algorithms." They have included the human element as well. You can understand what motivated these "online pioneers," what made them keep going in the face of extraordinary technological, sociological, and economic obstacles. The starting date was selected because the authors' research indicated that the first online bibliographic retrieval system appeared in 1963, developed by Stanford Research Institute at Menlo Park. The year 1976 marked a watershed as online retrieval systems were poised for a major leap forward with the development of ILO/ISIS, the first online system to allow search terms entered in one language to retrieve records indexed in another language.

The enormous wealth of information within these covers is made accessible to the reader by the authors' exceptional discipline and organizational skills. Online milestones are documented in boxes throughout the text as well as together in an appendix. The book is generally organized chronologically with a final summary chapter. A comprehensive bibliography is provided as well as homage paid in the introduction to the major sources used and people interviewed. The authors have thoughtfully placed the glossary at the beginning of the book where it is much handier. There is also a useful index.

Obviously, the target audience for this book will be library school students and documenters of the history of early online retrieval. However, almost everybody will find something of interest, something they did not already know. For instance, although I spent sixteen years at SUNY Albany, during the 1980s and 1990s, I was unaware of the crucial role played by SUNY and its Biomedical Communication Network, or that it eventually evolved into the commercial BRS Search Service. One can always point to a few omissions in a work of this

breadth. The development of the MARC record seems underplayed to someone coming from a cataloging background. Although RLIN was not developed until 1978, I was surprised to see no mention of the formation of RLG in 1974. However, in reading here about the role of OCLC, I was reminded why. OCLC is described as "a major contributor to" rather than "a pioneer in the technology of online search systems." OCLC and RLG—with many others—were the organizations that took these early inventions to the next level for cooperative library use.

This book is about four themes: "systems, services, funding, and pioneers." In weaving these strands together, the authors have successfully answered my question of who should care and why. They also fulfill their promise in the book's introduction to bring forward "fundamental truths ... about user-oriented systems and services, dependence on sources of funding, and people who are innovators and risk takers." I look forward to volume two!—*Gillian M. Mc-Combs, Southern Methodist University*.

Drahos, Peter, with John Braithwaite.

Information Feudalism: Who Owns the Knowledge Economy? New York: The New Press, 2003. 253p. alk. paper \$25.95 (ISBN 1565848047). LC 2002-41069.

The corpus of readings, of relevance to librarians, addressing the debate over information and intellectual property rights grows daily. Newspaper and magazine articles, Web logs, and monographs abound as their authors consider the legal, social, cultural, and moral entanglements of governmental, corporate, and individual interests in accessing and using information and defining what constitutes public knowledge. In *Information Feudalism*, Peter Drahos and John Braithwaite—authors of *Global Business*

Regulation (Cambridge 2000)—take a different approach to analyzing the issues surrounding intellectual property from that of better-known works—by Lawrence Lessig, Siva Vaidhyanathan, and David Bollier—by examining the effects of multinational agreements on the flow of information and by using methodologies drawn from policy and business regulatory studies. The result is a detailed and important report on the power these agreements exert in the information commons globally and, in particular, their potential for harm in less affluent countries.

By "information feudalism," the authors do not intend to evoke the "abject subordination of a medieval feudalism." Instead, they seek to create a metaphor for the redistribution of property rights on a global scale, a redistribution "in the case of information feudalism [that] involves a transfer of knowledge assets from the intellectual commons into private hands." In their view, information feudalism explains the self-interest of Western nations and multinational corporations—particularly those in the biomedical, pharmaceutical, entertainment, and publishing industries—that were crucial to the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). TRIPS, the authors argue, effectively shifted the discussion on intellectual property into the arena of trade agreements. Violators are then akin to the pirates of centuries gone by, and the word piracy itself has become a rhetorical device to underscore the unauthorized use of copyrighted or patented material as a form of thievery. To illustrate what the authors call an "illusion of sovereignty," they discuss the problem of pirating in the book trade in non-Western countries, where the need for reading materials is eclipsed by their high price.

The remainder of the volume provides readers with a close analysis of corporate

interests reflected in the formation of international trade agreements that impact intellectual property and the possibilities for an information commons. Two chapters, "Biogopolies" and "Infogopolies" respectively examine the effects of rigorous enforcement of patent and copyright laws for the benefit of corporations and, perhaps, at the expense of consumers needing access to those goods produced. The locking up of knowledge, they suggest, becomes the basis of "a new kind of cartel—the knowledge cartel."

Information Feudalism is an important contribution to the ongoing concerns about colonialism and its effects on the maintenance of access to ideas and to knowledge as a public good. The authors raise serious questions about the flow and utilization of information in the third world, whether to respond to the AIDS crisis with patented drugs or to provide access to information held in proprietary databases. Information feudalism, the authors conclude, poses a threat "to the supply of knowledge as a public good at a time when people around the world are becoming more and more dependent on knowledge goods as public goods."

Librarians will also find utility in Information Feudalism, although it is a difficult read if one does not already possess much background on the topics presented. The dense prose analyzing global trade policy is particularly daunting, and prior knowledge of the topics presented may be a prerequisite to assessing the efficacy of the arguments and supporting evidence. Because the authors approach their topic from a different perspective from that of other major texts on intellectual property, their view will likely enhance the general dialogue on public knowledge, property rights, and the future of the information commons.-William C. Welburn, University of Arizona.