***Building Digital Libraries: A How-To-Do-It Manual for Librarians,* 2nd ed. By Kyle Banerjee and Terry Reese Jr. Chicago: ALA Editions Neal-Schuman, 2019. 264 pp. Index. Softcover. $85.00 (ALA Members: $76.50).**

The second edition of *Building Digital Libraries: A How-To-Do-It Manual for Librarians* was created to address the expanding volume of digital content available to users in many forms and the increasing role that digital repositories within libraries and cultural heritage organizations play in storing, preserving, and making accessible that content. This expanding role for many types of traditional information repositories will help ensure their long-term success as digital content management becomes part of their identities.

Chapter 1 is appropriately titled "Getting Started" and covers many of the questions that one must answer before starting such an important and worthwhile project, such as whether even to consider building a digital repository, how to sell the project once you are committed, and how to get your repository properly off the ground. Chapter 2 focuses on determining what architecture is best for your repository and provides guidance on how to build a requirements list based on a number of factors, including users and their needs, collections used and why, types of assets required, rights management and control, preservation of objects, and repository management. The chapter concludes with a discussion of how to make the final decision concerning digital repository architecture, even if it includes using multiple platforms for best user access.

Chapter 3, which discusses acquiring, processing, classifying, and describing digital content, might be the most important because it makes readers really consider the resources and workflows that will need to be in place to maintain a successful repository. The authors emphasize the need to assess the human resources and time needed, and the cost of both, throughout the planning and implementation stages, and to consider these factors when projecting the future use of the repository. Chapter 4 illustrates what is needed concerning preservation planning for digital resources and the difficulty of preservation planning both now and into the future. The authors' detailed commentary on why digital preservation is a moving target, how to best prepare for continuous preservation, the resources to consider in doing so, and the dangers of ignoring preservation needs is enlightening.

Chapter 5 considers the general-purpose technologies that are useful for digital repositories and introduces many factors to consider in the implementation of a digital repository. These factors include workflows, how and whether to partner with your organization's technology department or team, and the importance of metadata as the backbone of a successful repository, regardless of the schemas available. Here the authors also discuss the amount and types of access institutions need to consider when developing a digital repository, and how such access might be used in ways never imagined, for better or worse. Chapter 6 focuses on common metadata schemas used by library professionals (e.g., MARC XML, MARC 21, Dublin Core, MODS, METS, IIIF, and BIBFRAME) and, in particular, the history, strengths, and challenges of these schemas within library communities and online environments. The information in this chapter is detailed and informative, and I now better understand the critical role catalogers and

metadata specialists play in the greater library and archives communities as they work to keep resources organized and visible to users. I also better appreciate the ongoing work they are doing to refine legacy metadata and create better, more compatible metadata for the future. For example, catalogers and metadata specialists are routinely engaged in data encoding, even as library infrastructures struggle to develop, so that we are prepared rather than forced to play catch-up in the future. They also use systems that support heterogeneous data profiles beyond MARC, expanding the bibliographic data model within digital repositories so they can support and utilize a wide range of data schemes.

Chapter 7 focuses on sharing data through harvesting, linking, and distribution. As noted by the authors, these activities make up the foundation of the library community and are aided by such traditional entities as OCLC. Furthermore, as noted in previous chapters, these activities require the costly job of creating metadata and facilitating easy, reliable, and evolving ways to share it. Depending on our roles and positions, we have likely all dabbled in the creation of metadata at some point, but this chapter really digs into the critical role of metadata in our work, discussing why it is so important to both the creators and users, how expensive it can be to create, and how imperative it is to preserve and share metadata in a way that ensures users have the most reliable and easy-to-use ways of searching information possible, even as the information landscape continues to evolve.

Chapter 8 speaks to the importance of access management and its related components, such as copyright and access control mechanisms, along with their implementation. The authors point out that libraries must take a major role in the publishing and distribution of digital information and move beyond just being consumers of information. They also point out the important role libraries play in securing publishing rights and enforcing access rights for their consumers, and the costs associated with both. Chapter 9 addresses digital content discovery after the hard work of creating, storing, and curating it has been accomplished. Unlike books, digital content resides in a world not easily discoverable should it be "misshelved," but has the advantage of being easily stored in multiple locations using indexing and other discovery tools for users. While time-tested tools like federated searching still provide important paths to discovery, new systems using linking protocols are changing—and will continue to change—how the library community views digital services combining multiple sources via the Internet.

The manual concludes with a succinct and well-written summary describing the continuing need to provide information users need, the roles libraries play in this process, and the need to build on past successes to achieve even more accomplishments in the face of many challenges as we adapt to change. I was intrigued by the authors' call for libraries to both consolidate certain functions and collections for the benefit of users in a shared environment driven by federated vocabularies and to retain certain specializations to distinguish themselves and their services from those of their peer institutions.

I thoroughly enjoyed this manual and am energized to continue working with the digital repository at my own workplace. I do wish I had read the first edition before starting

such a project, instead of relying only on coworkers' expertise and patient answers to my questions. The step-by-step approach outlined in this manual, along with the thoroughness of the authors in explaining some very complex topics, allowed me to better understand and want to participate in the difficult work that other librarians and staff in my library system are doing on a daily basis for the benefit of our users. After reading this book, I feel even more informed about where our repository is currently in the process, and I look forward to making it even better.

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