*Information Technology: Research and Development* (1983), *2* (123–125)

# BOOK REVIEWS

E. W. Ploman. *International Law Governing Communications and Information.* London: Frances Pinter. 1982. 367 pp. £25.00. ISBN: 0 86187 204 5.

This is a reference work which quotes a number of international instruments (statutes, agreements, conventions and principles) relating to information, telecommunications, post, space, intellectual property, informatics, trade, culture, security and law enforcement. International law covers instruments of, for example, the United Nations, UNESCO, OECD and the Council of Europe.

The first third of the book is devoted to general international law and concentrates on principles relating to human rights. Readers of this journal may be particularly interested in law relating to specific areas such as 'computers and privacy' or 'copyright/patents and computer programs'. The index gives only one reference to 'patents' (a Paris Convention of 1883, the latest revision of which was made in 1967). This does not give advice on the difficult question of computer programs (nor do references to 'copyright').

The book was more helpful on the privacy issue, detailing the Council of Europe Convention 1980, the OECD Guidelines of 1980, and the EEC recommendations. Such guidelines may unfortunately represent the lowest common denominator of what each member state will agree to. No national legislation is detailed on this issue. This may also be important as some countries prevent personal data being given to other countries unless they have legislation at least as comprehensive as their own.

I would have liked to see far more introductory material. Only six pages are given to a general introduction, even less (one or two pages) devoted to introducing each of the ten major areas of legislation covered. As well as this general introduction, I would have liked to see a 'reader's guide' to the legislation. This would give help to the layman by pointing out the most important aspects of the statutes and in what areas they were 'blazing a trail'.

A reader better trained in law would presumably not want such a guide. In any case, the information covered by the book is often difficult to come by and therefore it is a useful addition to the reference section of the library.

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M. E. Williams (Ed.). *Annual Review of Information Science and Technology, Vol. 17.* American Society for Information Science. New York: Knowledge Industry Publications. 1982. 367 pp. $45. ISBN: 0 86729 032 3.

This new volume maintains ARIST's useful role of scanning the English-language literature of the field, selecting specific topics for review, collating the relevant bibliographies and commenting on progress. But there is a marked unevenness of

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quality about this volume: some of the contributors offer valuable critical analysis of topical issues but some present little more than annotated selective bibliographies of the kind that library students used to prepare as part of their diploma courses.

Unfortunately, the article most likely to be of special interest to British readers, on 'Subject analysis', which discusses a 14-page bibliography in a 20-page critique, is one of the least rewarding. Admittedly, the authors faced the unenviable task of reducing to order a topic which becomes increasingly difficult to isolate from searching online systems. Using increasingly loose forms of vocabulary control and operating over a widening range of applications, online systems continually challenge ideas of subject analysis established by librarians in more stable times. But the article is at least well organized and well written.

Its main sections are Terminological control, which highlights present problems; Index languages, which discusses thesaurus construction and maintenance; and String languages, which mentions PRECIS, Tim Craven's NEPHIS and LIPHIS and Bhattacharyya's POPSI approvingly, but then questions their applicability to online retrieval. A section on Indexing theory and practice mentions the Anglo-American cooperation of Maron, Cooper, Robertson, van Rijsbergen and others to establish general models. But I find myself agreeing with Lancaster's quoted comment that the present trend towards free-text searching as a substitute for indexing is likely to continue as the focus of development shifts from indexed databases towards the exploitation of business word-processor output and to renewed interest in the retrieval of statistical data from government publications.

'National information policies' are reviewed by Victor Rosenberg with more sensitivity towards the problems of other countries than most American authors display. Recent stirring events in Britain occurred too late to be covered by his review but I thought his comment that 'information policies in Great Britain have become highly developed and imaginative' a little premature.

'Evaluation and feedback' by Paul Kantor is a valuable critical essay by the most active worker on this topic which derives from Frederick Kantor's *Information mechanics* (Wiley, 1976). He takes a systems approach and specifies the evaluation problem 'in terms of its *context* (the link between knowledge and action) and its *function* (reduction to strings of 1's and 0's, indexing, storage, query processing, and retrieval)'. The approach is very general and avoids too close a link with any particular kind of information system. There are aspects of his exposition which in my view remain too mechanistic, but it was refreshing to read so thoughtful a paper in a volume in which otherwise information is treated as though it were a processed commodity rather like baked beans.

'Library automation' is restricted to North American sources because an article on European libraries is planned for the near future. In this field the authors have no doubts about the trend—it is towards a dynamic equilibrium between in-house microcomputers used as intelligent terminals and the national networks. Channels of larger capacities will exploit fibre optics and digitized laser transmissions to give access to remote resources.

'Value of information and related systems, products and services' by Jose-Marie Griffiths and 'Information resource(s) management' by Karen Levitan both tentatively air emergent topics. The remaining articles—on 'US telecommunications common carrier policy' by Karl Brimmer, on 'Public sector/private sector interaction in information services' by Dennis McDonald and 'Biomedical communications' by Harold Wooster—are primarily devoted to the domestic American scene.

As a whole this volume reflects continued intense pragmatic activity on all fronts,

a slow but steady acceptance of the new technologies and a searching, as yet rather erratic and unsatisfied, for integrating scientific principles.

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F. N. Teskey. *Principles of Text Processing.* Chichester: Ellis Horwood Limited. 1982. 164 pp. ISBN: 0 85312 264 4.

Although this book is entitled *Principles of Text Processing*, it is really an introduction to the field that is now commonly called information retrieval. As an elementary introduction to IR it makes good reading: it is simple and to the point. It has a computer science bias which is to be welcomed; for example, it describes many algorithms for some of the basic processes in IR. The book also makes a case for the wide range of applications in which text processing systems can be used. The emphasis throughout is on designing and building operational retrieval systems. Unlike many books in this area it discusses in some detail the role of database management systems in the context of text processing. It frequently uses STATUS as an example system.

The book does not attempt to review, or establish, the state of the art in text processing; it aims to give an elementary introduction to a very broad field. It is a pity that the bibliography is so brief and that references to past work are so scarce. Any student wishing to pursue a particular idea in depth will find it quite difficult to track down the relevant literature.

In several places the author makes some tantalizing throw-away remarks, e.g., 'The philosophical distinction between intentional and extensional theories of meaning can be carried over into the classification of text processing systems' (p. 21); 'At present such detailed analysis [of text] has only succeeded in well-defined areas of discourse (Winograd, 1972)' (p. 41); 'One possibility for this best-fit matching is to use Kolmogoroff's general filter' (p. 66); and again 'As yet there is no wholly satisfactory way of analysing and storing text involving the logical quantifiers, though the preference semantics developed by Wilks (1975) provides one possible method' (p. 73). In each example the remarks refer to some complex set of ideas which may well be worth more thought, but the text gives no further explanation leaving the reader frustrated.

Some technical quibbles are as follows: The mathematical treatment of the single-link cluster method is opaque and out of character with the rest of the book. 'Recent' work on special purpose hardware (on p. 55) refers to work done in 1975; this is ridiculous considering the large amount of recent work in VLSI. The discussion of relevance feedback (pp. 65–66) is totally inadequate; it ignores the recent work in probabilistic information retrieval.

There are some irritating typographical errors, for example, the consistent misspelling of this reviewer's name!

With the above reservations, I can recommend the book as a simple introduction, in mostly elementary terms, to text processing in the context of IR. The publishers claim its suitability for postgraduates in computer science, but I think that is misleading. The book is available both in hardback (£16.50) and paperback (£8.50).

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