

## EDITORIAL

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Although there have been scientific journals in Colombia for decades, the indexing system was created until 2002 with the issuance of Decree 1279 by the Ministry of Education, which delegated COLCIENCIAS to be responsible for indexing the specialized publications in Science, Technology and Innovation (CTel, in Spanish) in four (4) categories: C, B, A2 and A1. This fact caused the creation of the National Indexing System for Serialized Publications in Science, Technology and Innovation from Colombia, comprising:

*The National Bibliographic Database–BBN Pubblindex:* or information repository of scientific journals from the country. It provides bibliographic records for each one of the documents that contains thematic descriptors, authors, publication dates, titles of articles and summaries. Besides, it allows obtaining complete texts and aims to make visible, useful and accessible the scientific production.

*The National Serialized Publications in CTel Indexing Service:* which measures with scientific criteria editorials, stability and visibility factors, and quality of each of the national scientific journals that comprise the National Bibliographic Index \_ IBN Pubblindex. Likewise, the system has permanence criteria of the journals that constitute it. The notion of national journals indexing is associated with their classification within the IBN Pubblindex.

*The Foreign Serialized Publications in CTel Approval Service:* which establishes the set of foreign scientific journals approved for the national categories, based on the levels of visibility and impact of the publications integrated to the indexing and abstracting systems–SIR recognized by Colciencias (Document of indexing and abstracting systems used for indexing processes and approval of publications in science, technology and innovation 2012).

The National Bibliographic Database–BBN Pubblindex, the *National Serialized Publications in CTel Indexing Service* and *The Foreign Serialized Publications in CTel Approval Service* have been working since their inception until today based on criteria of scientific excellence, editorial quality, stability and visibility.

This has marked that national journals aspiring to be included in the national bibliographic database and classified in the categories established by Decree 1295 de 2002 must have an administrative structure formed by an editor and an editorial committee that are visible. They must have also a scientific committee and a group of arbitrators, who emit qualified judgments confirming the scientific quality of the publication. Moreover, the evaluation processes of the works submitted for publication and the time it takes to decide on their acceptance must be presented in authors' guidelines. Journals should also maintain and strictly enforce its declared periodicity throughout the observation window and finally, they should appear recorded in different worldwide databases and bibliographic indexes.

According to COLCIENCIAS, in 2002 the bibliographic index had 91 journals from which only 1 in category A1, 9 in category A2, 7 in category B and 74 in Category C. In the latest update of 2014, the IBN already had 542 journals from which 28 appear in category A1, 138 in category A2, 131 in category B and 245 in category C, which represents an increase of almost six (6) times over the twelve years since its inception.

COLCIENCIAS reports that within the IBN Pubblindex the topics of the publications, distributed in knowledge areas established by the Organisation for Economic Co-operation and Development (OECD), are distributed as follows: 40.9% of publications correspond to social sciences, the 15.67% to medical and health sciences, the 13.52% to humanities, 10.73% to engineering and technology, the 8.80%

to natural and exact sciences, 4.51% to agricultural sciences and the remaining 5.87% to multidisciplinary journals.

As reported by COLCIENCIAS, despite the significant growth of the national scientific production, it is also evident that most of the publications in the IBN Publindex have low visibility and impact in the international community for being almost entirely of endogamic character. This is observed in the low percentage of national journals integrated to citation indexes that measure the impact factor. Currently, only about 5.0% (27 journals) have some indicator of impact factor and 45.2% (245) that are in category C have endogamic character.

The impact factor is a quantitative indicator that allows to categorizing and comparing scientific publications in each one of the disciplines, according to the number of citations received by the journal in a certain period of time. The impact factor is calculated by citation indexes like the Thomson Reuter Journal Citation Report JCR, the Elsevier Scopus Scimago Journal Ranking SJR, SciELO Citation Index SCI, from Scielo Latin America, among others. The impact factor is expressed as the ratio between the number of citations and the number of articles published within a time period that may be for 1, 2, 3 to 5 years. The results of this relationship for each journals group by specialty are divided into four groups (quartiles), sorted from highest to lowest to determine the relative position of each journal over the other of the same specialty.

The discussion about the relevance of national scientific journals has led PUBLINDEX to seriously consider the inclusion of the Impact Factor as the main factor for the classification of national scientific journals. Among the different scenarios under discussion, some alternatives ranging from establishing a transition process that enables journals, determining so, to apply for inclusion in these bibliographic indexes with impact factor and the single inclusion of this factor as main variable for journals classification in A2 and A1 categories; or even develop, along with national journals, an approval process, similar or

equivalent to what is done in the Foreign Serialized Publications in CTel Approval Service, which would have the same criteria for approval and could even be contracted by an external organization different from COLCIENCIAS, thereby suppressing the calls for renovation made half-yearly.

It is expected that in the course of this year Administrative Department of Science and Technology–COLCIENCIAS–will define the new classification model for Colombian scientific journals, but it will surely bring along the inclusion of the impact factor as a classification variable. This new model will incorporate new challenges that require more effort and resources from institutions responsible for these publications, seeking to keep their journals as part of their contribution to dissemination of research results to scientific community and society in general.

The Tecnura team along with its scientific and editorial committee, and supported by Centre for Scientific Research and Development–CIDC -, has decided to do all necessary to be included in the main bibliographic indexes with international impact factor, and for that reason it has been working on the required adjustments and changes, maintaining its scientific quality. Among these adjustments we may highlight changes in the publishing image, inclusion of the statement of ethics and good practice, inclusion of the digital object identifier (DOI) for each article; redesigning the journal website with all fields in English and Spanish, as well as migration of the website to institutional OJS platform, and the frequent publication of articles in English, among others.

The challenge for TECNURA is not stranger to the bigger challenge that the Faculty of Technology is facing with the expansion of its academic offer to other areas of knowledge and the consolidation of our cycles formation model, reaching levels of excellence in teaching and research.

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