the check-in of their print journals" (151). The book focuses almost exclusively on MARC metadata, and it also introduces readers to Knowledge Bases and Related Tools (KBART) for use within discovery services.

E-book metadata maintenance extends beyond discovery metadata into preparing for and troubleshooting platform changes, loss of rights, access issues, and subscription changes. Preservation metadata are also discussed for e-books with perpetual access from vendors in light and dark archives and for locally hosted digital monograph collections (e.g., electronic theses and dissertations). Even though the deselection process for e-books is underdeveloped, Frederick uses a case study to illustrate the challenges of deselection and deduplication with an emphasis on the need for well-planned acquisitions and access metadata to assist in decision making.

Managing E-book Metadata in Academic Libraries: Taming the Tiger is an excellent introduction to e-book metadata management; it offers practical advice on the management of all types of e-book metadata and working through the issues that come with e-book collections. Readers will be prepared to tame the tiger in their own libraries by knowing what questions to ask and what information needs to be gathered to create their own e-book metadata-management plan. Frederick often reminds the reader that they are not alone and provides resources and toolkits shared openly by librarians and other tiger tamers to help one another. By focusing on principles, best practices, guidelines, and standards, the author has written a book relevant to academic libraries of all sizes, as well as a great introduction for students to the complexities of managing e-book metadata.—*Jennifer Fairall (jfairall@siena.edu), Siena College Library, Loudonville, New York*

Metadata. By Marcia Lei Zeng and Jian Qin. Chicago: ALA Neal-Schumann, 2016. 555 p. $84.00 softcover (ISBN: 978-1-5557-0965-5).

The second edition of Qin and Zheng's *Metadata* is a welcome and thorough update of an already valuable text. The authors have expanded on the first edition in a way that reflects a detailed understanding of an often complex subject. Metadata are a constantly shifting landscape with new schema and tools emerging and fading at an amazing pace. Qin and Zheng deal with the subject deftly, providing content that is clearly situated in its own context that will serve as ample reference material even in such a fast-paced landscape. In addition, the book is complemented by valuable online content that includes a metadata tutorial, chapter outlines, and exercises. The website includes a section with similar content to the first edition of the book, allowing users to compare the structure of both editions and to benefit from additional practice exercises. Additionally, the links available in the online appendixes are invaluable for readers, providing an extensive reference source for further research and work in metadata.

One of the best features of the text is that it is highly structured. This reflects the authors' thorough understanding of the subject matter; the book is as navigable as any strong metadata record. Chapters are subdivided frequently, making them easy to reference and creating digestible sections for readers that may be encountering this highly technical subject for the first time. *Metadata* provides a strong introduction to the subject of metadata in general and its role with the library and information community. Terms are explained thoughtfully, with special attention to why they matter to library and information science professionals. Broad concepts are complemented by detailed examples. Definitions are presented clearly and reviewed in further chapters, enabling each section to stand on its own while the text can still be taken as a whole without feeling redundant. It is refreshing to see authors use such a wide variety of schema in their examples; discussions of library metadata often mention any number of schema while continuing to provide concrete models of only one or two. Qin and Zheng tackle Metadata Object Description Schema (MODS), Metadata and Encoding Transmission Standard (METS), Categories for the Description of Works of Art (CDWA), and Dublin Core, just to name a few. Their discussion of the difference between a schema and how it is encoded is also one of the clearest and detailed that this reviewer has ever encountered. In addition, significant attention is paid to Resource Description Framework (RDF), including its evolution from a standard for describing web content to its current role in describing and encoding information about almost any person, place, or concept and the relationships it has with others. The authors also devote an entire chapter to interoperability, which is a growing concern for institutions looking to integrate various schema without having to start from scratch. Qin and Zheng provide a detailed examination of the challenges and opportunities that occur when trying to integrate data from multiple schema into a cohesive repository. Again, discussions of these concepts often attempt to explain the various complications while failing to provide examples that illustrate them; *Metadata,* in contrast, balances the two exceedingly well. The visualizations employed by the text are useful and build on one another and provide examples using real objects. Metadata texts for libraries and archives can sometimes default to using print book examples to illustrate how schema work, and while that is somewhat useful, it does not illustrate the real complexity of using various metadata schema to describe museum objects or digital files. Qin and Zheng include multiple demonstrations of how to apply various schema to different types of resources, which creates a more holistic understanding of the subject.

The text is not only valuable for those looking for an A-to-Z examination of the role and use of metadata in library

and archival communities. It is a valuable reference tool, providing an entire chapter on various schema and their implementations. The authors provide cogent discussion of the advantages and disadvantages of each, along with ways different schema can and should be used together to produce useful and standardized metadata statements. The book goes beyond a discussion of metadata as the next iteration of library cataloging and classification, and instead presents it in its larger context as part of the Semantic Web and all of the potential that that entails. *Metadata* is a welcome addition to the growing body of work on the potential and importance of moving resource description in libraries and archives into a new age: one that is more visible, more flexible, and more focused on integration with the Semantic Web and information landscape as a whole.—*Elizabeth Miraglia (miragliaelizabeth@gmail.com), UC San Diego, San Diego, California*

An Emergent Theory of Digital Library Metadata. By Getaneh Alemu and Brett Stevens. Amsterdam: Chandos, an Imprint of Elsevier, 2015. 122 p. $78.95 softcover (ISBN: 978-0-08-1003855); $78.95 e-book (978–0-08–1004012). Chandos Information Professional Series.

This slim volume is a recent release in the long-running Chandos Information Professional Series. Author Getaneh Alemu has an international work history, and is currently cataloguing and metadata librarian at Southampton Solent University in the United Kingdom. Co-author Brett Stevens is a lecturer in the School of Creative Technologies a few miles down the road at the University of Portsmouth.

Alemu and Stevens' main objective is to state a case for library systems that support the creation and use of socially constructed metadata as a diverse and contemporary addition to expert-created metadata. Users, they argue, are currently relegated to passive consumers of library metadata rather than participants in its creation. The authors posit that effective use of socially constructed metadata is only possible in an atmosphere of open, linked data.

The book opens with a foreword "Re-thinking library metadata," which provides a concise abstract of the authors' aims. The first two chapters offer a summary of the history of cataloging beginning with Pannizi's 1841 *Rules of the Compilation of the Catalog* and touching on the works by fathers of librarianship Cutter and Ranganathan.[1] The authors then cherry-pick four principles from Svenonius to apply to their argument by explaining how these four principles are no longer adequate for describing information resources in a digital environment.[2] They make some valid points in this section; for example, that the principle of sufficiency and necessity "may significantly impact users' needs" (12). A weakness of the text is that the authors spend the time working through problematic aspects of these principles yet only barely mention any effect of these issues on the theory they are evolving after this portion of the book.

The first three chapters, where Alemu and Stevens lay the groundwork for their theory, have some properties of a literature review, but their strategy here is frustrating. Throughout these chapters the authors present information that is often followed by four or more citations of articles or books without any page references. They largely fail to directly address any cited authors' distinct contributions. This approach leaves the reader in doubt about the specificity and grounding of the opinions presented in the book.

Alemu and Stevens recognize and discuss the need to monitor and apply some controls to socially created metadata such as homonym elimination. Other forms of control, such as deletions of malicious comments, would evolve in the hypothesized system much like the self-healing qualities of Wikipedia. The authors give a great deal of responsibility to users for contribution, discernment, and knowledge regarding competing metadata elements.

The background and conclusions of this book are directly related to a trio of reports issued by the OCLC Social Metadata Working Group relating to social metadata; however, the authors do not cite any of the findings of that group.[3] For example, the OCLC Executive Summary (2012) states clear findings about the success of user-contributed metadata that directly supports the authors' assertions about the utility and importance of socially constructed metadata. Additionally, the OCLC reports enumerate trends and themes that emerged from their survey that correlate on several points to Alemu's and Steven's arguments from their own survey. The text would have benefited from the inclusion and discussion of OCLC's findings.

The bulk of the authors' conclusions rest on a series of "57 in-depth interviews . . . with metadata librarians, metadata experts and library users" (45). Unfortunately, only their results are reported without any additional information about the interview structure or questions asked, leading readers to question the extent, specificity, and uniformity of the interviews. This is the first opportunity to understand the academic nature of the theoretical work. Although the series this volume belongs to is targeted to academic librarianship, this individual work never identifies their specific audience. Their interviews were almost exclusively conducted at universities (forty-six), which is the first clear indication of the constituencies they are addressing. The results of these interviews are selectively quoted throughout the rest of the text. This reviewer found it curious that in more than twenty-five quotations from interviews in a text focused on user-generated metadata, only four unique users were quoted in the text.

There are at least two key components related to the authors' theory that are either scantily addressed or altogether omitted. One is an all-too-brief discussion of how to