

RELIEVE: Twenty years immersed in the chronology of Open Access

[*RELIEVE: Veinte años inmersos en la cronología del acceso abierto a
la ciencia*]

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Abstract

Coinciding with the first 20 years of RELIEVE, this article presents a comparative analysis of the historical milestones of the journal and the worldwide Open Access movement, in order to better frame its evolution. We review some of the principal contributions made in the field of scientific communication during these two decades: the appearance and development of electronic journals, the development of the Open Access movement, the appearance of repositories, the development of platforms to manage articles, new databases, etc.

Keywords

Open science open access, journals, repositories

Resumen

Coincidiendo con los 20 primeros años de RELIEVE, se presenta un análisis comparativo de los principales hitos históricos de la revista y los del movimiento de Acceso Abierto en todo el mundo, a fin de enmarcar mejor su evolución. Se revisan algunas de las principales aportaciones que se han vivido en estas dos décadas en el campo de la comunicación científica: aparición y desarrollo de revistas electrónicas, desarrollo del movimiento del Acceso Abierto, aparición de repositorios, desarrollo de plataformas de gestión de artículos, nuevas bases de datos, etc.

Descriptores

Ciencia abierta, acceso abierto, revistas, repositorios.

F. Javier Tejedor (1995), the first editor of RELIEVE, wrote in the first issue with the occasion of its birth:

“this new publication is born with two basic aims:

- a) Expand the capacity that is now available in AIDIPE in order to establish a scientific exchange among all parties interested in educational research and evaluation, within the international community, above all researcher from Latin American countries.
- b) To promote the exchange of information about educational research and evaluation”

The exchange, communication, collaboration, opening of borders, and research dissemination are implied facets in these two objectives. These are more easily attainable from the philosophy of open access to science, the principle in which *RELIEVE* has grown. In this sense, this article will go through the milestones from the last twenty years since the creation of the journal in context and in parallel with those that have been relevant in the development of the open access movement, in terms of statements, initiatives, and related projects.

As pointed out by the director of this journal in the previous issue (Aliaga, 2014), the

journal, *RELIEVE*, was a pioneer in electronic publication, taking in to account the small number of online journals that existed in 1995. In the *Open Access Directory* (OAD), there is a section for open access journals born before 1995, specifically those created between 1987 and 1993. Some of those are not alive, but there are others that are still in active publication. Among those, I would like to mention the following examples both for the relevance of their founders and for their relation with open access and also for their affinity with *RELIEVE* scope:

- *New Horizons in Adult Education* (1987-). This is one of the first electronic journals. Although this journal was first published by the Syracuse University Kellogg Project, it is now published by Wiley. Nowadays it is not an open access journal, but authors can pay the cost of publication and make openly available their articles. Therefore, this is now a hybrid journal, furthermore, you could not access back issues published when the journal was open access unless you were a subscriber. The motives for this change are unknown.
- *Education Policy Analysis Archives* (1993-). This journal was born open access, and continues being it. The journal uses OJS (open Journal System) for the editorial management and publication. Their archives are freely accessible from the first issue.
- *Psycology* (1989-2002). Stevan Harnad was the creator and editor for the duration of this journal's publication. For anyone that knows anything about the *open access* movement, he or she will know that Stevan Harnad is one of the fathers and archivangelists of open access.
- *Surfaces* (1991-1997). Its first director was Jean-Claude Guédon, a professor at the University of Montreal. Like his colleague, Stevan Harnad, Jean-Claude Guédon is also a recognized person to

open access since its beginning. In fact, Guédon and Harnad both participated in the drafting and diffusion of the *Budapest Open Access Initiative* (2002).

Another event worth mentioning occurred during the first years of the '90's, was the birth of the ArXiv thematic repository (developed by Paul Ginsparg in 1991). Originally, its name was *xxx* and was hosted in Los Alamos National Laboratory in the United States (currently at Cornell University). In 1999, the name was changed to ArXiv. It was initially conceived as a digital repository for pre-print versions of papers in the area of physics. However, with time, the repository began to incorporate works from other fields such as astronomy, mathematics, information technology, nonlinear science, quantitative biology, and most recently, statistics. This repository has favored the culture for openness between scientific communities and groups in these previously stated disciplines. Therefore, the literature about the open access advantage and the increase of the impact of these scientific publications serve as a model to support this assertion. Moreover, not only is this a repository to host, distribute and preserve digital pieces, it is also a place where its users can post a review or a critique before the work is submit for publication. This option serves as an *open peer review*.

Another relevant fact occurred in 1994 ('administrative birth of *RELIEVE*') was the launch of the Human Genome Project (1990-2003) contents in open access. This way, anyone was able to look at any of the project's results in which they had interest. This, without a doubt, has been one the most internationally collaborative projects of all time. Open access to the research results avoided duplication and reduced efforts due to sharing knowledge.

The year 1997 was especially important with regards to the development of the following projects: *Scielo*, *PubMed*, *CogPrints*, and *Repec*. Scielo is a portal of open access journals and was encouraged by the FASEP and

BIREME foundations. The other three subject repositories are in the fields of medicine, cognitive sciences and economics. Although each one has its own objectives, all of them have one idea in common, the idea of open science. *SciELO* was developed in Brazil, but it extends to all of the Iberoamerican countries. There has also been a recent creation of *SciELO in South Africa* in order to increase the access and quality of the journals from this region. *SciELO* has also made an agreement with Thomson-Reuters in order to create the *SciELO Citation Index*. Similarly, the database has also made a deal with the Chinese Academy of Science in order to create the *Chinese Science Citation Database*. *SciELO* is an international example of how open access to its journals contribute to increase their visibility and relevance among the international scientific community.

One characteristic between data and service providers under the umbrella of the *open access* is that they need to be interoperable in order to harvest, export, and import the metadata of their items. This means the use of a common protocol, in this case the OAI-PMH, of which the [first version](#) appeared in 1999. The *Open Journal System* (OJS) conforms also to this protocol and this allows transfer of metadata between journals and repositories because of that one of the applications between OJS and the repositories transfers metadata without the need to reintroduce information.

In 2001, when RELIEVE moved to the University of Valencia, the founders of the *Public Library of Science (PLOS)* published an [open letter](#) to the public asking for the published record of research and scholarly discourse in medicine and the life sciences to be in a freely accessible, fully searchable, interlinked form. The letter was signed by around 34,000 researchers from all over the world. This initiative was a preamble to the [Declaration of Budapest](#) in February of 2002 the first time the concept of open access was defined:

“By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.”

In the same year it was announced the creation of the platforms DSpace (MIT and Hewlett Packard), CDSware (today Invenio created by CERN) for implementing repositories, and it was launched one of the first institutional repositories, the *Southampton eprints* repository, implemented on Eprints, software developed by this university. These three *open source* platforms along with Eprints constitute the most used in creating institutional repositories.

In 2002 MIT also presented a pilot to run 50 courses created with their software, [Open Courseware](#) (OCW), which has been thoroughly utilized internationally as a software for the creation educational resources platforms.

Another remarkable project in 2002 was the announcement of the first version of the *Creative Commons* (CC) licenses (currently they are on version 4.0). The CC licenses permit a simple form of assigning permission for users to reuse items in terms determined by the copyright holder. There are six CC licenses, among them licence CC-By (acknowledgment) comply with all the terms defining open access according to the Declaration of Budapest. Another important fact in this year was the creation of first version of the Open Journal System (OJS). Nowadays this system is the

most used to implement non-commercial electronic open access journals.

In 2003 RELIEVE requested to be included in the [Directory of Open Access Journals](#), in practically the same year that the Directory publicly announced their portal with nearly 300 journals, currently it lists more than 10,000 journals. In June 2003, it was announced the Declaration of Bethesda about open access to publications, and in October 2003 it was published the [Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities](#) which gathers the principles of the previous ones and defines an open access contribution as one that has to satisfy two conditions.

- 1 The author(s) and right holder(s) of such contributions grant(s) to all users a free, irrevocable, worldwide, right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship (community standards, will continue to provide the mechanism for enforcement of proper attribution and responsible use of the published work, as they do now), as well as the right to make small numbers of printed copies for their personal use.
- 2 A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in an appropriate standard electronic format is deposited (and thus published) in at least one online repository using suitable technical standards (such as the Open Archive definitions) that is supported and maintained by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving.

The Berlin Declaration also includes within “those contributions” research data, metadata, graphic materials, and multimedia materials, among others. This means that open access is not restricted to research papers and recognized the importance of the underlying research data, the primary data, those that the European Program H2020 devotes their pilot plan to.

Following the parallelism between the evolution of RELIEVE and the international Open Access Movement, in 2004 the journal entered in the Latindex catalogue, and the OECD published the [principles and guidelines in favor of open access to research from projects funded with public sources](#). The objective of these principles is to encourage international cooperation between groups in order to boost economic growth and incentive for innovation as a route to sustainable development.

In 2007, RELIEVE reached more than half a million views and endorsed the Declaration of Budapest. In this year there were two facts that marked the course of research in Europe with respect to open access. The [European Research Council](#) published their policy on open access to publications from projects funded by the ERC. And the European Commission also outlined its guidelines with respect to its open access policy pilot for the Seventh Frame Program. The pilot affected twenty percent of the funds dedicated to the research projects, subjected to a mandate to make open access available publications resulting from research funded by the [Commission](#). In this same year, the Ministry of Culture announced its [first call in order to finance the creation of repositories](#).

In 2008, RELIEVE received the [seal of quality from FECYT](#). This year also coincided with the announcement of numerous institutional open access policies, like the ones of the Fine Arts and the Law Schools, both from Harvard University. With this as a model, many other American universities would do the same. In this year, the autonomous government of Madrid publish a call for funding research

projects with clauses that included for the first time, the mandate for open access, and it also created the portal *e-ciencia*.

In 2009, RELIEVE was accepted by [Scopus](#) and included in its data bases. It was also celebrated the first international open access week, that from 2011 onwards, it is taking place at the last full week of October each year. In this year Peter Suber, Director of the Harvard Open Access Project and Research Fellow at the Berkman Center for Internet and Society, announced the ongoing project Open Access Tracking Project that “uses social tagging to capture new OA developments comprehensively and in real time”. This project gave rise to the Open Access Directory (*OAD*).

Another relevant event occurred in 2009, [Elinor Ostrom](#) shared with Oliver Williamson the [Nobel Memorial Prize in Economic Sciences](#) for her analysis of economic governance, especially [the commons](#). In this sense, Knowledge is conceived as a common good that belongs to the humans, therefore a right that should not be restricted by economic or any other barriers.

In 2011 RELIEVE entered into the [European Reference Index for the Humanities \(ERIH\)](#) of the *European Science Foundation*. In the same year, Spain passed the Science and Innovation law, in which article 37, talks about open access:

“Article 37: Open Access dissemination

1. The public agents of the Spanish System of Science, Technology, and Innovation will drive the development of repositories, owned or shared, to allow open access to the publications, and establish systems to allow interoperability with similar initiatives nationally and internationally.
2. Those researchers, whose research activity is mainly financed with funds from the State Budget will make openly available a copy of the authors revised version of papers accepted for

publication in serials or periodicals, as soon as possible, but no later than twelve months after the official date of publication.

3. The electronic version will be published in open access repositories recognized in the field of knowledge which has developed research or institutional open access repositories.
4. The public electronic version may be used by the government in its evaluation processes.
5. The Ministry of Science and Innovation will facilitate a centralized access to the repositories, and connection to similar national and international initiatives.
6. The above is without prejudice to the agreements under which authors have transferred some rights to third parties, and does not apply when the rights on the results of the research activity, development and innovation are eligible for protection”.

In 2012, when RELIEVE reached one million views, it was celebrated the tenth anniversary of the Declaration of Budapest, in which it continued to support the principles of the original Declaration and made some recommendations in order to continue advancing in open access to science. The [recommendations](#) are grouped into four parts: policies, licenses, infrastructure, and the promotion of open access [and published under the title “Towards Open Access by Default”. Open access becomes increasingly more established between the academic and research institutions, likewise among funders.](#)

I will conclude by pointing out the guidelines established in 2012 by the European Commission for Horizon 2020 (H2020) with respect to the open access to publications from European projects, if, in the 7FP was an a pilot for seven disciplines, the mandate in the H2020 covers all research areas. [What is new in H2020 is the requirement to deposit data research](#)

underlying publications in the following disciplines:

“Future and Emerging Technologies; Research infrastructures – part e-Infrastructures; Leadership in enabling and industrial technologies – Information and Communication Technologies; Societal Challenge: Secure, Clean and Efficient Energy – part Smart cities and communities; Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – except raw materials; Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies; Science with and for Society”.

Although the mandate affects the mentioned areas of knowledge, deposits of primary data in other fields can be done on a voluntary basis. In the case of a motive related to confidentiality, security, privacy, or simply because projects does not generate data, one may request an exemption of compliance to the mandate from the Commission.

In conclusion, because of the anniversary of RELIEVE, I have intended to combine its milestones with others from the open access movement to science, however there are much more that the mentioned along this manuscript, you may find an extended chronology from the 1970's up to the present in the *Open Access Directory* ([Open Access Timeline](#)).

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