

# International Conference for Standards on a Common Language for Machine Searching and Translation

By ROBERT E. MAIZELL

THE CONFERENCE, sponsored jointly by Western Reserve University and the Rand Development Corporation, was held in Cleveland, September 7-12, 1959. The seven-day meeting brought together leading information processing systems specialists and designers from all over the world. Beside the seventy-five people from ten countries who submitted papers, more than one hundred and fifty observers attended.

Incidentally, and perhaps unfortunately, there were very few librarians present.

The principal purpose for holding the meeting was the lack of interconvertibility of the various information retrieval and mechanical translation systems. At present, there is such a variety of equipment, coding systems, and programs that none of the investigators can profit as much as would be expected by the work of the others. The hope was that the conference would develop a basis for standards for a common language in both information retrieval and mechanical translation systems. At the same time, it provided an opportunity for workers in the field to exchange information about the progress of their research.

Although most work in information retrieval and mechanical translation described in this conference related to science and technology there were at least two instances when this was not the case. One was a discussion of possible mechanization of the Human Relations Area

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Files. The other was a description of a scheme for predicting sociological behavior of groups of human beings.

The conference participants generally agreed that formal standardization at this time would probably not be feasible. At the conclusion of the conference the participants decided to establish an *ad hoc* committee composed of fifteen representatives from various countries, the principal purposes of which were: (1) to draw up a report summarizing discussions and recommendations made at the conference; and (2) to assign membership of three subcommittees which would discuss possible areas of cooperation in the following fields: (a) terminology and nomenclature; (b) research; and (c) exchange of programs, personnel, and facilities. This committee will approach professional bodies to determine their degree of interest in supporting these activities. It will also plan to hold another conference to show what work has been accomplished in the next one-to-two years. The president of this committee is Dr. B. C. Vickery of Imperial Chemical Industries, Ltd., Great Britain. The secretary is Dr. Allen Kent, Western Reserve University, and the temporary location of the secretariat is at Dr. Kent's offices.

As far as information retrieval is concerned, the principal news was that information retrieval specialists are continuing to refine their techniques and that the next step may be the establishment of a model centralized information center cutting across various branches of science. Such a center has already been set up in the field of metallurgy by the American Society of Metals at Western Reserve University. The implications are that the scientists whom university and research libraries serve may have a number of such facilities at their disposal. It should be noted that the National Research Council has under way a project which attempts to list and coordinate operating data compilation centers whether these centers be mechanized or not. This project is under the direction of Dr. Guy Waddington. Another point of interest with respect to information retrieval is that for the first time the machines being used are not merely accounting machines adapted to information retrieval, but rather are now being specifically developed so as to be suitable for information searching.

As far as mechanical translation is concerned, the development of this technique to the point where it would be both technically and economically feasible is several years in the future. In the meantime, scientists will have to rely on the large number of translations prepared by human beings at organizations such as the American Institute of Physics and Consultants Bureau. One of the principal problems is that all copy going into the translation machines must be retyped on punched cards. However, research is going into the development of machines which will recognize typed or

printed characters directly or which will recognize speech. Also, monotype tape can be used for direct conversion.

The question can well be raised as to whether college and research librarians, and particularly those engaged in reference work, should not be invited to participate more actively in work on mechanized information retrieval and translation. They are certainly in a good position to point out areas which are susceptible to machine treatment and which would profit from the multi-dimensional approach offered. They can probably help in the design of such systems. They are very sensitive to the information needs of scientists and to their probable reaction to centralized information centers. The librarians can also help in pointing out where conventional tools may fail and can levy specific questions which might be useful in evaluating the output of mechanized retrieval. There is no doubt that those who design mechanized retrieval systems consider that when such systems are fully developed librarians will continue to play an important role in interpreting and servicing requests for information. It is to be hoped that the next meeting of this conference will provide for greater participation by librarians and greater emphasis on the continuingly important role to be played by conventional information retrieval tools.

The proceedings of the conference will be published as a book by Interscience Publishers in the spring of 1960. This volume should prove useful in acquainting library school students with progress in the field and will make important reading for others concerned with information retrieval.

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