

**Building Trustworthy Digital Repositories: Theory and Implementation.** Philip C. Bantin, ed. Lanham, MD: Rowman & Littlefield, 2016. xv, 371 pp. ISBN 978-1-4422-6378-9

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In his preface to *Building Trustworthy Digital Repositories: Theory and Implementation*, Philip Bantin, Adjunct Professor at Indiana University, Bloomington, and Director of the Archives and Records Management Specialization, explains that the volume aims to fill a void in the scholarly literature on digital preservation by addressing “two basic questions about trustworthy digital repositories: What are they (theory), and how are they implemented (practice)?” (pp. xiii) The volume is more successful in achieving its aims with regard to the latter question of implementation than in addressing the difficult question of an agreed-upon definition of a trustworthy digital repository or a unified theoretical framework.

*Building Trustworthy Digital Repositories* is deftly organized into ten chapters, eight of which correspond to major activities associated with creating a trusted digital repository. This results in chapters on the following topics: creating policies and management structures, ingesting records, creating and capturing metadata, capturing audit trail data, assigning retention and disposal data, creating an access strategy, creating a secure system, and creating a preservation strategy. These chapters are bookended with two more general chapters on selecting a trustworthy repository and on the current status and future directions of trustworthy systems. Most chapters begin with a brief essay on theory, which provides an overview of the topic and introduces relevant research, standards, and models. However, the bulk of each chapter is the various case studies that describe implementation efforts and provide real-world examples.

Bantin has recruited an impressive roster of 42 authors from a variety of professional backgrounds, nationalities, and organizations. In soliciting contributions from librarians, information technology professionals, and research data specialists, in addition to recordkeeping professionals, Bantin has accurately reflected the cross-disciplinary nature of digital preservation work; and while the majority of authors come from the United States, contributions from Australia, Canada, and across Europe are also included. The presence of implementation case studies from government and business, in addition to those from academic or cultural institutions, is particularly welcome.

As with any edited volume, the quality of contributions is variable and some chapters are stronger than others. Many of the theory essays, which precede the case studies in most chapters, suffer from being only a handful of pages. For example, Donald Force has only four pages to discuss the theory behind assigning retention and disposal data. This results in an essay that can do little more than briefly identify the problems (the lack of disposal of digital records in many organizations, the laborious process of developing retention and disposition schedules, and the difficulty in applying these schedules to complex systems and databases) without offering solutions or providing space for more detailed consideration.

It is in the diverse and interesting case studies where *Building Trustworthy Digital Repositories* shines. The strongest of these essays manage to rise above their particulars to provide a methodology or approach that could be easily adopted or adapted by practitioners. Cassie Findlay's essay "Creating and Capturing Metadata: An Australian Digital Archives Case Study" is much more than a discussion of metadata. Instead, through a case study, Findlay outlines the approach to digital archives developed by State Records New South Wales between 2011 and 2014. The flexible "standards light" approach, with a focus on migration, embraced by State Records provides a fascinating counterpoint to some of the other case studies, which reflect more traditional and custodial approaches. Quite different is Sibyl Schaefer, Michael Smorul, Michael Ritter, and David Minor's "Auditing through Infrastructure Migrations: The Use of the Audit Control Environment (ACE) in the Chronopolis Digital Preservation System," which is one of the few case studies to discuss storage, a topic that seems oddly lacking from the volume. The discussion of the audit control environment, while somewhat technical, is also extremely useful in highlighting the importance of auditing digital archives to ensure authenticity and provides a discussion that goes beyond buzzwords such as *checksum* and *fixity*.

Bronwen Sprout and Sarah Romkey provide the only case study for creating a preservation strategy in their discussion of the University of British Columbia's efforts to build a preservation strategy around Archivematica. This useful and in-depth case study, with a focus on specific software, will prove useful to practitioners considering how to incorporate Archivematica into their digital preservation workflows. It is particularly interesting to contrast the approach detailed by Sprout and Romkey, to build a preservation strategy around a particular piece of software, with Findlay's earlier explication of State Records New South Wales' approach, which emphasized a migration methodology over specific software and which was flexible and scalable enough to be applied to any project.

A few case studies struggle to rise above their particulars. It is difficult to imagine an electronic document and records management system, like the Oregon Records Management Solution discussed in Mary Beth Herkert's "Creating an Access Strategy: The Oregon Records Management Solution," being implemented as a trusted digital repository capable of providing "reliable, long-term access to managed digital resources to its designated community, now and in the future."<sup>1</sup> Other case studies, like Mimi Dionne's "Adventures in Metadata: A Satellite Office's File Share Cleanup Project," seem, at best, tangentially related to the topic of trustworthy digital repositories.

*Building Trustworthy Digital Repositories* concludes with two essays on the current status and future direction of trustworthy systems. These essays, by Nancy McGovern and Luciana Duranti, respectively, do a masterful job of summarizing the current digital preservation landscape and how we got here and of making an argument about how the landscape may evolve. Duranti believes that cloud storage will have a major impact on trustworthy systems and argues that more needs to be done to understand and implement policies, contractual agreements, rules, and procedures to ensure that repositories remain trustworthy. Going forward, it will be interesting to see how foundational standards (e.g., the Open Archival Information System), identified by Nancy McGovern as the "foundation for good practice" (p. 326), evolve to meet this challenge and enable the trustworthy digital repositories of the future.

1 Research Libraries Group, *Trusted Digital Repositories: Attributes and Responsibilities* (Mountain View, CA: Research Libraries Group, 2002), 5, accessed 9 May 2018, <https://www.oclc.org/content/dam/research/activities/trustedrep/repositories.pdf>. Admittedly, some earlier digital preservation work attempted to leverage commercial EDRMS solutions. Early work on the Victorian Electronic Records Strategy (VERS) is probably the best example of this.

Finally, as a physical volume, *Building Trustworthy Digital Repositories* has some significant faults. Many of the essays include illustrations and figures, which is appreciated, but the quality of many of these illustrations is poor, rendering some close to illegible. The volume, which is intended for a wide audience, would also benefit from a glossary of the many digital preservation terms and acronyms (everything from *LOCKSS*, to *SWORD*, to *WARC*).

Despite these shortcomings, the publication of *Building Trustworthy Digital Repositories* is a welcome development. For his efforts, Bantin deservedly won the 2017 Waldo Gifford Leland Award for writing of superior excellence and usefulness in the field of archival history, theory, or practice from the Society of American Archivists. This important volume will prove invaluable to record-keeping professionals currently managing or looking to manage digital records and repositories as well as to those with a general interest in the subject.