

Uncitedness and the Identification of Dissertation Topics

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In a number of earlier works, I have discussed the tantalizing topic of uncited articles in the scientific literature.1.2 The possibility of their exploitation by librarians and scientists continues to intrigue me. It was gratifying to learn recently that suggestions along these same lines have been made by the Associate University Librarian at the University of Connecticut in a report on the prestigious (but strangely uncited) Molesworth Institute.3 (Many a serious word may be said in jest.)

It seems to me that librarians with knowledge of special fields might make a major contribution to scholarship if they investigated the reasons for uncitedness in the case of individual articles. Librarians could aid faculty members and students in the selection of master's theses and doctoral dissertation topics by identifying apparently "interesting" papers that had not been cited and presumably never followed up.

The need for this type of function was mentioned in a collection of interesting essays edited by I.J. Good. 4 Indeed, the availability of the Science Citation Index Five-Year Cumulation 1965-1969 makes this task easier particularly for articles published during the last decade. The continued uncitedness of articles published in previous decades is not entirely surprising, but it warrants some study. Obsolescence of the literature is a topic of increasing economic importance in libraries.

Having myself attempted in certain cases to trace citations to works published as far back as the turn of the century, I am constantly frustrated by the fact that citation

indexes in most fields are not yet available for the first sixty years of the 20th century. (John Tukey's effort in mathematical statistics is one exception.5) It may seem like an over-ambitious project to contemplate the production of such an index when one considers the rate of obsolescence or so-called "half life" of the literature.6 Nevertheless discussion with numerous scientists and librarians convinces me that this project would provide an invaluable bibliographic tool that will be used for decades to come. Whether an SCI® for the first half of this century is published in the form of printed volumes, ultramicrofiche, or magnetic discs is not the major question. Even if the data were available on a shared centralized computer data bank, it would provide librarians and historians an invaluable research tool.

Fortunately, it is the very exponential growth rate of the scientific literature which increases the feasibility of this project. Now that ISI[®] has grown accustomed to processing over half a million source articles and about 6 million citations per year as a "routine" matter, the equivalent effort to produce a *Science Citation Index* for carlier decades is certainly within our competence. Indeed, the only major barrier to this accomplishment in the foreseeable future is the expression of need on the part of scientists and historians, and the ability of librarians to allocate funds for this production.

Those of you who have a special interest in the use of the *Science Citation Index* for historical research are urged to contact me about your interest.

1. Garfield, E. The road to scientific oblivion. J. Amer. Med. Assoc. 218:886-887, 1971.

- When is a negative search result positive? Current Contents[®], No. 32, p. 4-5, 1970.
- 3. Stevens, N.D. Molesworth Institute revisited. ALA Bull. 63:1275-7, 1969.
- 4. The Scientist Speculates, 1.J. Good, ed. (New York: Basic Books, 1963).
- 5. Tukey, J.W. Keeping research in contact with the literature; citation indices and beyond. J. Chem. Doc. 2:34-37, 1962.
- 6. MacRae, D. Jr. Growth and decay curves in scientific citations. Amer. Sociol. Rev. 34:361, 1969.