is difficult to identify his personal biases on many difficult and controversial topics. Budd has a good command of his subject matter and presents it in a cohesive manner. He is to be commended and his book recommended.—*Clay Williams, Ferris State University, Big Rapids, Michigan.*

Electronic Information Environment and Academic Libraries: Proceedings of Japan–U.S. Library Conference 1996=Denshika Sareru Joho to Toshokan. Ed. Matsushita Hitoshi. Tokyo: Kinokuniya Co. Ltd., 1997. 252p. Unpriced.

This is an odd book. It consists of the papers delivered, in English, at the 1996 conference in Tokyo and the discussions following the two all-day sessions. The conference was organized by the staff of Kunitachi College of Music, the publishing company Kinokuniya, and OCLC Online Computer Library Center, with financial support from The Japan Foundation Center for Global Partnership. The first 117 pages of the book consist of translations into Japanese of both the papers and the discussions, making them available to both Japanese and English readers.

Several names well known to American librarians are among the presenters, including Andrew Wang and Phyllis B. Spies, OCLC; Steven Hall, Chadwyick-Healey; and Mary Kay Duggan, U.C.-Berkeley's School of Information Management. Less well known to Americans are the editor of this work, Matsushita Hitoshi, acting librarian of the Kunitachi College of Music Library; presenter Min-min Chang, director of the Library of Hong Kong University of Science and Technology; and discussant Abe Shin'ichi, head of the Medical Information Center for Education and Research at Jikei University's School of Medicine.

Papers delivered at the conference cover a wide range of issues relating to the theme of the conference and present a great deal of useful information in one place. Spies's paper, "International Library Cooperation in the Age of Electronic Information: Recent Trends and OCLC's Role," illustrates how developments in electronic information reflect changes in the global market and how OCLC reacts to those changes as they impact the "emerging global library community." She states that "[f]urthering access to the world's information and reducing the cost of that information remain OCLC's major public purposes."

The University of Pittsburgh's Arlene G. Taylor's paper, "The Electronic Information Environment and Academic Libraries in the U.S.," focuses on such concerns as what is to be included in a library catalog, what should be in a catalog record, the international coding of records for machine manipulation, new concepts in authority control, and challenges of multiple-language subject approaches. She addresses the efforts of the International Federation of Library Associations (IFLA) in the transnational exchange of authority data and the progress multilingual nations, such as Singapore and Canada, have made in multiple-language subject control, and notes that some public libraries in the United States provide both English and Spanish access to their subject catalogs. A recurring theme in Taylor's paper is disappearing boundaries, a gradual removal of the limitations librarians have confronted in catalogs, authority control, subject access, etc. She concludes with the view that: "Disappearing boundaries are and always have been a challenge. Too often we've dealt with them in the past by building fences to delineate the perceived positions of the boundaries. In the libraries and cataloging it is time to take down the fences."

In his paper, "The Future of Electronic Information Services in Libraries," OCLC's Rick Noble outlines the recent history of electronic information services, which "began to appear in North American libraries about twenty-five years ago." He goes on to show how developments in the Internet and the World Wide

Web have led to lower costs in providing and accessing information—including less cost to end users—and to the need for less mediation by librarians.

The planning processes in the creation of a scholarly communication center are discussed by Linda Langschied of Rutgers University. Her paper highlights the realities of the current situation among undergraduates in the United States: Only 43 percent of undergraduates are 25 years or younger and attending college full-time; most have full-time or part-time jobs; 57 percent do not attend traditional four-year colleges; they will have multiple careers in their lifetimes. Langschied notes that: "The new student, then, needs to obtain the skills that enable life-long learning . . . problems in higher education are not solely demographic." A more far-reaching change, she notes, is that the learning style of today's students generally does not match the teaching style of professors. Rutgers University's Alexander Library's response to this changing educational environment was to establish its Scholarly Communications Center to serve a diverse and wide range of users. How it was done, planned, funded, and operated is recounted in this paper.

An Asian experience is recorded in Chang's paper, "Chu xin: The Beginner's Mind: Managing a Digital Library at HKUST [Hong Kong University of Science and Technology]." The university opened only in 1991, with a focus on science, engineering, and business education. As a new entity with a limited collection of 120,000 books, the library turned to electronic media to meet the information needs of its students, along with access to resource-sharing networks and document delivery, frequently from local Hong Kong sources. Because the library depends so heavily on electronic information sources, it also depends heavily on bibliographic instruction to provide access to the electronic media.

The first of the two sessions of the conference consisted of the papers described above, followed by a discussion session. And this is what makes this volume so odd: Although the conference was a joint Japan–U.S. conference, none of the papers focused on developments and activities in Japan, and none were by Japanese librarians. Some of the papers do make note of developments in Asia or in Asian-language electronic resources, but it is only in the discussion session that we get any input from the Japanese side, any inkling of Japan's relationship to international electronic resources.

In his introduction to the first of the two discussion sessions, Shin'ichi addresses the barriers confronted in moving toward a global information community, paramount among which is the unbalanced distribution of information. He notes that over 86 percent of Internet users are either native speakers of English or speakers of English as an official language of their country, and only .05 percent of users speak Japanese. But he also notes that the Japanese database industry is working hard to improve its services and, thereby, narrow the gap between the U.S. and Japanese distribution of information. But Harriette Hemmasi of Rutgers postulated that barriers are not the result of someone not producing enough information resources but, rather, the explosion in the amount of information itself.

Papers from the second session cover quality control of catalog data, the significance of authority control in online public-access resources, a humanist's viewpoint on how to improve subject searching in online catalogs, and the changing roles of information professionals in the electronic environment. Hemmasi stated succinctly how humanists, in her opinion, do research: "Humanists largely work alone; they rely heavily on reading; they often get their bibliographic direction from citations in their reading and from colleagues, or from

browsing the library shelves." Her point is that the vocabulary of online catalogs often does not match the vocabulary of humanists.

The discussion session that follows the second set of papers focuses on the roles of librarians in enhancing accessibility to information. The keynote speech, by Koga Setsuko of Aoyama Gakuin University, leads to discussion of the diminishing role of librarians as mediators between users and information. She revealed that: "In Asia, the importance placed on librarians is not very high." Another presenter noted that in many Asian countries reference service is passive and that sometimes librarians purposely work ineffectively so that their work will not be completed and they will not be left without work—and a job—to do. But Chang reiterated that the electronic environment will make more, rather than less, work for librarians as they select and evaluate electronic media, catalog them, and teach people to use them.

Much of what is presented in these papers is fairly common knowledge to U.S. librarians, but perhaps less well known to Japanese librarians. Conversely, much of what the Japanese librarians related in the discussion sessions is probably quite evident to Japanese librarians, but largely unknown to those in the United States. Thus, this volume is indeed a document that reflects both Japanese and American interests and concerns about the relationship between the electronic information environment and academic libraries in the two countries. Both sides will find much valuable information and opinion in this volume.

In the preface to these conference proceedings, the editor states: "The Middle Ages possessed a world view based on divine laws, which fostered an environment of control of information. In due course came the invention of printing." It is ironic to read such a statement in a volume of papers from a conference in Asia because, as the editor surely knows, both block printing and printing by movable type were in use in Asia centuries before the Middle Ages in Europe.—*Raymond Lum, Harvard University.*

Saenger, Paul Henry. *Space between Words: The Origins of Silent Reading.* Stanford, Calif.: Stanford Univ. Pr. (*Figurae: Reading Medieval Culture*), 1997. 480p. $49.50, alk. paper (ISBN 0-8047-2653-1). LC 96-35088.

Librarians have more reason than most to appreciate the interplay between technology and language. After all, the wares on their shelves are almost always technologically preserved language artifacts, be these cuneiform tablets, Roman codices, medieval manuscripts, printed books, texts preserved in digital form, or streamed audio delivered via the Internet. As a profession, we are aware of certain watershed events in language preservation and reproduction technology, with the Gutenberg revolution surely foremost among them. But we also manifest an unfortunate tendency to equate technology with machinery, when in fact the elaboration of an alphabet or the many other conventions of rendering spoken language in written form are—no less than the printing press—fruits of human invention and imitation. Writing is, as Walter J. Ong described it in *Orality and Literacy: The Technologizing of the Word* (1982), a "deeply interiorized technology." It "initiated what print and computers only continue, the reduction of dynamic sound to quiescent space, the separation of the word from the living present . . . ." As a reflex of a mistaken identification of *Techne* not with *Ars*, but with *Machina*, we are prone to see in the page of a medieval manuscript, in its illuminations and rubrications, its gracefully rounded uncials or less graceful, angular fraktur, above all the desire of a presumably pretechnological scribe to please the eye rather than to wield a communicative tool. But to do this both un-