

The New *ISI Journal Citation Reports* Should Significantly Affect the Future Course of Scientific Publication

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For some time, ISI® has been promising scientists and librarians that we would publish data from our journal citation files.<sup>1</sup> I am glad to announce here the availability of the *ISI Journal Citation Reports™* (*JCR™*). Several of my editorials have drawn on these data to illustrate how citation analysis of particular journals and fields is possible. There is a limit to the number of these studies we can include in *Current Contents®* or in published letters or articles in other journals.

The *JCR* is made up of three parts. The first part identifies the 1000 journals cited most frequently during the period covered by the *Reports*. In fact, this part of the *JCR* is an extension of the previously published list of 152 most-cited journals. Just as in the original paper, the 1000 journals covered in *JCR* are also ranked by *impact* factor. *Impact* is de-

fined as the average number of citations per article published. Whereas a venerable journal like the *Comptes Rendus* ranked 13th in terms of total citations, it ranked 601st in terms of impact, with a factor of 1.78. The *Collection of Czechoslovak Chemical Communications* ranked 500th in terms of impact (0.98), though 176th in terms of total citations.

The Soviet journal *Uspekhi Fizicheskikh Nauk* ranked 52nd with an impact factor of 4.9; in terms of total citations it ranked 231st.

The *JCR* listings cannot tell the whole story for individual journals, but the summary data they provide can be extended by editors and other interested parties in examination of the article-by-article record that is contained in the *Science Citation Index®*.

The second part of each *JCR* provides, for each of the same

1000 journals, a detailed listing of all journals by which it was cited. A number of examples of this kind have been published in CC®. For example, I pointed out in one case how the data enabled us to suggest the need for a *Journal of Applied Virology*.<sup>2</sup> In another instance, we were able to observe the importance of virology in phytopathological research.<sup>3</sup> One would think that any journal editor will be interested to know what other journals have been most affected by the material his own has published.

On the other hand, the third part of each JCR provides an alternate insight: it shows what journals each of the most-cited 1000 have themselves cited.<sup>4</sup> Editors and contributors are frequently surprised to learn the citation practices in their own journals. This type of data has been most popular in classic citation studies; e.g., Sengupta has recently reported on the leading journals of biochemistry by analyzing three years of citations in the *Annual Review of Biochemistry*.<sup>5,6</sup> These lists should be compared with those reported by me before<sup>7</sup> as an illustration of how much work can be saved by using JCR.

The first part of each JCR is available for \$100, and the second and third for \$250 each. All three parts can be purchased for \$540. Advertisements about JCR have already appeared in CC. These ads outline the presumed advantages for acquisition librarians, department library committee chairpersons, and individual scientists concerned with selecting new journals for incipient manuscripts.

1. Garfield, E. Citation analysis as a tool in journal evaluation. *Science* 178:471-9, 1972.
2. ----- . Citation analysis of pathology journals reveals need for a journal of applied virology! *Current Contents* No. 3, 17 January 1973, p. 5-8.
3. ----- . Most frequently cited phytopathology journals. *Phytopathology News* 6(3):4, 1972.
4. In both the second and third parts of the JCR, the counts for individual citing (Part 2) and cited (Part 3) journals are broken down chronologically to show, back to 1960, the year of publication of the cited material.
5. Sengupta, I.N., Recent growth of the literature of biochemistry and changes in ranking of periodicals. *J. Documentation* 29(2):192-211, 1973.
6. ----- . Growth of the Biochemical literature. *Nature* 244: 75-6, 118, 1973.
7. Garfield, E. What is the core literature of biochemistry as compared to the core of chemistry? *Current Contents* No. 5, 2 February 1972, p. 6-9.