a discovery layer will be useful for anyone installing EDS. Those not using EDS will still glean useful ideas to check on with their vendor. This chapter and the other case studies covering ProQuest's Summon and Ex Libris's Primo, along with the chapter on the differences between ERMs and the next-generation integrated library management (ILM) software, will be of assistance to any library that is considering different set-ups for ERMs, migrating to an ILM, or considering a new discovery service.

In addition to the day-to-day work covered by many of the chapters in *Reengineering the Library*, there are several chapters that are broader in scope and would be useful for anyone managing an e-resources unit or department containing one or more e-resource professionals. Topics covered include the North America Serials Interest Group's (NASIG) "Core Competencies for Electronic Resources Librarians," reorganizing technical services and e-resources units, troubleshooting training for staff, and communication between technical and public services staff. NASIG's core competencies are referenced in several of the chapters and, for those unfamiliar with them, Sutton's chapter provides a good introduction that includes why the competencies are important and different ways that libraries are using them. The differences in purchasing e-resources have pushed libraries to reorganize their technical services units and the chapters included describe very different models and provide information on a variety of models that can be considered. The chapters on interdepartmental communication and troubleshooting training are both excellent case studies that have solutions that can be replicated in part or whole by other libraries facing the same challenges.

Overall, *Reengineering the Library* is timely in both subject and scope. The multitude of subjects covered does mean that despite a few chapters where more examples and ideas would have been appropriate, there is more than enough content that is useful. Even with the cost containment chapter where the suggestion was to maintain a good relationship with a library's vendors, the author included several strategies for keeping or creating a positive relationship. In fact, this title would be particularly valuable as part of a departmental reference collection as the wide variety of chapters have different audiences. One of this book's strengths is that it can be used by new or current practitioners, plus anyone managing a department that includes e-resources professionals. The disadvantage is that a single individual may not find that every chapter meets their needs. Finally, despite the minor issues of how the book is organized, it can easily be used as a reference book by reading just a chapter or two as needed.—*Lynn E. Gates (lgates@uccs.edu), University of Colorado Colorado Springs*

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Coding with XML for Efficiencies in Cataloging and Metadata. Timothy W. Cole, Myung-Ja K. Han, and Christine Schwartz. Chicago: ALA Editions, 2018. 195 p. $60.00 softcover (ISBN 978-0-8389-1653-7).

Written as a follow-up to an Association for Library Collections & Technical Services (ALCTS) pre-conference held during the 2015 American Library Association (ALA) Annual Conference, *Coding with XML for Efficiencies in Cataloging and Metadata* is an excellent introduction to the potential of Extensible Markup Language (XML) and related technologies in creating efficiencies in library cataloging and metadata work. As stated in the volume's introduction, this guide will be most useful to those with some familiarity with XML or Hypertext Markup Language (HTML). However, this is not a requirement as the first chapter introduces XML in a way that will bring most newcomers up to speed. Catalogers will likely benefit most from this volume given that the majority of examples involve MARC 21 bibliographic data. However, metadata managers more broadly will also find value here, particularly in sections on XML Schema Definition Language (XSD), Extensible Stylesheet Language for Transformation (XSLT), XPath, and XQuery. *Coding with XML* does not purport to be a comprehensive reference for all XML work in libraries, but more of "a tutorial on its subject" (3). This is certainly true—each section provides an approachable and thorough introduction to a particular technology rather than an exhaustive list of features. There is also a useful list of resources at the end of the book for readers who want more information and more in-depth examples.

The book is organized into twelve chapters that fall under four main subject areas: XML, XML schemas, XSLT, and XQuery. While a topic is occasionally mentioned before it is fully introduced, this is rare, and generally speaking, each new topic builds on information covered in previous sections making the entire volume flow together nicely. Chapters also stand well on their own, allowing more advanced XML users to read only the chapters in which they are most interested.

The book begins with an overview of XML's structure and features and illustrates each point with relevant examples from library metadata. By the end of the second chapter, readers will have a solid understanding of how XML looks and how metadata is encoded in the language. This sets up chapter 3, which provides a thorough explanation of the most commonly used XML standards in libraries: MARCXML, Dublin Core, and Metadata Object Description Schema (MODS). Additionally, this chapter provides a list of considerations when choosing a metadata standard for a project. This section would be incredibly helpful for someone faced with starting a digital collection project who lacks experience managing XML metadata.

Chapter 4, "XML Validation Using Schemas," introduces XML schemas and Document Type Definitions (DTD) and provides a relatively detailed overview of XSD, a popular schema definition language in libraries. Given that most metadata managers will likely encounter or use metadata standards defined by XML schemas, this chapter serves as an important introduction to understanding those schema and how they validate metadata records.

Chapters 5 through 7 cover XPath and XSLT. The examples used in these chapters are especially relevant to the work of metadata managers and cover instances of sharing metadata with a content aggregator (HathiTrust) and transforming MODS metadata into RDF, a linked data format. Even for metadata managers for whom linked data is a distant concern, Chapter 7's RDF and Semantic Web discussion is useful as it provides a real-world example of how legacy metadata formats may be transformed into linked data, something that is less common in library literature relative to the amount of theoretical discussion.

Finally, chapters 8 through 11 provide an overview of XQuery and example workflows using that technology. Other than a sudden shift from third- to first-person narration, these chapters again fit well with previous sections and build on the concepts introduced earlier in the book. Given that XQuery has so many capabilities, these chapters do a good job of selecting the subset of functions that will be most useful for working with library metadata. Numerous examples helpfully illustrate each concept. One small critique is that the authors could have done a better job of explicitly highlighting the areas where functionalities overlap between XSLT and XQuery. One example is that functions for working with strings are identical between the two technologies, but this feature was explained more thoroughly in the context of XQuery and only shown briefly in a single table in the context of XSLT.

Coding with XML for Efficiencies in Cataloging and Metadata is a useful introduction to XML and related technologies. For readers who prefer a more hands-on approach to learning, all examples of code used in the book are available from the authors' GitHub pages, making it easy to copy stylesheets and example metadata and follow along or experiment. Attempting to learn new technologies can often feel daunting and leave individuals unsure of where to start, but this book makes its topic approachable while also guiding readers to more in-depth resources that will expand on the concepts it introduces.—*Lisa Lorenzo (lorenzo7@msu.edu), Michigan State University Libraries, East Lansing, Michigan*

Licensing Electronic Resources in Academic Libraries: A Practical Handbook. Corey S. Halaychik and Blake Reagan. Cambridge, Mass.: Chandos Publishing, 2018. 200 p. $78.95 softcover (ISBN 978-0-08-102107-1).

The proliferation of electronic resources (e-resources) arguably brings several benefits to libraries, including instant, from-anywhere access for patrons and automated workflows for technical services that are potentially more efficient. However, it also brings new challenges. One of these challenges is licensing the many e-resources offered through the contemporary library. Halaychik and Reagan address this challenge in *Licensing Electronic Resources in Academic Libraries: A Practical Handbook.* This resource primarily covers three license-related topics in five chapters. Chapters 1 and 3 discuss the basics of licensing and licensing law. Chapters 2 and 4 address the licensing process through the full life cycle of licenses. The final chapter discusses negotiating licenses.

This book lists two specific objectives for its readers: that they will be able to "understand the contents of a license" and "successfully complete the licensing life cycle from start to finish" (back cover). Both are worthwhile objectives that are very relevant to the regular responsibilities of librarians who handle licensing. However, this particular resource is more successful at fulfilling the first objective. Based on this reader's page count, over one-third of the book consists of example licenses, both with and without explanatory comments. Other introductory content is provided to help the reader to better understand everything included in the licenses. While the organizational structure and writing style may prove challenging, most of the content needed to understand what makes up a license can be found within this book.

Because the scope of the second objective is so much larger, the reader may not be as likely to successfully complete every step in the licensing life cycle if this book is