Essays of an Information Scientist, Vol:1, p.150-151, 1962-73
Current Contents, #2, January 27, 1971

"Current Comments"

How the *Science Citation Index*® Overcomes the Linguistic and Terminological Barrier to Precise Information Retrieval.

February 10, 1971

The *Science Citation Index (SCI®)* lets "even a secretary do the retrieval work of high-salaried R&D personnel." This statement, like most advertisements, emphasizes one benefit to the possible detriment of others. More precisely one might say that "*SCI* lets even high-salaried R&D personnel do the retrieval work they want to do, quickly and efficiently." Using the *SCI*, literature searchers don't have to grapple with problems of languages, technical terminologies and arbitrary classifications that are inherent in most traditional subject indexes. In fact, I often think that one of the least known and least appreciated of the *SCI*'s many virtues is that it requires so little knowledge of language or terminology on the part of the user--scientist or secretary.

Despite the fact that English is now acknowledged to be the international language of science, and also despite the fact that English-language indexes in medicine, biology and chemistry have long been found in libraries around the world, problems of language and terminology are still formidable for scientists. Today, such problems are as likely to baffle retrieval efforts as they were 20 years ago. At that time I was working at the Johns Hopkins Welch Medical Library. Our job was to construct an alphabetic list of subject headings for the *Index Medicus*. As a linguist I was intrigued, but as an information specialist appalled, by the almost impenetrable thickets of language, terminology and classification that confronted the scientist--no less his secretary--when searching the literature.

At the Welch Library I first began to appreciate the pitfalls that language, translation, even national usage and plain jargon can place in the way of the unsuspecting medical researcher. For example, because of an error--or, if you will, a preference in translation of material covered in the *Index-Catalogue of the Office of the Surgeon General*, one finds that neonate patients of English-speaking physicians suffer from *congenital cardiac defects*. Patients of German-speaking physicians, however, suffer from *congenital heart failure* (the German *Fehler* in this connection was consistently mistranslated as *failure*). Further, *left ventricular hypertrophy* seems quite common in Europe but strangely rarer in America. Other examples are legion in medicine, chemistry, etc.

It is a mistake to believe that a scientist, simply because he is a scientist, can work easily with any language-keyed bibliographical tool--much less his secretary. The *Citation Index* section of the *SCI*, however, because it is not keyed to language, allows either to do the work. In contrast to most word or subject indexes, including the *SCI Permuterm® Index*, the *Citation Index* does not deal with "what" the author

is talking about but rather "who" has he been talking to. A citation–author, journal title, volume, page, and year–cuts away all the bibliographic thickets whose cultivation has occupied too many people for too long. Indeed, it is a jungle in which many people thrive, but not the researcher anxious for a quick result.

The *SCI* has cleared the thickets away. Therefore, it is true that even a nontechnically trained secretary can find you the latest articles on either of the two different Paget's diseases in which you may be interested. All you do is give her the "primordial"[1] citation for the "subject" you are really interested in. Neither of you will need to bother about the language or terminology of the recent source material or the work cited. If, however, you can only recall a key-word in the title then you can begin your search with the *Permuterm Index*[2].

1. E. Garfield. Primordial concepts, citation indexing, and historio-bibliography. *J. Lib. Hist.* 2(3): 235-49 (1967).
2. ..... Permuterm Subject Index--the primordial dictionary of science. *Current Contents®/Physical Sciences* 9(22): 4 (June 3, 1969).