velopment in the area, the more successful Whole Earth Review, and the Co-Evolution Quarterly, the former of which is still in publication as Whole Earth. What they accomplished, despite the length of print run, was the further gathering in the Bay Area of like minds, a network of minds, who contributed to the various journals and who worked on the staff. The readership was also composed of nontraditional thinkers of great diversity.

As computers progressed from mainframes to time-share computing to early personal computers, those around Brand were at the forefront of the user group, adopting each new technology in turn. At all points, the technology was linked to a culture of use through the conscious efforts of Brand and his cohorts. Brand now had associates ranging from former members of communes to social theorists to publishers to technologists from MIT and Stanford. From this open-thinking ferment, with Brand at the center, later came the 1984 Hackers Conference, the highly successful, and still profitable and influential, Global Business Network (GBN), and, eventually, Wired magazine. At the Hackers Conference, Brand demonstrated his consideration of information as key to progress in his famous statement: "On the one hand, information wants to be expensive, because it's so valuable. The right information in the right place just changes your life. On the other hand, information wants to be free, because the cost of getting it out is getting lower and lower all the time" (Whole Earth Review, May 1985). Though oft-quoted out of context as "Information wants to be free," the entire quotation, including the context, shows a much more thoughtful idea. The impact of information in the "right place," moreover, is at the center of Brand's philosophy.

Brand's colleagues now included, by the early 1980s, individuals such as John Perry Barlow, former lyricist for The Grateful Dead, and Steve Jobs, founder of Apple Computers, and from these colleagues were born the Electronic Frontier Foundation (EFF) and the WELL (the Whole Earth 'Lectronic Link), the first Internet forum widely available to early users. Stewart Brand's influence continues to the present day, through this highly disparate group. Another observer, Dennis Allison, founding board member of the People's Computer Company, comments: "Stewart's a very moral guy. My every contact has been that he's trying to move people toward a better place. That's really the secret of Stewart."

Fred Turner has meticulously researched his topic in this book and has written a compelling history of a critical individual and his circle, a group that played an extraordinary, and, perhaps, evolutionary, role in the transition from the prominently agrarian/manufacturing society of post-World War II America to the highly technological society of the early 21st century. Turner's notes are extensive, and the bibliography is simply breathtaking in its depth and breadth. His prose is clear and concise, and he seldom speaks with an academic tone. Turner is clearly intrigued, if not excited by, his subject. For professionals in the field of information dissemination and management, much can be learned by reading this fascinating and highly recommended study. - Tom Schneiter, Harvard University.

Understanding Knowledge as a Commons: From Theory to Practice. Eds. Charlotte Hess and Elinor Ostrom. Cambridge, Mass.: MIT Press, 2007. 367p., \$36 (ISBN 0262083574). LC 2006-27385.

For many of us, the term "commons" has a very specific physical connotation. Over the last twenty years, we have been pushed by our administrators and users alike to update our fuddy-duddy image and create glitzy high-tech spaces in our libraries. These spaces have been christened with snazzy names such as "information commons," "knowledge commons," "digital commons," "information arcade," "the hub," and so on. At first blush, it might seem as though this monograph is semantically parsing and deconstructing this

concept. However, it would be a mistake to regard the book in this light. The focus is on the broadest possible interpretation of the information commons—"the entire social and cultural area of free speech, shared knowledge and creative expression in the digital age" (to quote the LC authority record)! As described in the book's introduction, "the intention is to illustrate the analytical benefits of applying a multitiered approach that burrows deeply into the knowledge-commons ecosystem..." Hess and Ostrom are not the only ones to be stretching the common understanding of this term. Donald Beagle, developer of the IC at the University of North Carolina at Charlotte, expanded the commonly understood framework in his 2006 work The Information Commons Handbook (Neal-Schuman). He considers the latest definition to be the natural outgrowth of the physical, technological, and social trends that have become so associated with millennial culture.

The editors of this work admit that discussion on this topic is still in its infancy. They date the appearance of thought on the connection between "information" and "commons" from the mid-1990s. The more traditional understanding of "commons" (as a shared natural resource or gathering place) is explicated to lay the groundwork for the analysis of knowledge as a commons, and thereby allows us to begin to understand the many ramifications of thinking of knowledge as a shared resource with all the rights and privileges pertaining thereto. This book began as a series of papers delivered at a two-day meeting in the spring of 2004-"Workshop on Scholarly Communication as a Commons," funded by The Andrew W. Mellon Foundation and hosted by Charlotte Hess and Elinor Ostrom. The event brought together notable interdisciplinary scholars to assess and explore the current thinking on scholarly communication and the knowledge commons. The majority of the chapters in this book were presented as papers at that meeting, with some additions. The meeting had very

specific goals that included identifying essential "commons" of concern, agreeing on definitions, mapping some of the key knowledge gaps and developing possible analytical frameworks. It was also hoped to identify future actions to further a research agenda that would be presented to the Mellon Foundation.

The conveners of the meeting, and the editors of this book, have a long and distinguished record of research and writing on this very broad topic. Charlotte Hess is the Director of the Digital Library of the Commons at Indiana University, long associated with the International Association for the Study of the Commons, and a leader in the Wizards of OS (operating systems) movement. Elinor Ostrom - Arthur F. Bentley Professor of Political Science at Indiana University and codirector of the Workshop in Political Theory and Policy Analysis as well as the Center for the Study of Institutions, Population, and Environmental Change-has been working in this area since the 1970s and wrote the landmark work Governing the Commons: The Evolution of Institutions for Collective Action (Cambridge) in 1990.

The introductory chapter is crucial to understanding the gist of this topic, its history, and the meta language that is essential for a basic comprehension of the serious issues that affect our daily bread and butter-"the production, access, use, and preservation of diverse knowledge commons" in the digital age. Subsequent chapters each have a specific lens through which the authors address this topic. David Bollier writes from the perspective of our cultural heritage and America's standard economic championship of the "free market" as opposed to the collective management model of the commons. Nancy Kranich, long a proponent of the information commons in all senses of the term, reviews the role of the research library in both protecting knowledge and making it available. James Boyle grounds his chapter in the research of sociologist Robert Merton, advocating the opening up of the academic knowledge commons to the general public. Donald Waters, longtime preservationist extraordinaire, tackles the thorny issue of safeguarding the electronic knowledge commons and ensuring that it will be there in the future—whether that future be next month, next year, or the next hundred years. Wendy Pradt Lougee focuses on the deep and continuing changes that are affecting scholarly communication, particularly highlighting the differences within the academic disciplines. Each of the chapters is well referenced and has a comprehensive bibliography. There is also a clear and inclusive glossary—a useful tool for those of us who might not have been working so closely to these issues over the years. The book is divided into three sections: studying the knowledge commons, protecting the knowledge commons, and building the new knowledge commons.

There is something for everyone in this volume. Many of us tend to work at the

more quotidian, reactive level of what we need to do in order to adopt digital technology to stay abreast of our users and keep our students and faculty inside the library—or at least at the end of an electronic leash provided by the library. We are naive and have been chided by many digital futurists for not taking a more aggressive leadership role on some of the many issues described here. Where to begin, you ask? Read this book! We do not want to find ourselves cited in a 22nd-century version of biologist Garret Hardin's memorable metaphor for the overpopulation of the common pasture—"ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons." Who will take action if not us: the librarians. the champions of intellectual freedom, and the guardians of the new knowledge commons? — Gillian M. McCombs, Southern Methodist University.

