Electronic Indexing and Abstracting Services

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The panelists in this session provided a view into the "black box" containing the keys to which journals appear in which indexes and how they get there.

Karen Patrias described the selection process for indexing in MEDLINE, the indexing process itself, and publishing issues that affect this index of 4800 titles.

The Literature Selection Technical Review Committee of the National Library of Medicine (NLM), appointed by the director of the National Institutes of Health (NIH), meets three times a year. The committee's activities include consideration of new biomedical and life-science journal titles, both print and electronic; comprehensive subject reviews of titles; and deselection of titles that no longer meet inclusion criteria.

Factors considered in scheduling new journals for review include subject coverage, NIH initiatives and emerging fields, and geographic representation. The cost of a subscription, the number of subscribers, and impact factors are not considered.

Guidelines for selection include scientific merit (such as validity and originality and timeliness of publication), quality of editorial work (such as the peer-review process and ethical guidelines), and quality of production (such as clear illustrations and acid-free paper).

Between 25% and 30% of journals considered are selected for indexing. If rejected, a title may be rereviewed 2 to 4 years after the first review.

Once selected, journals typically submit citation and abstract data electronically, and this information is posted online after verification of only the journal title, volume, and issue. Each article is then analyzed individually, and Medical Subject Headings are assigned. An article's published key words are not considered in this process. As an article progresses through the indexing process, the notation on PubMed changes from "As Supplied by Publisher" to "In Process" to "Indexed for MEDLINE".

Issues that concern NLM include article access and retrieval and publishing practices that interfere with retrieval, such as inconsistency in authors' names within an issue. A corporate author's name may appear inconsistently as well, for example, the use of an initialism for the group name or "steering committee" vs "writing group" vs "investigators" in the byline.

With the relative ease of electronic publishing, content may be changed, and different versions of an article may be created. NLM asks publishers to designate which version, print or electronic, is the "version of record". However, merely making a change or correction to the online version is not sufficient for NLM to make the change or correction in MEDLINE. NLM amends the citation of the original article only after an erratum or retraction notice appears in the print version.

According to James Testa, Thomson-ISI, a database publishing company, applies somewhat different selection and deselection criteria to the journals indexed in ISI's products, such as Web of Science and Science Citation Index.

Of 2000 new or existing journals considered each year, the review team of eight editors accepts between 10% and 12% for indexing. In addition to publishing standards (such as timeliness, English-language bibliographic information, and peer review) and editorial content (uniqueness of content), ISI analyzes citation data to identify influential and useful publications. A journal's usefulness is measured by analyzing citation data. For new journals, the citation analysis reviews the authors' and editorial-board members' citation history. For established journals, ISI considers the journal's overall citation rate, impact factor, and immediacy index. The self-citation rate is also taken into account, with about 20% self-citations considered "normal". Journals selected become part of the 8700 publications indexed for subscribers' information-retrieval needs.

Electronic journals undergo the same selection process as print journals. In the case of electronic journals, timeliness is defined as a steady flow of articles over several months. Consistent format for an array of critical elements is crucial (such as journal title, article title, page numbers, and article number).

A journal considering whether to submit a print vs electronic version for indexing should evaluate which is the more timely and complete version and designate it the version of record. For both print and electronic publications, English-language titles, abstract, and key words are essential. Unlike NLM, ISI uses author key words to assist in the indexing process.

The ensuing discussion concerned journal impact factors. According to Testa, the best way for a journal to increase its impact factor is to publish the best journal possible, focusing on quality rather than attempting to manipulate numbers. ◉