
Some books spring into existence as entirely new entities, some are re-workings of old entities, while a few take a classic text and attempt a major updating. This book is one of the latter.

It has its origins in *Online Searching: principles and practice*, written by the same three authors, plus Michael Keen, and published by Bowker in 1990, and shares the same aims of providing a clear introduction to basic principles, and good practice, in accessing information from public databases. The authors carefully point out that it is not intended as a textbook of information retrieval, nor as a directory of databases and web sites; examples of these sort of resources can be found elsewhere. The main distinction between this book and its predecessor is in the wider coverage of different information formats in the newer version: the 1990 book concentrated on ‘traditional’ online services – Dialog and the like – with some mention of the new-fangled technology of CD-ROM, and a fair amount on videotex and teletext, now largely defunct as information retrieval media. The new book covers online databases, online library catalogues, CD-ROMs and the Web; it is interesting to note, parenthetically, that a whole generation of Internet search tools – gopher, WAIS and the like – have come and gone in the relatively short time between the publications. Another difference of note in the new book is the deliberate use of the term ‘seeking’ rather than ‘searching’, to denote the commendable emphasis which the authors place on browsing, rather than searching *per se*, as a means of information access.

The book is divided into ten chapters, which fall into three sections, though they are not termed as such. The first three chapters provide an introduction to basic concepts: to the search process itself, with examples from the various types of search systems; to users and their information seeking behaviour; and to the historical development of search systems, and to the variety which exist today.

The next four chapters contain what the authors regard as the ‘core’ of the book; the various components of the search process. The first of these deals with language, and with the way it is used in constructing search statements, emphasising controlled vocabularies, but also covering natural language searching, citation searching, proper names and image retrieval. The next deals with the structure of databases and indexes, including hypertext structures and metadata. There follow two
chapters on searching and browsing respectively, emphasising strategies and tactics, and illustrated with well-chosen examples.

The final three chapters of the book deal with a miscellany of topics. Chapter 8 deals with interfaces, emphasising design and usability, while giving reasonable coverage to hardware and software issues. Chapter 9 is, in effect, a tutorial review of what has gone before, presenting a series of exemplar searches, and talking the reader through each stage of the search. This chapter also includes short sections on the impact of end-user searching, and on training aids, particularly for Internet sources.

The final chapter deals with the evaluation of searches and databases, emphasising the continuing validity of the ‘traditional’ recall and precision measures, while noting some of their limitations, particularly with web searching. There is brief coverage of user studies as a means of evaluation, and of quality criteria for web sites, as used in the construction of quality gateways.

The book is well-produced and well-written, seeming free from errors, and illustrated by a well-chosen, and extensive, set of figures; screen dumps and the like. It manages to strike a good balance between an ‘academic’ and a ‘practical’ approach, and provides a good set of background references for each chapter, though anyone seeking a fuller literature review for any of the topics here would have to extend them by doing their own searching (and should have no difficulty in doing so, after reading this book). The authors’ pedigree as LIS academics shines through, and they clearly know their market, so that the book deserves to become a standard text. It is sad that, with current hardback prices, relatively few students will buy their own copy; a paperback is badly needed.

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The area of Information Retrieval (IR) has changed over the past decade. In essence, the goal of indexing and search remains but IR research now includes systems architecture, ranking algorithms, document clustering and query feedback, data visualisation, filtering, multimedia, distributed IR, Web applications, and more. Published in 1997, Korfhage’s text aims “to provide an informative and critical bridge between the more customary approaches to information storage and retrieval and the newer approaches designed around present day technology and concepts” (p. xi). Blending the traditional and new approaches to IR is important. It is, how-
ever, increasingly evident that with the wide scope of the area no single text\textsuperscript{1} will provide a comprehensive and extensive coverage of the different aspects of IR. This text is no exception and provides a selective coverage of the traditional and concentrates on those new approaches in which the author has particular interest and specialism. Dr. Robert Korfhage died in 1998 after retiring from a distinguished career in IR. In 1997 and 1998 this text respectively received the Association of American Publishers award for an outstanding scholarly text in Computer Science, and the American Society of Information Science award for the best Information Science book. The clarity with which the material is presented and explained gives credence to Korfhage’s reputation of academic rigour and devotion to student learning. That the book is structured to represent his well-developed perspective on IR is its greatest strength.

The customary topics are covered in six chapters (Overview; Document and Query Forms; Query Structures; The Matching Process; Text Analysis, and Retrieval Effectiveness Measures). Some of the traditional topics ranging from vocabulary control to retrieval models are presented in less depth than one might expect (with the inverted index and search techniques placed in the Appendices). This said, the brief discussion on the Probabilistic Model is most accessible. Detailed and informed discussion is given to Data Compression, Boolean Queries, Similarity Measures and Evaluation in general. The modern approaches are covered in the later chapters (User Profiles and their Use; Multiple Reference Point Systems; Effectiveness Improvement Techniques; Alternative Retrieval Techniques; Output Presentation; Document Access; and the Ecosystem and Policy Issues). Several issues for IR in the modern day environment are covered, such as Full Text Retrieval, Hypertext, Internet Searching and Browsing, Image and Sound Retrieval, and Natural Language Processing. Sadly one feels that some are skimmed through, although this is not a criticism of the text rather the consequence of the pace at which these areas are developing. Notable presentations include Visual Interfaces examining the question of what information should be presented to the user, and the use of Multiple Reference Points for judging document similarity. Three system approaches, GUIDO, VIBE, and BIRD for the graphic display of these reference points are outlined in detail. Verging on the traditional, the topic Relevance Feedback for query optimization is placed in Chapter 9: Effectiveness Improvement Techniques but with a novel application of genetic algorithms to assign weight to terms.

The target audience for this text is not actually stated although the author does state that he assumes the reader to have experience with computer technology and a fundamental background in mathematical models. It is however self evident that it intends to serve as a textbook on an IR course providing clear and detailed examples and explanation where appropriate and in-depth exercises at the end of

\textsuperscript{1}Readings in Information Retrieval. Edited by Karen Spark Jones and Peter Willett. Morgan Kaufmann Publishers, 1997 aims to provide such a wide overview. It does so, yet emphasises in the introduction the areas close to IR which are covered essentially by reference to further readings.
each chapter. As with any textbook it should, and does, complement other texts in
the area. Given the reader requirements, as stated above, it best serves students on
a Computer Science Degree Course. However it is interesting to note that the users
of an IR system play a more important role than in some of its kin texts. As Korfhage
states on p. xii “the discussion repeatedly returns to the question of how a given
technique or concept relates to the end user”. In doing so, the fundamental issues
of the nature of systems, documents, and the information seeker are clarified whilst
taking a fresh look at the issues of computer techniques and developments. To this
extent the text not only bridges the gap between customary and new approaches to
IR, but also begins to bridge the gap between the Computer Scientists’ and the
[Library and] Information Scientists’ concerns and perceptions on IR.

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Clare Jenkins and Mary Morley (eds.) Collection management in academic li-

This reviewer did not expect to see a second edition of Collection management in
academic libraries. This was not because he entertained misgivings about the qual-
ity of the first edition, published in 1991 – on the contrary, that work would cer-
tainly deserve a place in any shortlist of the last decade’s most important books
relating to collection management. But the 1991 volume was a book of essays to
which fifteen writers contributed, and while it probably displayed more overall
unity than the majority of such compilations, it inevitably reflected a variety of
backgrounds, interests, and approaches. Such books do not lend themselves to the
process of systematic revision and updating implied by the phrase ‘second edition’;
and editors of collections usually prefer to contemplate a completely new volume
rather than face the practical difficulties and potential ruffled sensibilities likely to
be involved in any reworking of the contributions of so many hands.

As might be expected the essays in the 1999 second edition of ‘Jenkins and
Morley’ are a mix of new and old – or, more accurately, new and revised versions
of old. Apart from the editors’ introduction, three chapters appear with the same
titles and the same authors as in 1991; a fourth has an unchanged title but is now
attributed to one author (Sara Williams) rather than two (Sharon Bonk and Will-
iams); and a fifth, by Hazel Woodward, has an updated title. Six chapters in the
1991 volume have disappeared, and five new chapters, all by authors not repre-
sented in the first edition, have replaced them. Though both the dustjacket and the
introduction stress that the contributors are from both North America and the United
Kingdom, the balance has now swung heavily in favour of Britain: whereas there
were four Americans among fifteen contributors in 1991, there are now two among twelve, and one of these two, Nancy Elkington, is said to have been based in London since 1996. For this antipodean reader at least, this imbalance does not count as a shortcoming: the quantity of material available elsewhere on American responses to collection management far outweighs that documenting British approaches.

Immediately following the introduction, in which Jenkins and Morley provide a brief but stimulating discussion of contemporary trends in collection management, we encounter the three chapters with the same authors and titles as in 1991. All three retain the original structure and much of the original wording. Derek Law in ‘The organization of collection management in academic libraries’ provides a lucid overview of collection management activities and the relationships they entail inside and outside the library, while Ian Winkworth (‘Performance measurement and performance indicators’) succinctly fulfils his aim ‘to outline possibilities, to provide a framework for selecting suitable performance indicators for collection management, and to provide initial guidance to the literature’. The major (though not the only) difference since 1991 is that both now devote considerable attention to electronic information resources. Geoffrey Ford (‘Finance and budgeting’) has revised more lightly, perhaps on the basis that his subject is less time-sensitive. His article remains potentially useful to the student seeking a somewhat more rigorous and technical discussion of the topic than what an introductory text such as G. E. Evans’s Developing library and information center collections provides, but the paucity of 1990s examples and references does create the impression of slightly dated scholarship.

Despite her new title, Hazel Woodward also retains the structure of her 1991 article, and her ‘Management of printed and electronic serials’ provides an updated version of ‘Management of serial collections’, taking account of electronic serials but also of other developments in the broad and challenging field of serials collection management. Sara Williams on the other hand keeps the title ‘Stock revision, retention, and relegation in US academic libraries’, which she and Sharon Bonk used in the first edition, but her essay is in large measure a fresh look at weeding and related issues, with some new features such as a segment on ‘The politics of collection review’ and a case study. Despite its focus on the United States, in contrast to the United Kingdom focus strongly evident in most of the other essays in the collection, it will provide the student with a useful general survey of an aspect of collection management famous for being much neglected in practice.

In the first of five new essays Michael Breaks provides an excellent survey of issues relating to ‘Management of electronic information’. His viewpoint is that ‘The management of collections of electronic information resources raises a new set of issues for libraries, but these issues can still fit within the classical theoretical framework of collection development and management’. Josephine Webb in ‘Collection management to support learning’ aims to address the perceived problem that ‘the way in which the collection should be managed to support the learn-
ing experience is rarely considered as a separate issue’. The reader’s rating of the importance of this essay may well depend on his or her judgment of the extent to which the student user of the academic library really has been overlooked.

Two of the other three new articles clearly focus on aspects of collection management not given detailed treatment in the first edition. Jean Sykes covers ‘Document delivery strategies’, on the premise that document delivery has now become part of collection management, while preservation (including its electronic aspects) is surveyed in Nancy Elkington’s ‘Preservation and collection management: ties that bind’. The final essay in the book, ‘Collection management for the twenty-first century’, by Bernard Naylor, is more a discussion of trends than an exercise in futurology. It raises some thought-provoking issues, including the possibility that in an electronic environment the distinction between articles and books may break down. Some readers may be surprised to find that in Naylor’s view the research monograph is more likely to survive as a print publication than the textbook.

The six essays that have disappeared from the second edition are ‘The impact on collection management of automated systems and services’ (Ian Lovecy); ‘The role of suppliers: a North American perspective’ (Douglas Duchin); ‘The influence of the library user on collection management’ (Helen Workman); ‘Management of collections of non-book materials’ (Ian Butchart); ‘Cooperative collection development: progress from apotheosis to reality’ (Patricia Bril); and ‘The view from the British Library’ (Barry Bloomfield and Michael Smethurst). While several of these articles have been superseded by newer essays in the book, deal with matters which seem a bit less important now, or do not seem central to a consideration of collection management in academic libraries, it is disappointing that the role of suppliers and cooperation no longer enjoy essay length consideration, even if they are indeed not entirely neglected.

The strength of the new edition, like that of its predecessor eight years ago, is that it provides up-to-date, concise, lucid, and wide-ranging discussions of a large number of major collection management issues, from the perspective of academic libraries. The reader will not encounter much that is tendentious or highly specialised. The dustjacket claim that the new book ‘is chiefly aimed at library managers and students of library and information science’. The latter, and their teachers, will indeed find it a particularly valuable supplement to lecture materials and textbooks in collection management courses. For several years to come students needing to know more about collection management topics will be fortunate if the second edition of ‘Jenkins and Morley’ is readily accessible.

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The first part of Hert’s book provides a comprehensive review of approaches to researching information retrieval (IR) interactions. The second part describes a study that uses a naturalistic methodology to study users of an online public access (OPAC) system. On the basis of the study the author provides a rich picture of the user’s interaction and also outlines the implication of her results for IR system design and also for the role of the intermediary. In essence a case is made for a shift to the use of a naturalistic approach to research where users are studied in context and the emphasis of the research is on the user’s movement through a situation. In addition a request is made to include the results of such studies into the design of IR systems, something that is perhaps long overdue.

The shift from ‘the match paradigm’ where efforts focused on improving the match between query terms and document representations to the user-oriented paradigm has been well documented in numerous articles and monographs. Hert provides a useful orientation to the user-oriented approach and identifies three main groups of researchers. These researchers are those who are concerned with relevance judgements and how users make them; those who draw on the field of cognitive psychology and those applying the process oriented approach. The work on relevance and relevance judgements provides ‘valuable insight into user’s behaviors on IR systems as dynamic and situated in a particular moment in time-space’ p17. The cognitive school has focused on a number of variables (characteristics of the user, the system, the system content and task) and dependent variables (such as accuracy, actions ‘process’, retrieval e.g. recall and global measures e.g. attitude). Within the cognitive school two main research thrusts are identified. These are ‘perception’ which largely concerns the user’s perception of the human interface; ‘high-level cognition’ including the effect of mental models and individual differences on searching. Hert states that although these indicate factors that may influence IR interaction further empirical study is required so that factors can be studied in combination so that the reasons for correlation can be better understood. It is this motivation that has driven the process-oriented approaches.

Process oriented researchers start with specific assumptions that influence their work. Firstly that ‘the user is an active participant’ p22, that is actively responding to messages from the system. Secondly that the user ‘changes goals and strategies during the course of the search’ p22. This means that the initial representation of the user’s problem or situation does not remain constant an assumption that contrasts with that underlying the match paradigm mentioned earlier. This change in emphasis is partly due to researchers viewing the IR process as an act of communication. The value of this work, Hert states, is that it focused attention on movement as a critical component of the IR process. The process-oriented framework led to modeling the IR interaction in terms of the processes that are evident during IR interaction examples of these are berrypicking, information-seeking strategies and browsing.
Although lauding the value of this research Hert implies that to move forward it is necessary to undertake further studies in, as far as possible, a naturalistic setting. This will, Hert argues, allow the researcher to explore ‘a number of possibly relevant variables and their relationships at the same time’ p32. Ten core elements (Patton 1990) characterize the naturalistic approach and provide a useful orientation to Hert’s work. These are:

- Naturalistic enquiry: non-experimental, real life situations
- Holistic perspective: an exploration of the whole system
- Qualitative data
- Personal contact and insight
- Dynamic systems: attention to process
- Unique case orientation: assumption that each case is unique
- Context sensitivity: no generalizing across time and space
- Emphatic researcher neutrality
- Design flexibility

Combining all these elements when conducting research Hert argues has three main benefits. Firstly ‘the use of inductive methods enables a researcher to explore variables that might not be accessible if a particular theoretical framework drives the research’ p33. Secondly the study of ‘real situations’ and gathering ‘rich qualitative data’ increases the likelihood of developing insights that explain those situations. Thirdly, accepting the dynamic nature of what may be a unique situation increases the possibility of understanding that situation. Hert goes on to give a description of previous research that follows this model. In each case researchers have identified behaviours and processes evident amongst the users some of which can be mapped to each other implying a transferability of findings. Examples are also given of researchers who have incorporated this approach into the evaluation of systems.

It is unfair to expect a complete review of all such work in one short volume however one omission was surprising that of Wilson [1] and Wilson, Streatfield & Mullins [2] who pioneered the studying of users in context. No doubt another reviewer would highlight other exceptions particularly those researchers outside the U.S. Nevertheless Hert provides an extensive overview of the research and usefully identifies the various ‘genres’.

Having set the scene Hert goes on to describe her own empirical research. The description of data analysis provides an excellent example of an inductive approach to content analysis. Key categories of behaviours, influences, inputs and outputs are identified. In addition individual style, for example, purposeful/calm, respondent model as defined by the user, for example, procedural or scanning, the researcher’s assessment of the type of search done, for example, looking for a known item are identified. The interrelationships between these various variables are explored. The following hypotheses were generated and investigated. 1. A searcher should be able to articulate a specific goal for the search. 2. Prior to the search, criteria for
stopping the search can be articulated. 3. The search will stop once criteria are met. Hypothesis three was not borne out and reasons for this are explored. Hert identified three components of the interaction, the goal, searching and stopping. Goals could be clearly defined in the respondent’s verbal protocols and were shaped by ‘situational elements’. Goals generally were not greatly modified during their interactions. An extensive list of respondent’s behaviours were identified. These included such categories as scanning, navigating, expecting and stopping. Stopping the search was found to be either the ‘direct fulfillment of the goal, or the influence of a number of elements and occurrences during the research’ p73. Further analysis was able to identify situations or elements that ‘influenced the way respondents made decisions’ p80. These included respondent elements, such as ‘knowledge of system contents’, problem or project elements such as ‘knowledge of system contents’, problem or project elements such as ‘knowledge of system contents’, system response elements, such as nature of retrieved sets or features of individual entities. Specific elements were seen to correspond to the three components of the interaction. Hert raises the issue of transferability of these results and concludes that such results could be expected from studying other college-level students working with a similar multi-file IR system and related course problems/projects.

Hert goes on to relate her findings to previous research and suggests future directions. Useful directions for IR theorizing are suggested. These are:

- continuing to develop new theories particularly those that consider IR as a dynamic process and also help integrate current findings;
- understanding what makes user and/or systems differ; – move away from predictive models to ones that capture the situation and
- investigating IR from the perspective of the larger information seeking and use process.

These may sound obvious however they imply a shift from IR research that tends to search for deterministic features whereby behaviour can be predicted and systems built to support predictable interactions. It places emphasis on the understanding of situations and how people interact and use elements of their environment. Emphasis is therefore placed on supporting these interactions. It also emphasizes that individual IR interactions, often the focus of study, should be placed within the wider context of the information seeking process. Concentration on specific interactions can result in researchers loosing sight of larger information seeking process.

Hert concludes with a chapter on the practical implications of the research. The primary suggestion is that system designers should focus on enabling feedback to the user particularly at points where the user experiences uncertainties. Hert identifies situations where movement is blocked and users require feedback, for example, explaining the types of entities available or the types of searching that may work better such as the use of controlled vocabulary. It is also suggested that the system should be more integrated into the larger information seeking process en-
able users, for example, to add retrieved information to existing stores. Hert also outlines the implications of this research for the intermediary when helping the user to find information especially the need to make greater efforts to understand the specific situation of the user and hence offer relevant help.

In this review it was hard to encapsulate in the limited space available the many issues raised and the richness of the data presented. One is left with a realization of the complexity of information behaviour and a feeling that we are moving towards a better understanding of how to study and support this behaviour. I would recommend this book as an excellent insight into the world of information retrieval interaction and as an example of thorough research practice as well as providing a useful case study of the naturalistic approach to research.

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References


The name Vannevar Bush probably needs no introduction to most in the library and information profession. His famous essay “As we may think” in Atlantic Monthly is regarded by many as the seminal paper that led to hypertext and the World Wide Web. It also happens to be a particularly readable paper. Up till now, it appears that Bush has not been the subject of a full scale biography. This detailed book redresses that. Based upon extensive study of published and unpublished sources, and on interviews with his contemporaries, Zachary builds a detailed and impressive story of the life and times of one of the most important individuals of this century. The book therefore complements and expands upon Burke’s seminal work that examined Bush’s role in the development of computers, information retrieval and cryptography.

Zachary’s book, like Burke’s, demonstrates what a flawed individual Bush was.

It points out how his many inventions failed, how his ideas regarding rocketry, computers, the space race and many other topics were completely wrong, and how he wasn’t just wrong but often wrong-headed. At the same time, it points to his many achievements during the Second World War in getting US science and technology marshalled in an effective way to fight the war and is revealing, for example, on his contribution to the atom bomb project. Some interesting snippets come out, including how to pronounce his odd first name (rhymes with “beaver”) and the fact that he actively disliked Britain and the British.

The really worrying thing about this book is the number of historical mistakes the author makes. To give just a selection: the Spanish Civil War broke out in 1936, not 1937 as claimed; Great Britain and France did not declare war on Italy in 1939, but 1940; in May 1940, the Nazis were not rolling towards Paris, but towards the Channel coast; Roosevelt was not preparing for his third Presidential term of office in 1940 but in 1943; the war against the U boats was won largely thanks to the decryption of Enigma messages and not through radar; the physicist Mosley was killed in the First World War in 1916, not 1914; it is U238 that is the core of the Atom bomb, not U235; Roosevelt won three terms as president, not four; and finally, “information science” did not exist in 1945 – the term was not invented until eight years later and did not come into wide use until the early 1960s. These errors do not inspire confidence.

The book pays some attention to the “as we may think” article and the proposed Memex, but fails to give it the critical treatment that Burke does. In particular, Zachary fails to pick up with what contempt Bush himself viewed the piece, which, according to Burke, he wished he had never written. Zachary does, however, make some shrewd comments about how some librarians and computer visionaries hitched themselves to the Memex wagon and thereby both clothed their ideas in respectability and ensured the continuing popularity of Bush’s vision.

There are a small number of typographical mistakes and a number of cases of poor phraseology or grammar, but not enough to seriously detract. There is a reference to Boolean logic that makes it clear the author hasn’t the foggiest idea what it is. The book ends with extensive notes, an inadequate (in that full citations are not given) bibliography, and a good index.

Overall, this book is a major contribution to understanding Bush and his contributions to science, engineering and the war effort. It is perhaps a little kind to him regarding Memex. Although apparently heavily researched, the large number of historical errors are surprising and worrying. Worth adding to the library, but not worth recommending to students as compulsory reading.

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Databases and an understanding of them are essential to the work of librarians and information scientists. There are different perceptions amongst different disciplines of what the term itself means. A database to a computer scientist, for example, may hold a different meaning from that of a librarian, and certainly the title of this book encourages one at first sight to think that within the covers will lie some fairly technical terminology. It is important therefore, to spend some time on stating exactly whom this book is for and what ground it sets out to encompass.

In the first place the authors’ state in their preface that the book is very much orientated towards librarians, but the intended audience may also include students with a non-technical background. Therefore we can expect an emphasis on users and information retrieval, and less on the technical issues of database structure and design, (here I am thinking of entity-relationship diagrams and normalisation), and indeed the authors do not examine these concepts. In this sense the computer scientist quite possibly would dismiss this book rather quickly; their notion of building a database includes as a vital constituent the theory and implementation, and the view is that if you can achieve that in the correct manner then the rest – such as user interface and information retrieval will follow. Such a view has in my experience often led system developers to ignore the practical and important subject of information retrieval and end-user needs and there remains a gap in the market for the book that effectively brings both these camps together. That being said these two authors, well respected in the profession, bring to bear on the subject area an admirable clarity of exposition. They have sought to provide a guide to the considerations and options when creating a database in a library or information center.

They define the term database to mean the organisation of records in electronic form. This is consistent with their approach – clearly there are other definitions of the term – but they aim to evaluate the large market of software packages providing databases for the PC and not to discuss paper-based collections. They do not examine hardware, but concentrate on commonly available software packages and features that should be available to enable the construction of a database. By providing a comprehensive analysis of what the database creator should take into account – features such as pattern matching, data validation, construction of indexes, the reader of the book should first, achieve an understanding of what these facilities do and also be able to evaluate packages that may come onto the market in years to come. The focus is on the principles of what constitutes a good database package; not so much on the particular packages they discuss. Nonetheless the systems chosen are in themselves of interest, especially to the librarian. They include, Endnote, MS Access, Reference Manager and DB/TextWorks, although the reader should not expect an exhaustive analysis of the facilities of each one.

The book is divided into two Parts. Part One is concerned with the content and organisation of a database. It is much the smaller part of the book and is concerned
with crucial and practical questions concerning types of database, content and how methods of indexing and construction affect quality, and therefore user satisfaction. Part Two examines the functions provided by the various software packages available, including the ones listed above, and chapters focus on questions such as what the packages can provide, what level of sophistication is required depending on type of library, input and output of data, indexing and field structuring facilities, searching and retrieval facilities. In every case terminology is clearly explained and yet whilst assuming no prior knowledge a very reasonable level of detail concerning the types of database applications is achieved. All of this is nicely illustrated by screen shots and diagrams.

In conclusion this book is well worth acquiring if you are considering making use of a database package to embark on a project in the near future. As stated earlier it will not provide you with models for systems analysis or dwell upon the technical and theoretical basis of database design, but it will give you an excellent guide to the evaluation of database packages, and bring into the forefront those issues that are often forgotten in the rush to spend the budget and acquire a database package.

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Charles Meadow is a very well known Canadian academic in information science. He has a wealth of both commercial and academic experience, and much of this is distilled into this 300 page paperback. His theme is the new media and their impact on the information society and, although displaying a constant heavy US/Canadian bias, the book is a welcome read. The book considers the various media and their history, giving some emphasis on books because of their importance to our culture. The chapter headings summarise the topics covered: changing media; media and information; some media history; books; representing and presenting information; linear text and hypertext; interacting with information machines; multimedia; telecommunications; distribution; comprehension; adoption of new technology; markets; protecting the consumer; thinking about change; thinking about the future. The book is backed by some recommended readings, various appendices and a useful index.

There are some minor irritations, such as the failure to mention Thomas Allen in
the discussion of gatekeepers, the inconsistent description of Nathan Rothschild’s use of couriers as both a private service and a public one, and a grossly inaccurate and out of date description of Prestel and viewdata. His claim that “pull technology is otherwise known as information retrieval” is silly.

Meadow writes in a comfortable, fluent style. He assumes the right level of knowledge for a first year or introductory course. His examples are germane. The book is in the same market as Feather’s “Information and Society”, Martin’s “The global information society” and Hills “The impact of information on society”. It complements these works, and provides a North American slant to them. Warmly recommended for any introductory course to “Information and Society” or similar.

Meadow’s book is in sharp contract to Rubin’s. This heavy duty (500 page) paperback is clearly also intended for introductory courses, but is far less successful. Whilst Meadow (whose name, incidentally, is mis-spelt by Rubin) writes for an international audience with a North American slant, Rubin appears to be unaware of anything outside North America. Furthermore, in some places he goes into inordinate depth, and in other places assumes so much prior knowledge it is unlikely that even a recently qualified Masters will know what he is referring to.

His chapter headings summarise the approach he takes: libraries in context; information science; redefining the library; information policy; information policy as library policy; information organization; from past to present; ethics and standards; the library as institution; librarianship: an evolving profession. This listing makes one thing clear – the book’s title is misleading. It is all about librarianship and virtually nothing to do with information science. Even within librarianship, there is such a bias towards public libraries that one wonders if Rubin has ever been in a special library in his life. In another review of this book in *Journal of the American Society for Information Science* (1999, 50, 838-839) Boyd Holmes liked the book, but criticised it for its boring writing style, but I fear that is the least of its problems. It is out of date (DIALOG ceased to be owned by Knight Ridder a long time ago; *Journal of Information Ethics* is no longer “new”). Also, it has inaccuracies, such as: the definition of Precision; ignoring Zipf in the all too brief description of the scatter of literature; the size of a CD ROM (4.72 inches, not 4.5 inches); claiming that intellectual property comprises patents, trademarks and publications; and claiming that SDC made computers, rather than developed information retrieval software. In some places it assumes knowledge (such as what Boolean Logic or bibliometrics are), but in others it is superficial (such as the discussion of information science, of information retrieval, and of Information Management, which is inaccurately stated to be synonymous with Information Resource Management). The references cited are obviously personal to Rubin, but some of his selections ignore basic texts that surely students should be guided to. His list of LIS journals is extraordinarily US biased, ignores some important journals, and sometimes provides inaccurate bibliographic information, such as giving incorrect titles or publishers. Thus he claims the LA publish *Library and Information Science Abstracts* (which in any case is given an incorrect title by Rubin), claiming Learned Informa-
tion publish *Aslib Proceedings* or that Aslib’s address is Aberystwyth. There is little on modern developments, such as networking, Knowledge Management, Intellectual Capital, push technology, digital archiving, multimedia or Intraneets. Even certain traditional library topics, such as the UDC and faceted classification are ignored. The book is very backward looking, exemplified by the very detailed 60 page history of libraries that is provided. There is also far too much on the history of US library schools.

All this is all the more frustrating because embedded within the book are some very good sections on stakeholders, on information policy, on ethical issues and the like.

All told, Rubin’s book does have some worthwhile chapters, but it cannot be recommended as a standard text because of the many problems associated with it. Academics seeking useful books to recommend to students would do well to borrow a copy, read it, and if they find particular chapters of use, then recommend just those chapters to their students.

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This is another splendid addition to the Library Association’s *Successful LIS Professional Series*, benefiting from its accessible format, language and style. Pantry and Griffiths provide a guide that will prove valuable to anyone considering a career in the LIS profession, or for existing professionals who are keen to take command of their own professional development.

Each chapter has a distinct purpose and is set out with clear headings making it a pleasure to read, and very easy to return to at a later date. The first three chapters set the scene by describing ‘the challenges of today’s employment market’, the skills and competencies required by employers, and the means of obtaining those skills. Old myths are cumulatively debunked; there are few jobs for life, most LIS professionals can expect to change job during their career, short and fixed term contracts are increasingly common, LIS professionals do not all sport buns and wear plaid skirts, and successful careers don’t just happen.

The notion that LIS professionals always work in libraries is not addressed in the same way however. In Chapter 2 various sectors of LIS employment are outlined, but the emphasis is very much on different types of information services and the
reader does not really get an impression of the other possibilities that are becoming increasingly open to LIS professionals e.g. information product development, electronic publishing, records management, systems analysis. The same chapter could also have explored the richness of these various sectors of employment a little more. For example, academic libraries are discussed in terms of subject librarianship, but there are many other opportunities for specialisation in such large organisations e.g. special collections, serials, system administration. This might prove of some concern when recommending the book to students as it does not provide as broad a picture of the employment opportunities in the LIS profession as might be hoped. However, it does not seriously detract from the value and interest of the book as a whole.

Supported by examples in an appendix, Chapters 4 and 5 offer guidance in producing a CV and preparing for interview. Although this information might be covered in any number of careers guidance materials available to students, these Chapters are not out of place here as they form part of the logical sequence of the text and help to make the book very much self contained.

Sound advice is offered to the professional, and simple but effective strategies are suggested for realising professional progression, including career planning and proactive professional development. The authors do not pretend that everything is straightforward. In Chapters 6 and 7 they do not dodge unpleasant issues such as working in an organisation that is not challenging or losing a job, and some bold approaches to career immobility are discussed such as taking advantage of short-term contracts, secondment, sideways moves within organisational structures, or even becoming independent.

The book will be a useful addition to any collection that supports career guidance at secondary or tertiary level. It will benefit lecturers who are personal/academic tutors or who provide professional development support to Information Studies students, who can be referred to it as a source of valuable guidance and a realistic picture of the volatility of the LIS profession. Providing a good review of the issues, sensible advice and ideas, and a useful bibliography, the book is also strongly recommended to any LIS professional who is concerned about their own career development.

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