

and, in particular, high-speed access to the Internet. Although it is hard to fault Wilhelm on this account, his argument would be well served by considering Oscar Gandy Jr.'s assertion that the digital divide is actually one between consumerism and citizenship.¹ With the exception of chapter 7, where he discusses Internet use among young people, the major focus of *Digital Nation* is built on a consumer model of accessing and utilizing what can be made available via the Web by public and private information providers. There is a missed opportunity here in the role of government in fostering access for citizen empowerment. For instance, *Digital Nation* does not anticipate the role of Web logs as a tool for political activity or the creation of virtual communities to increase social capital as described by Robert Putnam and Lewis Feldstein in *Better Together: Restoring the American Community* (2003). Nor is there meaningful discussion of file sharing among computer users or the power of wireless technology in creating culture shifts as described by Howard Rheingold in *The Virtual Community* (1994) and *Smart Mobs* (2003). Not only are these examples of important trends in the social use of information and communications technologies that connect well to both Freud's concern for the human condition and Rawls's theory on social justice, they are likely to be among the more contentious challenges to federal telecommunications and information policy.

Despite this shortcoming, the argument for the centrality of public debate over the relationship between technology and citizens' inclusion remains an issue of serious interest to higher education. As long as colleges and universities encourage prospective students toward online applications and libraries continue to direct a greater share of their resources toward information and communication technologies, the goals of universal access, training, and further development of resources to fit the multiplicity of learning needs will continue to require our attention. —*William C. Welburn, University of Arizona.*

1. Oscar H. Gandy Jr., "The Real Digital Divide: Citizens versus Consumers," in *The Handbook of New Media*, ed. Leah A. Lievrouw and Sonia Livingstone (Thousand Oaks, Calif.: Sage, 2002), 448.

Chasing Moore's Law: Information Technology Policy in the United States. Ed. William Asprey. Raleigh, N.C.: SciTech Publishing, 2004. 322p. \$27.95 (ISBN 1891121332).

Moore's Law is the name given to the historical trend that the number of switches that may be placed on a computer microchip doubles every eighteen months. This explosive increase in computing power spawns such rapid change in technological capabilities that government policies often cannot keep up with developments. As a result, federal legislation and legal precedents often fail to address contemporary concerns. This collection of essays describes information technology (IT) policy issues in the United States, highlighting the ways federal policy has responded to IT developments.

The book is divided into ten chapters, each organized around a particular topic, many of which will be familiar to librarians and others working in the information field. Chapters not written by the editor were contributed by his former graduate students in a course on information policy at Virginia Tech. The stage is set with a historical overview of government IT funding during and after the World War Two through the Sputnik era and beyond to the early development of what became the Internet. A key point is that the division of federal IT funding among such agencies as the National Science Foundation, the Department of Defense, and the National Institutes of Health led to present-day competition among federal agencies and the institutions they fund. A result of this funding strategy has been conflict and confusion concerning various policy issues.

Other essays cover Internet regulation and governance, computer security (including national security, viruses, and

hacking), privacy issues, intellectual property rights, the Microsoft antitrust case, the "digital divide" between IT haves and have-nots, and the IT workforce. Taken together, the essays touch on most major aspects of federal IT policy. The four chapters devoted to Internet use, privacy, intellectual property, and the digital divide will be the sections of greatest interest to librarians.

In his chapter on Internet use, Asprey describes corporate interests in legal jurisdiction and Internet taxation and the government's involvement in electronic voting. Most of the remaining discussion focuses on pornography, online predators, and gambling, all of which have been targets of federal legislation. The brief discussion of the Children's Internet Protection Act (CIPA) provides a good summary of the key elements in the filtering debate. The use of the Internet as a research tool is not emphasized for the reason that little or no government policy has been enacted in this area. However, a discussion of the current federal policy of shifting government information from print to electronic formats and the consequent implications for access and preservation would have been appropriate.

The chapter on privacy provides a good historical overview of the relevant legislation in the U.S. It also addresses some possible ways of protecting privacy by incorporating additional legal and technological elements. The doctoral student who authored this chapter, Najma Yousefi, views privacy as more black-and-white than do many librarians concerned with intellectual freedom and related questions. His emphasis is on privacy in electronic commerce, banking, and related services rather than in terms of intellectual, political, or social issues. Only two paragraphs directly address the USA-PATRIOT Act, and even less space is devoted to the consideration of related intellectual privacy concerns such as those involving library records. Yousefi argues that the concept of privacy has become so complex that protection will require

an amalgamation of technological and legal solutions flexible enough to adapt to rapid change. However, he fails to offer any concrete proposals.

Intellectual property rights are a growing dilemma for librarians and academic administrators who must deal with unauthorized copying of music and videos or with illegal peer-to-peer sharing of copyrighted material on institutional networks and equipment. In her excellent chapter on intellectual property, Lorraine Woellart (legal affairs correspondent for *Business Week*) defines such concepts as "fair use" and "first use" in her discussion of the legislation leading to the Digital Millennium Copyright Act (DMCA). She examines recent legal cases involving peer-to-peer file sharing and the copyright infringement lawsuits filed by the entertainment industry. Although the focus is on business issues rather than educational concerns, this chapter provides a succinct and highly readable summary of the complex legislation, many court cases, and ongoing debate over intellectual property rights.

Librarians have been very concerned about the digital divide. Indeed, providing online access to those who would otherwise lack it has been a standard argument in justifying the cost of providing public computers in libraries. Jolene Kay Jesse of the American Association for the Advancement of Science provides a synopsis of the debate on whether a digital divide actually exists and discusses different approaches to the issue taken by the Clinton and George W. Bush administrations. The author cites statistical evidence that the divide is decreasing but stops short of suggesting that government investing in IT be discontinued.

In the end, this collection succeeds in producing an overview of the many issues raised by the growth of information technology. In any work of this sort, some relevant subjects are only briefly covered or not covered at all. As the editor states in his introduction, only brief attention is given such issues as Universal Service

except where they directly converge with IT policy. Likewise, there is no discussion of technology export restrictions as these have become of little relevance or of state policy issues such as shrink-wrap licensing and economic development initiatives. Although the emphasis on the corporate viewpoint may be seen as a shortcoming by those in libraries and higher education, government policy tends to be economically driven. An understanding of the issues from this perspective is of value for those librarians seeking possible solutions that are in the best interest of libraries and their users.

The essays are written in a scholarly, but easy-to-read, style, not an easy task when describing legal and legislative issues. Each chapter has suggestions for further reading, and an index makes it easy to locate discussions of particular legislation. This book will be of interest to library administrators involved in IT policy decisions as well as anyone who desires an overview of the major IT issues and resulting legislation. —Mark A. Stoffan, *Western North Carolina Library Network*.

Digital versus Non-Digital Reference:
Ask a Librarian Online and Offline. Ed. Jessamyn West. New York: Haworth (published simultaneously as *The Reference Librarian*, no. 85), 2004. 154p. alk. paper, paper \$29.95 (ISBN 0789024438); cloth \$49.95 (ISBN 078902442X). LC 2004-6246.

Librarians, in their role as information providers, have always had to adapt to changing technologies in their continuing efforts to serve patrons. *Digital versus Non-Digital Reference* explores the use of digital reference services (online and e-mail) in various settings and describes the many issues and challenges librarians face in the development and implementation of these types of services. The book is arranged thematically and examines issues from the past ("The Old versus The New"), the present ("How We Do It Here") and the future ("A Few Things to Think About").

Section one offers the reader an opportunity to review traditional reference services and to view them through the lens of more recent technologies. Do these older models of reference service provide lessons from which we can still learn? This section examines the history of telephone reference; presents a case study on the development and implementation of an e-mail reference service; explores the use of digital reference as a teaching tool for new librarians; considers the relationship between university archives and remote users in the digital age; and includes a survey of e-mail reference service in use in public libraries.

At its most basic, telephone reference served as a precursor to the myriad AskA services that exist today. The telephone extended beyond the walls of the physical building and served as a conduit for allowing the user to enter the library remotely. M. Kathleen Kern states that in the early days libraries marketed their telephone services to a specific clientele, mainly businessmen. "Businessmen" writes Kern, "were thought to be people with serious questions and with serious community influence." By the 1970s, reference services began to change their focus to encompass the broader community. One issue of particular concern was on what types of questions were acceptable for telephone reference. Although many libraries varied in their approach, others viewed telephone reference as "a limited method of reference communication... and discouraged providing in-depth and research assistance via telephone." According to Kern, "a less than perfect innovation in the past does not indicate that a similar future innovation will fail, but it should be something from which we learn."

Susan M. Braxton and Maureen Brunsdale explore the historical development of e-mail reference services and report on its use at Illinois State University. E-mail was initially used in libraries for interlibrary loan because it was a cheaper alternative to telephone or traditional mail commu-