

# Revista ELectrónica de Investigación y EValuación Educativa

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# CURRENT TENDENCIES IN THE PUBLICATION OF ELECTRONIC JOURNALS: A NEW STAGE IN RELIEVE

(Tendencias actuales en la edición de revistas electrónicas: nueva etapa en RELIEVE)

by

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#### **Abstract**

The evolution of the Electronic Journal of Educational Research and Evaluation (RELIEVE) is reviewed, from their creation to now. The characteristics and tendencies of the Electronic Journals are analyzed. Modifications to RELIEVE journal are suggested.

#### **Keywords**

Scholarly Journals; Electronic Journals; Electronic Publishing; Information Dissemination; Internet; Primary Sources; Users (Information)

#### Resumen

Se revisa la evolución de la Revista Electrónica de Investigación y Evaluación Educativa (RELIEVE) desde su nacimiento. Se analizan igualmente las características y tendencias de las revistas electrónicas. Se sugieren algunas modificaciones para RELIEVE.

#### **Descriptores**

Revistas académicas; Revistas Electrónicas; Edición Electrónica; Comunicación de la Información; Internet; Fuentes Primarias

#### **Presentation**

The Electronic Journal of Educational Research, Assessment and Evaluation (RELIEVE) was born in the year 1994 as a sample of an impulse to cover a double field of growing development. On one hand, that which makes reference to the necessity of growth of some interest fields of great social impact and great academic interest: the evaluation in the field of education and educational research of quality, that which is habitually translated in the *gemmation* of other previously existent publications and the rising birth of new academic publications (Good, 2001). On the other hand, the use of a

new means of expression and diffusion, call to have an enormous weight in the patterns of scientific communication: publication in Internet.

Just over half a decade later, in September of 2001, the spanish <u>Interuniversitary Association of Pedagogic Research (AIDIPE)</u>, institution sponsor of RELIEVE, has decided to open a new stage naming a new team directive that picks up the RELIEVE of the founders, Francisco Javier Tejedor (director) and Gregorio Rodríguez (executive director), and give a new drive to this publication. We want to express our gratefulness and admiration for

the seminal work that these colleagues (with the help of some others) have carried out, facilitating the development and consolidation of RE-LIEVE like a journal of quality and prestige in the field of educational.

Upon outlining the new task that has been entrusted to us, we have wanted to start with the analysis of the main tendencies that are affecting academic publications, especially electronic journals.

#### **Evolution of Electronic Journals**

We can date the first babblings of electronic journals to the end of the 1970's, although still in a practically experimental way (Turoff and Hiltz, 1982).

Following the historical landmarks outlined by Harrassowitz (2000) the first electronic journal *New Horizons in Adult Education* was born in 1987, made in format ASCII with a diffusion exclusively through BITNET, one of the first nets that later on would be displaced by the Internet (Aliaga and Suárez, 1995).

Other journals that marked important landmarks in the birth of electronic journals were Online Journal of Current Clinical Trials (an academic, exclusively peer-reviewed electronic journal was born in 1992) or The Cronicle of Higher Education (Turner, 1997), a journal already classic (it was published in hard copy) that began to develop its experimental electronic version in 1991 (restricted to the net of the University of the South of California. It didn't spread to all subscribers until 1995). As we can verify, there is a great initiative from fundamentally humanistic fields and from applied social sciences - particularly education -, more than the involvement by technological fields, as maybe it had been more logical to wait. In the study of Harter and Kim (1996) they found that the academic area that had produced more electronic journals was education, continued by literature, mathematics, library science and the "sciences of the computers." It is a similar pattern to that which happened in Spain (Aliaga, González Such and Bo, 1999) in that the first steps of the technological development that were led by the educational field:

the first web page was developed by Adell and Bellver, of the Department of Education at the Universidad Jaime I, or the first electronic journal, RELIEVE (Rodríguez, 1999), in which we are composing these lines, was developed by the educational field.

A technological change, the introduction of the World Wide Web that quickly substituted the gopher, favored the diffusion of Internet. The easiness of wide use amplified the potential audience very quickly, and it favored the implication of numerous editorial projects in the use of the net. However, this was a gradual process, although of rapid growth. In this way, Roes (1994) revised the panorama of electronic journals on the net in the year in which RELIEVE was founded and could only find 39 academic periodic publications that completed the basic approach of quality of using peer revision. Two years later, and probably like a good sample of the dynamism in this sector, Harter and Kim (1996) found in the first semester of that year a total of 77 academic journals in the net and Hitchcock, Carr and Hall (1996) found 115 soon after. Mogge (1997) lists more than 1000 academic electronic journals. Rodríguez (1999) makes reference to more than 7.000 electronic journals.

We find ourselves, like we have just seen, before an authentic explosion in the quantity of electronic journals that yield to diverse motives:

A) An answer of the companies to the denominated "editorial crisis": the increase in number of titles and the growing costs of academic journals (much higher than inflation) caused that the different institutions dedicated to research and teaching had to spend more money each year to achieve a smaller proportion of those that are published in scientific journals. The answer outlined by the big editorials to favor the reduction of costs has previously been the desktop publishing of already existent journals. It is that which Smith (1999) has denominated the pattern or path from the commercial editorials.

B) Model from the users (Smith, 1999): there exist diverse indications that we find ourselves before an real process of insurrection among wide groups of researchers that are against the role that big editorials play in the distribution of scientific knowledge. It is considered that such companies are superfluous, when not directly harmful, notably increasing the price of the product without adding practically anything to the process. In fact, the real producers of scientific knowledge, the researchers, lose all control over their works, even giving away the copyright on the work itself in a completely gratuitous way. In exchange, they only obtain an access, every time more expensive and limited, to the academic publications. As a reaction, associations have appeared without attention to lucre such as the Public Library of Science that promotes the creation of gratuitous virtual libraries or the boycott of journals that after a certain amount of time don't put the published material at the free disposition of the readers (Foster, 2001). The emergence of a great number of electronic journals, more easily managed (because they don't require printing or distribution) published and supported by the very investigators (or by diverse academic instances in which they meet) is another means of confronting the problem. Other more radical proposals (Smith, 1999) also outline a new model, that of Deconstructed Journals, in which there would be no need for an editor figure, since the system would work with the contributions of the different authors. Nadasdy (1997) names this new model Interactive edition and based on it has created the Electronic Journal of Cognitive and Brain *Sciences*, an electronic journal that functions without editors.

On the other hand, the certain advantages that electronic journals offer over hard copies have played a certain role in their quick installation. Among these advantages, according to Rodríguez (1999) we can cite:

- a. They are cheaper to produce
- b. More quickly distributed

- c. They have greater diffusion
- d. They are more exact and well written.
- e. More easily read
- f. More easily stored.
- g. More easily managed

### **Publication of Electronic Journals:** current state

In the current moment of electronic journal development, we meet with diverse tendencies that should be analyzed.

In the first place, there is an enormous, and surprising, number of new electronic journals that are practically identical to the old printed journals (Roberts, 1999). These new editorial proposals, to our understanding, do not contribute practically anything to the already existent journals, except dispersion of efforts. It is a well-known fact (Price, 1963) that the enormous increment of specialized academic publications impedes that any author, for as specialized in his topic of interest as he may be, can revise all that is published. A study carried out in North American journals (that have a wider diffusion and greater impact) for Lesk (1997) showed that 48% of social science articles published in 1984 had not been mentioned a single time in the following ten years, a percentage that rose to 93% in the humanities fields. If we add to that process still more complexity, even a greater quantity of titles, we are hindering the localization of the valuable contributions.

A second emergent tendency is the growing impact of electronic journals in their respective academic fields. That is to say, not all the new electronic journals are "straw", but rather there is a lot of "grain." Fasmine and Yu (2000) affirm that "in comparison to five years ago, several gratuitous electronic journals now exist with a significant impact in their respective fields". The very *Institute of Scientific Information* of Garfield, the sancta santorum of the quantification and the concept of the impact of the journals, has included in their *Journal Citation Reports* several of these electronic journals. Harter

(1998) carried out a study on the impact of electronic journals and found that a significant number of them (a fifth of them, almost all gratuitous) had a high impact factor in their respective fields, with a percentile of more than 70. Fosmie and Yu (2000) also found high impact levels in electronic academic journals.

The growing ease of use (availability 24 hours a day and 365 days of the year, accessibility from any computer - from a personal office, without displacements -, search facilities, etc.) and the wide diffusion of computer nets to the near entirety of researchers (something very far from the existent panorama hardly five or ten years ago) are favoring greater impact. There are data that show (Mercer, 2000) a much larger use of electronic journals than that of the respective versions in hard copy.

In the Spanish case, they are many cases of researchers that have been positively valued by the National Assessment Commission of Research Activity (CNEAI) and have contributed works published in electronic journals. Unfortunately the secrecy with which this institution still works, so far from the scientific ideal of publicity for debate and constructive criticism, prevents the specification about the specific valuation of each journal, at least in the field 7 (that of Social Sciences, Politics, of Behavior and of Education).

A third clearly established tendency in the case of electronic journals is that of including processes of *added value* to the mere publication of articles (Okerson, 1997; Hunter, 1997). Among these options it is necessary to mention:

- Interactivity: contrary to the printed publication, Internet allows interaction with the available information, with people related with it, and to do it by diverse means:
  - a. With the content of the text: The readers can make comments on the article that will appear at their side. In this way one can develop ideas, formulate doubts that will be solved by later research, or make criticisms that can improve future designs. The authors also have the possibility to upgrade or to revise their writ-

- ings, since a digital article is not necessarily as stable as a printed form (Hunter, 1997).
- b. With the original data: The restults shown are not only available to the author of the research, but rather the original data can be at the readers' disposition (for example, a file of data in format SPSS) with which it is possible to increase confidence in the obtained results, facilitate replication, save costs the most expensive part of research is, probably, that which leads to the collection of data that can be reused by other researchers -, etc. (Smith, 1994).
- c. With the author: It is a common practice to include the authors' email addresses, facilitating almost immediate access in which the reader can make suggestions, doubts, ideas or to request from them complementary information.
- d. With the editor: The readers can simultaneously become reviewers of the article that they read. More than as a substitute it has to do with a new version of peer revision, the *open peer commentary* (Okerson, 1997) that includes a process that can be considered more democratic, although it also has its own problems (Nadasdy, 1997).
- Wealth of formats: The diverse procedures to show the wanted information range from diverse formats based fundamentally on the text (html, pdf) to formats of images (gif, jpg, png), of audio (wav, mp3, midi), of video (mpeg) or even of virtual reality (vrml), to programming (java, perl, etc.) of interactive processes (formulas, graphics, etc.) what facilitates new presentation forms with multimedia possibilities. Also, the texts can be presented in versions of several languages which favors diffusion and the impact of the works (Okerson, 1997). Moreover, information can be integrated coming from other means (lists of specialized distribution, etc.)

- Information sources: The ease of adding links that direct to other web pages of interest on the same topic transforms an article into a potential source of information for people interested in a certain topic. A section can even be created to include later publications that mention each article, with which one can even get a following of the topic (Hunter, 1997). Alert services can also be established (generally through email) that inform the user of the appearance of new articles in the journal in a general way as for specific topics, starting from previously established profiles for the user. Also, the integration of the texts in diverse search engines facilitates its use. The purpose is to conceive the new electronic journals as a system of information, an research tool, more than a simple publication, which is to say, to aspire to have users, not only readers (Wheary and Schutz, 1997).
- <u>Search ease</u>: One can search for articles on varied topics in a wide diversity ways: databases (even complete text), charts of contents (indexes) for topics, for authors, for date,...).
- Greater speed in the edition process: The time that the classic edition process of articles requires (that includes the successive rounds of revision-correction, formatting of text, correction of proofs, printing and the distribution) is excessively long and delays the diffusion of knowledge (Wheary and Schutz, 1997). Our personal experience is that the process can last up to one year, something comprehensible given the complexity of the process, but difficultly acceptable in environments of rapid change and/or obsolescence, as can be that of new technologies. The use of email and the web are habitual in the edition of electronic journals (in fact, they usually substitute for other more classic methods), what allows for a remarkable reduction of time.
- <u>Detailed quantification of the diffusion</u>: (number of accesses or *hits*) of each individual article as a new measure, continually up-to-date, of their impact. The use of

- counters of visits to web pages in those that house articles allows for another type of utilities, like creating listings of the most visited articles (*top 10*) which makes possible the identification of lines of work of social interest, quality articles, etc.
- <u>Flexibility in their structure</u>: The very dynamism that facilitates publication in Internet favors the rigid structure of sections that characterize a printed journal but it is not necessarily applicable to an electronic journal. Some sections can appear on time that in later issues, when interest no longer exists, can disappear. Neither is it necessary for them to maintain the same fixed sections throughout all the issues. It is evident that very general categories as for example "research" articles will be present in a practically continuous way. Other more particular ones can, and they probably should, have a more flexible treatment.
- Changes in the agreements of copyright surrender: The ease of diffusion and the copying of materials published on the Internet, as well as the changes before outlined in the balance between commercial editorials and editions from the very users (Smith, 1999) have caused diverse debates in the topic of the *copyright*. The classic surrender of rights from the author to the editorial is being gradually substituted by a process in which author and editor share such rights, governed by some basic norms (to mention the original publication, fundamentally) and allowing the simultaneous diffusion by other means (or in other web pages) with informative ends.
- To dilute the notion of periodicity of the publication: Desktop publishing allows greater flexibility in the processing of the materials to be publishled. In the first place, it is not necessary to publish an entire issue of the journal simultaneously, but rather they can appear as they are accepted (Legentil-gallant, 2000), always in the period of publication of each issue. This provides a greater speed in the publication of articles, besides making of the journals

somewhat alive and not only bookcase material. On the other hand, the already published articles are not set in stone, but rather can be upgraded, revised or corrected after being published (Wheary and Schutz, 1997), indicating the date of the modification. This outlines a new notion of the evolutionary version of the texts (Legentil-gallant, 2000). It is evident that this new conception of texts collides with the tradition of the referral or mentioning of *petrified* works. However, we must keep in mind that knowledge is an extremely changing process, that which allows other less rigid mechanisms for its diffusion. It is a change of mentality that must soak gradually into the academic community, but that is already in progress thanks to the possibilities offered by the Internet.

Upon receiving the responsibility of driving a new stage of the Electronic Journal of Educational Research, Assessment and Evaluation (RELIEVE), we have acquired the commitment of continuing to maintain this publication (and therefore to AIDIPE, the association that sponsors it) among the pioneers in academic electronic publication, particularly in the educational field. We know that the bar is set very high, but we are aware that this is a continuous process that is necessary to be pursued without rest.

With that purpose we seek to introduce changes to RELIEVE that help to consolidate it, even more, as a help tool for researchers and educational professionals. In order that it is useful we must wager in exchange for quality, as much in its contents as in its services. We aspire to do so through implementing the most current tendencies that we have just presented in the future changes of RELIEVE.

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