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# LETTER TO THE EDITOR

## Information Science and the Annual Review

I REFER to Dr. Saracevic's critique, dealing with the first five volumes of the "Annual Review of Information Science and Technology" published in the September 1971 issue of *Inform. Stor. Retr.* 7, No. 3. While my name appears in the critique, I feel nevertheless that I am a reasonably disinterested observer. I may therefore be permitted to make a few remarks in this connection.

First I should say that on a number of (possibly more minor) points, I entirely agree with Saracevic's view:

(a) very few of the chapters in ARIST are sufficiently critical, and too many read like annotated bibliographies; indeed, I believe that the requirement "to screen literally hundreds of potentially relevant items" is counterproductive, and leads precisely to what we have too often—a set of bibliographies;

(b) the large number of references in ARIST to technical reports, and other unrefereed items is unfortunate, and Dr. Cuadra's rejoinder appears unconvincing; of course, there exist a few "real pro's" who are outstanding yet publish little; but professional life being what it is, there aren't very many such people, and the more meritorious items will generally be found in the open literature, in our field as in others.

While thus sharing some of Dr. Saracevic's misgivings, I don't know quite what could be suggested to relieve these shortcomings. It is a common failing of many published reviews that they summarize a given piece of work instead of putting things into context and criticizing. The reason, no doubt, is that it is easier to summarize than to review; and more likely than not, most of us find it easier and more rewarding to write up our own work than to review other people's offerings. As to the suggestion that ARIST should commission broad state-of-the-art papers "in their full synthesizing framework", everyone would surely agree with the desirability; but who is going to do it?

Concerning now Dr. Saracevic's other criticisms, I think the situation is more serious, because in criticizing ARIST, the whole field of information science is being attacked. Dr. Saracevic in fact says that ARIST is technology- rather than science-oriented; that many basic literature problems are not touched upon by ARIST; that "some serious reactions. . . which are transforming the field" cannot be detected in ARIST; that "vital areas of study" such as literature structure studies and bibliometrics are buried in other chapters—and, in general, the thought is conveyed that ARIST is retrogressive. The reviewer thus makes it appear as if great things were going on in the field which are not reflected in ARIST, while on the other hand, the material actually covered is of scant importance. As Saracevic says:

> "Somewhere . . . something went wrong; the basic literature information problems were not solved, or even dented . . ."

It is not easy to react to Dr. Saracevic's critique, because the focus of his attack is not clearly specified. If by condemning the emphasis on technology, he means specifically hardware, he certainly makes a valid point; hardware alone has never solved a problem. Sometimes, however, one gets the feeling that it is not technology versus science, but rather experimentation versus theory that Saracevic is comparing—and one is bound to ask what all the important theoretical developments are that are being ignored. Exactly what "serious reactions" are being felt that are transforming the field? Where are the "vital areas of study"? Where is the applicable theory?

Surely, Dr. Saracevic cannot be serious if he proposes bibliometrics—the only neglected area he mentions—as a theoretical base for information science. For the most part, the distributions which are said to describe the assignment of articles to journals, or of key words to documents, or of title and document lengths—are empirically derived. If found to reflect an existing situation, such distributions can be useful, for example, in estimating book circulation, or in deciding about a subscription policy for journals; but it is certainly premature to assume that a theory of information science can be based on these developments.

Furthermore, it is difficult to understand what Dr. Saracevic has in mind when he says that

> "It cannot be said often enough that the fundamental difficulties of the field as a whole can be traced to a failure to distinguish between science and technology."

It seems to me that there are many factors inhibiting progress in the field that have nothing to do with either science or technology—for example, the many human factors, lack of training, lack of interest in changing old established points of view, lack of funding, and so on. And even if a strict division were to be made between science and technology—assuming that this could be done—it is unclear whether this would fundamentally change anything at all.

Finally, a word of protest is, I think, in order against the notion that the basic literature problems were "not even dented". Obviously, we have a long way to go. We use antiquated and inefficient procedures to analyze and identify information; our classification, storage and search techniques can be considerably improved; and the role of computers in the library has, I believe, been grossly misunderstood.

At the same time, quite a few of the ARIST chapters confirm that we have made substantial progress over the last ten years. We know a great deal more about automatic text analysis and the use of uncontrolled vocabularies in indexing than we did before; we know something more about the problems of relevance assessment; we can build automatic term, or document, classification systems relatively efficiently; we have learned something about storage organizations, and about iterative searches utilizing user feedback.

It would most certainly be difficult to prove that progress in information science has been any less over the last decade than say in mathematics, or in physics.

There are two issues concerning ARIST that Dr. Saracevic fails to mention: the issue concerning the parochialism of reviewers in citing mostly American papers, and the question of the ARIST influence in the field in general. Concerning the parochialism question, this seems to me to be inevitable when the reviewers are Americans who do not, or cannot, read foreign language papers.

As to the influence of ARIST, a recent survey of 84 programs in library and information science (JASIS, Vol. 22, No. 3, May–June 1971) indicates that not a one had heard of

ARIST, or used it in class. That makes one wonder whether the ARIST issue is as important as any of us would like to assume.

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