

PROCEEDINGS OF THE NUTRITION SOCIETY

ONE HUNDRED AND NINETY-FIFTH SCIENTIFIC MEETING
SIR JOHN ATKINS LABORATORIES, QUEEN ELIZABETH COLLEGE,
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KEEPING UP TO DATE IN NUTRITION

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151 *The Warren, Caversham, Reading*

The control and communication of information

By HERBERT COBLANS, *Aslib, London*

The information problem varies somewhat with the subject field and the working habits of its users. Thus the pattern for the applied scientist, the technologist, is rather different from that of the research worker in the basic sciences. Nutrition includes a number of overlapping disciplines, involving research, development, technology and even a number of traditional crafts. Therefore the sources of information are spread wide, the scatter of references is serious.

Traditional methods of control consist of assigning subject headings or designating classification (hierarchical) codes to each bibliographical unit (book, part of book, periodical article, report, etc.). Since the 1939-46 war co-ordinate indexing, using controlled vocabularies (thesauri), has become very fashionable and during the sixties automatic indexing employing full text searching by computer is held to be the reply to the literature explosion that is supposed to be overwhelming us on all sides. There are two misleading exaggerations here; the computer is not necessarily the answer to the exponential growth of the literature, and this growth is not really 'explosive' in any meaningful sense of that abused word.

The storage, retrieval and communication of relevant information has always been, and is now to a more exaggerated extent, a problem of selection both at input and output. What are committed to the bibliographical record must be publications of permanent scientific value, and the ephemera (the *ad hoc* reports, the 'pieces of paper') must be treated only in so far as they have direct, albeit transient, importance for specific documentation centres.

Machines are beginning to play an increasingly significant part in the handling of the indexes, the abstracts, even in the production of the original scientific periodical from the point of view of speeding up and, in the long run, reducing the costs of the 'housekeeping' routines, and storing the references in some structured and retrievable form on magnetic tapes, disks or drums. The duplication of such tapes is simple and allows of the worldwide decentralization of information retrieval. In the UK

already American tapes for the medical and related literature (MEDLARS) and for certain fields in chemistry (American Chemical Society services) are being evaluated and exploited. The literature of the nuclear sciences is likely to be the next on the list of such international exchange.

The ultimate efficiency and success of these pioneering projects depends partly on 'hardware' (the unit costs are falling) but much more importantly on minimum standards of input format and compatibility, and on considerable improvements in indexing and classification techniques. It is this sort of 'software' rather than 'hardware' that is the limiting factor at present. Subject control becomes increasingly frustrated by linguistic variability and semantic ambiguity as the coverage is widened and the number of entries becomes large. In other words large stores of indexed references duplicated on magnetic tapes and widely distributed, demand very high standards of indexing if searching is to be efficient. To achieve this, men and women of training, discretion and real ability are needed.

Abstracts and reviews as means of conveying information

By E. J. MANN, *Commonwealth Bureau of Dairy Science and Technology,
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It has been estimated that some 50 000 technical and scientific periodicals are published in the world today and that the number is growing rapidly, with a corresponding rise in the output of scientific and technical papers. In the chemical field alone, it has been calculated that the output of papers is doubling every 8 years and it is a generally accepted fact today that it is outside the competence of any scientist, however narrow his field of interest may be, to keep up to date by scanning all the requisite primary literature in his field. That is why abstract and review journals were created. Abstracting corresponds to the milk drying process. A good abstract, like a good milk powder, retains the essential ingredients of the original product in a highly concentrated form, the non-essential ingredients having been eliminated.

Abstract journals serve two primary functions: (1) to alert readers to the latest developments in their particular field; (2) to provide a cumulative information store for retrospective searching. To serve these functions effectively, abstract journals should cover the literature of their field completely, should be published as frequently as practicable, with the minimum of delay between publication of the original article and that of its abstract, and should be provided with comprehensive and up-to-date author and subject indexes. If abstract journals today are sometimes referred to as 'old-fashioned' media of communication, it is largely due to the fact that, through lack of sufficient funds or for some other reason, they have failed to satisfy one or more of these requirements.

Unfortunately, the 'primary' literature explosion has been followed by a 'secondary' literature explosion, a recent publication listing some 1800 abstracting services