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Letters to the Editor

Which Data Base Should we Use for our Literature Analysis? Web of Science versus SCOPUS

¿Qué base de datos debemos emplear para nuestros análisis bibliográficos? Web of Science versus SCOPUS

To the Editor:

The importance and the advantages of document databases are well known. These data bases are a group of information structured in registers and stored in an electronic support that is legible with the use of a computer. Until not long ago, the *Web of Science* ([WoS] ISI, Thomson Reuters) was the only international, multidisciplinary tool available to access the literature of science, technology, biomedicine and other disciplines. Its advantages as well as its limitations are also well-known, and are occasionally the object of controversy. However, some years ago another contender has entered the ring: SCOPUS, a database base founded by Elsevier S.L. en 2004 (<http://www.scopus.com/home.url>).

SCOPUS has recognized advantages, such as the ease in its navigation, the fact that it includes 100% of the indexed documents in MEDLINE, EMBASE and COMPEDEX, offers easy access to cited documents, is open to the Internet, has web pages and patents available as well as links to the web pages of journal editors, etc.¹

For these reasons, the current debate is: which database should we use for our bibliographic analyses? Previous comparisons between the two databases have not revealed a clear winner, as the relative advantages of one over the other depend more on what we specifically want to analyze, the discipline and the period of analysis.² López Illescas et al.³ in analyzing the coverage and the impact of both databases regarding neurology journals, found that SCOPUS covers a greater number of journals, and all those covered by WoS are also in SCOPUS. For the journals indexed in both databases, those in WoS present higher impact factors (IF); in contrast, those that are only covered by SCOPUS present an IF lower than if they are present in both databases. In any event, the differences between the bases regarding citation are much lower than the differences regarding coverage.³

In another article,⁴ they clarify that the oncological journals included in SCOPUS and not in WoS are predominantly national journals, directed at domestic readers and not completely included in international databases, written in languages other than English and with a lower impact. This could be explained by the differing inclusion criteria between the two bases.⁴

The ranking by countries is similar in both databases, but there is a difference in number of citations per document, which is poorer in SCOPUS. Kulkarni et al.⁵ tell us that WoS, SCOPUS and Google Scholar produce quantitatively and qualitatively different citations for articles published in general medicine journals; SCOPUS includes more registries of non-English journals and review articles.

In other fields, such as Chemical Engineering, Escalona et al.⁶ came to the conclusion that there is a high similarity between both

databases, which makes them complementary and non-exclusive. This same conclusion is reached in the paper by Archambault and Campbell (http://www.science-metrix.com/pdf/Archambault_Jasist_WoSscopus.pdf). Upon analyzing the production in smoking research (2000-2009), we have found that 90.76% of the documents of WoS are in SCOPUS, while only 66.79% of those of SCOPUS are in WoS.

Ball and Tunger (http://juwel.fz-juelich.de:8080/dspace/bitstream/2128/3233/1/Ball_2007.Science.pdf) explain that the authors should declare what database was used for their analyses because they found that with different databases, different information is obtained. Falagas et al. (<http://www.fasebj.org/cgi/reprint/22/2/338.pdf>), when comparing the strengths and the weaknesses of four databases, confirmed that SCOPUS includes a greater number of journals and its analysis of citations is faster than that of WoS; in contrast, the analysis of the citations in WoS is more detailed.

In concluding, we can say that WoS covers more space over time, with a majority of journals written in English. SCOPUS covers a greater number of journals with lower impact. Although there is a high correlation between both databases, in the future the authors that generate studies using one of these databases should explain why one was favored over the other.

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