

of remaining up-to-date on the standards and recognizing the discrepancy between emerging standards and those that are established. Many of the chapters include descriptions of efforts to address Open Archives Initiative-Protocol for Metadata Harvesting (OAI-PMH). Simply, OAI-PMH is a framework that enables metadata sharing, which is frequently a requirement of grant-funded, archival projects.

The most important issues discussed in part II are found in chapter 15, "The Continuum of Metadata Quality: Defining, Expressing, Exploiting," by Thomas R. Bruce and Diane I. Hillmann, and in chapter 16, "Metadata Futures: Steps toward Semantic Interoperability," by Rachel Heery. In chapter 15, Bruce and Hillmann discuss the implications of approaching questions of quality, quality measures and metrics, defining levels of quality for metadata, and improving metadata quality both in the short and long terms. The chapter usefully includes a chart that provides a rubric of quality measures, quality criteria, and compliance indicators that can be employed when assessing metadata quality for a wide range of projects, domains, media types, and funding levels. In chapter 16, Heery emphasizes the need to "future-proof investment in systems" (257) in light of the rapid change in technologies, but focuses primarily on the developments regarding the Semantic Web and how improvements in interoperability and the deployment of technology could support its realization.

Overall, *Metadata in Practice* both provides guidance in planning digital resource projects and interesting points for future consideration. The editors did a fine job of bringing together discussions of seemingly unrelated projects under one framework and highlighting the ways in which the decision-making processes during planning were similar. Many of the essays provide assistance in the planning and implementation processes, so, even when the projects might vary greatly, *Metadata in Practice* provides a useful guide.—*Jacqueline Samples (jacquie_samples@ncsu.edu), North Carolina State University Libraries, Raleigh*

References

1. Priscilla Caplan, *Metadata Fundamentals for All Librarians* (Chicago: ALA, 2003).
2. David Haynes, *Metadata for Information Management and Retrieval* (London: Facet Pub., 2004).

Metadata: A Cataloger's Primer. Ed. Richard P. Smiraglia. New York: Haworth, 2005. 303p. \$59.95 cloth (ISBN 978-0-7890-2800-6/0-7890-2800-X); \$39.95 paper (ISBN 978-0-7890-2301-3/0-7890-2301-8). Published simultaneously as *Cataloging & Classification Quarterly* 40, no. 3/4.

Even though the term "metadata" has been batted around now for ten years, it still causes confusion. Even catalogers, who basically invented the practice, do not always understand the full meaning of the term, nor how

their work falls into its definition. Therefore, yet another book on metadata for librarians is warranted in this field. The subtitle of this book clearly defines its audience, an audience that would do well to read these chapters if they are not already working with metadata projects outside of the traditional bibliographic realm.

Priscilla Caplan's *Metadata Fundamentals for All Librarians* is a good overview, with enough detail to give the reader a strong sense of the metadata field.¹ This book's more-specific purpose centers on the craft of metadata application (part II in particular). It also offers a rather rigorous foundation in part I, which introduces readers to metadata in the "bibliographic sphere" (14). While the introduction indicates that chapters will pair metadata and cataloging throughout the text, I found that depends on the writer and topic. Each chapter is written by a professional in a specific area, and naturally the context, as well as discussion of cataloging, varies. It was easier for me to experience each chapter individually and let it flow based on its own worldview. The authors are very good at defining the context and terms at the opening of each chapter. This approach makes it easy to read the chapters out of order, according to interest level, rather than strictly sequentially.

Diane Hillmann's and Elaine Westbrook's *Metadata in Practice* also is complemented by this volume.² As a book of reports and case studies, it offers good background in a practical sense. *Metadata: A Cataloger's Primer*, by contrast, gives a greater understanding to such studies by showing the intellectual foundations behind their development. The introduction, for example, discusses metalanguages, such as SGML and HTML, defining such standardized markup languages within the world of bibliographic description.

Part I, "Intellectual Foundations," covers a favorite topic of mine in Jane Greenberg's opening chapter. There is a philosophical basis to metadata and controlled values, particularly in controlled vocabularies for subject terms and keywords. Thesauri and classification themes owe a debt to the field of epistemology (theory of knowledge and *Weltanschauungen*) that should be emphasized and studied, at least briefly, for a well-rounded understanding of how such systems are developed. That this volume can include this concept, in an accessible manner, speaks well for its intellectual rigor.

The second chapter in this part meets the introductory goal of connecting metadata and bibliographic control with a coherent discussion of comparisons and contrasts. As with most chapters, the author sets out definitions clearly and succinctly. Interoperability is the emphasis in the road to converging these two concepts and disciplines.

Just as the first chapter cites a philosophical basis for metadata scheme elements, the third chapter draws from structuralist literary theory. "Metadata, Metaphor, and Metonymy" delves into the types of metadata, including

descriptive (metadata for discovery) and structural (metadata for use). This concept further serves to connect the theoretical background of metadata to application design, such as database structures.

The final three chapters in part I include two case studies and a discussion of the creator element (in Dublin Core parlance). In each, the bigger contexts set out in the earlier chapters are cited in the well-written descriptions and conclusions.

Part II, "How to Create, Apply, and Use Metadata," is delightfully straightforward. Dublin Core, EAD (Encoded Archival Description), XML (eXtensible Markup Language), and METS (Metadata Encoding and Transmission Standard) emerge as understandable and practical applications. The final chapter, on implementing a digital repository, is of special interest these days, when so many digital initiatives are in the works. I particularly appreciated the clearly defined steps for such a project. This kind of concrete information is hard to find in a field dominated by more theoretical writings.

Metadata: A Cataloger's Primer does a fine job of setting the intellectual stage for metadata projects, defining slippery terms, clarifying mushy concepts, and weaving together the disparate theories behind the development of metadata. The second part then demonstrates how to put that all into practice in a manner that helps a metadata applier or project manager cope with the many aspects of implementing a specific initiative. For a cataloger trained in the bibliographic sphere, this book will offer much to enhance understanding of these metadata ideas.—*Eileen Quam* (*eileen.quam@state.mn.us*), *Minnesota Office of Enterprise Technology, St. Paul*

References

1. Priscilla Caplan, *Metadata Fundamentals for All Librarians* (Chicago: ALA, 2003).
 2. Diane I. Hillmann and Elaine L. Westbrook, eds., *Metadata in Practice* (Chicago: ALA, 2004).
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