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DATABASES AND QUALITY OF SCIENTIFIC JOURNALS: THE CONTRIBUTION OF LATINDEX

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— *Abstract* —

Databases and scientific journals have had a long-term relationship expressed in the processes of registration, dissemination and access to scientific information. Through them, publishers have known and adopted a series of editorial quality criteria for their journals. This article deals with the relation between databases and journal quality, particularly the experience of the Latindex information system in Latin America. It also presents the new proposal of quality criteria that Latindex has designed for online journals, which is based on standards and best practices. The contribution to the quality of journals is addressed and a mention is made about the perception of some degree of uniformity in the adoption of quality standards and the tendency to have more formal criteria, as well as its evaluation against other types of indicators. Finally, it is advised on the need to make more transparent the editorial work aimed at reinforcing the perception of quality in open access publication.

Keywords

Databases, scientific and scholarly journals, quality criteria, visibility, standardization, Open Access, Latinamerica, Latindex.

The scientific journal has completed 350 years of existence. Since its appearance in 1665, its transcendence as a mechanism for the dissemination of scientific knowledge has been consolidated and has been widely recognized. Throughout its development it has undergone several transformations: its specialization, along with the emergence of new scientific fields; Its standardization, facilitating the continuous enrichment of its presentation and contents, as well as the transfer and dissemination of scientific information; Its marketing, which resulted in a powerful industry valued at some \$ 25 billion dollars in science, technology and medicine alone (Ware and Mabe: 2015) and its technological transformation, largely impacted by the emergence of the Internet which prompted the emergence of online journals, marking a before and after in its long history. But perhaps one of the most singular characteristics has been its accelerated expansion and growth. Born in Europe, the journal was adopted in America and other latitudes of the world, being credited as the most effective means of communication to disseminate science, although with marked differences in its valuation, transcendence and impact.

The specialization of the scientific disciplines was undoubtedly one of the triggers in the increase of the number of published titles and articles, a situation perceived since the mid-nineteenth century. In order to facilitate access to this growing amount of information, the so-called bibliographic indexes emerged, which main objective was to register and disseminate the greatest number of published articles (Castro: 2011). The incorporation of technology- markedly the use of computers- gradually transformed the old indices printed in modern databases that were consolidated during the second half of the twentieth century and which, like scientific journals, are part of the information industry driven by developed countries. Since then, these information systems have exceeded their original objectives of disseminating and giving organized access to the contents of the journals, since they now offer services and very different aggregated values, and also serve as a sieve to establish differences between the many existing publications through the application of selection processes based on the quality of the journals and their contents.

The process of including a journal in a database has led to a long relationship between publishers of databases and publishers of journals. One of the substantive aspects that define this relationship is given through the evaluation of what is published. The selection process is perceived as an indispensable requirement in view of the increase in the number of new scientific publications around the world, a phenomenon that particularly detonated during the second half of the 20th century when there was a sustained growth of 3.8% per year (Mabe and Amin : 2001) and which was

surpassed during the first years of the 21st century when it reached an increase of between 8 and 9% per year, which is equivalent to a doubling of world scientific production every nine years or more (Bornmann & Mutz: 2015).

This sustained increase, which does not seem to stop, has forced the databases to establish selection criteria which in general terms are quite similar to being based on standards observed worldwide, as well as good editorial practices. Given that the scientific communication processes have evolved and the current journal is far from the one in 1955, when the first quantitative evaluation exercises of scientific production appeared (Colciencias: 2016), databases periodically review their criteria and establish new parameters to differentiate the quality among publications.

This article discusses the contribution of the databases to the quality of journals and discusses new features for journals regarding editorial quality for online publications designed for Latindex information system (www.latindex.org). The article has been written with the aim of disseminating these characteristics and serve as a guide to publishers when they wish to postulate their journals to other information services, either regional or international.

DATABASES AND THE QUALITY OF JOURNALS

The postulation of a journal to a database is the response that the editors have to the demands of the authors to spread their contributions in the broadest and most effective way. When an academic sends the results of his work to a journal, he does so to fulfill the ethical commitment to make his research public, to make it known in the widest possible way, to obtain repercussion through the use and appointment of his works, as well as to be recognized in his academic or professional career.

It is also important because the acceptance of a journal in a database means a tacit recognition of its quality, besides being one of the mechanisms to achieve visibility. This visibility will make it possible to disseminate the publication in other latitudes, to obtain more readers and subscribers, to facilitate the reception of more contributions, to diversify the origin of those contributions and, finally, to obtain recognition, which positively impacts the chain of actors involved in the editing process: Editors, authors, editorial bodies, reviewers, as well as the publishing institutions themselves. In this sense, visibility is achieved when a journal achieves the means to spread beyond the institution that publishes it, facilitating that its articles are read by a wider community.

Databases generally design lists of criteria based on standards and good editorial practices, supported by the extensive experience of documentalists

who performs visual inspections on hundreds of journals according to the policies defined by each information service. The criteria are defined by thematic specialization, the type of journals or the geographic coverage of the database, but the incidence of aspects that are more related to database management costs is more frequent than to the quality of the journals. To assist in the process, they use the norms for the presentation of periodicals that aim to improve the quality of journals as a communicative tool and that the databases return in order to perfect the information transfer system (Delgado López-Cozar, 1999).

Depending on the purpose of each database, the weighting of intrinsic or scientific quality criteria may outweigh formal criteria, but the latter are indispensable for other relevant aspects that facilitate the databases to recognize the value of a publication and incorporate it into their collection. These other criteria serve the administrators of the databases to know how the journal is managed, how much it diffuses, how exogenous decision-making takes place within it, how endogenous it is in terms of the contributions it publishes, and how it credits the academic solvency of the people and institutions responsible for its edition.

In Latin America, it was not until the late 1990s that organized lists of quality criteria began to be widely disseminated. One of the pioneering initiatives in this regard was Latindex, a regional cooperative system that now has a presence in 24 countries in Latin America, Spain and Portugal, and also has partners including journals of Ibero-American interest published in North America, Asia and Europe. With two main products, the Directory of Comprehensive Coverage and the Catalog of Selective Coverage, Latindex has positioned itself as a must-referent when it comes to the quality of journals and interaction with publishers.

Latindex and other regional information resources such as SciELO (www.scielo.org) and Redalyc.org have formed a series of lists of criteria or parameters to identify and assess the editorial quality of Latin American journals, and have also encouraged in their respective areas of action the professionalization of editorial work. These three initiatives have resorted to cooperative work as a strategy to boost their results.

STANDARDS AND GOOD EDITORIAL PRACTICES. A NEW CONTRIBUTION FROM LATINDEX

In 2002, Latindex released its catalog to which only the printed and electronic journals that meet the requirements established by the system are allowed. The list for electronic journals included 36 criteria and was one of

the first in Latin America to be specially designed for academic publications available online. The 2002 version has been revised and updated in 2016, given the changing environment in which scientific journals are developed around the world. The new proposal is organized into distinct groups that include both normative criteria¹ as good editorial practices. Good editorial practices in journals can be understood as the set of procedures that, considering rules and policies, are the result of the experience of having proved their usefulness in the process of scientific communication. As with other journal evaluation lists, the highest number of criteria corresponds to norms, among other things, because it is the aspect most used by documentalists and because they disaggregate very relevant aspects to the process of scientific communication.

This section refers to the new quality characteristics that the collective² Latindex has discussed and designed for online journals. Although the new proposal consists of 38 characteristics, it should be clarified that seven characteristics of the previous list were merged, while ten are newly created. The new list includes six mandatory criteria and now the journals must meet 30 to obtain the Catalog category. For the purpose of this article, we distinguish the new list in normative criteria and good practices. The norms are broken down into those that affect the journal and its fascicles; those that impact on the structure of the articles and those that have to do with scientific quality. Good practices are divided into those that report on the degree of endogeneity and exogeneity of journals; its editorial management; Its editorial integrity and those related to online journals. This grouping aims to show that, although made for Latin American journals, most of Latindex's criteria respond to standards of validity and international application.

1. *Regulatory criteria regarding the journal:*

- Compliance with periodicity. Respecting the declared regularity of publication is undoubtedly a crucial aspect for the good qualification of a journal. Many international databases require that the issues be published at the beginning of the reporting period. The delay or irregularity of publication is the reason that many Mexican and Latin

1 For a complete list of ISO standards that regulate specific aspects of a periodical publication see: Delgado López-Cózar, Emilio. ISO Standards for the Presentation of Scientific Periodicals: Little Known and Little Used by Spanish Biomedical Journals. *Journal of Documentation*, 55 (3) June 1999, p. 288-309.

2 The proposal coordinator group was composed of specialists from the Council for Scientific Research of Spain, the University of Costa Rica and the National Autonomous University of Mexico.

American journals are not accepted into databases, or are withdrawn if they do not maintain this requirement.

- Responsible editors. In the website of the journal the name of the editor or responsible scientist should be visible, as well as the names of the members of the different publishing bodies (publishing committee and editorial board, scientific board, redaction council or the equivalent that each journal names).
- Data of the editing entity. Includes the place of edition, and the name and address of the publisher. This information is helpful so that the databases have sufficient data to identify the origin and location of the journals. Journal web sites should include these elements, particularly the place of editing which is frequently omitted. For Mexican journals, this situation is avoided by observing the rules of the National Institute of Copyright on legal headings for online journals: [Http://www.indautor.gob.mx/issn/documentos/electronica1.pdf](http://www.indautor.gob.mx/issn/documentos/electronica1.pdf)
- ISSN. All academic journals must have an ISSN assigned. Editors should remember that there is an ISSN for each support in which a journal is distributed. This situation results in the same journal having more than one ISSN but the international system has established an ISSN that groups together all of them, usually the first thing one that was historically assigned to a journal, which identifies as a ISSN -L (L= link). This should not be confused with the ISSN for online versions which is usually represented in the databases as e-ISSN. The editors also must know that a change in title (very common in our context) requires the request of a new ISSN.
- Navigation and functionality. It is desirable that in a maximum of three clicks, the user can enter into content. The gateway is the table of contents or summary which must be organized by the types of documents published by the journal and which is especially useful when differentiating the "original articles or investigations" from the rest of published documents. It is also valuable to be presented in more than one language and that each article is accompanied by first and final pages in the case of PDF files.
- Periodicity. The journal should mention periodicity (including the dates that are covered), the number of fascicles edited a year or where appropriate, the declaration of continual periodicity.
- Definition of the journal. It must be a description that includes its objectives, the theme that it covers and public to which it is addressed. It is recommended that these definitions are concise, since the practice of including long presentations has been observed,

and they result to not be of much use or for readers and or potential authors, or for information systems.

- Institutional affiliation of the members of editorial bodies. Each name should be accompanied by their institutional affiliation (complete name of the institution and country).
- Information services. This refers to the databases which are included in the journal. It is recommended to classify them according to the type of service: directories, index and summary services, journals portals, journal categorization services, services for access policies and use of contents, list of national nucleus, among others.
- Instructions to authors. A vital tool for any author who wishes to contribute; It also facilitates editorial work because the rules governing publication are published within the journal. This is of such importance that Latindex now considers it a mandatory characteristic in the case of online journals, and should always be visible on the website. Their presentation should be in sections (types of documents accepted, languages accepted for publication, revision or arbitration, bibliography, notes, etc.) is recommended.

2. *Normative criteria on article content:*

- Identification of the authors. Each published document must show the name of the authors. Using full names is recommended (especially to identify the authors gender) and the easy identification of the last names, which are used in the majority of the databases as an element for the ordering and recovery of information.
- Bibliographical letterhead at the beginning of the article. Formed by the full title or abbreviated title (assigned by the ISSN), the numbering of the journal (volume, part, months) and ISSN. It is useful to appear in the header of article and in the case of PDF files, in all pages indicating the initial and final pages.
- Affiliation of the authors. Item widely used in databases and indispensable for making metric studies. It is necessary to provide complete affiliations for each author: name of the institution (differentiated by internal levels: departments, faculties, schools, laboratories), and city name and country for each of the institutions. The use of connectors (numbers, letters and symbols) is recommended to easily identify the link between an author and her institution. In the event that an author does not have a institution it is valid to indicate them as a "worker, researcher or independent consultant" adding their personal contact information. Journals tend to include this type of curricular information (institutions

where they studied); this practice, widespread in Latin American journals can lead to false allegiances , especially when database documentarists cannot differentiate them. It is the responsibility of the journal to clearly denote which is the institutional data and which is the curricular data.

- Dates of receipt or acceptance of originals. This element allows us to know the time taken to process and publish an article. The date of receipt often helps to establish the primacy of a contribution over a similar one. It also reflects good editorial management and transparency by making the time the publication took to publish each article
- Summary . Must be present in all original articles and revisions, as well as for essays, short communications and technical notes, and not in other documents such as letters to the editor, editorials, interviews, news or book reviews.
- Key words . Similarly, key words should be integrated in all original articles and revisions, essays, short communications and technical notes, and not the other documents referred to above. For keywords, it is recommended that a thesaurus or controlled vocabulary from the special area is used.
- Summary in a second language. It can be seen that summaries occur in alternative languages to that of the full text. For Latin American journals it is almost a standard to present them in the national language (Spanish or Portuguese) and English. There are increasingly more journals that present them in these three languages.
- Key words in a second language. When the full text is available in Spanish or Portuguese, the absence of keywords in English may limit its diffusion in databases produced outside the region . When English is the language of the complete text, it is suggested that the keywords are also present in the national language, to strengthen the construction of the scientific language in the regional language.
- Bibliographic reference . Latindex recommends that they are based on a single recognized and widely used standard and widely used in the academic community. The mixture of various standards and their adaptation to create a "new" one does not encourage the exchange of information internationally and often complicates the work of databases, especially those working with references for counting citations.

3. *Normative criteria that affect scientific quality:*

- Arbitration system. A mechanism to validate the quality and accuracy of which is published. In the new Latindex list it is now a mandatory characteristic, with two essential components: 1. to be conducted by external evaluators and 2. That the journal mentioned the instance authorizing the final publication of a document, as an exercise of transparency in decision-making. For databases, it is not enough that the journal baldly declares that it applies a system of arbitration – it should detail the procedure that is used, describing all previous arbitration, as well as the kind of revision that is applied (double blind, simple blind, open online).
- Original content. Latindex requires a minimum percentage (40%) of content derived from scientific research or original creation for draft and original articles; in medicine, clinical cases and social sciences are also considered. The percentages don't depend on establishing each database, but also the type of journal, because those classified as "from scientific research" should mainly publish such content, unlike disclosure, teaching or journals of a technical character. It helps evaluators to differentiate the journal in its table of contents the documents derived from the original scientific investigation from other types of contributions.
- Requirement of originality. In the presentation of the journal or in the instructions to authors, the requirement to submit original work for publication should be explicit.

4. *Good practices to determine the degree of endogeneity / exogeneity of a journal.*

- Editorial opening. Scientific communication values that an academic publication shows elements of independence, reflected by the incorporation of members outside the editorial institution or its committees or editorial boards, scientific councils or redaction committees. Databases set percentages for the minimal number of external members, which in the case of Latindex is 66%.
- External authors. As in the previous point, it is appreciated that a majority of authors who publish in each number are external to the institution that edits the journal. The percentage required by the new Latindex characteristics is 40%.

5. *Good editorial management practices for journals:*

- Continual generation of content. It is important that online journals demonstrate that they are updating their contents and complying with their declared periodicity. In the case of those which release articles continuously, it is recommended that the publication dates of each new document are indicated.
- Number of annual articles published. Some information services have incorporated this requirement among its criteria and the number of articles depends on the theme of the journal and its periodicity. For Latindex, based on the various profiles included journals, it has established a minimum of 10 articles per year.
- Access and reuse policies. The publication of journals online has favored the establishment of policies of open access to information, which is why journals should clearly state which rights are conserved and which are given to their readers and authors. These policies are especially of interest for authors who want to add their articles which have already been published on a website or in an institutional repository, because it allows them to know the conditions that the journal provides for this purpose.
- Digital preservation policies. Also derived from the incursion of the scientific journal in the electronic medium, this approach seeks commitment from journals to implement policies to ensure the continued availability of content, regardless of technological obsolescence. As Latindex recommends, it is not enough that a selected digital preservation service logo is stamped, it should also detail the policies established by the journal.

6. *Good practices of editorial integrity:*

- Detection of plagiarism. Another practice that has taken new airs starting from the online publication ; It requires that journals publicize observing strategies to detect plagiarism and declare when it occurs.
- Adoption of a code of ethics. They should be addressed to the members of the committees or editorial bodies of journals, their editors and authors. They should favor transparency in the processes of evaluation, as well as communication between editorial bodies and authors. It integrates other elements, the guarantee that the unedited results which are obtained beforehand are managed in a confidential manner and are not used in any way by editors or

reviewers. Proper citation practices are also highlighted in order to avoid imprecise authorial attributions, or for the avoidance of manipulation of data or figures. It should also be noted to the reviewers regarding conflict of interest.

7. *Good practices specific to online journals:*

- Use of interoperability protocols. Interoperability is essential in the current scientific communication process as it allows the contents of the journals to be collected by other distribution of information systems ; the existence of metatags each article favors this practice and among them include the Dublin Core (<http://dublincore.org/>) which are the most well known.
- Using different editing formats. Initially, the PDF format was most often used, but there has been a development that has led and encouraged the widespread use of other publication models that facilitate hypertext and reading, such as HTML and XML. The availability of a journal in various formats increases the visibility of the published articles and their distribution.
- Interactivity with readers. It is one of the own characteristics of online journals in that they can offer RSS feeds, spaces for comments, discussion forums and blogs, among others.
- Added values. This item includes the integration of multimedia services (video and sound) ; the practice of releasing articles as soon as they have been accepted; the indication about how to cite the articles by following certain standards; the presence of the journal in academic social networks; access to so called raw data (statistics or annexations that for their length are very difficult to integrate into printed versions), as well as reading versions for the disabled.
- Search engines. Online journals must provide an engine that allows users to search through various indexes (titles, authors, keywords, etc.) as well as incorporating Boolean operators.
- Use of uniform resource identifiers. It is appreciated that all links that are provided by the journal are safe, which is why identifiers like URI, Handle or DOI should be used. Unfortunately, it is very common to run into frequent changes in articles' URLs that were already entered into the database as a result of changes in platforms by journals. This situation gives many broken links which translates into a loss of access by users and an additional workload for the information services to recover lost links.
- Use statistics. Journals should provide tools to identify the level of use of published articles.

Achievements and Challenges in journal quality

Like no other region of the world, Latin America has a fairly complete inventory of academic publications through databases that offer various services. Latindex for example, provides a broad and inclusive directory and a catalog that accounts for the editorial quality of the journal. In addition, there are various indexes and abstracts services in the region (*Clase, Periódica, Lilacs, Iresie, and Actualidad Iberoamericana*, among others), portals to full-text journals and institutional repositories. This regional visibility acts in response to the exclusion suffered by many of our journals in other databases and reinforces the value of what is published in journals outside the mainstream of science.

The publication and implementation of quality criteria lists help publishers in the task of improving the publications office, which also means new learning opportunities for editorial teams. Since lists are based on the compliance of international standards, journals are better prepared to apply not only to the regional databases, but to others outside the region.

Studies suggest that regional initiatives that have worked on and published quality standards have helped in making good Latin American journals, respecting their identities and addressing logic and internal dynamics of journal publishing in the region (Alperin and Fischman: 2015). The evolution of the journals has been evident and appreciated in recent published work in a special issue devoted to Latindex in the Brazilian journal *Ciência da informação* (<http://revista.ibict.br/ciinf/index>)³. In this booklet, remarkable progress in fulfilling the periodicity, the application of arbitration systems, including data affiliate members of the editorial boards is listed, as well as the requirement of originality of documents in order to publish, among others. An outstanding evolution is also observed in terms of the visibility and quality of publications, as well as the impact that Latindex quality characteristics has had on the preparation of criteria for inclusion in other bibliographic databases.

In the case of Mexican journals, the quality of a group of journals in 1999 was (when a pilot test was applied for the Latindex catalog) compared to 2015, when the criteria were widely known. The results showed a marked improvement in compliance with almost all the features of editorial quality (Alonso Gamboa et al. : 2015). In the published works, there was interaction with publishers, as well as the positive effect on the professionalization of

3 Special edition, corresponding to volume 44, number 2, 2015.

the Latin American publishing sector was highlighted; as never before, there have emerged in the region courses for editors covering aspects of editorial standards and quality in academic journals.

Quality and visibility achieved by Latin American journals, the great free and open access, has mostly resulted attractive for large foreign publishers, a phenomenon that has already been mentioned in the book by Alperin and Fischman, referred to above. Commercial publishers have established contracts including management, distribution and marketing of the best Latin American journals, taking advantage of national policies that encourage the "internationalization" of our publications. The result is that some Latin American journals that have entered the international market have changed their titles into English, have prioritized the publication of articles in that language and in some cases have changed from open access to closed access.

Along with its evolution, it has also warned of the process of uniformity among the publications of the region in terms of their editorial quality (Chavarro: 2015). However, challenges are noted when these lists of rules and practices need to be applied to journals that respond to different profiles and objectives, as is the case in many Latin American academic publications informative and cultural sections, which are often widely consulted in academia. Such is the case of journals specializing in art, film, literature, painting or music, which not always incorporate quality criteria that are generally better served by journals called *hard sciences*. Databases face difficulties in measuring the same standard to all types of publications without having to force their own selection policies, and this is mainly evident in databases or systems with multidisciplinary coverage with not only regional, but also international coverage.

Another criticism of these lists is to have more formal criteria of scientific quality (Rozemblum: 2015), which is particularly contradictory in databases which are sold as resources to validate scientific knowledge. The issue here has more to do with the appreciation we have of some databases, especially those that generate quantitative indicators and parameters that measure the impact of journals, authors and their contributions. The tendency to use these indicators as determinants in the process of science communication is difficult to reverse, especially because some international commercial databases usually offer their products with that approach. It is in this context that calls attention to quality lists which have more formal content criteria, but that are not necessarily out of place in the case of databases whose objective is more focused on reporting, which evaluated.

To integrate more qualitative aspects to this process, some databases are aided by scientific committees and experts, starting from the inspection of compliance with certain parameters, which add a qualitative assessment to exercises in selection. However, these committees can hardly replicate or

replace the determination of work content which are products of peer review prior to the application of a journal to any database.

Scientific quality or significant quality, such as Velterop (2016), is validated at a time prior to the application of a journal to a database. They reaffirm this idea explaining that scientific quality is obtained only through peer review and the requirement of originality in published papers (Rozemblum et. Al. 2015), which is part of the review process and acceptance of a manuscript. This implies that significant quality depends on the work of editors, editorial boards, reviewers or evaluators of the journal, for editorial management processes. It has to do with how to apply mechanisms that ensure that the documents are original; they bring new ideas to the discipline and are written following recognizable ethical conduct in academia. In any case, most databases confirm that the peer review exercises are complete and transparent, and that the requirement of originality is clearly stated in their policies. In some cases, it is requested that publishers provide documentation that proves that these processes are met.

That a database publishes thier selection criteria it is no longer sufficient for accreditation before scientific evaluative bodies, especially given the tendency to value more and more international databases that generate metrics from articles published in journals. Widely documented databases such as the *Web of Science* (WoS) and *Scopus* are used as sources *only* for the evaluation of science in our countries, even though the number of journals and articles generated in Latin America gathered in both systems represent a very small percentage. Much has been written on the subject, but it is enough to recall that in the case of WoS⁴ it is often forgotten that its creator, Eugene Garfield, drove the project from a private for-profit company and not from an academic institution; that their employees are not scientists or researchers, but information professionals- like in any other database-, and that their scientific quality indicators also reflect problems and constraints that have been widely documented (Laborde: 2009).

On the other hand, the full adoption in Latin America of the open access (OA) movement for scientific research papers published in journals has served as an incentive to improve the quality of publications, but also makes them susceptible to heightened scrutiny by the mere fact of being free. The DOAJ- *Directory of Open Access Journals* (<https://doaj.org>), a database located in Europe, recently conducted a review and updated its criteria, "toughening" its requirements primarily to ensure better understanding and application

4 Starting in October 2016, databases that integrate the Web of Science ceased to belong to Thomson Reuters, and is now owned by another company called Clarivate Analytics .

of the AA worldwide. This revision was made largely by the appearance of bad editorial practices that have tried to distort open access, resulting in the appearance of lists of journals and predatory publishers (<https://scholarlyoa.com/>)⁵. As a result, many journals that were collected by the DOAJ have been withdrawn by failing to meet the new demands, including several in Latin America.

Since then, the AA has long defined the current landscape of the Latin American journal, powered by a non - commercial model that is beneficial for the region, it is indispensable

that journals carefully observe the rules and good practices that are reliable to the communities they serve, and that their editorial processes are transparent. Although the vast majority of journals in Latin America do not charge authors for publishing, they have already identified some Latin American journals on Jeffrey Beall's list. That list focuses on journals that publish articles with questionable speed (less than three months), upon payment of the authors without clear review processes and arbitration. In addition, other shortcomings are detected: it is often difficult to identify who is the responsible editor; members of their editorial boards lack academic affiliations; there is little transparency to locate the country where the journal is published and in general, contact information is insufficient. Regarding editorial management, the focus closely on the opacity of their editorial processes and particularly on the fees charged to the authors, a situation that if exists should be clearly explained on the website of the journal. As for integrity issues, they bring to question the title of the journal which is inconsistent with its mission as they often have names with bombastic descriptions. They also warn about using emails such as spam to invite authors to publish in the journal or be part of the editorial bodies or reviewers, without demanding higher academic credentials. They also point out the poor quality of the magazine's websites, reflected in a large number of dead links, obvious grammatical errors, advertisements, as well as the lack of clear information on their open access policies. They also draw attention to the absence of international identifiers such as ISSN or DOI, or the lack of geographical diversity among authors who publish in journals.

CONCLUSIONS

The relationship between databases and publishers of scientific and scholarly journals dating back more than 150 years has cemented themselves

5 The website where they could be consulted was closed on January 15, 2017.

as one of the most effective strategies to disseminate the contents of the journals among specialists, who are the main readers. The inclusion of a journal in a database remains a recognition of the quality of its contents.

In Latin America, given the scarcity of our academic publications in major international databases, information services were created within the region in order to disseminate their content, providing visibility and promoting standards, best practices and quality.

The consolidation of online publishing has transformed the way journals are managed and disseminated, so Latindex has updated its proposal for quality characteristics which contains 38 features, six of them mandatory, which consider regulatory criteria for fascicles and articles, as well as those aimed at verifying the quality of the content. It also includes good practices that affect the editorial management, examine the degree of exogeneity, verify the integrity of the processes of publication and certainly appreciate that journals incorporate the advantages of electronic publishing to enrich the access, retrieval and exchange of information.

The contribution of regional databases to the quality of journals has been recognized and there are studies documenting the improvement in the quality of the publications in Latin America. A certain degree of uniformity in compliance with quality features can be appreciated, and warns of the tendency to look more formally at criteria rather than content. At the same time it suggests that mechanisms exist that ensure the quality of scientific content correspond to the editorial process of journals, and that they must be fulfilled prior to their application to databases. Since open access has been widely adopted in the region, it warns about the risks of falling into practices that might be suspicious, particularly because of the lack of standardization or transparency in editorial processes as well as sloppy work in the production of journals.

Since open and free access has been the most widely published model adopted in Latin America, the journals of the region should avoid questions related to quality and transparency in its editorial processes, which add to the already difficult uphill battle they have to face throughout their existence.

REFERENCES

- Alonso** Gamboa, J.O., Reyna Espinosa, F.R. & Sánchez Islas, L.I. (2015). Características y calidad editorial de las revistas científicas mexicanas: la aportación de Latindex. *Ciência da Informação*, 44(2), 276-289. Recuperado de: <http://revista.ibict.br/ciinf/article/view/1796/2372>
- Bornmann**, L. and Mutz, R. (2015). Growth rates of modern science: A bibliometric analysis based on the number of publications and cited references. *J Assn Inf Sci Tec*, 66: 2215–2222. doi:10.1002/asi.23329
- Castro**, R. (2011). Indexação de revistas em bases de dados. En: Población, D. A.; Witter, G.; Costa Ramos, L. M. S. V. et al. *Revistas Científicas: dos processos tradicionais às perspectivas alternativas de comunicação*. (109-126). São Paulo: Ateliê Editorial.
- Chavarro**, R. (2013). ¿Son los sistemas de indexación y resumen un indicador de la buena calidad editorial de las revistas académicas? En: *Actas del IX Congreso Iberoamericano de Indicadores de Ciencia y Tecnología*, Bogotá, Colombia, 9 al 11 de octubre de 2013.
- COLCIENCIAS** (2016). Política nacional para mejorar el impacto de las publicaciones científicas nacionales. Bogotá: Departamento Administrativo de Ciencia, Tecnología e Innovación-Colciencias, agosto. Recuperado de: http://www.colciencias.gov.co/sites/default/files/upload/noticias/120816-vfpolitica_publindex_2.0_og_ao_miv.pdf
- Delgado** López-Cózar, E. (1999). ISO Standards for the Presentation of Scientific Periodicals: Little Known and Little Used by Spanish Biomedical Journals. *Journal of Documentation*, 55(3) 288-309. Recuperado de: <http://eprints.rclis.org/12995/>
- Mabe**, M. & Mayur, A. (2001). Growth dynamics of scholarly and scientific journals. *Scientometrics*, 51(1) 147-162. doi: 10.1023/A:1010520913124
- Rozemberbaum**, C., Unzurrunzaga, C., Banzato, G. & Pucacco, C. (2015). Calidad editorial y calidad científica en los parámetros para inclusión de revistas científicas en bases de datos de Acceso Abierto y comerciales. *Palabra Clave (La Plata)*, 4(2), 64-80. Recuperado de: <http://www.palabraclave.fahce.unlp.edu.ar/article/view/PCv4n2a01/6597>
- Velterop**, J. Lo mejor de ambos mundos. *SciELO en Perspectiva*. Recuperado de <http://blog.scielo.org/es/2016/06/13/lo-mejor-de-ambos-mundos/>
- Ware**, M. & Mabe, A. (2015). *The STM Report. An overview of scientific and scholarly journal publishing*. La Haya: International Association of Scientific, Technical and Medical Publishers. Recuperado de: http://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf