This is not to say that 'information' is ignored; rather it is taken as given. 'Information acquisition and storage' is viewed as one broad class of behaviour (along with 'judgements' and 'acts') which contributes to decision or choice (used here as synonyms). Thereafter, however, attention is given to 'judgement' rather than to information acquisition and, although discussion of various kinds of information abounds, usually under some other name, the behaviour involved is left unexplored, except for some attention (p.179–180) to the ability of people to use probabilistic information of varying degrees of complexity.

Does this lack of attention to what information scientists might ask of a theory of behaviour in organizations mean that the book is of no interest? Far from it: the authors point out that theirs is a cognitive and motivational theory of a set of behaviours defined in a particular way by the context of organizations and comment:

> 'If a theory is capable of dealing with individual behavior in an organization, it should be as capable of dealing with individual behavior outside the organization.'

One might also add that if it deals with behaviour involving evaluated products one ought to be able to see how an even more general theory would deal with *all* products. After all, the limitation to evaluated products seems to be definitional rather than real in terms of behaviour.

A brief review cannot hope to explore the application of the theory to information seeking behaviour, but when we see it described as a cognitive and motivational theory we can expect that such an exploration would be feasible. Let us hope that some brave soul who can cut through the wordiness and rather boring presentation will attempt it.

T. D. W.

S. A. Rossmassler and D. G. Watson (Editors).
Data handling for science and technology. Amsterdam: North-Holland, 1980. 184 pp. ISBN 0 444 86012 6 $25.00

The publication of numeric data compilations has been carried out in the physical sciences for many years now but such data collections have recently become available in machine-readable form from a wide range of sources. The publisher's slip for this book states that it 'is intended to provide an introductory survey of the basic aspects of handling scientific and technological data, and to indicate to the reader, selected sources from which more details can be obtained'. It contains an introduction and eleven brief articles and thus falls far short of the comprehensive survey of numerical data handling techniques which was apparently first planned by CODATA (The Committee on Data for Science and Technology established by the International Council of Scientific Unions) in 1975. The articles cover the generation of data, bio- and geo-science data, data analysis, data coverage in the primary literature, compilation, evaluation, and dissemination techniques, standards for data, and the computer handling of laboratory data. The shortness of the articles, which are typically less than ten pages long, is alleviated in part by the extensive reference lists provided but it is difficult to see, for example, why it was thought possible, or even desirable, to describe descriptive and inferential statistics in a little over five pages and two different typefaces. The brevity of the articles contrasts markedly with the 38 pages of appendices on national and

international data programs, UNISIST activities, and, more usefully, the titles of papers presented at CODATA conferences. Many of the articles serve a useful introductory role in highlighting particular problem areas, such as the deleterious effects of inadequate proof reading on data reliability, the need for standardization in the choice of reference materials, and the fact that the U.S. Geological Survey currently has to maintain *circa* 1.7 million megabits of machine-readable geo-science data. The book satisfies the publisher's claim that it is an introductory survey but it may be of less value to those actually engaged in data activities. A list of numeric data bases could usefully have been included to update the review by Luedke *et al.* as could a more detailed index.

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Alan Pritchard, in collaboration with Glenn R. Wittig.
Bibliometrics: a bibliography and index, vol. 1: 1874–1959. Watford: ALLM Books, 1981. 138 pp. ISBN 0 9506784 0 6 £5.00

It is right that a bibliography of the literature of bibliometrics should be so organized as to assist bibliometric studies of that literature. Pritchard has certainly had that need very much in mind. In addition to the usual bibliographic details, organized in chapters for each decade, he provides coded appendices listing both the references to bibliometric papers within each of the 245 items he has seen, but also the items citing each of the 351 items listed. There is a ranked list of the 31 journals cited more than twice. The index includes subject keywords from the titles (or added) as well as authors and editors.

There is ample material here to study both the growth of the several literatures which make up bibliometrics, and also the citation patterns within them. Indeed it was his own thesis on the *Structure of Information Transfer Networks* which led to the compilation of the bibliography in the first place. The present volume extends only to 1959: other volumes to 1969 and to 1979 are promised.

The aim has been to include everything relating to the 'application of mathematics and statistical methods to books and other media of communication'. Doubtful items are in. The list started from some KWIC indexes and has been extended from other sources, including the reference lists within the items already listed. This may account for the fact that all but one of the 23 1874–1910 items relate to medical literature. It seems hard to believe that no other discipline published anything on the subject.

By far the most heavily cited paper is that by Gross & Gross on 'College Libraries and Chemical Education' in *Science* in 1927, with 63 citations, compared with 41 for Allen's 'Periodicals for Mathematicians' in the same journal for 1929. Of the 46 pre-1940 items cited only once, the average interval between publication and that citation was 9.2 years (range 0–37 years, 95 per