with the highest possible skill. The standard of examination should be stiff—and it should be known to be so; no persons should be given a qualification without it being known that they are really competent, and no personal consideration of any kind should be allowed to influence admission to a qualification.

It could be eventually, when formal training and examination have been in operation for a number of years, say five, that admission to the Register of indexers should only be by means of the Society's examination—except in a very few cases and for a very limited number of years and only then if an applicant could provide evidence of compiling a number, say ten, substantial published indexes of a high quality (by this time such a person probably would not mind whether he was on the Register or not, for with his existing connexions with publishers he could obtain as much work as he wanted—and that is fundamentally why most people wish to be placed on any register).

There could be degrees of membership, for example, associate for those qualified by examination, fellowship for those with outstanding contributions to indexing in addition.

Some people already tend to look upon indexing as a profession, but is it? There are a relatively few people who earn their living entirely by indexing; indexing to them is a vocation or occupation. If they had passed an examination in indexing, then they could be considered professionally qualified as indexers—members of a profession.

With an examination system, the Society could be considered a professional body and could then proceed to formulate and if necessary enforce, a code of conduct to be expected of its members; it could also more effectively secure better standards of remuneration for its members, and so fulfil the third object of the Society, namely: 'to act as an advisory body on the qualifications and remuneration of indexers to which authors, editors, publishers and others may apply for guidance'.

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Infofair/Infoforum: A Report and some Reflections

I. SHAMAH

Infofair/Infoforum was held this year at Imperial College, London, on the 4th and 5th of January, 1972. It was a continuation of the previous Conference held in December 1969. It was organized by the Thomson Organization with the participation of a number of institutions such as the Central Statistical Office, the Department of Trade and Industry, the British Institute of Management, and many other national institutions and societies.

A message was read from the Rt. Hon. John Davies, Secretary of State for Trade and Industry, which stated: 'For all of you in management, information is your basic working material. You have to know what information you need, to obtain it and then to use it in the best way. The importance of information and its effective handling increases with the size and complexity of the organization concerned'.

The Conference was opened by the Chairman, Mr. G. C. Brunton, Managing Director of the Thomson Organization, who emphasized the importance of information and its use. The first speaker was Mr. D. J. Ezra, Chairman of the National Coal Board, who spoke on 'Information as an Investment'. This was an admirable talk which dealt with many aspects of the subject. He spoke of the importance of information in planning; in decision making in all the various sectors; in control accountability; and in the operation and use of information. Much depended on the quality of information and the skill by which it was managed. Of great importance was the processing procedure of the information, for it has to be absorbed by top management. Consequently, the information has to be condensed into an easily apprehended form, and herein lies the possibility
of error and misrepresentation. The compilers of the information may be biased or prejudiced, or have some axe to grind, and will therefore present distorted conclusions.

The Conference was orientated towards Britain's entry into the E.E.C., and many speakers dealt with this aspect. The Hon. Nicholas Ridley, M.P., Parliamentary Under-Secretary of State for Industry, talked on the 'Challenge of the E.E.C.', and Professor Michel Crozier, Directeur de Recherches, Centre Nationale de la Recherche Scientifique, Paris, spoke on 'European Management Attitudes to Information'.

Mr. C. Duerr, author of Management kinetics, dealt with 'Action from Information'. He emphasized the importance of the gathering of information and the basic question: what do we do with the information, and how can we turn it into a motivating tool? The 'message', Mr. Duerr argued, must motivate the customers, the shareholders, the sources of finance, the unions, the suppliers, the government, the work force, and directors and managers. All these complete the information circle. All information has to be connected in one way or another, and the decisions arising from the information implemented.

The speakers dealt with the importance of information in all its various technical aspects, but very few noted the importance of the human element in decision making. This falls into four categories.

1. Language and communication. Precise and effective communication is the essence of imparting information. To think and communicate we use words. Words which stand for concepts have now come to have many meanings, for example: democracy, liberty, science, love, etc. In management there are concepts like organization, system, control, administration, planning, incentive, etc. What do these words really mean? The misuse of words and the differing definitions have caused a breakdown in communication today, between individuals as well as between nations.

Reality is relative to our perception—a relationship between the observer and the field. Our perception depends on our purpose and that aspect in which we are interested. When we talk about an 'efficient' firm, the reality is based on many elements: the organization and structure, the management, the machinery, the operatives, the functioning, etc.

Our perception modifies the reality and may distort it to serve our purpose. In studying a report we may be seeking to get a total picture of the subject, or we may focus our attention on picking out good or bad points, or those which will reinforce our predetermined decisions.

2. Logic. Apart from the rules which determine whether the reasoning is valid or invalid, there are various fallacies which consistently creep into all types of thinking and argument. These fallacies are so many and so widespread that it is difficult to list them all. The following are a few of the most common: (a) the fallacy of arguing from the particular to the general, or from a part to the whole; (b) the fallacy of arguing that what is true of the whole must be true of its parts; (c) the argument that a statement must be true because it cannot be disproved; (d) the argument from authority; (e) the fallacy of quoting out of context; (f) ambiguity and the use of clichés and generalities which are meaningless.

Information to be conveyed must therefore be set out with great care and logical precision.

3. Morals and attitudes. It is accepted by psychologists that the brain organises the sense perceptions into a meaningful pattern. We tend to classify our cognition of the outer world into blocks and categories depending on our outlook. For example, the very poor class in society will classify those above it in a block as 'the rich'. A study of 176 top executives in America showed that they classified all Asia into a block of 'Orientals'. Our conclusions and decisions are tainted by personal feelings, needs, emotions, education, goals, culture, etc.
The attitude or philosophical outlook of a person will influence the way he uses information and his consequent decisions. There are today many conflicting ideologies and outlooks. These generate enduring evaluations and assessments which result in stereotyped and predictable reactions and decisions. These attitudes tend to form clusters and make up an "attitude constellation".

Modern life is highly competitive and individual struggle for power and security is intense. This struggle also operates in many group activities: in management, board rooms, committees, and even in the conduct of war, where a nation is fighting for survival. It is expressed in intrigue, plotting, slander, flattery, alliances, elimination of rivals, etc., and influences the way in which information is collected and presented.

4. Intuition. Many decisions are, in the final analysis, made intuitively, and an understanding of what affects intuition is difficult to analyse. Unconscious processes are dynamic, and vary according to the complexity of human character. Intuition is also influenced by knowledge, experience, attitudes and morals, and character formation from birth.

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The four points briefly discussed above illustrate only some of the subjective factors which may deeply influence the collecting of information, its assessment, the decisions made, and their implementation.

The men at top level today carry enormous responsibility for the multitudes whose lives are affected by their decisions. Obtaining information which is true, and making objective, unbiased decisions, are imperative if unity and harmony are to be achieved in this world.

It is here that indexers of the future can prove their worth. All information has to be objectively set out, classified and indexed, for it to be of value. The need and opportunity exist for an indexer of genius to grasp, classify and index the meaning of words and concepts, and indeed the whole universe of information, in a new and useful way.

The Exhibition

From the exhibition, there is no doubt that the quality and presentation of information have improved, and that the future of information storage and retrieval lies in the area of microfilms. Recent research on ultrafiche and, generally, on all microfilms, reveals little difference in reading speeds and comprehension between reading from microfilm viewers and reading from paper printed copy. Reading from screen displays, including the TV screen, has created a new generation used to this form of absorbing information.

On display at the exhibition were new developments in information retrieval, management and computing services, also new and sophisticated data-processing software and storage equipment.

The main developments were in documentation and micrographics. The microfilm media for storing information are widening because of increasing costs in conventional publishing, postal charges, the limitations in the physical size of libraries, and other factors. Although there is a user-resistance syndrome, the difficulties of reading from a viewer are diminishing, and the benefits to be obtained from making documents in miniature are increasing.

The following are a few of the problems to be solved: (a) the techniques of microfilming must be standardised; (b) further research must be carried out to perfect and reduce the cost of ultra microfiche, which have a capacity of up to 3,000 pages on film about the size of a post card; (c) the use of micro-publishing for information storage and retrieval must be more widely applied.

The scope, and efficiency of sophisticated computers are increasing in all directions. However, their use by top management seems to be slowing down. Time is apparently needed to digest fully the implications of computer technology, and a rigorous programme of staff training still needs to be implemented. As yet, computers are very far from taking over true decision making and supplementing the human brain, if indeed they can ever do so.