PERMUTERM® SUBJECT INDEX -- the Primordial Dictionary of Science

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It will come as no surprise to most readers of *Current Contents*[®] that ISI is also the publisher of the *Science Citation Index.*[®]

The Science Citation Index tells you where any given publication ever published has been cited in subsequent literature.

Ever since the Science Citation Index was first conceived, we recognized the need, when one forgets the author of the starting reference, to identify the citation from one or more remembered words from the title. Furthermore, librarians and others must be able to find information on all sorts of topics with which they are not familiar, so it is useful to have a quick means of identifying key papers by one or two subject words.

Recognizing this, ISI began working several years ago on a concept known as *Permuterm* indexing. Many of you have seen indexes in which key words are used as a basis for preparing so-called KWIC indexes, which most scientists find difficult to use. The *Permuterm Subject Index* was designed to overcome the shortcomings of KWIC and other traditional subject indexes.

Briefly, in the Permuterm Subject Index(PSI^{T.M.}) we have a system which permits you to find papers by providing all possible permuted pairs of title words. In this system, for every source article processed, the computer creates every possible permutation in pairs of all meaningful words appearing in a title. Thus, if a title contains ten meaningful words, our computer generates 90 permuted pairs. For those of you who are more mathematically inclined, this is the result of multiplying n(n-1) and illustrates why the PSI is a true permuted index, whereas KW1C is more properly classified as a rotated word index.

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The PSI is presently available for the years 1966 and 1967, and covers more than half a million articles and includes about 15 million entries. The PSI for 1968 is now being printed and will cover about 300,000 additional articles, contain more than 10 million permuted pairs, and thousands of cross references. Additional information about the PSI will be found elsewhere in this issue.

The PSI provides a number of interesting uses not possible with other indexes. PSI is invaluable when selecting profile words for selective dissemination of information (SDI) services. Thus, to predict how many papers will be published on any given topic, look up the appropriate words in the PSI.

Such frequency analyses are but a few of the uses that have been found for *PSI*. I have also described it as a dictionary of *primordial* terms (1) because *PSI* contains thousands of words not yet covered in any dictionary.

A majority of SCI subscribers have the PSI available, so you should have little trouble availing yourself of the opportunity of conducting your own experiments. When you do, we will be interested in any results you might care to share with us.

1. E. Garfield, "'World Brain' or 'Memex?' Mechanical and Intellectual Requirements for Universal Bibliographic Control," The Foundations of Access of Knowledge, A Symposium, E.B. Montgomery, Ed., 1968, pp. 169-196, Syracuse University Press. (Reprinted in 1968 Science Citation Index Guide and Journals Lists; available on request.)