a local project to a regional cooperation network, through the support received from the International Federation of Library Associations and Institutions (IFLA), the OAS and Unesco, among other organizations (Ramírez Leyva, 2005, 410-413). From that time to our days, there has been collaboration agreements with various institutions in Latin America engaged in LIS activities.

In 1992, with the support of IFLA, it was held the meeting "Present and Future of INFOBILA", whose objective was the transformation of INFOBILA into a regional cooperation project. To this meeting attended representatives of institutions from Brazil, Colombia, Costa Rica, Cuba, Chile, Mexico and Peru, and they formalized proposals and recommendations for developing a comprehensive LIS database for Latin America and the Caribbean (Barquet Téllez, Naumis Peña and Romero Tejeda, 1997, 5-6).

In 1995 took place the "2nd. Meeting of the INFOBILA Regional Cooperation Network Project" under the auspices of the OAS and IFLA. This was attended by representatives of institutions from Argentina, Brazil, Colombia, Costa Rica, Cuba, Chile, Mexico, Peru, Puerto Rico and Venezuela. Its objective was: "to consolidate INFOBILA as a regional cooperation project; to establish guidelines for bibliographic control; and to analyze and evaluate the literature produced in and about the region." In this meeting the MARC format was adopted for the exchange of information (Barquet Téllez, Naumis Peña and Romero Tejeda, 1997, 7).

A third meeting of INFOBILA cooperating institutions was held in 1998, with the purpose of evaluating the progress of the Regional Cooperation Network (CUIB, 1998, 7). And in 2005, with the support of IFLA, the academic event "INFOBILA as support for LIS Research and Education" was held, attending LIS research centers and schools from the region. There were approached the establishment of agreements and cooperation actions for the transformation of INFOBILA into a digital library. During this meeting, it was considered that this digital library would be an appropriate support for the online LIS graduate program, planned to start at UNAM in February 2006 (CUIB, 2005, 39).

At the beginning of this century, INFOBILA had been consolidated as a very useful source of LIS information from Latin America, receiving comments such as that: "INFOBILA plays an important role as long as it serves as an integrating element for the discipline in the region. It can also become a model for other disciplines, since the organization and systematization of knowledge to make it accessible to scholars is a universal necessity" (Córdoba, 2001, 3).

In 2004 INFOBILA already had around 16,000 records and had begun to incorporate the first full-text documents, including 188 of them (CUIB, 2004, 17). The types of materials comprised in INFOBILA were at that time: "journal articles, papers presented at congresses and other professional meetings, monographs, theses, book chapters and original unpublished documents," from the following countries: "Argentina, Brazil, Colombia, Costa Rica, Cuba, Chile, Ecuador, Spain, Guatemala, Honduras, Jamaica, Mexico, Panama, Puerto Rico, El Salvador, Nicaragua, Peru, Paraguay, Dominican Republic, Uruguay and Venezuela" (Martínez and Calva 2005, x).

During the following years, full texts of the publications continued being incorporated into INFOBILA records, particularly those published by the CUIB. In 2007, the following was mentioned: "has begun the work on the digitization project of the books published by the CUIB; this will contribute to the transformation of INFOBILA into a digital library of the discipline to support research carried out in other institutions, both in the country and abroad, as well as the online LIS graduated program and the recently created online undergraduate program in the discipline "(CUIB, 2007, 47).

Obviously, INFOBILA had been consolidated as a source of first order to locate the LIS publications from the region, and therefore received acknowledgments in that sense: "At the present time, INFOBILA is a referential database available on "Internet" being its URL: <http://cuib.unam.mx/infobila/indice.html>. It contains Library and Archival information that facilitates access to knowledge, and it is free, so that all information professionals can access it with the purpose of improving the scientific work of the Library and Archival fields in Latin American region" (Barquero Cerdas and Loaiza Sequeira, 2008, 4).

This way, INFOBILA was positioned as an important LIS resource, since it had rich referential information, and the facilities the technological development began to offer, would make possible its evolution to a LIS Latin American Digital; however, the massive digitization of the resources registered in INFOBILA, as well as copyright corresponding to authors and institutions that had generated the publications stored in it, prevented to fully achieve this objective. Nevertheless, access to full text of publications continued being incorporated, which generated a lot of expectations.

Publications in Open Access (OA)

OA is an international movement that arises with the purpose of promoting free access to the information and to the products of scientific research, particularly those generated with public resources. It promotes that academic publications and products would be freely consulted by academic communities without legal or economic barriers, with the exception of those inherent to copyright.

By the very nature of the IIBI, OA could not be foreign, nor technology use in the dissemination and access of its publications. Therefore, starting the year 2000, the journal of this institution “*Investigación Bibliotecológica*” [Library Science Research], which is included in the Web of Science, began to be published both in print and digital format. Likewise, a digitization project of articles from previous issues was initiated. In this way, as of 2009, all volumes and issues of “*Investigación Bibliotecológica*” from its first issue of 2006, were available in digital format, and could be consulted in OA by researchers and professors from different countries (CUIB 2009, 33).

Also, the creation within the CUIB portal of a special site for “*Investigación Bibliotecológica*” was an important aspect for its OA articles. As of 2011, “*Investigación Bibliotecológica*” articles were published in both PDF and HTML format and placed on its portal (UNAM, 2011, 3).

Starting in 2017, “*Investigación Bibliotecológica*” operates in the Open Journal System (OJS) and there are DOI identifiers for all its articles, to facilitate access to them. In addition, its content is available in a portal with responsive design that allows reading it on mobile devices.

Additionally, as of 2005, the CUIB established the policy of publishing its books, both in digital and printed formats. And in 2008, the publication of books in both printed and electronic format was formalized, developing within the CUIB portal, a site for including these and their corresponding chapters, being available in both PDF and HTML format (UNAM 2008, 6). Since 2016, they are also offered in ePUB format. The number of OA book downloads has been increasing. In 2013, 38,679 downloads in PDF format were reported and 8,349 in HTML format (UNAM 2013, 3-4). In 2016, the number of downloads was increased to 99,758 books and 49,405 book chapters (UNAM, 2015, 3).

Another type of publications of great importance for the IIBI are the dissertations and theses advised by academics of this institution, whose participation is remarkable. 95% of the IIBI researchers have participated as advisors in the UNAM Graduate LIS Program. It is important to point out that a requirement for obtaining his or her degree, UNAM students have to deposited within TESIUNAM in digital format their dissertation or thesis in OA within the database TESIUNAM. This database is administered by the UNAM General Direction for Libraries, and includes more than 500,000 records of dissertations and theses submitted to UNAM schools for obtaining doctor and master degrees, as well as in other cases the bachelor degree, according to the UNAM education system , Over 300,000 dissertations and theses are in OA (<http://oreon.dgbiblio.unam.mx/F?RN=713099940>).

IIBI-UNAM Repository

As mentioned above, until 2017 the IIBI had three important sources of LIS resources in OA, the portal of books and book chapters published since 2006, the portal of “*Investigación Bibliotecológica*”, and TESIUNAM database. However, for retrieving all existing resources of a particular author or subject, it was necessary to carry out independent searches in these three sources. Therefore, it was necessary to have a platform including the content of these three sources, and thus facilitate retrieval of all LIS publication types, which led to development of the IIBI-UNAM Repository

A repository is a set of services offered by the university to members of its community, for accessing digital materials created by members of that community (Lynch, 2003, 2). For that reason, the purpose of the IIBI-UNAM repository was to compile, organize and facilitate OA to books, book chapters, and articles of “*Investigación Bibliotecológica*”, published by members of this academic community, as well as the dissertations and theses advised by them, to increase dissemination and access of CUIB publications.

In the IIBI-UNAM Repository, are currently included more than 2,000 OA resources, with an initial content of 496 articles from “*Investigación Bibliotecológica*”; 150 books published by the IIBI from 2005 to 2017; 996 book chapters corresponding to those books; 359 master's theses, and 61 doctoral dissertations in Library Science and Information Studies.

The IIBI-UNAM repository was developed in DSpace, version 6.3. It was decided to use this software for being the most used in the development of repositories. The 43% of repositories included in the Directory of Open Access Repositories, DOAR (<http://www.openoar.org>), use DSpace.

Regarding the metadata schema used, it is important to point out that was decided to use the "Dublin Core" (DC), since is one of the most used for organizing information resources included in them. Likewise, it is important to mention the basic DC metadata schema was adapted and extended to another one, responding to needs of IIBI publications.

The aspects mentioned above make the IIBI-UNAM Repository a source with capability of interoperability for sharing records and resources with other OA repositories and information sources.

INFOBILA Current Status and Prospective

As it has been mentioned before, the collaboration of several countries in Latin America has made possible the integration of INFOBILA as a database with information of LIS publications generated in the Region. Since its creation, INFOBILA has become one of the most important sources to support LIS research and education in Latin American countries. Currently, INFOBILA includes records of more than 18,000 information resources of which approximately 7,500 are in digital format. As it has been mentioned before, the types of resources registered in INFOBILA are books, articles, book chapters, as well as others corresponding to the so-called "grey literature", all of them published in different countries of Latin America. On the other hand, currently there is the IIBI-UNAM Repository, which includes more than 2000 resources in OA, corresponding to the books published by the IIBI,

the chapters of these, the articles published in the journal "*Investigación Bibliotecológica*", as well as the LIS doctoral dissertations and master theses submitted at UNAM.

Considering the richness and importance of LIS resources included in these two sources, the INFOBILA Repository has begun to be developed, which at the present time contain approximately 10,000 LIS resources in OA published in Latin America. Undoubtedly, it will be very useful for LIS researchers, professors and students from this region. In addition to the information resources of the aforementioned sources, INFOBILA Repository has begun to incorporate the bachelor theses presented at the LIS School of UNAM, approximately 1,000 resources. Likewise, an agreement has been established with the Mexican Library Association [*Asociación Mexicana de Bibliotecarios, A. C.*, AMBAC) to include in INFOBILA Repository the papers published in proceedings of its annual meeting, called *Jornadas Mexicanas de Biblioteconomía* [Mexican Meeting on Librarianship]. Additionally, diverse agreements will be established with other LIS schools and associations from Latin America, to include their resources generated in OA and placed in local repositories or databases.

One of the main challenges for INFOBILA will be the incorporation of resources of which only there are descriptive records. Obviously, this will imply a work for digitalization of resources that were not published in digital format, but also, obtaining permission from the persons or institutions that own the copyright of such resources. Likewise, other challenge will be the records transfer from INFOBILA database to the INFOBILA Repository, since in the first source it was used MARC format and in the second one the Dublin Core scheme was adopted. There will be a great work for metadata harmonization.

Final Considerations

INFOBILA is a project of great importance for the LIS development in Latin America, which was sponsored on several occasions by the International Federation of Library Associations (IFLA), the OAS, and Unesco, among other organizations.

Certainly, INFOBILA has the potential to become an OA repository for LIS publications generated in Latin America; however, this represents a series of challenges such as the harmonization and transference of metadata used in different sources, as well as the review and categorization of different types of publications that will conform it, which also will lead to a process of selection. Additionally, another challenge will be the establishment of policies and procedures for its updating and constant feeding of content by participant institutions.

Finally, it is important to point out that a project with the magnitude of this new stage of INFOBILA cannot be carried out by only one institution. Instead, it requires the participation of the entire LIS community from Latin America. This community is currently facing an opportunity offered by information and communication technologies to share scholarly publications, which cannot be wasted. Access and use of OA publications would support to Latin American LIS students for improving their assignments, projects and individual learning. Likewise, contribution to the creation of a LIS Regional Repository in OA can help to provide LIS scholars from Latin American countries with the opportunity to access publications addressing similar problematics in this region, which would be useful as teaching aids or for supporting further collaborative research. Moreover, it is important to

point out that an OA LIS repository will contribute to the global LIS community, particularly to the Spanish speaking which is worldwide growing.

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