scenarios cover an important and often overlooked area of library management.

Budgeting for Information Access is less successful in its discussion of electronic resources. Problems associated with ownership and preservation in the electronic arena, as well as the economic consequences of acquiring and licensing these materials, are all important issues that many librarians confront. This book's heavy-handed bias toward print materials can be justified in some circumstances; nevertheless, statements that compare and contrast print and electronic resources often are confusing and overly dramatic as indicated in the following statements: "Of particular importance is the difference between accessing a book and accessing electronic media . . . because the first is a simple matter of picking up something that has already been purchased and is therefore subject to the Doctrine of First Sale, while the second is like accessing a datafile that is not in the public domain"(p. 119) and "Unless providers and users can find more common ground, the unlimited promise of the new medium may diminish or vanish" (p. 88). In addition to commercially available products, which are emphasized in the text, there are thousands of government-maintained, content-rich Internet sites, accessible from the home or library, which provide information directly to the public. Electronic resources vary greatly in format, access, usage, content, and quality; in this text, their distinctions are sometimes neglected in favor of broad editorial statements on electronic resources in general. Peggy Johnson (1998) and Ross Atkinson (1998) deal with these issues more effectively in an effort to inform and improve library practice and theory. Discussions of copyright and contract licensing are scattered throughout the text; individual sections devoted to these issues, with specific guidelines, would be helpful.

Over the last decade, in an effort to meet users' information and research demands, libraries have attempted, within budgetary constraints, to provide access to a wide range of services and materials. Martin and Wolf's book is a good starting point for a better understanding of "access" in an ever-changing library environment.—*Amy Dykeman (amy_dykeman@solinet.edu), Library Products and Service Manager, Electronic Information Services, SOLINET, Atlanta, Ga.*

Works Cited

Atkinson, Ross. 1998. Managing traditional materials in an online environment: some definitions and distinctions for a future collection management. *Library resources & technical services* 42: 7–20.

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Practical Digital Libraries: Books, Bytes, and Bucks. Michael Lesk. San Francisco: Morgan Kaufman, 1997. 297p. $49.95. (ISBN 1-55860-459-6). LC97-22069.

Michael Lesk is a computer scientist who has shown his interest and expertise in library-related issues in research for the Commission on Preservation and Access and who has dedicated his work to studying problems and solutions for the electronic library. He has written several respected works on preservation and technology; but this book, a natural extension of his interests and experience, is by far the most extensive and will reach the broadest audience.

Practical Digital Libraries is one of the first books to treat this subject so comprehensively and in such a readable style that students, educators, librarians, and computer scientists all will find it interesting and valuable. The subtitle "Books, Bytes, and Bucks" indicates the book's attention to the economics of digital library projects. This topic is critical in a discussion of changes in technology and how to mobilize, plan, and transfer library functions and resources to a digital environment.

Lesk provides a thorough review of what a digital library is and how to build one; the book can easily serve as a reader or textbook, and it would also be useful in a study of trends in scholarly communication. In the opening chapters, Lesk focuses on the technology of conversion and construction and the needed equipment and software. He examines techniques for storing and manipulating images and for

storage of sound and multimedia, and possibilities for classification and indexing. A discussion of options for delivery of the digitized content and for information retrieval is central in this book. Lesk concludes with discussions of collection, maintenance, and preservation of digital information and a review of economic models to sustain the development of digital libraries. The practical and well-organized nature of this volume, and its numerous illustrations and graphical presentations of complicated information, make it a useful resource for anyone involved in the developing digital library environment. Valuable reader-friendly features are the extensive list of figures, a bibliography of references, and a useful index.

Lesk tackles the "whys, hows, and what decisions remain to be made" (p. ixx) as new technology makes digital libraries more a reality at all economic levels. The author underscores how library users have come to expect to be able to access, search for, copy, and store information with maximum ease and dependability, using common equipment that doesn't require complex skills. The outcome of a digital library is a new sense of organizational culture—it is this social aspect of computing and the transformed library environment that is so exciting to study and experience. This book is a success as a planning tool, an analysis of how to problem-solve in planning various aspects of a digital library. In building a case to answer the question "Why digital libraries?", Lesk presents dilemmas that can be studied and solved in a variety of ways. Examples of these problem situations include text formats; methods of transferring images and text so that they can be read and copied; new options for multimedia storage and access; methods of knowledge representation; distribution of content and security concerns; and usability and retrieval evaluation. The concluding summary in each chapter includes both a summary of the chapter's content and ideas on future developments in this dynamic environment.

The second part of the book is less technical and more application-oriented, covering collections and preservation, economics, copyright and intellectual property, the scope of international activities, and future impact on society and public policy. Lesk's almost encyclopedic approach gives direction to the technical planning process. He is candid and honest, identifying genuine problems and solutions that obviously have limitations and will need to be revisited when new technologies become available.

As a librarian, I found the chapters "Economics," "Knowledge Representation Methods," and "Collections and Preservation" most useful. The understanding of technicalities gleaned from the earlier chapters can be applied to these discussions of planning for digital access. The information is useful to planners from different professional avenues, for small and large projects, and in various higher education environments. There is a good introduction to government-funded research initiatives that nonexperts will find helpful.

This book will have a reasonable shelf-life in libraries because it fills a void. Until it became available, librarians had to study computer science and engineering manuals to learn about the technology of digitization. The 1997 imprint should not be a concern because there is little else published of comparable scope in so intelligent and readable a volume. Many earlier and later works cover aspects of this subject in greater detail, but as a single-volume work on this subject, *Practical Digital Libraries* stands alone. A newer and somewhat related work on the same subject, without the technical information, is *The Mirage of Continuity: Reconfiguring Academic Information Resources for the 21st Century*, edited by Brian Hawkins and Patricia Battin (Washington, D.C.: Council on Library and Information Resources, 1998). The World Wide Web is also a source of information about digital libraries. The D-lib Program, Research in Digital Libraries (http://www.dlib.org), provides a variety of useful resources, including *D-Lib Magazine*, but it is nowhere near as easy to use or as complete an overview as *Practical Digital Libraries: Books, Bytes, and Bucks.*—*Julia Gelfand (jgelfand@ sun1. lib.uci.edu), Applied Sciences Librarian, University of California, Irvine.*