Genetics Citation Index
1963

PREFACE

Dr. Garfield's article on citation indexing which appeared in *Science* in 1955 first brought this technique to my attention and was my first introduction to the organization now known as the Institute for Scientific Information. Citation Indexing seemed a clever idea at the time and I wondered whether it would ever come to fruition.

A few years later the suggestion recurred and I was puzzled how to find out whether there had been any follow-up on Garfield's first suggestion. I had no idea how to look up the literature in the documentation field and from past experience with subject indexing in science had little confidence in the utility of a literature search.

This was the very incident that convinced me of the need for the citation index -- it was parallel to many others in my own research activity. How often I have run across some older reports on methods or on some curiosities of bacterial variations and been frustrated in attempts to find later work on the same subject and, especially, critical enlargement on the earlier work.

For many reasons genetics is an especially apt field for the introduction of citation indexing. It is inherently interdisciplinary, cutting across biochemistry, statistics, agriculture, and medicine so that geneticists need insight into a wide range of scientific literature. While there have been many revolutionary developments, many facets of genetics still rely heavily on older work. The principles of *Drosophila* research of 40 years ago are first finding their application in human cytogenetics today. Geneticists have tended to be perceptive about the historical development of their concept and to fulfill their responsibility in furnishing the appropriate citations in their bibliography. Their concern with parent-offspring relationships perhaps makes geneticists more perceptive to the understanding of the structure of scientific activity that is inherent in citational references. It was, therefore, most gratifying that the review panel of the NIH and NSF concurred in supporting this trial in the field of genetics.

Citation indexing is, of course, only one aspect of literature searching. There will be many disappointments in its use--but a negative result within the scope of the index is perhaps more meaningful than with any other technique. Other methods generally place great reliance on subjective classification with which the final user can rarely be entirely familiar. Citation indexing can uncover unexpected correlation of scientific work that no other method could hope to find, and a successful match can often be located with great speed and assurance. The chief limitation is perhaps merely the scope of the indexing effort in the sample--in a given year there may have been no literature on a given reference. A cumulative index to all of science would, of course, be a large undertaking but of course no larger than the problem to which it is addressed. In fact the machine basis of this approach should make it far less costly and more expeditious than any other technique now apparent. Until a complete index is available we may not know the full value of the technique, but the present sample is a noble effort which should give many investigators substantial help in their present retrieval problem and show the way to an ultimate, even more satisfactory, result.

My own contribution to the project has been too limited to inhibit me from commending Dr. Garfield and his associates for organizing and implementing a project which has required an unimaginable attention to detail, technical skill, enthusiasm, and above all, an irrepressible concern for meeting the real need of scientists. To flourish, science has many needs but none are more vital than responsible communication with history, society, and posterity embodied in what we casually call the scientific literature.

Joshua Lederberg
Stanford University