Partners for Preservation: Advancing Digital Preservation through Cross-Community Collaboration. Jeanne Kramer-Smyth, ed.

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In the field of digital preservation, it has become a truism that keeping digital objects alive into the future requires collaboration. As someone who works for Scholars Portal, a service provider for academic libraries in Ontario whose portfolio includes a distributed preservation service, I take this idea for granted in my daily work. If I can lighten the preservation burden on an individual institution by providing either documentation, training, or access to technical infrastructure, I have done my job. But an often-unstated assumption is that collaboration for digital preservation will generally take place between likeminded memory institutions – libraries, archives, galleries, and museums – and might involve related activities like records and information management. Partners for Preservation: Advancing Digital Preservation through Cross-Community Collaboration takes the scope of collaboration one step further: to sectors and professions beyond our own but in whose work archivists, librarians, and information professionals may also have a stake as they build and mature preservation programs.

Partners for Preservation consists of ten essays by eight academics and two practitioners representing a variety of backgrounds: specialists in fields from legal studies, design and architecture, data visualization, and statistics to information security and open source software. It is organized into three sections: (1) Memory, Privacy and Transparency; (2) The Physical World: Objects, Art and Architecture; and (3) Data and Programming. Editor Jeanne Kramer-Smyth, an archivist at the World Bank Group Archives since 2011 with 20 years of previous experience as a software developer, provides an introduction, a conclusion, and section summaries. A foreword is provided by Nancy McGovern of MIT Libraries. In its introduction, the book is specifically targeted to archivists (p. xxi), but it will be relevant to professionals across the information spectrum.

The most effective chapters in Partners for Preservation offer accessible introductions to specialized subject areas, and each is accompanied by a summary of the key issues and challenges facing the field in question. For example, a chapter by legal scholar Edina Harbinja provides an engaging investigation into how digital assets hosted online may be inherited after the death of the creator. The chapter will be of interest to archivists who receive personal records in digital formats, especially from the heirs and estates of donors. Harbinja considers issues around the inheritance of materials stored with web-based service providers like Facebook or Google rather than the usual fare of donated hard drives or disks. To what extent are archives able to accept these online records, and do estates even have the rights to access and transfer them? The answer depends on the legal jurisdiction and the platform in question, but Harbinja gives readers an excellent overview of the issues from legal and technical perspectives. Another chapter, by Paulan Korenhof, a scholar studying the intersection of technology and the law, gives a well-written summary of the EU General Data Protection Regulation's "right to be forgotten," including a review of the complicated, competing interests involved in protecting privacy on the Web, a subject that is starting to receive more careful consideration from archivists and librarians curating web archives. The chapters on more familiar topics, such as link rot in legal citations, and research data management and its relationship with data visualization, offer useful perspectives from outside the information professions.

A few of the contributions provide unexpected pleasures that belie their rather dry-sounding titles. A fascinating chapter by colour scientist Abhijit Sarkar (whose biography is unfortunately missing from the "about the authors" section) treats the representation of colours in digital displays. Like many aspects of computing environments, the accurate representation of colours relies on a complex, layered set of interacting standards, software, and hardware components that archivists and others tend to take for granted but should be aware of as we digitize and display materials to users. Another chapter, by architecture and design scholars

Ju Hyun Lee and Ning Gu, on systems for managing and accessing historical information about buildings, offers potential insights into how records of the built environment might be used and interpreted into the future. They present a framework called "historical building information modelling plus," which places an emphasis on the management, interoperability, and multi-stakeholder usability of building information over time – phrases that should ring familiar to archives and records professionals. An immediately relevant application of this concept comes to mind: the reconstruction of Notre-Dame de Paris and the revelation that a scholar named Andrew Tallon had produced laser-based scans of the cathedral but the location of his data was not known following his death. Kramer-Smyth acknowledges that "playing detective" for the purpose of preservation is often a key component of a digital archivist's work (p. xxv). This involves not only tracking down data known to be "out there" but also searching for documentation on file formats or data models and architectures for systems. Essays such as those by Sarkar and by Lee and Gu intervene in this detective work by providing information and additional readings about subjects a generalist archivist would rarely encounter otherwise.

The benefits of the individual contributions in *Partners for Preservation* are quite clear, but their implications when taken as a whole are harder to discern. One issue is that the impetus or organizing principle behind the collection is not immediately obvious to the reader. It is hard to know from Kramer-Smyth's introduction what inspired the creation of the volume, how the topics were determined, and by what standard authors were selected and invited. Kramer-Smyth provides a bit more insight in a series of posts on her personal blog, which explains the rationale for choosing specific authors and subjects. For example, one post explains that the chapter on historical building information was inspired by the author's attendance at a 2007 Society of American Archivists conference session on the subject of preserving the born-digital records of design communities.² I wish Kramer-Smyth had included these insights in the volume itself, as they would have clarified the often-implicit connections

- 1 Alexis C. Madrigal, "The Images That Could Help Rebuild Notre-Dame Cathedral," Atlantic, April 16, 2019, accessed July 10, 2019, https://www.theatlantic.com/technology/archive/2019/04/laser-scans-could-help-rebuild-notre-dame-cathedral/587230.
- 2 Jeanne Kramer-Smyth, "Chapter 7: Historical Building Information Model (BIM)+: Sharing, Preserving and Reusing Architectural Design Data by Dr. Ju Hyun Lee and Dr. Ning Gu," Spellbound Blog (blog), January 22, 2019, accessed July 11, 2019, http://www.spellboundblog.com/2019/01/22/chapter-7-historical-building -information-model-bim-plus-by-dr-ju-hyun-lee-dr-ning-gu/.

between the different chapters and the work of archivists and made the editorial process more transparent.

Similarly, the question of how collaboration between professions should happen, and at what level, goes unanswered. It is notable that few of the contributors substantively acknowledge the roles that archivists, librarians, and like professions have in supporting preservation-aligned work within their subject areas and professions, or cite articles or other resources authored by members of the information professions, a fact that I found a little disheartening. But perhaps this evident lack of awareness among ostensibly aligned professions and subject areas should be taken up as a challenge. Kramer-Smyth states in the introduction that it is archivists who should cultivate connections with other professions whose work might impact our own, which implies that archivists should be building entire bridges to other professional groups rather than meeting aligned professionals in the middle (p. xxii). However, this view is qualified in the conclusion by an acknowledgement that it will be up to the "R&D" arm of the profession" to search out these connections and build relationships - in other words, academics must search out other academics in an interdisciplinary manner (p. 199). While Kramer-Smyth claims that practitioners may not have the time to build these bridges, I would suggest that practitioners in digital archives and preservation are already doing so, for example, by developing programs and services around research data management and solutions for web archiving, not to mention regularly working with lawyers, members of the information technology professions, and computer scientists in innovative ways that also deserve study and recognition. Nevertheless, if awareness is a precursor to collaboration, then this volume helps us move towards actually working together by providing accessible entries into otherwise opaque fields.

One barrier to collaboration is the difficulty of working with unfamiliar professional discourses, and some chapters in *Partners for Preservation* occasionally get heavily bogged down in jargon. For example, a chapter by Natalie Shlomo, a scholar of statistics, had me at sea when I hit phrases like *random cell perturbation* while reading about the important subject of protecting the confidentiality of research subjects in datasets destined for public release (p. 152). Though it is used throughout the chapter, the word *perturbation* in the context of statistics goes undefined. This is no fault of the author; we all have a tendency to use professional jargon as a shorthand when writing about complex subjects, and some of the other contributions, including those I found otherwise very engaging,

suffered from the same issue. Considering that archivists and other information professionals are the anticipated audience for the volume, I would have expected Kramer-Smyth to take a heavier editorial hand in ensuring the accessibility of these chapters.

Finally, the volume brings up the questions of how digital preservation should be defined within the archival profession and where the boundaries of the activities that constitute it should be. Kramer-Smyth acknowledges that the volume is not a "how-to" guide and suggests, without specifically indicating how digital preservation is defined within the context of the book, that it goes beyond the standard concerns of data transfer and processing or fixity-oriented storage to broader issues of privacy, accessibility, and networked societies (p. xxii). Readers will find this broad perspective on digital preservation either refreshing or frustrating, depending on their expectations. For example, one of the most enduring cross-sector collaborations in the field of digital preservation is the Open Archival Information System (OAIS) reference model, developed by the Consultative Committee for Space Data Systems (itself a collaborative organization) with input from a variety of stakeholders due to the open model that informed its development. (That is what the open in OAIS refers to.) Readers skipping past the introduction may be surprised to find that there is no mention of OAIS in Partners for Preservation. Nary a SIP, AIP, or DIP haunts its pages, nor are there any sustained references to the building blocks of digital preservation work: fixity; file identification, characterization, validation, and normalization; and preservation-friendly storage. However, I found that the absence of these subjects was what made the collection a refreshing read. Freed from the usual concerns of the field (and having heard enough about OAIS, as important a standard as it is), the mind is permitted by these essays to seek insights and make connections to one's own work. Each of the essays will stimulate thinking in the mind of the archivist or other information professional, whether they are considering the security of the Internet of things in a chapter by Éireann Leverett or the sustainability of open source software in a chapter by Ildikó Vancsa (highly relevant to digital archivists who rely on open source tools). In acknowledging that the persistence of digital materials over time is a broad societal concern that affects many sectors and professions, Partners for Preservation performs an important role in pushing the conversation beyond our professionally cultivated comfort zones.