Information Processing & Management Vol. 22, No. 5, p. 445, 1986
Printed in Great Britain.

0306-4573/86 $3.00 + .00
© 1986 Pergamon Journals Ltd.

LETTER TO EDITOR

Dear Sir:

The article by Christinger Tomer in *Information Processing & Management*, Vol. 22 No. 2, 1986, seems to represent a lot of circuitous work for little return. The author correctly observes that the impact factor was created to prevent invidious comparisons between large and small journals. He seems to miss the point that it is a measure of the impact, not of a journal, but the average item published in that journal. If it is felt that, e.g., review journals do not "deserve" to be ranked high in impact, then he is confusing the meaning of impact with influence. Surely it should be obvious that influence is a combination of impact and productivity.

Total citations without chronological distinction can also be misleading. That is why we used only two recent years to calculate impact of journals for the *Journal Citation Reports* (*JCR*). But in dozens of studies, I have pointed out that different chronological bases can be used. For certain fields, it is more interesting to consider either more years, or earlier years. To rely on total citations alone always favors the old established journals regardless of current influence.

After so many years of use, *JCR* has served its initial purpose well. Now it is time to use, e.g., five year impact calculations, or even longer, to make possibly more interesting longterm comparisons. This is exactly why we created, at ISI, the article-by-article journal audit. In this approach, we overcame the effects of averaging all kinds of editorial items. Thus, in a study of medical journals [E. Garfield, *Annals of Internal Medicine*, (in press)], it has been shown that the impacts reported in the *JCR* for a few journals do not adequately separate the average impact for research or review articles from letters, editorials, etc. If Tomer or anyone else wants to study the variation in terms of article length, this is possible but seems of dubious value, without further questioning the size of print used, etc. If an article is long enough, then presumably it approaches the citability of a review. I know of no study that verifies this hypothesis. There is plenty of evidence that large numbers of short articles are cited more often than many books. One would expect that books, especially in social sciences and humanities, are cited more often than short articles, because book reviews are so widespread in those fields.

All of this demonstrates that citation analysis needs to be done carefully. If Tomer wants to rank journals by some, as yet to be defined, influence measure, then that is possible with the data already compiled.

As the editor of *Brain & Behavioral Science* has protested many times, *JCR* cannot provide uniform justice for the thousands of journals it covers. Steven Harnad understands too well the effect of treating each of the commentaries in his journal as separate source items. This inflates the item count and deflates the impact. He would much prefer to treat the target article and all the separately authored commentaries on it as one unit. This is comparable to lumping a book with its reviews. But a case can be made for both approaches. If most journals were peer commentary journals, we would find that this criticism might disappear, since all would have the same bias. Incidentally, for our article-by-article audit, Irving Sher designed an algorithm that more consistently defines a "meaty" item. Undoubtedly, the algorithm could be improved but it produces a remarkably consistent and useful result – far more consistent than that of human editors who have assigned codes in the *SCI* for over 20 years. These factors do not affect retrieval of information. The average user does not care whether an item of correspondence is a trivial letter or a classic letter or communication to the editor, as long as he finds out if it was cited. But in bibliometric studies, these differences can be important.

EUGENE GARFIELD
President
Institute for Scientific Information
3501 Market Street
Philadelphia, PA 19104