

Will ISI's *Arts & Humanities Citation Index*
 Revolutionize Scholarship?

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One hears a great deal about bridging the gap between C. P. Snow's "two cultures." My respect and admiration for science notwithstanding, I have frequently felt uncomfortable among many scientific colleagues because of their awesome technical grasp of natural or physical phenomena. I have often felt equally ill-at-ease among artists, literary persons and humanities scholars when confronted with their consummate expertise. But forced to make the choice, I suspect I would favor the arts and humanities over scientific endeavors.

Fortunately, this choice is not necessary for me or for society. But ever since I entered the field of information science I have been acutely conscious of the "bias" ISI® and most similar organizations in the U.S. and abroad have towards the sciences. So it gives me special pleasure to announce that ISI will introduce in 1978 the *Arts & Humanities Citation Index (A&HCI)*.

Upon hearing about this decision, my late colleague Robert L. Hayne, ISI's Chief Editor, cautioned me to remember to mention that the history of science is replete with great scientists who combined both art

and science to produce the quintessence of both. The Parthenon is but one ancient reminder of the fusion of mathematics with art, as is most great architecture. Leonardo da Vinci probably epitomizes the bridge between the two cultures, while Isaac Newton exemplifies the crossover between philosophy and scientific scholarship.

Although ISI is not the only information organization in the world covering the three major areas of research and scholarship—the sciences, the social sciences, and the arts and humanities—it is undoubtedly unique in scope, whether one thinks of the Wilson Indexes or even the Library of Congress. The processing of so many diverse journals will enable us to put at the disposal of world scholarship in all fields those occasional but significant cross-references between the two cultures. For example, if you examine either the annual *Science Citation Index® (SCI®)* or *Social Sciences Citation Index™ (SSCI™)* for 1976 or 1977 you will find on almost any page an entry which reads "see *SCI* (or *SSCI*) for *n* additional citations." Similar cross-referencing is being considered for the

A&HCI. This might help preserve the elusive connective threads which are often lost when searching discipline-oriented indexes.

Of course, ISI's involvement with arts and humanities information is not totally unexpected. The wide acceptance of the *Science Citation Index*, and especially the *Social Sciences Citation Index*, has caused many librarians and scholars to ask when ISI would cover these other areas. In recent years research and scholarship in the arts and humanities have become more interdisciplinary. Investigations on such topics as the language of philosophy, the influence of women on religious art, book publishing in the Middle Ages, or even the development of protest music have become more common. According to the people who wanted ISI to become involved, no existing service provided the coverage or the indexing approach needed to answer such questions simply.

Quite frankly, we hesitated to enter the arts and humanities area for a number of good reasons. Nothing is more intellectually frustrating than an idea whose time has not come—to say nothing of the economic consequences of acting upon such an idea. And when we considered the large number of specialized services already available in the arts and humanities, we were concerned about unnecessary duplication.

So we undertook an intensive two-year marketing research program to determine if there was a real need. We interviewed dozens

of people in North America and Europe and conducted a worldwide mail survey. We found that:

—the arts and humanities, no less than the sciences, need a large-scale index that provides multi-disciplinary coverage,

—an up-to-date service issued on a current basis and cumulated annually would be welcomed, and

—there was widespread belief in the potential effectiveness of citation and title-word indexing in arts and humanities information retrieval.

Whether citation indexing and title word indexing will actually work with the literature of the arts and humanities remains to be seen. The advantages of citation indexing have often been discussed in *Current Contents*[®]. But in the arts and humanities the advantages over traditional indexing methods are possibly more significant than in the sciences due to the vagueness of many titles and the kinds of abstract concepts involved. Need one elaborate on the multitudinous interpretations possible in art?

It has been claimed that the arts and humanities are particularly characterized by isolated schools of thought, and that they often rely on perceptual rather than experimental evidence. Certainly the terminology of humanists lacks the precision we associate with the sciences—inconsistent as it may be. But this lack of precision in terminology does not imply a lack of careful citation. As M. S. Batts of the University of British Columbia has as-

served, even though citation indexing is now restricted to the sciences and social sciences, humanities scholars "cite with equal if not greater avidity and have been doing so for hundreds of years." He states that a citation index "could, therefore, be as useful to the humanist as to the scientist."¹

Unfortunately, it is true that the citation practices of certain journals—and even some individuals—in the arts and humanities are sometimes not as useful as they might be. And, as in the social sciences, inconsistencies of citation style in the humanities hamper the preparation of a citation index. Archaic bibliographic practices plague us and the user because of the added costs and energy involved. Articles in art, music and philosophy present special problems. They often cite literature other than journals or books, such as unpublished manuscripts and catalogs. They sometimes refer to original sources but do not cite them. Also, references and notes are often imbedded in the text. Even when they are sequentially numbered and placed at the end of the article, they can be quite involved and so require considerable effort in deciphering their meaning. Such problems may add to our processing costs, but they certainly are not insurmountable.

Unlike the *SCI* and *SSCI*, the *Arts & Humanities Citation Index* will index "implicit" citations, which occur when an article refers to and substantially discusses a specific

work but does not formally cite it. Even reproduced works of art and music scores will be picked up as implicit citations, with a code indicating that the "cited" work is an illustration.

In addition to a citation index, the *A&HCI* will, like the *Science Citation Index* and *Social Sciences Citation Index*, include a permuted title word index called the *Permuterm*[®] *Subject Index (PSI)*.² The *PSI* will offer rapid, highly specific searches especially when one recalls the title of an earlier work. Once retrieved, these references can be used as starting points in a search of the citation index or source index. Since subtitles are also processed for the *PSI*, it is even more likely that specific, descriptive, meaningful terms will be obtained to index each source article.

Nevertheless, we realize that we will have to deal with the problem of whimsical and other types of inadequate titles. This will be done through a title "enrichment" policy. Although titles will not be changed, an article will be indexed *as if* its title contained the name of the person, place or thing it is about. Thus, if an article about the work of Pablo Picasso does not contain the artist's name in the title, we will add it. "Picasso," along with the rest of the significant title words, will then be permuted to form a series of two-term entries or term-pairs.

There will, of course, be a source index section in the *Arts & Humanities Citation Index*. This will give

the full bibliographic description of each source item covered, as well as author addresses for reprint requests or other follow-up contacts. Each year's source index will be the most complete listing of arts and humanities authors ever compiled.

One of the problems addressed by our marketing research effort was that of defining the arts and humanities. From my previous experience, a pragmatic solution to this problem of definition will be found essentially in the marketplace. Starting from an obvious core of journals we will expand our boundaries as costs permit and users demand. The disciplines covered by the *A&HCI* will certainly include the traditional disciplines of literature, languages, history, philosophy, religion and classics. Other areas covered will include fine arts and architecture, music, and the performing arts of drama, dance, film, radio and television. The complete scope of our coverage of such areas as "music" will require refinement. Certainly musicology and the history of music are essential. But there are dozens of "journals" on music. Whether a jazz publication like *Downbeat* should be indexed in *A&HCI* needs to be carefully evaluated.

Arts and humanities journals contain a wide variety of items: articles, book reviews, review articles, bibliographies, letters, record and performance reviews, literary criticisms and works of fiction such as stories, plays and poems. At present, no index covers all of these di-

verse types of publications. The *Arts & Humanities Citation Index* will provide cover-to-cover indexing for every issue of every covered journal. Initially, over 70,000 items per year from over 1,000 journals will be covered. About half are published in the United States and half published elsewhere. As the service expands foreign coverage will be increasingly stressed.

Since long publication lag times have been a major problem with most existing arts and humanities indexes, ISI's *Arts & Humanities Citation Index* will be published on a schedule that makes it the most current tool of its size. The first softbound triannual will be issued in June, 1978, covering the journal literature published from January to April. The second triannual *A&HCI*, covering the literature from May through August, will be issued in October, 1978, and the annual *A&HCI* covering all of 1978 will appear in May, 1979. The same schedule will be followed in subsequent years. In addition, an annual *A&HCI* covering the literature published during 1977 will appear in December, 1978.

The price of the *A&HCI* will be \$1500. We realize that some speciality institutions, such as small schools of art, music, dance, and religion, as well as small libraries and museums, may not be able to afford this. However, the ISI Grant Program, which provides financial help from ISI equivalent to 50% of the regular purchase price, will enable some of these institutions to

purchase this new tool.³

We have already received many questions concerning the *Arts & Humanities Citation Index*. Will computer tapes be made available for on-line searching? Will there be a *Current Contents Arts & Humanities*? How about a *Journal Citation Reports*® for the arts and humanities? We haven't immediate answers for all these questions, but their very existence indicates a high probability of positive response. (Readers can obtain more information by sending in the coupon on the back cover of this issue.)

The computer plays an important role in the compilation of our services. Some humanists may be averse to what they see as manipulation of their scholarship by modern machines. But I cannot believe that many modern humanities scholars hold so firmly to the "Frankenstein" complex as to deny themselves the benefit of improved access to the literature of scholarship.⁴

I am reminded that when I wrote my first paper on the *SCI* I was attending library school.⁵ After correcting my abysmal English, Pro-

fessor Allan T. Hazen told me that, if ever applied to the humanities, citation indexing would substantially alter the quest for the doctorate. Many dissertations have consisted primarily of a search through endless bibliographies for the elusive reference to a particular literary work. In this sense, *A&HCI* could conceivably produce a revolution in literary scholarship.

Today there are many scientists who are fully conscious of the need for society to support the humanities. But far too many pursue their technical endeavors seemingly unaware, for example, that the cost of a single particle accelerator could support hundreds of painters or performing artists. Fortunately, feeling as I do that *A&HCI* will be a financial *as well as* intellectual success, it will not be necessary to justify its existence either to scientists or to the members of my Board of Directors merely on spiritual or aesthetic grounds. So I look forward to the rapid and widespread acceptance and use of ISI's new *Arts & Humanities Citation Index*. Your comments and suggestions would be appreciated.

1. Batts M S. Citations in the humanities. *Institute of Professional Librarians of Ontario Quarterly* 14:20-40, 1972.
2. Garfield E. The *Permuterm Subject Index*: an autobiographical review. *Journal of the American Society for Information Science* 27(5-6):288-91, September-October 1976.
3. ———. The ISI grant program. *Current Contents* No. 18, 2 May 1977, p. 5-6.
4. ———. 'Our computer goofed.' *Current Contents* No. 23, 9 June 1975, p. 5. (Reprinted in: *Essays of an Information Scientist*. Philadelphia: ISI Press, 1977. Vol. 2, p. 296.)
5. ———. Citation indexes for science. *Science* 122(3159):108-11, 15 July 1955.