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Lorcan Dempsey. Libraries, Networks and OSI: A Review,
with a Report on North American Developments. Bath, U.K.:
Library, University of Bath, 1991. ISBN 0-9516856-0-0. \$60.
Reviewed by Clifford A. Lynch.

Lorcan Dempsey made a study trip to North America in May 1990 as part of a British-Library-funded study of library networking (i.e., use of computer networks by libraries) in North America. Based on this trip, as well as on extensive literature research and follow-on electronic mail and phone discussions, he prepared the report reviewed here. The prospective reader should understand that this book is in fact a published report. Some sections assume considerable familiarity with the subject matter; extensive quotations from the literature are included. Some sections are quite detailed and discuss work in progress (and some of this material will date quickly). Sometimes, the coverage is a bit encyclopedic, which makes for slightly tedious reading, but such detail is necessary in a comprehensive report.

The book opens with a brief discussion of the computer networking context in both the U.S. and the U.K. and its implications for library service. The perspective is practical and service-oriented.

Chapter 2 is a brief (25 page), very readable overview of OSI. Again, practical issues and real developments are emphasized, rather than theory or religious positions. TCP/IP is also briefly discussed, along with some TCP/IP-OSI interoperability considerations. There is some blunt discussion of the extent to which OSI can be expected to guarantee interoperability among systems, and of important issues such as registration, application interoperability profiles, and conformance testing. Dempsey supports his arguments with well-researched facts and statistics, and the concluding sections of this chapter, on the future of OSI, offer one of the most realistic assessments of the future I have seen in the library-related OSI literature.

The exploration of OSI is continued in Chapter 3, where discussion shifts from the overall OSI architecture and its acceptance to specific protocols for messaging (X.400), directories (X.500), file transfer (FTAM), and remote login (VTP). It is an excellent survey that links these sometimes abstract topics to real activities in the library world. Readers unfamiliar with these protocols will find this chapter a good

introduction. Coverage, however, emphasizes Canadian developments, and it is weaker on some of the present U.S. work to integrate X.400 and X.500 technology into the existing Internet infrastructure. There is little mention of parallel protocols in use in the TCP/IP world.

Chapter 4 covers the Linked Systems Project, the National Coordinated Cataloging projects, and related topics. This brief, even-handed review emphasizes the technical rather than political dimensions of LSP. The U.K. view of the project and of the role of the Library of Congress in the library community is particularly interesting.

Chapter 5 covers the Interlibrary Loan (ILL) Protocol (ISO 10160/10161), the National Library of Canada, and the Canadian vision of networked libraries. The National Library of Canada has been a very strong supporter of OSI and did much of the work on the ILL protocol. The view of the world implicit in this work is quite different from the U.S. vision (which is not much discussed in this chapter). U.S. readers will find this chapter uninteresting (irrelevant) . . . or provocative.

Chapter 6 covers Search and Retrieve (SR, ISO 10162/10163, better known to many in the U.S. as Z39.50), which is the U.S. National Standard version of SR and includes some extensions not yet in the international standard. The chapter explains the functioning of the protocol in general terms, places it in perspective, and surveys some of the implementations currently underway. There is some interesting assessment of the impact of Z39.50 in the U.S., Canada, and the U.K.

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Chapter 7 deals with libraries and the research networks (e.g., Internet, NREN, and BITNET). Dempsey covers the political history of the NREN movement, use of LISTSERV technology in libraries, and briefly discusses network-based publishing, government data on the network, resource guides, the digital library system proposal of Kahn and Cerf ("knowbots"), and the activities of the Coalition for Networked Information. Again, the comparisons Dempsey draws to U.K. activities are very interesting.

Local systems--online catalogs, access to journal literature, electronic information acquisition, and related matters--are explored in Chapter 8. The points of the chapter are illustrated by several case studies, including projects at Carnegie-Mellon University and Rensselaer Polytechnic Institute. Much of this chapter simply sets the stage for the following chapter, "Networks and Resource Sharing," by providing a picture of the changing library services visible to the patron. I feel that this chapter only weakly illustrates some of the budgetary pressures and institutional planning issues driving many of the developments under discussion.

Chapter 9 gives OCLC, RLIN, ILLINET Online, the Ohio Library and Information System (OLIS) (currently in the planning stages), the MELVYL system, CARL, and Irving as examples of systems serving groups of libraries, and discusses some developments in Canada. The focus in this chapter is on current systems and near-term developments, not on possible longer-term activities such as site licenses for electronic journals. While interesting, the material does not seem to be connected to the rest of the report as well as it might have been.

The report ends abruptly at this point; perhaps that is its great flaw. As a reader, I want some overall conclusions and general comments, giving Dempsey's view on the differences between the U.S. and U.K. and on where he thinks the projects he has described will succeed or fail. The absence of such a concluding section is a great disappointment.

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To be sure, this report has some limitations. It provides little coverage of the issues concerning fee-for-service information providers or publishers. It tends to look only at the near-term future, and it does not consider more radical shifts that might take place later in the 1990's. The reader will not find "science-fiction" here about virtual reality, multimedia network documents that talk to each other, or intelligent agents. Dempsey is not an electronic network evangelist. While he produces an even treatment of many topics, his report does not recognize the powerful social forces at work within the computer networking "community" which are adding fuel to many of the developments he describes.

The role of public libraries receives minimal coverage. There is a discussion of Cleveland Free-Net, for example, but more depth and more coverage of the policy issues here would provide a complete picture. The relationships between network information and scientific research are not really explored. Finally, there are a few projects that should have been mentioned and seem to be overlooked, such as the work of the Memex Institute.

Although I disagree with some of Dempsey's conclusions, he is very careful to separate fact from opinion. I believe his facts are generally very accurate, which is a considerable achievement in an environment changing so fast and in which the literature is so spotty and occasionally contradictory. Dempsey supports his opinions so well, that despite our differences in opinions, I find his perspective stimulating and thought-provoking and very valuable. I can recognize that his "outsider's" dispassionate viewpoint offers important perspectives that we might not want to hear, but that we need to consider anyway.

This is a wonderful book that we should thank Dempsey for writing and the British Library for supporting. (I do find myself thinking, parochially, that it is strange that the first real book on these topics has been written from a European perspective

and underwritten by the British Library. The topics covered are terribly important to the library, information science, and networking communities. Why hasn't this type of book been written from a U.S. perspective?)

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This volume collects and synthesizes a tremendous amount of information that has not appeared previously in any coherent form. Simply providing this report for North America would have been a great contribution, but Dempsey goes much further, providing analysis and comparison between North American and European attitudes and plans, which enriches the work with a new set of insights.

Although it is not intended as a textbook, this would be a superb text (perhaps supplemented by some journal articles) for the classes studying the impact and implications of computer networks and network information resources on libraries, which all library schools should be planning for their curricula. The book includes an extensive, very current bibliography, a summary of relevant standards, and a good acronym list. It would be a provocative point of departure for any number of classroom discussions.

Library administrators and library technology planners should read this book, as should those concerned with information technology planning in universities. Library school students (and faculty!) should read it. Those concerned with national networking policy should read it. It should be equally important to the computer networking community as a survey of the development of the role of libraries in computer networks and the evolving national information infrastructure, and I hope that members of this community will also read it.

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