at meetings or sending thank-you notes to donors, to make sure that male employees share those responsibilities. It would also look like integrating tech responsibilities into everyone's workflow to decrease silos and also create a pipeline for underrepresented staff into different aspects of library service.

Feminists Among Us is must-read for anyone in the profession, regardless of interest in management or leadership positions. For those who are, the book offers a strong framework around which to build strategic vision and planning in an organization. For those who are not, it offers a blueprint and suggestions for advocacy to create more equitable workplaces. It could be an important work of critical theory for newer archivists, especially those interested in disrupting organizational labor models that do not serve our archives or larger communities. The collected essays ask that we all work very hard to unlearn the harmful practices that have shaped our relationships to power as it exists within the profession. Communicate with each other more, but also listen and make room for mistakes and personal and institutional growth.

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Digital Preservation Metadata for Practitioners: Implementing PREMIS

Edited by Angela Dappert, Rebecca Squire Guenther, and Sébastien Peyrard. Cham, Switzerland: Springer International Publishing, 2016. 266 pp. Hardcover and EPUB. Hardcover $74.99, EPUB $59.99. Hardcover ISBN 978-3-319-43761-3; EPUB ISBN 978-3-319-43763-7.

Digital Preservation for Metadata Practitioners: Implementing PREMIS seeks to bridge the divide between the Preservation Metadata: Implementation Strategies (PREMIS) Data Dictionary and specific implementations of the PREMIS metadata standard. From risk analysis and profile creation, to serialization and conformance, this book weaves together introductory and fundamental issues with case studies describing specific implementation strategies. Edited by Angela Dappert, Rebecca Squire Guenther, and Sébastien Peyrard, with contributions from an impressive list of established digital preservation and metadata scholars, many of whom serve (or have served) on the PREMIS Editorial Committee, *Digital Preservation Metadata for Practitioners* should be frequently consulted by anyone working to preserve or describe digital records and objects.

Dappert, Guenther, and Peyrard have each made significant contributions to the digital preservation field in the area of preservation metadata.

Dappert, a project manager at the British Library, has been involved with or led EU-funded or cofunded projects such as Technical and Human Infrastructure for Open Research (THOR), Preservation and Long-term Access through NETworked Services (Planets), Scalable Preservation Environments (SCAPE), Digital Preservation for Timeliness Business Processes and Services (TIMBUS), and European Archival Records and Knowledge Preservation (E-ARK). She publishes on digital preservation metadata, persistent identification, and digital repositories. Dappert currently serves on the PREMIS Editorial Committee alongside Guenther. Guenther served as cochair on the original PREMIS Working Group and later went on to serve as chair of the PREMIS Editorial Committee from 2005 to 2015. She currently consults on metadata planning and development in addition to serving as an adjunct professor at New York University's Moving Image Archiving and Preservation Program. Most of her professional career was with the Library of Congress where she worked on the development of MARC, MODS, PREMIS, and other national and international metadata standards. Peyrard is currently head of metadata engineering services at the National Library of France (BnF), where he works on projects relating to preservation metadata, digital repositories, and identifiers. He served on the PREMIS Editorial Committee from 2001 to 2015 and on the METS Editorial Board from 2011 to 2013.

Those reaching for *Digital Preservation Metadata for Practitioners* in search of a simple implementation will be disappointed. This book does not provide a one-size-fits-all guide to implementing PREMIS, a message the editors frequently stress. Beginners to PREMIS may find frustrating how conditional application and implementation can be; however, the variety of approaches and strategies presented display the strengths and flexibility of the standard.

Dappert, Guenther, and Peyrard provide some of the most illuminating chapters relating to metadata profile creation and data modeling, often daunting tasks for new adopters. Over the course of the first four chapters, they detail the contextual-, institutional-, and content-dependent considerations that go into choosing metadata to record and preserve digital objects. The flexibility and possibilities of PREMIS can be overwhelming to novice implementers. Peyrard, Dappert, and Guenther utilize existing risk analysis frameworks to provide an entry point to creating a customized metadata profile. They map categories of threats identified in the Simple Property-Oriented Threat (SPOT) Model for Risk Assessment to Open Archival Information System (OAIS) Reference Model categories and then to PREMIS semantic units. The mapping, represented in graphical form (p. 34), is a clear example of what a requirements-driven PREMIS profile might look like.

Key to evaluating the success of a digital preservation action is documented implementation experience. The exchange of experiences is vital to the

development and health of a community of practice around a standard. A major part of this book is devoted to case studies that provide detailed descriptions of content and institutional-specific implementations. The case studies cover a variety of institution types, community needs, and preservation functions. The contributors speak realistically to issues influencing metadata decisions, such as technical support, repository architecture, and guiding policies.

The case studies include chapter 5, "Digital Preservation Metadata Practice for Audio-Visual Materials," written by Kara Van Malssen on the preservation events that occur throughout the life cycle of audiovisual materials, and chapter 6, "Digital Preservation Metadata for Web Archives," by Clément Oury, Karl-Rainer Blumenthal, and Peyrard on the description of complex Web-archived content. In the use case "Digital Preservation Metadata Practice for E-Journals and E-Books," Amy Kirchhoff and Sheila Morrissey demonstrate how an organizational mandate can dictate what preservation metadata are kept and what are not. In chapter 8, titled "Digital Preservation and Metadata Practice for Disk Image Access," Alexandra Chassanoff, Kam Woods, and Christopher Lee discuss PREMIS implementation in relation to forensic disk images and in the context of the BitCurator software.

Chapter 9, "Digital Preservation Metadata Practice for Archives," written by Karin Bredenberg of the National Archives of Sweden, describes PREMIS implementation for archives and records management, paying special attention to additional metadata standards utilized by archival institutions such as EAD and METS, among others. Chapter 10 on metadata practices for recording information about computing environments follows. Here, Dappert and Adam Farquhar address the updates to the way software is recorded in PREMIS version 3.0. Rounding out the case study chapters, Euan Cochrane and Evelyn McLellan discuss capturing PREMIS events and rights metadata respectively in chapters 11, "Implementing Event and Agent Metadata for Digital Preservation," and 12, "Implementing Rights Metadata for Digital Preservation." Though diverse in approach and implementation, each case study addresses important issues of which practitioners should be aware, such as scalability, interoperability, and metadata bulk. The case studies present more specific implementations than some repositories or institutions may need, yet they still contain vital information and insightful considerations that can be extracted and applied to more generic situations.

The remaining chapters focus on the use and management of PREMIS metadata. From serialization to interoperability, and from compatible tools and software to conformance, how PREMIS is used and managed still depends on the individual requirements for implementation and available resources. PREMIS has been widely adopted, and discussions around serialization and interoperability in chapter 13, "Serialization of PREMIS" by Thomas Habing and chapter

14, "Digital Preservation Metadata in a Metadata Ecosystem" by Eld Zierau and Peyrard, illustrate why PREMIS, developed alongside other digital record descriptive-, container-, and format-specific standards, is flexible enough to be used with other metadata schemas to extend preservation functionality. To provide further evidence of wide adoption, chapter 15, "Tools for Working with PREMIS," written by Carol Chou, Andrea Goethals, and Julie Seifert, describes tools and software that can be used to generate, process, or support PREMIS metadata. Chou et al describe a "healthy ecosystem" of tools and software that has developed around the PREMIS standard (p. 213). It is an exercise in futility to put to ink a list of tools in such a quickly changing field, but to the authors' credit, they situate their list in time. In "PREMIS in Open-Source Software: Islandora and Archivematica" (chapter 16), Mark Jordan and Evelyn McLellan dive more deeply into the two software tools and their support of PREMIS metadata, while Mark Edward Phillips and Daniel Gelaw Alemneh discuss a customized and modular approach to adding PREMIS functionality to a repository at the University of North Texas Libraries in chapter 17. These chapters complement the introductory and case study chapters by completing the life cycle of PREMIS implementation. Technical in nature, these chapters are helpful to practitioners looking to extend the usability and utility of their preservation metadata.

Early in the book, the editors quite neatly compare the metadata standard to language. Just because one understands the words in a dictionary does not mean one can effectively string together a sentence, or in this case, a metadata profile (p. 3). The PREMIS Data Dictionary is the dictionary, and the sentence is the metadata profile. What makes the sentence/profile unique is the dialect, accent, and construction/data model. This language comparison is evoked again in the fourth chapter where Dappert encourages adaptation and borrowing from existing metadata profiles—"quoting" from other profiles (p. 42). The simile serves a useful purpose to unify a series of chapters; however, the unity ends in the fourth chapter. While some logical order to the sequence of chapters exists, they read more like a collection of well-written essays sharing the same topic. The book also lacks a conclusion. While ostensibly a stylistic critique, the opportunity was lost to give the reader time to reflect on the role of PREMIS in the digital preservation ecosystem, the diversity of implementation, and the work ahead for practitioners and the PREMIS Editorial Committee. The final chapter, "Conformance with PREMIS" by Peter McKinney, can be read as a concluding statement. McKinney, who currently serves as chair of the PREMIS Editorial Committee, expertly discusses the reassessment efforts of the PREMIS conformance committee in the context of a still-developing digital preservation field. He weighs the risks and rewards of a flexible metadata standard with those of conformance in a way that indicates a thread of concluding analysis;

however, the editors missed an opportunity to counterbalance the excellent introductory chapters with an epilogue.

Digital Preservation Metadata for Practitioners is a practical guide to selecting, using, and managing metadata vital to the long-term preservation of digital objects. In the past thirteen years since the Data Dictionary was first released, PREMIS has become the de facto standard for preservation metadata, thanks in large part to the work of the editors of this book. PREMIS is a resilient standard that has grown and adopted to changing practices and challenges in the digital preservation field and that remains connected to its community of practice. Preservation metadata can be as unique as the content it describes, and Dappert, Guenther, Peyrard—in collaboration with their knowledgeable contributors—do an excellent job addressing the nuance in an approachable and pragmatic fashion.

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Environmental Information: Research, Access and Environmental Decisionmaking

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The regulatory landscape is not terrain often visited by archivists, despite the fact that it produces a stunning variety of records, documents, and data. One of the most highly contested areas of regulation and deregulation is the environment. Navigating the information associated with environmental regulation is difficult for specialists, let alone interested members of the public. Given the confusion and complexity of this area, Sarah Lamdan's *Environmental Information: Research, Access and Environmental Decisionmaking* stands out as a critical guide.

I have an existing collegial relationship with Lamdan, as we have overlapping interests concerning the environment, climate change, archives, and recordkeeping. She is a law librarian at the City University of New York School of Law and has published on the implications of Freedom of Information Act (FOIA) access to environmental information. In addition to her training as a librarian, Lamdan attended law school and specialized in environmental law. Having previously worked in law firms, and now as a university law librarian, her writing is authoritative and illuminating in helping nonlawyers understand how to identify, access, and locate environmental information. The volume