Digital Preservation for Libraries, Archives, and Museums. By Edward M. Corrado and Heather Lea Moulaison. Lanham, MD: Rowan and Littlefield, 2014. 270 pp. Appendix, glossary, index. Softcover. $60.00.

"The greatest danger to digital materials is that we forget the meaning of them," notes Michael Lesk in his introduction to *Digital Preservation for Libraries, Archives, and Museums*. And it is from this mindfulness of content and its significance, rather than from the technological obstacles or the nitty gritty of file format obsolescence, that authors Edward Corrado and Heather Moulaison approach digital preservation.

While not ignoring the intricacies of digital preservation, this primer emphasizes and articulates the long-term value of the capture and migration of ephemeral digital content to the record of cultural heritage. The approach is extremely practical: while keeping meaning at the forefront, it also offers straightforward guidelines and practices for tackling digital preservation head on. The sprawling subject has been neatly structured in this book into four parts: "Introduction to Digital Preservation," "Management Aspects," "Technology Aspects," and "Content-Related Aspects." Within this structure, the authors deftly navigate the world of bits and bytes for novices, current practitioners, and administrators alike. Each chapter can be read on its own as a reference, although for those new to the field, a straight-through read is highly recommended as the chapters build knowledge in a navigable and linear fashion.

To orient the reader, the book begins not by defining digital preservation, but by defining what it is not. It is not, for example, just about access. Simply launching an institutional repository, untethered by thoughtful long-term preservation planning, does not by itself constitute digital preservation. As an example of the pervasiveness of this issue, Corrado and Moulaison point to a recent survey of ARL respondents, only about half of whom, when polled on their institutional repositories' preservation plans, could claim in-place preservation policies beyond the immediate ingest and campus access of materials. Furthermore, less than half of the respondents felt that they had adequate staffing models for long-term preservation.

Even more important, digital preservation, the authors state, must not be an afterthought to be tasked and "accomplished in isolation by staff in remote parts of the institution unfamiliar with the mission goals, users, content, and culture of the organization" (p. 5). This framing of digital preservation as not merely a "technical problem that can be solved via backups or through the acquisition of a turnkey repository" but rather as a managed approach that should include "careful reflection and planning" by the institution as a whole, should instigate a compelling conversation about digital preservation (p. 5). Focusing on the long-term goal of preserving content indefinitely, the authors illustrate how this must be combined with knowledge of users, technology, content, and the host organization to be successful.

The second chapter within part 1 introduces the Digital Preservation Triad: Management, Technology, and Content. This preservation triad is used as the framework throughout the book for how to begin and structure a digital preservation initiative. Management rests at the top of the triad, and the authors note that "without management in the form of resources and policies there is no impetus to preserve digital objects" (p. 19). Technology is referred to as the cornerstone of any effort, because without it

preservation would not be possible. Finally, the value of a repository is derived from content, the third part of the triad. In this chapter, and throughout the book, outreach and communication are stressed as major factors in any well-structured approach to preservation. The authors usefully remind readers that it is the often-neglected job of the digital preservationist to ensure that stakeholders understand both the importance of preservation and the human and capital resources necessary to accomplish it.

Part 2 of the book continues to use the Digital Preservation Triad, focusing primarily on management issues. This section examines the OAIS Reference Model; human resources and education; and sustainability of programs. The OAIS model, widely accepted and applied by practitioners around the world, creates a shared foundational understanding and terminology for what a digital preservation system should do. The authors explore the human resources required in such a venture, including educational opportunities and interdisciplinary research opportunities. Although the educational resources noted here will become outdated, the summaries of different programs and continuing education opportunities are nevertheless useful. At the end of the day, digital preservation is really an exercise in risk management, and the key to gaining organizational commitment and financial resources lies in outreach and ongoing communication with stakeholders.

Part 3 focuses on technology, specifically institutional repository systems, metadata, and the digital objects themselves that are part of today's preservation infrastructures. Support for digital preservation requires trust in the repository, despite an awareness that our "ability to perform long-term preservation is not something that can be proven until years into the future" (p. 95). Wisely, then, this section begins by exploring how digital repositories can build trust through certification, audit tools, and self-assessments using agreed-upon best practices and framework criteria. Applied examples are provided and reviewed. Next, the authors turn their attention to metadata, and the specific metadata needs for digital preservation and how they differ from standard digital library metadata. The importance of applying appropriate metadata schemas is demonstrated. Without carefully chosen metadata, our users are left without validity and context and, implicitly, no ability to retrieve. This section is followed by an in-depth discussion of file formats and how particular institutions determine appropriate formats within the context of institutional and system restrictions, related to the needs of specific user groups.

The final section of the book brings the readers back to the "Content-Related Aspects" of digital preservation. Digital preservation should always give the content issue primacy, as indeed this book stresses, so it is disappointing that the authors do not offer a more robust discussion specifically on content development. A welcome addition would have been a brief consideration of digital preservation objects in relation to specific user communities' access and preservation needs. More rewardingly, they do give extraordinarily clear explanations of two complex subject areas of particular import today: research data and digital humanities content.

In the chapter titled "Preserving Research Data," the importance of data management plans created in consultation with digital preservationists, particularly in the context of open access, open data, and open research, is discussed. The challenges posed by this data are usually unique to each institution—and they depend on factors including

funding organization requirements, individual researchers, and institutional resources. There is no one-size-fits-all solution. The authors do a fantastic job disentangling issues of small data and big data. In the following chapter, the meaning of "digital humanities" is explored, including what data and digital objects are needed in digital humanists' work and what institutions currently support this work. They explore how metadata and considerations for digital preservation are being integrated in the ongoing and overarching conversation about long-term access and the digital humanities.

We are at the beginning, not the end, of studying digital preservation, and this book hits the mark by providing a "systematic and foundational cornerstone to thinking about the many complex and interrelated aspects of digital preservation" (p. 212). The field is complex and rapidly evolving, but this book should reassure those who feel overwhelmed. As Lesk writes, "[d]igital preservation is not a problem; it is an opportunity" (p. xv).

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