

The Theory and Craft of Digital Preservation. Trevor Owens.
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Trevor Owens' *The Theory and Craft of Digital Preservation* is a relatively brief monograph designed to serve "as both a basic introduction to the issues and practices of digital preservation and a conceptual framework for deliberately and intentionally approaching digital preservation as a field with multiple lineages" (p. 3). Owens knows his subject: he is currently Head of Digital Content Management at the Library of Congress, and he previously held positions as the senior program officer responsible for the development of the National Digital Platform portfolio at the Institute of Museum and Library Services and as Digital Archivist with the National Digital Information Infrastructure and Preservation Program, among other roles. The book is intended to have a broad appeal: to librarians, archivists, and museum professionals working in institutions small and large; to the patrons of those institutions; and to "anyone interested in beginning to practice the craft of digital preservation in any other field" (p. 3). This is a tall order. When speaking of digital preservation, it is often too easy to become enmeshed in the technical details and solutions of the day or, conversely, to speak at such a high level that practical considerations become lost. This book does neither and succeeds at being both a useful introduction to a complex subject and a very good read.

The book starts with 16 guiding digital preservation axioms, many of which will be unsurprising to those who work in the field. These include the observations that digital preservation is an ongoing process, that backup is not preservation, that scarce resources should be devoted to mitigating imminent threats and that, for the most part, we need to focus on digital preservation decision-making at scale. Perhaps more controversially, one axiom is that “highly technical definitions of digital preservation are complicit in silencing the past” (p. 7). With this statement, Owens takes issue with the notion that without complex technological solutions no amount of digital preservation is possible, and he argues that the development of increasingly complicated sets of requirements and the search for technological solutions that “do digital preservation” have resulted in the failure of smaller or resource-strapped organizations to take relatively simple first steps, such as making copies of files. Readers can take heart in learning that the barrier to entry into the world of digital preservation may be lower than they assumed.

Owens then spends a few fascinating chapters delving into the nature of digital objects and the layers of context and meaning that readers can mine to understand how best to go about preserving these objects. This is partly a discussion about carriers, bits, formats, and the “nested layers of platforms” (p. 35) that result in the experience of viewing and interacting with digital content on a computer screen, and partly an introduction to the “lineages” of digital preservation: *artifactual*, *informational*, and *folkloric* approaches to preserving digital content, which reflect the nature of the content and the reasons for preserving it. These lineages provide important conceptual frameworks for understanding what kinds of digital materials to acquire and how to formulate preservation plans for them. In particular, they help steer us away from “screen essentialism” – the tendency to assume that what we see on the screen is the thing that needs to be preserved – and toward a deeper understanding of digital objects and the ways in which they may be preserved and made meaningful.

An *artifactual* approach may result in the decision to emulate a computer or set of disks in order to present as complete a picture as possible of the environment in which the creator of the content operated. This might allow researchers to understand how an author edited and annotated his or her works over time, for example, using features of particular operating systems and word processing programs. An *informational* approach, on the other hand, might result in the decision to copy a collection of oral history transcripts from a collection of CDs and normalize them to preservation-friendly formats in order to preserve

the information in the files. For a video game, some might consider the way the game is played simultaneously by a multitude of users – as documented in user forums, user-generated videos, and other social media – to be as worthy of preserving as versions of the game itself; such a *folkloric* framework for preservation goes far beyond simply providing the ability to render and re-play the game. Owens uses a number of examples that describe these different frameworks to drive home an important point: preservation intent, or understanding what characteristics of digital materials are significant and what needs to be done to ensure those characteristics persist over time, must be the driving factor behind developing digital acquisition and preservation policies.

Having laid out his conceptual foundations, Owens spends the next few chapters addressing practical digital preservation considerations such as storage, fixity, development of format policies, arrangement and description, and provision of access. Along the way, he provides numerous real-world examples, addressing them within the context of the types of preservation intent explored in earlier chapters. The author also returns to an earlier theme: that the promise and potential pitfalls of “technological solutionism” can tempt us to delay simple and necessary first steps while we develop ever more complex requirements and search for tools that will do everything for us. There is no “preserve button,” he writes (p. 192); digital preservation is a set of policies and actions dependent upon judicious allocation of resources, articulation of preservation goals, and the willingness to take first steps.

Archivists who read this book will appreciate the chapter on arrangement and description, in which Owens begins by explaining that he uses those archival terms because they provide a relevant framework for making digital holdings accessible and meaningful to users. Archivists, he writes, have developed methods for dealing with large, heterogeneous bodies of content and are used to working with materials that come with “a logic and structure based on how they were produced” (p. 129). He writes that, “as a result, contemporary archival practice works from a direct relationship between how content is organized and how those descriptions should match those organizational structures” (p. 129), and notes that this practice is relevant for librarians, museum curators, and others working with digital content. However, Owens comes mainly from a library and digital media background, and, as such, provides examples throughout the book that tend to be oriented toward library and private manuscript collections, video games, and digital artworks. Largely absent are discussions of corporate records, records from

EDRM systems, and email accounts, for example, which are often the focus of archival acquisition policies. It should also be noted that, although he frequently mentions the unique needs and challenges of smaller organizations, his real-world examples are drawn mainly from large, well-resourced (and almost entirely American) institutions such as the Library of Congress, major art museums, and academic research libraries. Archivists should not make the mistake of assuming that this book is not relevant to them, however; it is a first-rate introduction to the complex and often messy subject of digital preservation and provides illuminating insights for newcomers and experienced practitioners alike.