

Why Don't We Have
Science Reviews?

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Recently we announced the forthcoming publication of our *Index to Scientific Reviews (ISR)*.¹ This may seem strange in view of the title of this essay. But I use the term *science review* in analogy with the typical *law review* journal published at most American law schools.

It's true that we may have too many journals now. But I've never heard a scientist or a librarian object to a new review journal.

I screen many journals for our *ISI Press Digest*. Of these, the law reviews are unique. I have long wondered why we don't have their counterpart in science. In American law schools it is a coveted honor to write for the review journal. The articles published in most law reviews--whether by faculty or by students--are generally of remarkably fine quality. Review articles with a sociological rather than purely legal outlook provide excellent and stimulating reading for the general reader. Many of them are directly related to environmental or scientific matters.

The rationale for the typical doctoral dissertation program has been questioned. Why, for example, should a person spend three years on an "original" lab-oriented pro-

ject if he or she plans to teach in a high school? The purpose of the research/dissertation program is training in and then demonstration or originality in research. The dissertation presumably contributes to the advancement of science. However, it is no secret that many dissertations, especially in the hard sciences, contribute mainly to the ongoing research interest of the faculty supervisor. Eventually, the thesis, much reduced, may end up as the author's initial contribution to the journal literature. In many cases it is also the last.

Why not offer the doctoral or even the master's candidate the opportunity to write a good critical review of a topic that needs reviewing. As in law, we should make the writing of reviews, for those students qualified to do it, an honorable and significant part of graduate research. However, for such students, the now inadequate training in science communication and information retrieval needs to be expanded.

Authorship of a critical review will certainly do as much for the advancement of science as elucidation of some abstruse specific. Reviews are among the most frequently cited

of all papers. They can provide a synthesis of the proliferating fragmented knowledge appearing in the plethora of foreign and domestic journals. How much wasted time could be saved by a decent review of the foreign language material pouring out of the Soviet Union and elsewhere. Whether we can expect graduate students to write "original" reviews seems to me to depend upon how "original" they can be in any case. But there is also the fact that some students are better synthesizers--as are some of our most distinguished scientists. They may not win Nobel prizes, but they advance our perceptions of the relationships between different research efforts.

While I would hope that this suggestion would lead to such new journals as the *Pennsylvania Science*

Review or whatever (you name the university or city), I would also urge that this program be implemented in cooperation with publishers of extant review journals. I'm sure many of them would be delighted to publish student reviews that have been refereed by faculty members or others.

The idea is not entirely new, especially in the social sciences. Apparently Paul F. Lazarsfeld and Robert Merton had a similar idea back in 1950.² I imagine that others have even suggested it for science *per se*. Perhaps Chauncey Leake had something similar in mind for the *Texas Journal of Biology*. The public relations value of such a journal, if it achieves consistent high quality, should not be underestimated.

1. Garfield, E. So you wanted more review articles; ISI's new *Index to Scientific Reviews (ISR)* will help you find them. *Current Contents* © No. 44, 30 October 1974, p. 5-6.

2. Lazarsfeld, P.F. & Merton, R.K. "A Professional School for Training in Social Research." In: Lazarsfeld, P.F. *Quantitative Analysis* (Boston: Allyn and Bacon, 1971), Chapter 18, pp. 361-91, especially pp. 375-6.