

to be the system used by the author's employer—until I noticed that the author works not for a library, but for the company that sells the very system used as an example. Is this product placement or simple convenience? And is the theme of automation a soft sell or just the author's honest opinion based on personal experiences?

The book has an imprint of 2001, and some of the information (e.g., on government documents, on electronic journals) has changed even in the short time since the book was published. Some updating would be necessary in these areas were the book to be used in the classroom.

As the book itself says, again over generalizing, "out-of-date materials should be discarded in order not to mislead readers with the wrong information" (31).—*Rice Majors (ram2@cornell.edu), Lewis and Clark College, Portland, Oregon*

Issues for Libraries and Information Science in the Internet

Age. By Bruce A. Shuman. Englewood, Colo.: Libraries Unlimited, 2001. 228p. \$48 paper (ISBN 1-56308-805-3).

Bruce Shuman is a fan of the Internet. In fact, after consulting the *Oxford English Dictionary*, you might even say he is a "keen and regular spectator" of the medium. But, unlike more casual fans, he is not blind to the deficiencies marring the object of his fascination. In the preface of *Issues for Libraries and Information Science in the Internet Age*, Shuman calls into question the idea of the Internet being "an unalloyed boon to mankind, a totally positive force, without downside" (xvi). While pursuing his investigation into the nature of the Internet, as well as what's available to librarians through the medium, Shuman provides perspective on the history, benefits, and pitfalls of the medium, as well as a few examples of the inherent perils of writing about a fast-moving technology.

Especially useful is a narrative

timeline of the Internet. Shuman begins the history with Denis Diderot's *Encyclopédie* effort of the 1700s. He then connects the dots from Vanevar Bush's essay on a "Memex" machine, which was an idea for a machine to process all of humanities information, to universities' experiments with the ARPANET, and then to the modern Internet. More problematic is a selection of Web sites that have been provided as examples of the "cream of the crop" (145) for librarians. The difficulty with the list is that the Internet changes very quickly, and subsequently many of these sites either no longer exist or have changed their entire business model. One example is the company Alexa, which a couple of years ago provided a Web site recommendation tool, but which was subsequently purchased by Amazon.com. The Alexa product was a fascinating Web browser add-on that allowed the Internet surfer to provide feedback on visited Web sites and then in turn see the feedback left by other users. However, when readers visit the link provided in the book, they will find a search-box front end to Amazon.com's e-commerce enterprise. This is merely one example of the mutability of the Internet and, to be fair, Shuman prepares the reader early on with a disclaimer in the preface. An alternate solution to this problem, currently being offered by the authors of many Internet technology books, is to provide a companion Web site that can then be updated as Web sites change.

The book also discusses the potential pitfalls and shortcomings of the Internet. Here Shuman touches on many of the issues that concern librarians, including copyright, electronic security, privacy, and identity theft. With the Recording Industry Association of America (RIAA) now suing individuals for copyright violations because of peer-to-peer music sharing, the current legal atmosphere is uncertain for many users. Shuman rightly calls for "clear and unambiguous laws

and policies that will acquaint users . . . [with] (1) those things they are permitted to do with impunity and (2) those things that are prohibited, and for which they could incur a punishment or fine" (119). Unfortunately, other arguments being made are not as clear and serve to undermine the author's intentions. For example, hackers are inadequately identified as "people whose computer skills and resourcefulness greatly outweigh their ethics" (128). According to the New Hacker's Dictionary Web site, a preferred definition is "one who programs enthusiastically."¹ Hacking can have a negative connotation, but that's not necessary. There are many systems librarians who spend long hours "hacking" together, improving access to periodical databases and library Web sites through the use of scripting languages and other programs. These are the hackers of our profession, and it's important not to confuse them with malicious programmers. Additionally, as a solution to the distributed denial of service attacks (a problem connected to viruses that can bring commercial Web sites to their knees), the author appears to be advocating a global per-page access fee for Web surfers (123). This idea would have profoundly negative effects on Internet commerce, not to mention the ongoing indexing and archiving of the Web being done by search engines and other groups.

The real strength of Shuman's book on the Internet comes in its discussion of counteracting the negative affects of Luddites. The term was coined to describe the followers of Ned Ludd of the early nineteenth century who were "so resistant to modern technology that they committed willful sabotage to its machinery to retard its progress" (40). The Internet is currently solidifying its presence as a fact of life, especially for librarians. To be effective, reference librarians must now be able to turn to Web site resources as efficiently as they would refer to works behind the desk or in the reference stacks. These days

when people refer to the Internet as a “flash in a pan,” they are likely being ironic. Nothing is easier to get a laugh at a conference than saying “This whole computer thing, it will soon blow over.” This wasn’t always the case, and Shuman does a good job equipping the librarian with the background information necessary to understand the new medium. This is important because resistance to the Internet is probably more a factor of a fear of the unknown than anything else. Librarians confronted with such challenges would do well to take advantage of Shuman’s enthusiasm for the Internet and read what he has to say on the subject. For an appreciation of any subject, it’s always a good idea to consult with a true fan.—*Steve McCann (steve_mccann@ncsu.edu), North Carolina State University Libraries, Raleigh.*

Reference

1. The New Hacker’s Dictionary, www.jargon.8hz.com/jargon_toc.html. Accessed Nov. 18, 2003.

High-Level Subject Access: Tools and Techniques in Internet Cataloging. Edited by Judith R. Ahronheim. Binghamton, N.Y.: Haworth Information Pr., 2002. xii, 115p. \$39.95 cloth (ISBN 0-7890-2024-6); \$24.95 paper (ISBN 0-7890-2025-4). Also published as *Journal of Internet Cataloging* 5, no. 4.

This collection of papers examines a problem highly relevant at the present time—achieving access to the Internet in an orderly fashion. It includes a range of approaches, the majority based on the actual experience of individual library systems, adapting traditional classification schemes to the new environment and innovative methods of subject retrieval. Much work is currently being undertaken in this area, principally on the basis of projects and approaches to find solutions for the local situation, and there is little authoritative

monograph literature dealing with the problems and possible solutions from a universal rather than local viewpoint. The introduction notes that the tools that we have at present at our disposal for resource discovery are fairly crude and posits that an approach via high-level access may be a way forward for the future.

Diane Vizine-Goetz provides the first survey, taking a more detached approach than some of the other contributors. She looks at how library classification schemes have been adapted to use for the organization and retrieval of information from the Web. Further proposed improvements include the use of a hierarchical structure to complement the alphabetical approach, and she compares the tree structures of the Internet with the Dewey Decimal Classification (DDC). She also notes the all important fact that the use of a structure rather than just an approach by keywords rises above the problems of language—the only article to mention the need for multilingual access.

Three of the contributions examine the application of the Library of Congress Classification (LCC) to the retrieval of Internet resources. All are based on projects undertaken in university libraries, those of Columbia University, the University of Washington, and the University of Michigan respectively. At Columbia (Dewey’s old library), the first phase of a project to create a hierarchical interface to the LCC is described. LCC has been mapped to the vocabulary of a three-level subject tree. Reversion to DDC was unthinkable despite its clear hierarchies, and the case is rightly made that hidden within the structure of the enumerative detail of the Library of Congress’s scheme there is indeed a hierarchical structure. It was decided that the first-level display should include no more than about a dozen categories. Other sites were surveyed, and the findings are given, providing a guide to anyone contemplating a similar

undertaking. A case study of the sciences is made, and an outline of the scheme and the categories used is provided in an appendix. The author suggests that the Columbia findings might prove valuable as a basis for the revision or even complete overhaul of the LCC. The major benefit of this Hierarchical Interface to LC Classification (HILCC) is that it provides a tool that can act as a switching language or crosswalk that could easily be applied to other systems. The project has only reached the end of its first phase, and the final product may well be of much wider interest.

The Washington experiment is based on three years’ (1998–2001) experience in designing and implementing a database of electronic resources called the Digital Registry. It concentrates more on the management issues and provides advice that any institution intending to create a catalogue of digital resources could follow. The article is illustrated by screen captures that demonstrate how attractive such a resource may be made. It is very clear about the user problems involved and the difficulties in getting people to access records via the Subject Gateway. It also notes the hazards involved in highlighting certain resources as the “Top Twenty,” which has resulted in heavy use of certain items while others are totally disregarded.

The Michigan experience outlines the attempt to provide audience-based subject access to electronic resources. A two-level subject hierarchy has been developed, the first providing a suitable list of topics for the university’s electronic resources and the second based on the university’s schools and departments. Further levels were thought to be counterproductive to easy searching. The aim is to produce a system that will automatically map the library’s LC call numbers on to the specially created structure. A pilot test produced encouraging results and found that a high proportion of materials could be