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The Aims of the Institute of Information Scientists Ltd.*

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It is well known that the rapidly increasing output of scientific literature, greatly accelerated by the impetus of two world wars and modern competition and tensions, has created a major scientific problem. Two important international conferences—the Royal Society Conference on Scientific Information in 1948, and the International Conference on Scientific Information at Washington in 1958—clearly set out the difficulties before us, but produced no general solutions. Libraries have grown apace, and librarians have improved their techniques to serve their readers, and yet these are far from resolving the dilemma. Scientists realize that they can no longer hope to cope individually with the mass of recorded knowledge, even with the aid of such tools as *Chemical Abstracts*, and must delegate much of their literature searching in order to be able to concentrate on essentials. Therefore, from about 1920 in England, and perhaps a little later in the United States, there began to be employed scientists who specialized on the literary side. As in any new specialization, the emergent phases were confused. Many scientists did not, for a long time, believe that another person, even though he might be a fellow scientist, could successfully discover literature relevant to their researches, and consequently belittled the possibilities of such work. Many employers regarded the work as merely some extension of librarianship, since much of the work must be undertaken in libraries; if they employed a scientist they often expected him to take charge of the library, a post for which he usually was not trained. Since the new specialization, correctly regarded, is that of deputizing (in a skilled manner) for the research scientists, and hence part of research work, librarianship cannot be sufficient as a training and scientific qualifications are needed. This will be evident in such work as the writing of evaluative reports, or abstracting.

The understanding of the possibilities of information work and its development was, however, slow, and the work was undertaken only in limited ways, often rather haphazardly and inadequately. The persons employed had mainly to learn their job and evolve methods of overcoming difficulties by the painful process of long experience. Since the second world war, moreover, industry and governments have increasingly recognized the need for information departments, and the number of persons employed in such work has increased rapidly. Although many university appointments departments now recognize information work as a career equal in opportunities to many industrial and research posts, the lack of proper training for such work has made the nature of the work appear somewhat nebulous. In 1948 Aslib, in England was already discussing the possibilities of special education in the expanding field, though it was at that time more often confused with special librarianship, and the proposals aroused the opposition of the Library Association. Such discussions continued for ten years without practical outcome, though it became increasingly evident that some clear exposition of the work and aims involved was needed and that the establishment of standards for the work had to be undertaken. The International

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Federation of Documentation had in 1955 approved the need for education in information work as distinct from librarianship. Aslib was too mixed a body to carry out such a task single-mindedly, although the preliminary discussions which ensued took place mainly within its ranks. A separate organization was therefore founded early in 1958.

An important initial task was to establish the ideals of information work and clarify the concept of the now fully emerged profession (at least in England) by means of a generally acceptable title. So many vague names were in current use, such as intelligence officer, information officer, technical librarian, *etc.*, in England, and literature chemist, *etc.*, in the United States, documentalist (with varying connotations) in France, Germany, *etc.*, that a new general title was considered essential. The title "Information Scientist," collateral with research scientist, was evolved, and the new organization was named The Institute of Information Scientists. In order to protect the lettered qualifications offered, and to regularize finances, the organization became a limited company in the following year, as The Institute of Information Scientists Ltd. (For an American audience it should perhaps be noted that the term "Institute" (or "Institution") is that usually applied in England for a professional organization.) The Institute is thus a professional organization formed to promote and maintain high standards in scientific and technical information work and to establish qualifications for those engaged in the profession. Such aims are to be achieved by means of suitable training courses and examinations; it is also an aim to promote understanding of the increasing potentialities of information work as the necessary basis for progress in research and development. Information work is defined as the collection, collation, evaluation and organized dissemination of scientific and technical information.

The Institute is undertaking the normal tasks of a professional organization, such as holding meetings, establishing grades of membership (Associate, Member, and Fellow) with appropriate lettered qualifications, promoting training courses, issuing a Bulletin and promoting the advance of the techniques and knowledge of the subject. The inaugural meeting was attended by some 130 persons, nearly all practising information officers, and then, after a further meeting of nearly 100 persons had taken place, the Institute was able to make a start with some seventy members, a number which rapidly grew to 150 within a year, which was very encouraging. After three years membership is now 250, mainly in England, of course, but also including members in many countries of the British Commonwealth and a few in the United States, Switzerland and other countries, since membership is open to all internationally.

The establishment of high professional standards and the development of the scope of information work are clearly tasks which are not only in the interests of employees and employers alike, but also of vital importance to the progress of science as a whole, since this profession is the one best fitted to tackle and eventually provide solutions for the problems of information retrieval discussed at the outset. The range of work to be undertaken covers such matters as abstracting, preparing technical reports, translating, editing such reports, abstracts and translations, indexing, classification and information retrieval, searching the literature by various means, obtaining information from other scientific and technical sources, organizations or individual experts, evaluating such information and possibly tendering advice on it, disseminating information by various means, and research on problems in information work. This last item—research—may well become the most important activity, when information work is fully established as a scientific field of endeavor as important as any other branch of science. Research on retrieval systems with mechanized aids is of course in steady progress in America. The range of knowledge required in order to carry out such duties is clearly considerable, and appropriate and adequate subject knowledge in a science or sciences is considered essential; since the work in any information department always covers a range of subjects related to the main subject, the actual degree subject taken by an information officer may well be different from the main subject, since almost any type of scientific education inculcates the right scientific outlook. For information techniques, however, post-graduate training is now very necessary.

The promotion of an educational course has therefore been a principal aim of the Institute. Whereas Aslib has been able to organize short courses of, say, six lectures at most, or sessions of two or three days, on specific topics, it did not attempt any full course. During the period of discussions within Aslib, however, various attempts to define an adequate syllabus had been made. The Education Committee of the Institute proceeded to reconsider all such attempts and improve upon them, and was able finally to produce a satisfactory full syllabus which was submitted to the membership for final criticisms. In later joint discussions with Aslib, this syllabus also received the approval of Aslib, and steps were taken to establish a course based upon it. As a first stage, it was considered that it would be best to provide an evening course, spread out over a period , so that students could be drawn from persons already beginning to be employed in information departments. This course, which entails two-hour periods on two evenings a week in term time, over two years, was started in London in January, 1961. It is hoped to start a repeat course in parallel soon if sufficient students apply. Eventually, it is hoped that an intensive full-day course will be possible, to be given, say, in one or perhaps two terms. The discussion of this course and, in particular, the syllabus on which it is based, forms the subject of the second paper, which follows.

Pending the possibility of establishing examinations as the main criterion for admitting members to the Institute, fairly high standards have been set up as a basis for admission. Thus, for the Member grade, an appropriate degree, or its equivalent, and five years' approved experience in information work are required. The Fellowship is reserved for cases of special experience and merit, at the discretion of the Council. It is a matter of pride to the Institute that Dr. Alexander King, of the European Productivity Association, who is no doubt well known to many of you, accepted the first Honorary Fellowship and is a Vice-President. The authors of the paper have been deeply involved in the work of the Institute, and I (Dr. Dyson) have had the honor of being President for

the first term of three years, and Mr. Farradane is the Honorary Secretary. The present President is Prof. Sir Lindor Brown, who opened the 1958 Washington Conference. By a fortunate coincidence, it may be of interest to note, Sir Lindor Brown is also now President of Aslib, which augurs well for continuation of the co-operation between the Institute and Aslib which has already proved fruitful in regard to education.

The Institute has been able to hold about six meetings a year for lectures and discussions on progressive topics. These have so far had to be held in London, England, except for one in Glasgow, in Scotland. As in other scientific societies, it has been the aim of the Institute to stimulate interest in new techniques and encourage the improvement of standards of work. One early meeting discussed the results of the Washington Conference and another dealt with the value of obtaining information concerning Russian scientific and technical work, and the difficulties involved. Dr. King gave an important lecture on the international development of scientific and technical information services. The question of the importance of a knowledge of foreign languages for information work aroused a most lively discussion on one evening. The problems of mechanization of information retrieval have been the subject of two meetings, even though such techniques have as yet made little headway in England; it is clearly of importance for all information scientists to keep well abreast of such work. The writing of good English has not escaped attention, and was discussed at a joint meeting with the Presentation of Technical Information Group which flourishes in England; a more specialized, but important collateral problem discussed on another occasion was that of the transliteration of Cyrillic characters. It will be seen that there are still many aspects of information work which remain to form the basis of future activity.

The field of chemistry, in which consciousness of the literature problem is most developed, is naturally also the field in which the majority of information scientists are working. It has the largest literature and the greatest complexity of subject matter of all sciences, so that it is not surprising that the majority of the information scientists who are members of the Institute are chemists or are at least working in the chemical field. Other members provide evidence, however, of the extent to which information work is also being carried out in other fields, such as physics, biology, geology, medicine, engineering, and also economics. It is clear that recognition of the value of information work is spreading throughout the whole scientific field.

The steady growth of the membership of the Institute has encouraged us to feel that the institute has begun to satisfy a real need in regard to professional co-operation and the provision of education, as well as in other matters. Already discussions have been started on the question of establishing branches abroad; the first of such branches may well arise soon in India. In the United States it is more likely that the establishment of a parallel organization will best meet needs, though we shall hope for much friendly co-operation. The Institute will always be ready to co-operate with all having the same aims and interests. Information work needs to develop as a branch of science in its own right if the pressing problems of information retrieval are to be solved, and, as in other sciences, progressive evolution from a stable foundation is essential. The Institute hopes to provide a focus for the development of the new scientific profession in our midst.

Education in Information Work: The Syllabus and Present Curriculum of the Institute of Information Scientists Ltd.*

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The Institute of Information Scientists Ltd., as a professional organization, necessarily makes education for information work, and the standards to be attained, one of its main interests. This is all the more important since this is a relatively new field of activity, since its growth and development has been unorganized and consequently very irregular, and because its scope and the nature of the work are not generally appreciated. For example, although there are many points of contact and common interest with librarianship, information work has now developed along many different lines, and even in the areas of mutual interest it shows a very different approach. The information scientist is primarily a scientist who is approaching the literature and other sources of information from the research standpoint, whereas the librarian, even though he may have studied science, is trained to approach the literature from the standpoint of a custodian, although he may in fact be competent to undertake much more. We have, as it were, a complete spectrum of activities from the public library to the researcher reading in the library, the two ends being very distinct, with the information scientists not far from the research end. As chemical engineering arose at the junction of chemistry and engineering, so information work has arisen at the junction of librarianship and scientific research. Subjects such as abstracting have been incorporated entirely from the scientific side; classification, in rather different forms, has been a matter of interest to both librarian and scientist, but the new needs for detailed information retrieval require radically new solutions which are the business of the information scientist.

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