Collaboratory Model."

In the first proposed model, computer-assisted communication modernizes the process by making it faster—sharing findings through e-mail, publishing in electronic journals, and indexing and abstracting materials online. The No-Journal Model replaces the journal as the primary means of disseminating research findings, relying instead on "the 'article' or research report as the unit of distribution" (p. 24). The Unvetted Model goes a step further by removing the concept of peer review from the communications process. Finally, the Collaboratory Model offers the possibility of physically distant groups of scientists working collaboratively through computer-assisted technologies, sharing data and research findings in common databases. This model is the most transformative of the four presented and is the model used in the three case studies presented later in the text.

The case studies, "The Human Genome Project," "High Energy Physics," and "Astronomy, Astrophysics, and Space Physics," exemplify the issues addressed earlier in the text and provide substantive support of the authors' new model of scientific communication. The studies are clearly presented and accessible—even engaging—reading for nonexperts in scientific communication. Chapter 6, "The Changing Scientific and Technical Communications System," summarizes the work presented in the preceding chapters. The authors cite a number of instances in which technology has already influenced, modernized, or partially transformed the communications process. They review the current state of electronic publishing and rightly predict even greater transformations to come. Finally, they touch on economic issues, information needs and use, and possible future roles of libraries.

Though the ideas presented in *From Print to Electronic* will be familiar to any librarian who follows current library literature, the book is a compact, admirably readable presentation of these ideas. Librarians who confront the bewildering issues of production, dissemination, and organization of digital materials in all their variety would be well served by a better understanding of scientific communication and of scholarly communication in general. This book meets this need.—*Edward Gaynor, Associate Director of Special Collections, Alderman Library, University of Virginia, Charlottesville (gaynor@virginia.edu)*

Planning and Implementing Technical Services Workstations. Editor: Michael Kaplan. Chicago: American Library Association, 1997. 237p. (ISBN 0-8389-0698-2).

In the 1990s, the bottom-line approach of the business community is finding its way into the library world in general and into the technical services area in particular. The technical services workstation (TSW) is a catchword of the effort to increase productivity with limited personnel and resources. Michael Kaplan has been at the forefront of TSW development, establishing technical services workstations at the Harvard University Library and guiding national committees in the development of TSW standards and procedures. This book is a compilation, history, and guidebook on the technical services workstation and its gradual acceptance as a solution to the problems of doing more with less in technical services. The introduction begins with productivity statistics related to the implementation of TSWs at a number of academic institutions. The definition of a TSW follows, including the statement that "it is ... the choice of the software components and the ability to network that will determine whether the computer makes the evolutionary leap and becomes a true technical services workstation" (p. xvii).

The book is divided into five parts: Background and Planning; Online Documentation and Online Tools; Productivity Enhancers: Macros and Programmatic Approaches; Ergonomic and Training Issues for the Desktop Environment; and the Symbiotic Future: Technical Services Workstations, the Internet, and the World Wide Web.

In Part I, chapter 1, "Hardware and Network Considerations," a short history of the technical services workstation is

provided, beginning with the 1994 survey by the Automation Task Group of the Cooperative Cataloging Council. The task group's findings on hardware requirements for TSWs include details on the keyboard, mouse, monitor size and resolution, dot pitch, refresh rate, and color schemes, as well as LAN and Internet connections. In Chapter 2, "Software Considerations," the software findings of the task group's survey is examined. Migration to a Windows environment is recommended, and a checklist of what a fully functional TSW should be able to do is given. Much of this chapter is a discussion of macros and macro packages, focusing on the NewKey macro package in use at Harvard. Essential elements of macro packages are given. In Chapter 3, "A Developer's Point of View," Mark Wilson of the Library Corporation discusses his company's work in designing the BiblioFile Cataloging product, and how essential the relationship between the librarian and the developer is to future TSW software development. Chapter 4, "National Cooperative Programs," is an enlightening and important short history of TSW standards development on the national level.

In Part II, various TSW tools currently or soon to be available are reported. Bruce Chr. Johnson of the Library of Congress (LC) explains Cataloger's Desktop; Anaclare Frost Evans of Wayne State University provides a comparison of the two Library of Congress *Classification* products currently available (SuperLCCS and Classification Plus); and Diane Vizine-Goetz and Mark Bendig of OCLC Online Computer Library Center, Inc., explain the Dewey for Windows product. Each of these chapters includes numerous illustrations to accompany explanations of the basic functionality and the pros and cons of each product.

Two additional macro packages are featured in Part III. Gary L. Strawn of Northwestern University explains the development of his Toolkit macro, generally known as "CLARR," while David Williamson discusses LC's experience with custom applications. In-depth examples are given in each chapter, with descriptions of specific workstation procedures that resulted in increased productivity and decreased duplication of effort.

In Part IV, two issues that are often not discussed in great detail, but are of immense importance in the day-to-day technical services activity are dealt with: ergonomic design and training. Bruce Trumble of Harvard College Library discusses the importance of establishing a workplace ergonomics program and provides an excellent bibliography of resources for further reading. Julia C. Blixrud of the Association of Research Libraries explains that training is even more important in the TSW environment and that the establishment of a TSW training program is essential in the success of TSWs. She also provides a checklist of questions and topics that library managers need to address when designing a TSW training program.

Finally, Diane Vizine-Goetz of OCLC takes a look into the future of TSWs from a researcher's perspective. She specifically mentions the Scorpion project currently underway at OCLC, a product that recognizes the subject content of electronic documents. The book concludes with an excellent bibliography for further study of all aspects of technical services workstations.

Much of the information contained in this book relates to Harvard University Library's implementation of technical services workstations. The information in Part *II* on current TSW software products is well written and will be helpful to anyone who is evaluating these products. The chapters on ergonomics and training provide useful information for anyone writing policy statements or dealing with health problems related to technology implementation. This book is an essential reference source for everyone in technical services, as well as for library managers and administrators. It provides a blueprint for the future of technical services into the twenty-first century, and describes software products currently available that can maximize current staffing utilization and increase productivity, while at the same time address the training and health concerns related to the use

of current technology.—*Dr. Brad Eden, Coordinator of Technical Services/Automated Library Services, North Harris Montgomery Community College District, Houston (beden@nhmccd.edu)*

The Bibliographic Record and Information Technology. Ronald Hagler. 3d ed. Chicago: American Library Association; Ottawa: Canadian Library Association, 1997. 394p. $45 [ISBN 0-8389- 0707-5 (ALA); 0-88802-280-8 (CLA)].

As the title indicates, the author of this work has set himself a large task. Even at 394 pages, a work that addresses both topics will of necessity use a broad treatment. This book is a general text, not a specialist's text or a handbook for either topic. In the preface, Hagler states that this is not a how-to manual: "This is a conceptual treatment of current bibliographic practice in the context of its principles and history....It acknowledges primary, rather than secondary, sources in the formulation of that practice" (p. xv).

The work, structured in two parts, has many strengths. In Part I (chapters 1–5), Hagler discusses the principles of bibliographic control in library and nonlibrary environments, and in Part II (chapters 6–9 and an appendix) he discusses library standards for record creation. Hagler does an excellent job of keeping the reader aware of the very different contexts in which bibliographic records exist (footnotes, print bibliographies, abstracts, indexes, and library catalogs). He highlights and explains clearly the difference between, and issues surrounding, the document (item) and the work (content).

Chapter 6, "Controlled-Vocabulary Name Access Points," is interesting in view of the October 1997 Toronto conference on the future of the *Anglo-American Cataloguing Rules*, 2d edition (*AACR2*). Hagler very effectively compares and contrasts Cutter's cataloging rules and *AACR2*, noting how each is affected by the technology of its time. The author's clear, consistent distinction between document and item and his discussions of