Nintendo game that needs the equivalent of a Nintendo strategy guide with "tools of the trade," "best friends," and "enemies and foes" (p. 67). In "Computing Resources: Opportunities and Challenges in Institutional Cooperation," Nancy L. Eaton deals with cooperation within the library itself, within the parent organization, and at the state, regional, and national levels. These technical issues are important for collection development because they "determine the final outcome of how information is provided to our patrons" (p. 91).

Ross Atkinson provides a brilliant piece on "Access, Ownership, and the Future of Collection Development." From a tightly reasoned argument that cannot be summarized in a brief review, he concludes that "collection development as a separate library operation probably will not survive the eventual disappearance of paper as the primary and preferred medium of scholarly information exchange" (p. 102). Selection for a specific physical collection will no longer be required because the user will have instant access to the world of electronic documents. He believes that libraries should still provide mediation services (cataloging and reference) to help users determine the value of electronic information. During the transition, collection development specialists should protect disciplines that continue to rely on paper, evaluate paper documents for digital conversion, work with acquisitions to design budgetary procedures for online access, and prepare for the fusion of selection with cataloging and reference.

I believe that this volume largely avoids several possible pitfalls. The speakers are practitioners, but they mostly transcend their local situations to deal with principles pertinent to research libraries in general. Save for a few lapses, I did not feel as if I were reading case studies of narrow applicability where limited experience had blinded the writer to other possibilities. Furthermore, the general conceptual bent keeps the papers fresh, even with a two-year delay between delivery and publication. I also believe that the papers come together to form a coherent whole. Too often conference proceedings include contributions that fail to add anything to the general theme. Finally, the authors are concise. The papers range from nine to eighteen pages in length; the better papers generally have more space. The book is short, but it is reasonably priced. I prefer this option to high-priced proceedings with large quantities of irrelevant filler.

I attended the first collection development institute in 1981 and could see from this volume just how much the field has changed in its particularities while still retaining its basic purpose—efficiently getting the most and best information to the user community at the lowest possible cost. The electronic age might end collection development as we know it, but research libraries are not there yet. Collection development experts will bring past expertise to bear on future technologies within the context of a commitment to excellence. I recommend this volume highly to those who, like me, have an interest in collection development in research libraries. I plan to assign several papers to my students when I next teach collection development.—*Robert P. Holley, Library and Information Science Program, Wayne State University.*

Advances in Library Automation and Networking. Vol. 5 (1994). Ed. Joe A. Hewitt and Charles W. Bailey, Jr. Greenwich, Conn.: JAI Pr., 1994. 282p. $73.25 (ISBN 1-55938-510-3).

For many, the concept of an annual review of library automation and networking will seem anachronistic. In a field characterized by sudden and discontinuous change, the inevitable delays associated with assembling, editing, and publishing papers in book form would appear to diminish the currency and usefulness of contributions. While this work partly substantiates this concern, it also proves that such a collection can provide lasting contributions to our understanding of computing in libraries.

For readers concerned with up-to-date summations of the year's developments, this work begins with a handicap.

As the editor points out, a series of circumstances beyond the control of the authors delayed publication and, in fact, the papers contained in this collection were written in 1992 (p. x). As a result, the collection makes scant or no mention of topics such as Microsoft Windows, the World Wide Web (WWW), or WWW browsers such as Mosaic and Netscape. However, although this collection can disappoint when it addresses specific technologies, it succeeds when it deals with larger policy and service issues.

In asking "What Can The Internet Do for Libraries?" Mark H. Kibbey and Geri R. Bunker exemplify the strengths and weaknesses of this collection. Several problems cited by the authors at the time of writing, such as the paucity of commercially available graphic user interfaces, have since been resolved. However, Kibbey and Bunker avoid dating their effort by concentrating on policy and service issues. They also provide a sketch of the development of the Internet that remains accurate and useful for anyone interested in understanding the spectacular success of this network. Their vision of the Internet's development contains valuable insights. They describe, for example, the effect of e-mail in leveling hierarchical organizational structures and in altering the nature of work to accept group-centered research (p. 88). In addition, they hint at the competitive challenges posed by Internet-based services to the monopoly on information services enjoyed by libraries in the past. The capacity of electronic services to sell directly to customers, they note, has the effect of bypassing libraries. To their credit, Kibbey and Bunker avoid the temptation to state that the service models represented by print-based libraries and by the Internet will necessarily coexist smoothly. They recognize that the Internet reflects a "culture clash" that might affect library organizations in deep and possibly problematic ways (p. 93).

For librarians considering the acquisition of a library automation system, Carolyn O. Frost's "Next Generation Online Public Access Catalogs: Redefining Territory and Roles" is an excellent primer on the changing nature of the catalog. Frost's use of language is appropriate and precise. She observes that the effect of the expansion of digitized information is to redefine the "territory," or boundaries, of the catalog. Traditional catalogs describe and provide locations for materials owned by libraries. Online catalogs perform this function, but also act as gateways to other resources. This transition blurs our understanding of ownership and presents librarians with a host of challenges. Existing technology and standards fail to support multimedia resources, searching across different databases, and assisting users in navigating new terrain. Frost describes a number of experiments that respond to these challenges. It would be interesting to see a revised version of this paper that tested these problems against the tools now available on the Internet and the World Wide Web in order to evaluate what, if any, progress has been made since the publication of this collection.

Carol Tenopir focuses on a specific area contained in Frost's article in "Full Text Retrieval: Systems and Files." Tenopir recognizes that, until the mid-1980s, library catalogs, whether manual or computerized, served primarily as finding tools. After that time, cheaper storage media permitted the loading and retrieval of full-text documents. Tenopir provides a taxonomy of full-text sources, describes technologies used to access them, and sketches three levels of searching that might be built into systems supporting full-text. Although Tenopir succeeds in characterizing full-text services, she might have done more to draw out the implications of full text on user expectations and the demands placed on libraries and library computer systems. The paper also lacks a discussion of the technical standards that might be applied in libraries to the management of full text such as the Standard Generalized Markup Language (SGML).

Although focused on specific projects, John Ulmschneider and Tracy M. Casorso's overview of electronic documents delivery systems for agricultural information, and Judy Hallman's examination of campus-wide information systems, make use-

ful general points. Ulmschneider and Casorso, after describing in detail the National Agricultural Text Digitizing Project (NATDP) and its successors, extrapolate the effect of document delivery systems on library workflow, particularly in interlibrary loan departments, and consider administrative, technical, and legal issues. Similarly, Hallman reviews various implementations of campus-wide information systems (CWISs). Although CWISs are now fading in importance as WWW resources proliferate, many of the technical and administrative issues that they engendered remain. CWISs suddenly shifted the focus of campus users from unintegrated computer services, such as online public access catalogs and departmental servers, to a more integrated system linking different databases. For libraries that decided to include their catalogs under a CWIS umbrella, the reality of competing information sources became apparent. As Hallman notes, the new services beg questions about ownership, the authenticity of information, and maintenance. They also position the operator of the CWIS as a publisher. For librarians, this new role fits uncomfortably into past practices and training. Hallman asserts that "Librarians should have a central role in expanding CWISs" and that the "task of overseeing CWISs belongs in campus libraries" (p. 169). In light of the competition posed by computer centers and by private companies on many campuses, these assertions seem rather optimistic.

Many of the papers contained in this collection help librarians involved in the procurement of library automation systems. One contribution is must reading for any librarian compiling a request for proposal (RFP). In "Use of a General Concept Paper as RFP for a Library System: A New Model for Library System Procurement," Mona Couts, Charles Gilreath, Joe A. Hewitt, and John Ulmschneider share work done at the Triangle Libraries Research Network in North Carolina. For any librarian who has compiled a massive RFP, and for any vendor who has had to suffer through reading one, this paper comes as sweet relief. The authors recognize that the RFP should not be viewed as a shopping list of specific, detailed functions, but rather as an expression of a library's vision of how technology will serve its long-term strategies. Too often libraries "fight the last war" in RFPs, attempting to fix the defects of their present systems in the new product. Rather than asking for creative solutions, librarians end up micromanaging the solutions themselves. As a result, library automation vendors all too often produce safe, pedestrian products designed to appeal to an overly cautious clientele. The authors of this paper propose that libraries express their vision of the future and ask vendors to become partners in realizing it.

Although somewhat dated, this collection contains papers that transcend specific products and services and that address issues of continuing concern. Particularly for librarians involved in system procurement processes, it provides invaluable guidance.—*Robert Renaud, University of Arizona Library.*

Dewey Decimal Classification: A Practical Guide. Lois Mai Chan, John P. Comaromi, and Mohinder P. Satija. Albany, N.Y.: Forest Press, 1994. 211p. $40 (ISBN 0-910608-49-0). LC 93-23733.

Guide to the Use of UDC: An Introductory Guide to the Use and Application of the Universal Decimal Classification. I. C. McIlwaine, with participation from A. Buxton. The Hague, Netherlands: International Federation for Information and Documentation, 1993. 124p. (ISBN 92-66-00-703-X).

"The work of practical library classification, in its essence, is to find the appropriate place for a document in the overall scheme of the classification system being used, and to assign the appropriate notation from the classification schedules to the document. Therefore, the work of classification requires knowledge of both the contents of the book and the structure and mechanism of the classification system" (Chan, p. 35). The construction of lengthy classification numbers is among the difficulties in employing the *Dewey Decimal Classification* (DDC) scheme.