

International Cooperation in Scientific Documentation

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DOCUMENTATION MAY BE DEFINED as the activity by which knowledge of the existence of publications and access to them is obtained—that is, as the process of gathering and consulting documents:

Since scientific publication has always been conducted without restraint or organization, there is little possibility that any regulation of its production and distribution can ever be exercised. Attempts in this direction would certainly be futile. Consequently, efforts to promote scientific documentations can be directed only toward perfecting the means by which the numerous scientific publications of the world can be made more widely known to, and more liberally placed at the disposal of, everyone able to use them for the advancement of science. This requires the preparation of lists, inventories, catalogues, or indexes of scientific literature, and the creation of means for the widespread distribution of the original documents or copies of them.

The first of these objectives, the preparation of world lists or catalogues of literature, is a task of such magnitude that it can be accomplished only by the combined efforts of many persons or agencies. In the past, each country in which science has been extensively cultivated has endeavored to produce its own tools of world-wide documentation. This has resulted in considerable duplication of effort and failure anywhere to attain complete coverage of the literature. It is therefore of interest to consider whether it may be possible to organize international cooperation for the production of more accurate and complete literature catalogues than have been made in the past by the independent efforts in various countries.

For such cooperation it would be necessary, first, to choose the number and scope of the subdivisions of science for each of which a separate catalogue of the world literature would be necessary. When this has been done, either the preparation of each catalogue could be apportioned by common consent to one of the cooperating countries, or centers corresponding to language or geographical areas could be set up and charged with collecting the literature originating in these regions and preparing the catalogues of this literature for all of the chosen subdivisions of science. These catalogues could then be reciprocally exchanged and assembled in each of the cooperating countries in accordance with the fields of science covered. They would provide a more complete and accurate coverage of scientific literature than could be made in any one country. They would not supplant the cataloguing, abstracting, or indexing activities at present carried

on in different countries but would provide an extension and perfection of documentary aids to the advancement of science.

Of these two methods of international cooperation, the first has the disadvantage that agreements in regard to which country is best fitted to undertake particular assignments would be difficult to obtain, and dissatisfactions would be likely to arise. Furthermore, assembling all that originates in any one country is not an easy task, and collecting the publications of foreign countries is far more difficult. This is due to the impossibility of locating the sources of many of them and the difficulty of establishing connections through which they may be purchased or otherwise obtained. The use of several languages and the harmonizing of nomenclature irregularities also create problems.

The plan of having the catalogues made in the countries or groups of countries in which the literature originates would assure greater completeness and accuracy, since they would be prepared by persons having more precise knowledge of the language and the sources and contents of the documents. They would also provide the evidence of the relative scientific production of each country or group of countries. They would be more convenient to use in the countries of their origin and would be no less useful to workers in other countries with different languages than catalogues prepared for them by their own countrymen. The only disadvantage would be the necessity of consulting more than one catalogue in order to find all references to work in a given field of science.

The preparation of the catalogues by either of the plans could not be expected to be achieved on a purely voluntary basis, since the incentive to cooperate would not be the same in all countries. There would be need for a central supervising agency, with funds for carrying on the work and competence to advise with regard to the forms of presentation and publication. This might well be placed under the auspices of the Science Division of UNESCO.

Since for the preparation of each catalogue the documents would have to be assembled, a microfilm copying service should be provided at each center in order that copies of the less widely disseminated documents could be supplied on demand. This would not deter librarians or individuals from continuing to acquire foreign publications, since they would be just as necessary as ever to permit workers to have immediate access to as large a part of the original literature as possible. It would simply facilitate obtaining copies of the rarer documents, which ordinarily

leave the countries of their origin in very limited numbers.

The literature catalogues, together with microfilm copying, would fulfill in a highly efficient manner the needs of international scientific documentation. They would provide the means by which more complete reviews, digests, and compilations of literature on special subjects could be made and enable everyone engaged in research or in scientific bibliographic work to collect all pertinent publications on a given subject. Finally, they might be expected to reduce the chances that exceptional and important contributions to science might remain hidden and unused for shorter or longer periods of time.

The plans discussed above are based on the principle of cooperatively distributing the work itself among competent persons in the several countries. The possibility of organizing a single scientific documentation center for the entire world may also be considered. It has been suggested that the buildings constructed for the League of Nations in Geneva, Switzerland, would serve admirably for this purpose. These would also furnish the assembly halls and other facilities for holding international scientific meetings. In this case,

the cooperation would be limited to supplying the funds required to pay the staff and provision for the collection of the scientific publications of all countries for transmission to the documentation center.

A single center would, of course, have certain advantages, but the organization of the work on the gigantic scale which would be required would undoubtedly be a very serious problem. Also, questions would be raised as to the prestige and advantages conferred upon the country in which the center is located. Although these imputations would be less in the case of Switzerland than in that of any other country which might be chosen, they would, nevertheless, be made, since scientists are not entirely free of chauvinism even though they recognize the international character of science. The suggestion of a single center of documentation for the world is one deserving of careful consideration in conjunction with the plans involving distribution of the work among the participating nations. Certainly, some kind of international cooperation in scientific documentation is desirable, and its attainment is worthy of the earnest efforts of all who are interested in the advancement of science and human welfare.

Scientific Publication as Affected by War and Politics

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MANY YEARS AGO, THE WRITER BEGAN an analysis of the number of titles published in the different languages each year in the field of psychology. A number of reports have appeared in the *American Journal of Psychology* and in the *Psychological Bulletin*. This work was originally undertaken to impress on graduate students and professional psychologists the necessity of an adequate reading knowledge of English and German, no matter what their native tongue. The first article, published in 1917, indicated certain interesting and important language trends, and hence the writer has made three supplementary reports, each covering an additional 10-year period. By 1938 these trends seemed of such importance that the data from 1894 through 1935 were gathered together in a single article which covered the early development of psychology, World War I, and certain earlier years of the period of economic depression. This latter period covered, as well, certain political changes, especially in Italy and in Germany. Results are now available for the whole midwar years and for World War II.

It must be frankly admitted that the material here presented is limited in scope. Psychology, as a science,

has been extremely fortunate in having a bibliographic service from a relatively early date. From 1894 to 1935 the *Psychological Index* merely listed titles in psychology or in neighboring fields of professional interest to psychologists. Since 1935 the writer has utilized the *Psychological Abstracts*, which supplies abstract service for psychologists.

The materials for the present paper are derived from these two sources. For the present purpose a title is a title, and no attempt has been made to evaluate it, be it a two-volume work or a single page in a journal. Certain sources of error are self-evident. Each title is listed as of the year in which it is mentioned in the *Index* or *Abstracts* rather than as of the actual year of publication. Although there are therefore certain lags, particularly toward the ends of the years, this error is subsequently self-corrective. It is also obvious that such bibliographic services can never be totally complete. Furthermore, the titles listed, particularly in neighboring fields, may vary somewhat from year to year as a result of changes in editorial policy. Finally, the present study deals only with the materials of a single science. However, the writer has been informed by colleagues