

led by the ease with which a flawed copy may be undetectably made," either accidentally or maliciously. How can I be sure that what I am reading is what I intended to read or what I read before? Graham explains clearly the potential of three electronic techniques to protect text: encryption, hashing, and time-stamping. He argues forcefully that librarians are uniquely qualified as a professional group to wrestle with the combined issues of authentication, security, and preservation. And to those who would shrink from this task because of the apparent complexity of technologies he rejoins that minds that are capable of using Hinman collators or dealing with corporate authorship are equal to the task!

Due to the illness of another speaker, Graham also delivered his paper several days later at ALA in the Association for Library Collections and Technical Services President's Program. Therefore it has been published in essentially the same form in the proceedings of that program, *After the Electronic Revolution, Will You Be the First to Go?* (1993.)

Some of the chapters in the RBMS volume are based on tape transcripts of the presentations, rather than formal written papers. Unfortunately, the Peters and Brennan transcripts escaped rigorous scrutiny by author and editor—they abound in homonyms and missing words that in some instances merely annoy or amuse, but in others hopelessly obscure the meaning. In the electronic environment it is crucial to remember that spelling checkers do not replace editors!—*Sem C. Sutter, University of Chicago, Chicago, Illinois.*

Heim, Michael. *The Metaphysics of Virtual Reality.* New York: Oxford Univ. Pr., 1993. 175p. \$21 (ISBN 0-19-508178-1).

Our world is being changed by information technologies in ways we cannot claim to understand fully. Exploration of the nature and extent of the changes is a job for philosophers as well as for social scientists and others. Michael Heim is described on this book's dust jacket as being "known internationally as 'the philosopher of cyberspace.'" He has

published a philosophical study of word processing (*Electric Language*, 1987), as well as a translation of Martin Heidegger's *Metaphysical Foundations of Logic* (1984). This collection of essays explores word processing, online searching, hypertext, and computer outliners, and discusses Heidegger's and Marshall McLuhan's views on technology before turning, in the last five chapters, to virtual reality, "the totally inclusive computer simulation." The approach is to try to make connections between the views of philosophers like Plato and Leibniz on the one hand, and questions about the nature and consequences of new information technologies on the other. But the discussions of the philosophers often seem ornamental rather than structural, and the best parts of the book do not rely on a philosophical background. There is, for instance, a lucid and straightforward discussion in Chapter 8, "The Essence of VR," of different facets of, and approaches to, virtual reality, which seems to owe nothing to philosophical ancestors. A discussion in Chapter 7 of life in electronic worlds or cyberspace is of the sort one finds in good popular magazines, and owes more to William Gibson, the cyberpunk author, than to Plato or Leibniz. Where philosophy clearly makes a difference, it is not a very impressive one. Virtual reality is potentially indistinguishable from the real world, Heim says, but it has to be kept not-quite-real "or it will lessen the pull on imagination" and become "bland and mundane." How can it be kept not-quite-real? Alluding to Heideggerian themes of finitude, temporality, and care, Heim goes on to suggest, very briefly, that a virtual world need not "duplicate the deadlines of the real world," that it can offer total safety, unlike the dangerous real world, and that "with the help of intelligent software agents, cares will weigh on us more lightly." (This is the way to avoid becoming "bland and mundane"?) If this is metaphysics, it is definitely a low-calorie, less filling brand. Some of the discussions are seriously misleading; that on Boolean search logic seems not to be clear about the difference

between *and* and *or*, and is generally a muddle. The discussions of the philosophers are sometimes anachronistic and hyperbolic (this may reflect the influence of Heidegger), the style definitely that of a pop philosopher. (Leibniz's God is described as the Central System Operator or sysop: "Without a sysop, no one could get on line to reality.") All in all, this is not an impressive contribution to our understanding of the new electronic world.

The book is an editorial disaster. The essays in this collection (four previously published in print, one published electronically) overlap and duplicate each other extensively. The discussion of Leibniz in Chapter 3 is repeated almost verbatim in Chapter 7; the same text is used to support views on hypertext and on virtual reality. The same discussion of Heidegger occurs twice, in Chapters 1 and 5, and one five-line quotation is repeated three times. There is a glossary, "Useful vocabulary for the metaphysics of virtual reality," that includes a description of what the metaphysics of virtual reality is about; but the last five chapters of this book do not fit the description. The Preface says that the "central philosopher" of Chapter 2 will be Blaise Pascal; but Pascal is not mentioned there. Oxford's reputation is not enhanced by this book. The designer has not helped matters. Rectos (odd pages) have two page numbers (page 15 carries the numbers 14/15) and versos lack pagination. A copy of page 14 would be unidentifiable as page 14. This is not an improvement over conventional practice.—Patrick Wilson, *University of California, Berkeley*.

Leidenschaft und Bildung: Zur Geschichte der Frauenarbeit in Bibliotheken. Ed. by Helga Ludtke. Berlin: Orlanda Frauenverlag, 1992. 304 p. 39.80 DM (ISBN 3-922166-79-2).

With this volume Helga Ludtke adds a substantial chapter to the underdocumented history of women librarians. The study focuses on women's roles in the development of libraries and the feminization of librarianship, looking primarily

at the experience in Germany. *Leidenschaft und Bildung* is a compilation of contemporary essays, older articles (dating from 1901-47), biographical sketches, interviews, and photographs. It covers the period between 1895 and 1945 in Germany, focusing specifically on public librarians; however, comparisons to academic libraries appear throughout the volume. Of special note is an eleven-page annotated bibliography on the topic of women librarians in German public libraries, which includes publications dating from 1897 through 1991.

Perhaps the most interesting part of the book is the essays written by librarians between 1895 and 1945, because the texts of the period best illustrate the issues then under discussion and clarify the views held by female librarians and their male colleagues. One of the most enlightening of these primary documents was written by Lotte Bergtel-Schleif, a communist librarian imprisoned in 1943 because of her work with a resistance group. In her 1947 article she addresses the sensitive issue of librarians' complicity with Nazi censorship. She outlines the extent to which librarians contributed to the Nazi regime, describing how they removed "degenerate" material from library shelves, well aware that much of the literature and works of modern thought condemned to bonfires formed the core of their collections.

The third section of the book profiles individual women librarians, including pioneers in German librarianship as well as more representative figures. The biographies of library directors Bona Peiser, Bennata Otten, and Marie Norenberg illustrate the important contributions women played in the development of libraries and library programs in Germany before 1933. The article "Lebensläufe" presents the lives and careers of eight "typical" librarians. Interviewing librarians born between 1907 and 1923, the authors explore a variety of issues, including working conditions, job satisfaction, career advancement, and the effects of political changes on librarianship. Though documenting these "foremothers" of librarianship is crucial and