# Reviews

Feeney, Mary and Grieves, Maureen (editors)

<u>Changing information technologies: research challenges in the economics of information....</u> British Library Research. London: Bowker Saur, 1994. £32.00 (ISBN 1857390695).

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This volume contains papers presented at the Third International Information Research Conference, held in France in July 1993, which was organized by the Centre National de la Recherche Scientifique, the Conservatoire National des Arts et des Metiers, the British Library Research and Development Department and the School of Library and Information Science at the University of Pittsburgh. It consists of seventeen papers, together with an introduction and summary, which are presented in the original language of the author together with a summary in either English or French.

The idea lying behind the international information conferences is a continuation of the format of the earlier Cranfield conferences - a comfortable setting, experts presenting papers and informal discussion. Although the printed papers will be of value, the frustration for the reader is that there is no way of capturing the discussion that the papers provoke and stimulate. So the volume is the skeleton of the proceedings and the reader is left to speculate on the discussions. It is in no sense a state of the art review - rather it records progress made on some topics within the field of the economics of information, and suggestions for research. The summing up is brief and comments that the final session was intended to bring out major topics, identify any gaps, and indicate areas for research. The participants indicated the need to focus on information rather than technology; there is no agreed definition of what is meant by information, nor strategies to improve effectiveness. The discussion identified three categories of information as possible ways to approach this problem:

"Information which transfers knowledge from generation to generation... Information which measures processes or status... where it can become hard information and progress to ... Information which is normative or provides a framework, such as patents, legal cases or standards...".

Technology and information are interdependent, and improved understanding is needed of the way in which people use information, and of information flow. The question of benefit is important. Better models are required of the information economy, and there was questioning of the neo-classical model traditionally associated with marketing and libraries. The real need was seen to be to move beyond theoretical models to the development of empirical, case study research using real people and real information to test the models. The conclusions are given in order to encourage researchers and practitioners to read the volume despite the frustrations.

The papers are eclectic. In his introduction Le Coadic draws attention to the increased role that IT plays in the strategic planning of most organizations, and the significant costs involved. He comments that

researchers are turning to economics as a means to try to ascertain the value added by IT and the cost of providing IT resources. Hill provides a general overview of the economics of information which contains a useful discussion about the properties of information. Martin describes the development of the information industry in Ireland, focusing on government investment policies. Bompard reviews his research into the impact of IT and information systems on the matrix structures of organizations, drawing attention to the problems faced by individuals in taking advantages presented by IT. As organizations become more decentralized then it is essential that they have an effective information exchange network. Singh and Haller consider the global economy and the redistribution of manufacturing activities. Emerging questions concerning international telecommunications are discussed. This is to be welcomed, for the literature of information transfer has focused more on computing than telecommunications. (The reviewer is still coming to terms with the horrors of British Telecom and its lack of the provision of efficient and effective communications systems, after receiving far better services in Australia.) Hunter describes the way in which his public library has moved into desktop publishing as a field of opportunity and income generation. These papers make up the first part of the volume covering the economic implications of IT.

The second part reviews the measures of economics of information and information economics (sic). The keynote paper is by Griffiths, which updates the research carried out with King, and identifies the weakness in the economic measures as being a lack of derived measures which will link input, output, usage and outcomes. Menou presents the findings of a project sponsored by the IDRC which examines the impact of information on development, indicating the limitations of research to date - it is marginal, scattered, visibility is minimal, does not attract funding, and is carried out by academic institutions outside the developing world. The paper received input to the development of his model through a computer conference and workshop involving researchers, academics and consultants from the developing and developed world. Heine contributes a provocative discussion concerning the nature of information and its role in maintaining and fostering human society. His discussion of definitions is to be welcomed. Giovanetti and Glarmet describe an analytical approach to the costing of documentary support in a research establishment. Coujard and Salaün present a methodology for applying information to develop competitive advantage and facilitate innovation.

The third section examines changes in the political and legal context. Lesk discusses the protection of digital information, and Barré reviews copyright with reference to the EU. Owen examines irrational innovation in the distribution of scientific information. Mahon draws on his long experience to identify some of the research issues, noting the need to justify research in the competitive environment of funding. Havard-Williams and Neill provide a case study of the use of information for decisionmaking in an African university, which well describes the problems of developing management information systems.

A final section of papers contains those submitted, but not presented. Lamberton provides a crisp paper which discusses the need for a changed paradigm in economics, and hopes for a new institutional economics which should grow from information economics. Tiamiyu and Aiyepeku contribute a paper on investment in education for information in Africa.

Within the volume there is likely to be a paper of direct interest to those working in any of the information sectors, from a mix of writers from practice and academe. It represents a view of the state of research and development in a field of concern to the information profession - and one with which it has struggled for the past twenty years. In trying to assess why, apparently, so little progress has been made, thoughts turn to a recurrent theme within LIRG - the relationship between research and practice and practice and research. Much has been written and spoken of the perceived gap. The third part of the link, that of education, has played a part, generally, in the initial courses taken by information and library professionals. That is now changing as more practitioners are taking Masters degrees as a means of updating their knowledge and expertise. Volumes such as this may offer the inspiration to apply the ideas to speculative studies within their organizations. So matters may improve. The other way to move forward is to persuade funding bodies not only to provide resources for research, but also to move past dissemination into the implementation stage. The major fault of much of the massive research effort in all fields - not just the information field - has been the separation between research and development. As a result it was not possible to demonstrate

to funding bodies during the Thatcher era the outcomes and value of the work carried out to date. This is not just a comment on the public sector, but also applied to research in private industry. As projects emerge in the economics of information it is to be hoped that the work of the past is reexamined, and that such research will be genuinely collaborative.

On first reading I had serious doubts about the value of the volume for reasons stated at the outset - and also given its price. A second and third reading, and further thought, stimulated ideas and a rereading of some earlier work by Lamberton, Olsen, Orr and Flowerdew amongst others. A major investment was made by NSF and the BLR&DD - now may be the time to capitalize and move forward.

# Weingand, Darlene E (editor)

<u>Marketing of library and information services.</u> Urbana, Ill; Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign, 1995. US\$18.50.

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This issue of <u>Library Trends</u> is devoted to articles about marketing in the library and information sector, and mainly deals with the not-for-profit sector, ie. public and academic libraries. The provenance of contributions is impeccable. Darlene Weingand's additions to the marketing literature are well known; her 1987 work on the link between marketing and planning for library services, for example, remains fresh today and its thesis continues to be one which library managers should be absorbing - and implementing. The other 12 contributors offer a mix of academic and professional expertise - 11 come from the USA and one from Australia.

There is good balance between contributions, with the opening article by Weingand considering the case for using marketing strategies in the context of social and technological change. Then follows a series of contributions dealing with "perspectives on elements of the marketing mix" and a concluding section on "marketing connections". Some are largely theoretical and others have a more practical bias. Those which used examples derived from case studies appeared, somewhat inevitably, fresher and more immediate in their relevance to practitioners as well as researchers. For instance, Diane Tobin Johnson's article, 'Focus on the library customer: revelation, revolution, or redundancy', while an admirable survey of some of the recent American literature on this theme, would have benefited tremendously from some specific examples. There is a tendency amongst writers on marketing to be carried away on a tide of their own rhetoric, with their assumption that marketing is self-evidently a "good thing". Many practising library managers - and scholars - remain to be convinced. A continual merry-go-round of scholarly or professional articles which produce models but little evidence of their implementation - especially evaluative accounts of their impact on service development and delivery - is likely to turn even more of them off the idea of taking marketing principles seriously. Normative accounts like that of Peter G Hanon's 'Marketing and the political environment' increase their impact in direct proportion to the number and quality of examples to support their argument. By the nature of some of the pieces, this was not a difficulty. Kenneth E Dowlin, City Librarian of San Francisco, provides an insightful analysis of the issues surrounding 'Distribution in an electronic environment, or will there be libraries as we know them in the Internet world?', based on his management of one of America's premier public library systems. His message for American educators is that 'one of the greatest challenges facing librarians and other staff of libraries will be replacing the traditional skills learned in traditional library schools...', a message already received and acted upon in the UK. He also discusses the impact of public opinion on public libraries: "The public wants public libraries". (Having recently visited his library I can testify to the tremendous support from his library users, with volunteers from Friends of the Library ready to greet visitors in addition to their support of fundraising). The new public library due to open in 1996 indicates the continuing value placed on a community

information resource centred not on electronic networks but on a recognizable and familiar building. Using electronic networks will, inevitably, be central to the library's role, but so too will its distribution of other resources: books, CDs, journals, newspapers, all of the formats which will continue to have significance even in an increasingly Internet dominated age.

This, of course, is what marketing is really about. Ensuring not only, as Weingand argues, that libraries survive, but that they "thrive' (a better attitude)". These varied articles go some of the way to helping librarians in this. What some of them lack, however, is a sense of the reality of library provision today, in the most turbulent and rapidly changing environment we have yet known. Technology, society, politics, economics: all are impacting on library services more threateningly than most of us can remember. Only John V. Nichols really came to terms with this complexity in 'using future trends to inform planning/marketing'.

One obvious, related, problem in this collection is the narrow focus. At a time in our information history when internationalism through networking has never been more important it seems somewhat perverse of these writers positively to steer clear of any comparison with experiences overseas. What is offered is an overwhelmingly Americentric vision of both theory and experience. Despite these limitations for a British audience, this is, however, still a collection well worth reading, particularly for the excellent reprise of recent US marketing literature and the clear analysis of selected marketing issues. In summary, then, this work is excellent in parts and offers a useful contribution to the growing body of marketing literature.

#### Reference

1. Weingand, D.E. Marketing/planning library and information services. Littleton, Co.: Libraries Unlimited, 1987.

## East, Harry, Sheppard, Elaine and Jeal, Yvette

A huge leap forward: a quantitative and qualitative examination of the development of access to database services by British universities, 1988-1994. (Centre for Communication and Information Studies. Policy Paper, 5.) (British Library R&D Report, 6202.) London: British Library, 1995.

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Things are never as they were. Everything moves on. Yet there are some changes which, whether or not they are recognized at the time, radically alter our experience. It may be that higher education in the UK has entered into one of these periods. Suddenly - and it has been remarkably suddenly - staff and students in higher education have direct and - to the user - free access to information where they are and when they want it. Networked information alters the way we can regard teaching and learning, institutional structures, the skills of librarianship and even, for some, the very continuance of libraries as they have been for centuries. Many issues remain to be faced and many problems to be resolved; the precise direction of the revolution is as yet uncertain, but a revolution it seems to be. And although we may not see it clearly while we are still in the turbulence it may be that in ten years' time we shall look back to the introduction of the BIDS-ISI service in 1991 as the defining moment in that revolution in the UK.

It is not that networked access to information is itself new. Online databases have been available for a considerable time. But they were not easy to use and an intermediary was required. They were expensive and charges were related directly to use. So expenditure by university libraries was never high and was declining. But first networked CD-ROMs delivered information directly to the end user, closely followed by the BIDS-ISI service, then other databases. Expenditure on these services rocketed as use also rocketed. Libraries paid for network licences and subscribed to the CHEST-negotiated deals, and the landscape of

university libraries shifted. The first part of 'A huge leap forward' clearly charts the rapidity and the scale of this change.

This is now a matter of historical record, and it is important that the history should have been recorded. But we are currently in the middle of assessing and evaluating these changes. Just how have things changed? And, even more importantly for university librarians, how should we react to these changes? The second part of this volume, forming the bulk of the report, is based on a questionnaire distributed to eighteen universities and interviews held with forty-five people at three. These provide a great deal of data that is tabulated and analyzed in great detail. The data is supplemented by illustrative quotations which draw out perceptions of the critical points. The report indicates the volume and distribution of use of the service, how it is used, and user perceptions of the benefits it provides. Finally, as befits a research report, there are 60 pages giving the survey and questionnaire instruments and the data listings. (Unfortunately, as does not befit a research report, there is a persistent use of the non-coterminous labels 'pre-1992' and 'post-1992' as a classification of universities, and a mislabelling of a figure on page 22 which shows the opposite of what is intended.)

It is likely that many readers will be grateful for the summary at the beginning and will turn quickly to the three page third part of the report 'Some issues and observations'. This draws attention to the 'simplistic and uncritical manner' in which these services are currently used and to the role for librarians in assisting users to make more effective and sophisticated use of them. The current flat rate approach to charging is criticized and a new approach suggested that would take into account the volume (or potential volume) of usage. (Whether it is actual or potential usage would be a particularly important question for the new universities with their large numbers but the relatively low use demonstrated by this report.)

It is not surprising that most of the results are unsurprising, although from time to time one is left wishing to know more. Is an analysis by age of the university, for example, indicative, and if so of what? Why should the new universities be such high users of CD-ROMs but such low users of BIDS-ISI? Would other analyses have been more revealing?

There remain many questions to which library managers would like to have answers. How much time is spent by library staff in mediating the 'unmediated end-user' services? What effect are these services having on end-user behaviour and satisfaction? And although, as the report states, 'it is generally held that electronic database services are leading to an increase in the demand on inter-library loans services' is this belief true? Or is this increase merely a reflection of the declining ability of our collections to meet our users' needs? Or the pressure exerted by the funding councils through the Research Assessment Exercise? The main outlines have been clearly established by this report, but much further work needs to be done to understand fully what is happening. Once this becomes clearer we may see that rather than being 'a huge leap forward' in the same direction we are actually setting off down a different track altogether.

## Hanson, Terry (editor)

<u>Bibliographic software and the electronic library</u>. Hatfield: University of Hertfordshire Press, 1995. £19.95. (ISBN 0 900458 51 8).

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This work is an investigation of how libraries can use bibliographic software to provide services to users rather than the investigation of the detailed relative merits of the various packages available. There are two surveys which do this feature comparison on a regular basis. The Stigleman review of products is the more systematic as it lists and compares programs on the basis of ten qualities, while the Cibbarelli survey is based on a pool of the popularity of seven features by self selected users.

Terry Hanson provides the introductory and scene setting material about the nature of bibliographic software, and the issues of downloading formats and compatibility relating to importing records from bibliographic databases whether online or on CD-ROM. He provides the context within which bibliographic software has developed and indicates the distinctive and most common features of this class of software. The process of importing records from bibliographic databases and the common difficulties are also described.

The core of the book (almost half of the text) consists of case studies of applications of the software in two university and three research library service contexts using four packages. These studies show the practical contexts for selection and standardization of a package which is appropriate for the existing stage of software development and context of the organization. The process of introducing services is expounded well by Eddie Carter of Shell Research Ltd. —the need for knowledge of current practice, user requirements, volume of demand, package evaluation against in-house requirements rather than the theoretical best, and trialing of the service.

Additional issues dealt with by these studies include the service selection and mixes (selective dissemination of information, current awareness, document delivery, staff publications listing services). Support for end users, including publicity, training, guidance literature and consultation services or help desks, are touched on by several of the writers. One contribution from a university considers the issue of which members of the institution should be eligible for the services. The tendency is for these services to be available to researchers (although not always postgraduate researchers) and defined groups of administrators, rather than students. Negotiating for site licenses is dealt with by Sarah Davnall of the Manchester University Computing Centre and in passing by other writers. All deal with the most frequent bibliographic package problem - formatting.

It is disappointing that none of the writers dealt with the issues of:

- the costs of service provision and possible pricing of the services or justifications for free services;
- the changing of standards, as in this area software is changing rapidly and different products may become more suitable than the current standard.

An important section includes two contributions on copyright. David Slee deals with the concepts of copyright of a database and its constituent parts, while Charles Oppenheim considers the practicalities of dealing with full text and bibliographic databases and indicates the developments in European Union copyright.

Extensive bibliographies are provided after each contribution and the book contains a useful selected bibliography as an appendix. In addition the appendices include addresses for major bibliographic software providers, electronic discussion lists, brief introduction to the BIDS relation to bibliographic packages, evaluation criteria, and a suggested user satisfaction questionnaire.

In spite of a few niggles about the inevitable repetition of a case study approach and the absence of two issues which may become more important with time, this is a useful introduction to bibliographic software and a help to libraries considering the initial steps on the way to the electronic library.

#### References

1. Stigleman, Sue. Bibliography formatting software; an updated buying guide. <u>Database</u>, Dec.1994, p.53-65; and the Cibbarelli survey listed on the Bibsoft Web page, conducted by Pamela Cibbarelli, 419 Main Street, #82 Huntington Beach, California CA92648714 (PCibbarelli@Fullerton.edu).

# Sutton, Brent (editor)

<u>Literary texts in an electronic age. Scholarly implications and library services. Papers presented at the 1994 Clinic on Library Applications of Data Processing, April 10-12, 1994.</u> Urbana, II: Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign, 1994. US\$25.00 + US\$3.00 P&P. (ISBN 0-87845096-3; ISSN 0069-4789).

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These papers were delivered at a conference whose purpose was, apparently, to explore the issues raised by the use of computers in the humanities and, in particular, in those areas of humanistic scholarship which are concerned with the analysis of texts. They range widely over this broad field; the contributors include librarians, computer specialists, a lawyer and academics. The conference itself, to judge from Terry Belanger's characteristically astringent overview, suffered somewhat from the diversity of both the contributions and the contributors. So do the published proceedings. The papers fall into three broad categories: those which attempt to come to grips with the implications of electronic texts for scholarship and the understanding of the concept of text itself; those which deal with minutiae of electronic text preparation, input and retrieval; and those which address the implications for the users of electronic texts in universities in teaching, learning and research. Of these three groups, the first contain the most interesting papers, the second probably the most practical, and the third the most relevant to librarians.

The challenge of electronic texts for libraries is addressed, directly or indirectly, by almost all of the contributors, since, whether they appreciate the fact or not, the central problem with which all of them are concerned is how electronic texts are to be accessed. Various attempts to provide such texts through libraries are described, as are the roles played by librarians and others in providing such services. Issues of bibliographical control and copyright, almost equally neglected and equally critical aspects of the whole process, are discussed. The papers, in their various ways, are interesting, and occasionally provocative.

Conference proceedings such as this are perhaps inevitably rather flat when read in cold print. It was clearly a stimulating weekend, and some of the stimulation has survived. The results are worth reading by all librarians who are concerned with the provision of learning and research materials in universities: buried among the rather dull descriptions of mark-up systems, worthy accounts of copyright law and speculative ventures into cyberspace, are some of the ideas which will drive the academic library - both real and virtual - of the twenty-first century.

# Cotton, Bob and Oliver, Richard

The Cyberspace lexicon: an illustrated dictionary of terms from multimedia to virtual reality. Phaidon, 1994. £19.99 (paperback). (ISBN 07148 32677).

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This is not only an informative book, but a very attractive one as befits anything emerging from the Phaidon stable (remember all those marvellously illustrated art books?). The Cyberspace Lexicon is an extensively illustrated A to Z glossary of topics in the broad field of electronic information and multimedia. It is claimed to provide "...a much needed guide through the maze of existing and emerging technologies." The foreword goes on to explain that, "One of the obstacles to action in this area [of cyberspace development and exploitation] is the words that are used, which span several previously quite different disciplines. As media

and telecommunications converge with computing and consumer electronics to create the cyberspace infrastructure, so the vocabulary needed to deal with this phenomenon becomes polyglot, even pidgin. "How true! Well this Lexicon offers some (but not all) solutions. There is a range of topics defined in this book, some very technical, some conceptual and some pertaining to the media and entertainment scene. Interspersed among the 800 or so short definitions are cameo articles on various topics which the authors have identified as warranting extended treatment. Amongst others, these include: computer animation, compression techniques, CD-ROM, digital and analogue media, HDTV, remote shopping, remote sensing, and smart cards and memory cards. They make the Cyberspace Lexicon a book into which to 'dip' as well as a reference work in which to look things up. There are copious cross-references between entries which ensure that nothing is missed. Some entries have useful pointers to further reading though this kind of help is not provided often enough. To take a couple of examples, I should have like a source to follow up the entry on Teleworking; and certainly the one on Copyright. This tends towards the philosophical, if not the polemical, which is all very fine but those who have to deal with the 'tedious' detail of the subject need more! In mitigation it has to be noted that there is a three page bibliography appended to the Lexicon and many of the familiar names are represented - Shoshana Zuboff, Seymour Papert, Ted Nelson, Nicholas Negroponte, Marshall McLuhan (of course!) Buckminster Fuller, Vanevar Bush and Margaret Boden amongst others. Overall it is an interesting selection of references.

It is always tempting with this kind of work to 'nit pick' about the choices made by the compiler and identify omissions. On a rather more constructive note the following comments are offered by way of suggestions for what might be added to the next edition. Though we are given WYSIWYG and WORM we do not have WWW, though DATA SUPERHIGHWAY and INTERNET are present. Also absent are URL, and descriptions of tools with which to scan the superhighway for media and information such as NETSCAPE, MOSAIC or WINWEB. That new cultural phenomenon of the age, the Cyber Café of Net Cafe does not feature either, though it promises to be significant force in uniting people and cyberspace. But these are minor aberrations which can be overlooked because of the sheer quality of printing and production of the work.

Anything that casts a rational and clear light on the arcana of the new cyberworld is to be welcomed. That this work does so with such style and attractiveness is a bonus.