THE LINEAR File

GUEST Editorial

One of the most pressing problems facing online users in the 80's will be the question of whether or not to retain subscriptions to printed indexes in addition to providing online service. Already, some organizations have mandated the cancellation of print subscriptions upon the adoption of online service. Other institutions wrestle with the problem on a case by case basis. The factors that went into one such decision — the cancellation of a SCI-SEARCH subscription — were reported in an article in the March, 1980 DATABASE by Ann Pfaffenberger and Sandy Echt. The following guest editorial by Dr. Eugene Garfield, founder of the Institute for Scientific Information, presents a contrasting viewpoint and offers a glimpse of how one of the world's major database producers perceives the economics of the print vs. online dilemma.   The Editor

ONLINE AND PRINT INFORMATION SERVICES
ARE NOT ALWAYS EQUIVALENT FOR ALL USERS

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In their article, "Substitution of SciSearch and Social SciSearch for Their Print Versions in an Academic Library," Database 3(1):63-71, March 1980, A. Pfaffenberger and S. Echt recommend that subscriptions to the printed *Science Citation Index®* (SCI®) be cancelled in favor of its online counterpart because costs would be less. I think that the authors have failed to realize that online services and print indexes are not equivalent. Each has unique advantages. To give up one is to give up certain of these advantages. The cost may be less, but search capabilities are also diminished.

I do not mean to criticize our online files by this defense of print. Our online SCI-SEARCH® and Social SCISEARCH® files are very useful for performing a number of searches. For example, the files are extremely valuable for doing complex multiterm searches. Using Boolean logic, users can search with almost any number of terms and quickly retrieve documents on highly specific topics. Obviously, online capability is essential for performing this type of search. In addition, SCISEARCH has the advantage of being able to print the list of references cited by a particular source paper. This listing is not available in the print version of the SCI because of cost factors, but it is found in both the print and online versions of the *Social Sciences Citation Index®* (SSCI™).

ISI® is encouraging the use of online searching in appropriate situations by improving online software and by lowering the online rate for print subscribers to the point where cost will not be a significant factor in its use. But despite online's low cost and importance in some search situations, it is still an immature technology, which can be used only by trained search analysts. Therefore, online enthusiasts have no right to deprive users of the benefits of printed indexes. The print versions of the SCI and SSCI offer easy access to information to everyone — both library staff and library patrons.

For the library staff, the *Permuterm® Subject Index* section of *SCI* and *SSCI* is of major importance in helping to work out effective search strategies before going online. If title-words are used to define a search question, it is wise to check the *PSI* to make sure that the words are not so general that an online search will produce an overly large number of hits, or irrelevant hits. If the *PSI* check indicates that the topic is too broad, then the searcher will know that the search terms must be defined more precisely by adding other, qualifying terms. Neither Lockheed, SDC, nor BRS can provide a display of all the qualifying co-terms listed in the *PSI* with each primary term.

Furthermore, if a search analyst is considering the use of a cited author as a search term, the *Citation Index* is the ideal place to check to see if this strategy will produce too many hits. If such is the case, it would then be wise to use one or more of the authors' cited papers as search terms. In short, by taking advantage of the information displayed only in the print index, searchers will use SCISEARCH time more wisely.

For the patron of the library, the printed index is always on hand for "quickie" search-es and for browsing. Unfortunately, the authors of the article didn't place a camera near the *SCI* or *SSCI* in their library to measure the number of such searches that take place daily. For quick searches, if you look in the *Citation Index* for a particular paper, you can see at a glance both the citing authors and journals. Furthermore, included in the *Source Index* are the addresses of all first authors so users can quickly get the information need-ed to write for reprints or contact the author for a face-to-face meeting. Locating this in-formation through SCISEARCH is more time-consuming; even the delay in making the connection to Lockheed is enough to discourage this and other brief uses of SCISEARCH.

In terms of browsing, in a few seconds' glance at the *SCI* (or *SSCI*) page, you can learn what it would take hours to learn using SCISEARCH. It is not merely that one often needs to browse. There is a "gestalt" that is vital, whether you use the *SCI* to get an "impres-sion" of some author's impact or you try to learn how much information on a particular subject is available as indicated by the *Citation Index* or *Permuterm Subject Index*.

The study outlined in the article in question also totally ignores important human fac-tors in operating libraries. The psychological reluctance with which many patrons ap-proach a library is well documented in the literature. Many library users are not certain of the information they need. They have not carfully formulated a search question. And many have browsing needs rather than specific search needs. The absence of the printed index forces users to interface with the librarian and expose their feelings of ignorance and uncertainty about the information that they are seeking. The absence of a print in-dex means that they cannot begin to find answers themselves or browse to find informa-tion that will make their search a lot more specific. Thus, the probing reference interview is an abrasive process for people uncertain of the information they need. Not every user is an extrovert. Scholars often prefer to work alone unaided by librarians or others, well-intentioned as they may be.

Unfortunately, the consequences of the recommendations made by Pfaffenberger and Echt, to abandon printed indexes in favor of an online counterpart because cost would be less, would only serve to drive the cost of searching SCISEARCH up, or limit online use to *SCI* print subscribers only. This, in fact, is the policy we may adopt with the *Arts & Humanities Citation Index*[1].

Some online search services claim that online facilities are helping rather than hinder-ing the development of printed indexes. We have not yet seen proof of that claim. On the other hand, we have seen proof that some subscribers, when given the option of online searching, will abandon their printed indexes to the detriment of a significant number of users. Since it is clear that one cannot raise the price of an online search to non-print subscribers to absurd levels, there may be no recourse other than the policy of limiting online access to print-copy subscribers.

The 1980's will be a period of transition and testing. Right now, online technology lacks many of the important display features of the printed index. Considering the speed and direction in which computer technology is moving, those shortcomings probably are not permanent ones. There is no doubt that the relationship between online and

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printed indexes is in a period of transition. Nor is there any doubt that much testing has to be done to finally define the pricing philosophy that will accurately reflect that relationship.

The transition will be made even more complex by the emerging microcomputer revolution. It is not unreasonable to expect that by the end of the decade, central online databases may be replaced by local databases stored on and manipulated by microcomputers. By that time we may be sending out floppy disks or whatever, instead of printed volumes. This will happen, however, only when we have managed to develop software, sufficiently transparent to the user, that will make it possible to do everything, and more, on a computer that can be done now with a printed index.

Until that time, print indexes will still be frequently consulted in most libraries. As of the writing of this editorial, Texas Christian University's Mary Couts Burnett Library, where Pfaffenberger and Echt did their study, is seriously considering reinstating their *Science Citation Index* subscription. This leads me to believe that the library staff is finding that the print version, despite the availability of the online file, is still a necessity for a great many of their patrons.