OPEN ACCESS: DEVELOPMENTS & EXPERIENCES IN LATIN AMERICA

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ABSTRACT

The paper examines the basic issues and developments of Open Access. The initiatives of Latin America related to the Open Access movement are widely reflected in the paper without full annotations thereof.

KEYWORDS

Open Access; Open Access-Latin America; Open Access-Landmarks

INTRODUCTION

The Open Access philosophy has became an invaluable tool for guaranteeing free access to information in a Knowledge driven Society deeply marked by digital divides, copyright barriers and new forms of information illiteracy. Information has the power to improve development, to provide solutions to urgent problems, to recover identities from oblivion, to assert rights and values, and to help personal and professional growth. In short, information is a key element in the achievement of the social welfare that any people deserve. On the one hand, when information is freely accessed, using new digital technologies and copyright laws in a way that is justified and appropriate, Open Access movement guarantees equality of opportunities to access strategic knowledge, which is within everybody's rights. Besides, Open Access also guarantees the freedom of expression and

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fosters the cooperative and active creation of healthy democratic societies. The following paragraphs are,therefore, intended as a general description of these fundamental concepts and an outline to the main initiatives and best practices on Open Access with special reference to Latin America.

OPEN ACCESS

The Open Access movement, also known as Open-Access Publishing or Free Online Scholarship, is an international attempt to guarantee free access to the greatest variety of updated information sources, especially academic ones. It is a joint effort that seeks to access cultural and scientific resources without payment or restrictions of any sort.

Open Access tries to eliminate access barriers, especially economic ones. The kind of literature that should remain free is the one provided by researchers with no profit motive in mind, including peer-review articles in print as well as pre-prints without peer-review that need to be made available on-line for scientific community assessment and dissemination of new findings.

Open Access means the availability of free texts on the public Internet, which can be searched, read, downloaded, copied, spread, printed, linked, browsed, indexed, turned into software data and used without technical, legal or financial barriers. Such availability carries with it the authors permission for spreading their work free but with due acknowledgement. Open Access consists of two complementary strategies intended to attain such purpose in a skilful way:

Self-archiving: It is as set of tools and technical assistance that allows each author to self-store their documents in Electronic Open Archives. These archives or repositories -which usually meet OAI standards- allow

readers to have free access to the documents and to download full texts. On many occasions, these archives assume the form of a Digital Library; however, it should be noticed that not all Digital Libraries provide open access documents.

OA Journals: These Publications allow readers to access their contents without asking them for any subscription fees. They collect money for paying costs from other sources such as foundations and governments, universitiesandlaboratories,donations,marketing,researcher'scontributios, etc. They are intended to widespread knowledge eradicating economic barriers.

The copyright holder play important role to control· over his work, assuring at least the right to be acknowledged and quoted. The general principle of OA requires that authors guarantee everybody has a right to access, download, copy and redistribute their works. However, it also entails recognizing their authorship, not allowing readers to modify those works or to reproduce them in great numbers. It is permitted to print a small number of copies for personal use and to show the work in a public place. Both the static nature of the article (contents cannot be modified) and the clearly specified authorship, help guarantee author's responsibility, something very important in academic publications.

At this point the fact should be highlighted that OA materials are subject to a detailed quality control. Both OA archives and journals have recognized editorial boards to deal with peer-review processes, choose articles and organize metadata to be accessed in a proper and coherent way. Therefore, there is no lack in their potential quality and the publication remains within an academic and professional frame of reference.

OPEN ACCESS: DEVELOPMENT

The OA movement coincided with the incipient development of new technological possibilities that took place in the international electronic networks. The first milestone was the launching of ArXiv (http://www.arxiv.org, August, 1991) whose author, Paul Ginsparg, defined it as a system of automatic distribution for research papers without publishing operations associated with peer-review. These first "Free Scientific On-line Archives" -as they were named at the beginning- were simple scientific article collections that authors stored for being freely accessed before sending them to specialized journals that might publish them after their assessment.

At the same time, many researchers started, regardless of one another, to facilitate pre-prints (pre-publishing versions) of their papers in their personal web pages. This way, long before their edition, those texts were made available –in a format not yet definite- for their reading; professionals could update their knowledge and access the most recent researches within their discipline, and authors could receive readers' critiques and opinions before sending the text to the publisher. This attempt to liberate knowledge was a revolutionary system that sooner rather than later would win innumerable advocates, especially in the field of the so-called "hard" sciences.

Its ongoing development put a new complexion on the situation and in 1992, the ARL (Association of Research Libraries, United States, http://www.arl.org), through SPARC (Scholarly Publishing & Academic Resources Coalition, http://www.arl.org/sparc) called the first meeting to discuss the matter: Scholarly Publishing on the Electronic Networks: Visions and Opportunities in Not-to-Profit Publishing. The urgent need for detailed study of the question proved that OA enjoyed great prestige

and increased the number of users exponentially. In 1993, CERN (http://public.web.cern.ch/Public/Welcome.html) announced that anyoe could use World Wide Web technologies free of charge. In 1994, Stevan Harnad suggested the idea of self-archiving with a completely original newarticle *"Asubversiveproposal"*(http://www.arl.org/scomm/subversive/sub01.html). In the text the author collected ArXiv initiative and developed such proposal for use in different fields of knowledge. Three years later, Harnad launched CogPrints (http://cogprints.org), the first open store of research articles in areas such as Psychology, Neurosciences, Linguistic and Philosophy. In 1997, MEDLINE (a service offered since 1966 by the United States National Library of Medicine)turnedintoOAthroughtheprogram'PubMed'(http://www.ncbi.nlm.nih.gov/entrez).

From 1998 onwards, several editorial boards broke off with their establishment headquarters and begun to launch their own OA journals, supported by SPARC and its *"Independence Declaration"*. At the same time, delegates from the Public Health Information System of Latin AmericaandtheCaribbean(BIREME,http://www.bvs.br/bvs/E/ehome.ht) wrotetheSanJoseDeclaration(http://www.bireme.br/bvs/por/edeclar.htm). Later, this organization also founded the Health Virtual Library (BVS in Spanish)andcreatedSciELO(ScientificElectronicLibraryOnline),(http://www.biremeb/por/edeclar.htm), a service commonly known as the *"Spanish PubMed"*.

The urgent need for technical developments that supported this ideological movement fostered the appearance of the Open Archives Initiative (OAI, http://www.openarchives.org) in 1999. This new plan – which developed gradually- gave rise to a system of standards, protocols and metadata agreed by consensus, that allowed archive and publishing

systems within OA modality to communicate to one another and exchange information.

Also in 1999, the United States National Institute of Health created *E-Biomed* and shortly afterwards PubMed Central was announced (February, 2000). On the part of UNESCO, it issued the Declaration on Science and the Use of Scientific Knowledge, which added an institutional framework to the OA movement. In 2000 the first OA initiativestartedfromtheprivatesector,BioMedCentral(http://www.biomed central.com),waspresented,whichatpresentholds a great deal of medical journals that can be freely accessed. The system implies a fee on the part of every author that wants to have an article published.

In 2001 PLoS (Public Library of Science, http://www.plos.org) was launched and more than 25.000 prominent scientists signed a letter where they stated their commitment to publish only in OA journals. At the same time it issued the Declaration of Havana Towards Equitable Access to Health Information (http://brmg.bireme.br/crics5/I/declara.htm) that placed emphasis on the urgent need of freeing the bio-medical knowledge from the control of a small group of the world population, since it consists of strategic information for human welfare that should not be constrained by a few.

In February, 2002, BOAI was created(http://www.soros.org/openaccess), an open access initiative from Budapest. In April, 2003, at the Bethesda Meeting on OA Publishing, the meaning of "Open Access publications" was stated. Shortly afterwards, in October, the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (http://www.ceic.math.ca/Information/berlin_declaration.pdf) was signed and most European scientific institutions promised to adopt the OA model, encouraging scientists to publish their works in such modality.

In July, 2004, the Science & Technology Committee of the British House of Commons published a report that strongly recommended that the research carried out with public funding should be available under OA conditions.

In September, 2005, during the International Seminar on Open Access (in parallel with the IX World Conference on Public Health and Libraries, http://www.icml9.org), it was signed the Declaration of Salvador de Bahia on Open Access, that encouraged the international scientific community to guarantee Open Access, to foster OA journals, to promote the inclusion of knowledge from developing countries in a global environment, and to insist on governments setting free the information got from research done with public funding. Presently, the matter of discussion is one of the scheduled events at the World Summit on the Information Society (http://www.itu.int/wsis) and at several national and international conferences dealing not only with Information Studies and Librarianship, but also with the disciplines where knowledge use and management are essential for development and growth.

OPEN ACCESS IN LATIN AMERICA

Latin America has access to the main international OA initiatives, which gives professionals the opportunity and freedom to download documents regarding a wide range of updated areas of knowledge. The best known general websites are DOAJ (Directory of Open Access Journals, http://www.doaj.org). Eprints (http://www.eprints.org), intended to foster OA developments, where can be highlighted library documents archive, E-LIS), Free Full Text (with 7000 academic journals, http://www.freefulltext.com), Highwire Press (to some extent but not completely OA newspaper and periodicals library, around 1000 titles,

organized by the University of Stanford, http://highwire.stanford.edu), OAISTER (designed by the University of Michigan with 3 million publications somehow difficult to find in other repositories, http://oaister.umdl.umich.edu/o/oaister) and PNAS (Proceedings of the National Academy of Sciences of USA, http://www.pnas.org). Likewise, there are OA sites that are specialized in a particular subject matter, such as ChemWeb (Chemistry, http://chemweb.tradepub.com) or RePeC (325.000 documents on economics, http://ideas.uqam.ca), to name just a few.

Among the great deal of disciplines with OA proposals, Medicine and Public Health have shown that it is feasible to reach the highest levels of diffusion through this particular way of accessing knowledge. This encourages professionals to seek theoretical and practical information that may help them meet the critical situations faced day after day. In both areas, the most popular sites, together with the above mentioned PubMed and MEDLINE, are Free Medical Journals (1460 publications, http://www.freemedicaljournals.com),Guías Clínicas(linkstoexperimental guidelines supported by convincing evidence, free accessed through http://www.guideline.gov), HINARI (http://www.healthinternetwork.org /scipub.php) and Cochrane Library (http://cochrane.bireme.br).

The problem with all these sites in Latin America is the language: they are written is English, a sort of "lingua franca" in professional circles worldwide. This feature –present in the entire WWW universe- can turn into a serious obstacle, difficult to overcome by many Latin-Americans that only speak the national languages of their region (Spanish, Portuguese, Guaraní, Quechua, Aymara). In addition, their local reality uses to be poorly reflected in the contents of such sites. Hence, encouraging regional approaches that bring together particular features

and reflect interesting qualities and the typical nature of this part of the continent represents a great challenge: it might allow readers to access the knowledge in their national languages and facilitate the spread of studies carried out by local professionals.

PURELY OPEN ACCESS

Among the most interesting proposals that have been established in Latin America, special mention deserves the Biblioteca Digital Andina (Andean Digital Library, documents focused on the region, biodiversity, indigenouslanguages,Andeancultureandintegrationpolicies,http://www.co munidadandina.org/bda/home_biblio.htm),Cybertesis (electronic thesis from international universities, arranged by the University of Chile, http://www.cybertesis.net), REVICIEN (Spanish Scientific Journals on Web including 13 different subject matters, http://www.revicien.net) and RedALyC (Scientific Journals from Latin America, the Caribbean, Spain and Portugal, Web supported by the National Autonomous University of Mexico, http://redalyc.uaemex.mx).

 Librarianship and Information Studies can be quoted one more the effort made by E-LIS (with editorial board members from all countries of Latin America, http://eprints.rclis.org) and by DoIS (13.000 OA articles, http://wotan.liu.edu/dois), which facilitates excellent material concerning the different tasks performed by professionals dealing with knowledge management. In the field of Public Health the most ambitious project, used and recognized, is the already mentioned Biblioteca Virtual de Salud(BVS,HealthVirtualLibrary,http://www.bireme.br/bvs/E/ehome.ht m), an initiative developed by BIREME (Public Health Information System of Latin America and the Caribbean), OPS (Pan-American Health Organization) and WHO. Working as a digital library, it is

organized according to country sections (some of them still under construction). One of the most important elements of this library –also arranged by country sections- is the model of electronic publication SciELO (Scientific Electronic Library Online, http://www.scielo.org), which stores scientific publications of very good quality following OA model.

SciELO permits to access full texts of prestigious regional publications, removing the barriers that make it difficult to get strategic information in geographical areas where such knowledge has an extremely practical value.

Within these Hispano American sites, it is essential to point out a project that is still being developed: the Latin American Open Archives Portal (LAOAP-LANIC,http://lanic.utexas.edu/project/laoap/indexesp.html), intended to collect and spread regional grey literature according to O A standards.

DIGITAL LIBRARIES

In addition, Digital Libraries have experienced a significant increase in number in the recent years. Many of them are simple digital resources indexed to facilitate the encounter with users and filter out digital documents on the Web whose poor quality is not suitable for their readers. Even if this task is of great value, Digital Libraries not always respond to OA model. However, a number of them are connected with a state institution to fully access many texts.

In the field of Science and Technology, some of the most interesting designs are presented by the Biblioteca Digital del Sistema Tecnológico de Monterrey (Monterrey Technological System · Digital Library, Mexico, http://biblioteca.itesm.mx), the Biblioteca de Referencia en

Ciência & Tecnologia (Reference Library on Science and Technology, Brazil, http://www.prossiga.br/referencia) and the Biblioteca Virtual del Ministerio de Ciencia y Tecnología (Ministry of Science and Technology Virtual Library, Costa Rica,http://www.micit.go.cr/biblioteca/index.htm). In more general cultural spheres, the worth mentioning are the Biblioteca Digital de la Fundación Germán Sánchez Ruipérez (Germán Sánchez RuipérezFoundationDigitalLibrary,Spain,http://www.fundaciongsr.es/do cumentos/frames.htm), the Biblioteca Virtual Miguel de Cervantes (MigueldeCervantesVirtualLibrary,Spain,http://cervantesvirtual.com/ind ex.shtml) and Librodot (http://www.librodot.com). All of them have put in the users hands a series of digital works.

DIGITAL LIBRARIES IN HIGHER EDUCATION

Latin American digital libraries also focus on education matters. The following initiatives attract great attention: works by the Instituto de Innovação Educacional del Ministério da Educação (Institute of Educational Innovation belonging to the Ministry of Education, Portugal, http://www.iie.min-edu.pt/biblioteca/index.htm), CREFALDigitalLibrary (Mexico, http://www.crefal.edu.mx/biblioteca_digital), the OREALC / UNESCODigitalLibrary(Chile,http://www.unesco.cl/esp/biblio/index.ac, Biblioteca Virtual de Educação (Education Virtual Library, Brazil,http://bve.cibec.inep.gov.br), the Biblioteca Virtual de Educação à Distância(OffsiteEducationVirtualLibrary,Brazil,http://www.prossiga.br/ edistancia), Biblioteca Digital del Instituto de Estudios Avanzados de las Américas (OEA, Institute of the Americas Advanced Studies Digital Library,http://www.educoas.org/portal/es/ineam/bib_ineam.aspx?culture =es&navid=21, Biblioteca Virtual del Instituto Educativo (Educational InstituteDigitalLibrary,Argentina,http://www.terras.edu.ar/biblioteca.asp)

Biblioteca Virtual do Estudante Brasileiro (Brazilian Student Virtual Library, http://www.bibvirt.futuro.usp.br), Centro de Documentaçáo del Portal Observatório Latino-Americano de Políticas Educacionais (Documentation Center of Latin American Observatory of Educational PoliciesPortal,Brazil,http://www.lppuerj.net/olped/centro_documentos_o nline.asp), Centro de Información sobre la Educación Superior (High Education Information Center, Mexico, http://www.anuies.mx), Consejo Nacional de Acreditación del Ministerio de Educación (Accreditation National Council belonging to the Ministry of Education, Colombia, http://www.cna.gov.co),IESALCEtextos(Etexts,Venezuela,http://www.ie salc.unesco.org.ve), Programa de Promoción de la Reforma Educativa en América Latina y el Caribe (Promotion Program of Education Reform in Latin America and the Caribbean, http://www.preal.cl/) and Red Latinoamericana de Información y Documentación en Educación (Latin American Web on Education Information and Documentation, http://www.reduc.cl/homereduc.nsf/?Open). All of them, in one way or other, follow OA model and offer a vast diversity of documents that can be freely accessed, downloaded and used.

Brazilian and Mexican digital libraries stand first for their number and same holds good with official documentation centers that offer full information. Within the latter can be highlighted the following: Biblioteca Virtual del Ministerio de Economía (Ministry of Economy Digital Library, Argentina, http://cdi.mecon.gov.ar/biblio.htm),Biblioteca de la Universidad Sergio Arboleda (Sergio Arboleda University Library, Colombia, http://www.usergioarboleda.edu.cobiblioteca/ index.htm), BibliotecaDigitaldelCongresodePerú(PeruCongressLibrary,http://www.c ongreso.gob.pe/biblio/digital.htm),BibliotaPúblicaDigital(DigitalPublicL ibrary,Argentina,http://www.educ.ar/educar/superior/biblioteca_digital),

BibliotecaVirtual(VirtualLibrary,Brazil,http://www.bibliotecavirtual.org. br), Biblioteca Virtual de Ciências Sociais (Social Sciences Virtual Labrary, Brazil, http://www.prossiga.br/csociais/pacc), Biblioteca Virtual de la Biblioteca Luis Angel Arango (Virtual section of the Luis Angel Arango Library, Colombia, http://www.lablaa.org:8088/compass), Biblioteca Virtual de Ciencias Sociales de América Latina y el Caribe (Latin America and the Caribbean Social Sciences Virtual Library, http://www.clacso.org/wwwclacso/espanol/html/biblioteca/fbiblioteca.ht ml), Biblioteca Virtual Universal (Universal Virtual Library, Argentina, http://www.biblioteca.org.ar/catalogo.asp), and the virtual sections of both the Fundação Biblioteca Nacional (National Library Foundation, Brazil, http://www.bn.br) and the Sistema de Bibliotecas de la Universidad Católica de Valparaíso (Catholic University of Valparaiso Libraries System, Chile, http://biblioteca.ucv.cl).

Finally, the virtual library project is being developed by the UNESCO in collaboration with several regional bodies in Latin America and the Caribbean.The initiative, is known as Biblioteca DigitalLatinoamericana y Caribeña (BD-LC, Latin American and Caribbean Digital Library http://193.146.129.47:8080/bdic) which aims to store and diffuse OA materials, using a Z.3959 server and the latest electronic information management standards. In the first phase only the National Libraries will be involved, however, it is expected that other units will join the project at later stages.

CONCLUSION

Open Access is not only a set of tools and technologies that make it easier to use this good: it is a philosophy as well. We are talking about a particular way of thinking, about a humanist movement that expresses

the need for removing the barriers built by just a few hands –editors, companies, databases- that prevent knowledge from being freely accessed by everyone.

Besides facing the logic rejection on the part of those who have always economically benefited from others' needs, OA also meets a much more subtle difficulty. Its own nature, history and growth have put it in a position of entire dependence on technological developments: computers, virtual communication webs, databases. These means are not as widely spread in our societies as it might be thought, not even in the so-called "developed". There is a huge digital divide acknowledged by the highest education authorities through the length and breath of the planet.

The divide causes a new form of illiteracy, known as "information illiteracy": people without computing education, not knowing how to carry out a thorough search of information, not knowing very much about the Internet or not having access to the World Wide Web. Hence, at this point, we need to make ourselves aware of the following questions: for whom is "open" the so-called Open Access? Is it "open" to everybody or only to a few that have the resources to do it?