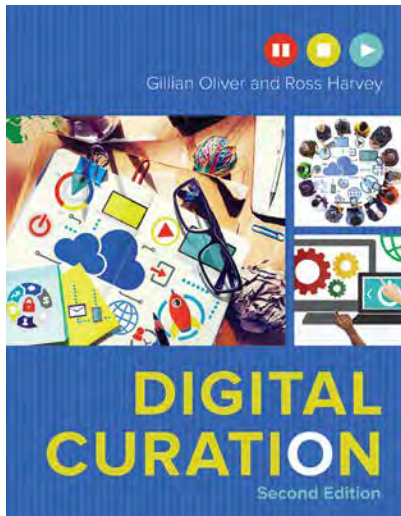# Second Edition of *Digital Creation* Balances Theory and Practice

Ryan Speer



This extensive revision of Oliver and Harvey's *Digital Curation* presents comprehensive background information and expert guidance for managing and preserving digital material over the long term.

## What's New in this Edition

Conceptual models of digital curation processes are central to the organization and tone of the book: The Digital Curation Centre (DCC) Curation Lifecycle Model lends structure to the discussion of curation requirements and actions in the latter portion of the book, and the authors present a new theoretical model, the Data Curation Continuum, as an alternative to the lifecycle model.

Other material new to this second edition of *Digital Curation* addresses the impact of cloud computing on the cost of data curation and associated storage solutions. This edition adroitly balances theory and practice and will be useful in both academic and professional settings.

## Part I: Digital Curation Overview

Part I consists of four chapters intended to provide an overview of the digital curation field. The first two chapters explain the need and incentives for digital curation and describe the landscape of digital curation.

Two chapters introduce conceptual models (the DCC Curation Lifecycle Model, the Open Archival Information System [OAIS] Reference Model, and the Data Curation Continuum) and explore in-depth the term *data* and its implications for the practice of curation.

The chapter covering the curation landscape uses academia as an interpretive standpoint, but it includes insightful descriptions of digital curation and data management professional requirements with the potential for broader application. The discussion of data and its various meanings is also adequately generalized, emphasizing the scope of data management issues well beyond the e-science considerations which originally inspired the digital curation field.

## Part II: Full Lifecycle Actions

Part II has four chapters, each of which covers one of four Full Lifecycle Actions specified by the DCC Curation Lifecycle Model, central actions which apply to every stage in the life cycle. These four actions are:

1. Description and Representation Information
2. Preservation Planning
3. Community Watch and Participation
4. Curate and Preserve

The longest and perhaps most valuable chapter is on metadata, with a brief, excellent introduction to the

**Digital Curation, 2nd Ed.**
**Authors:** Gillian Oliver and Ross Harvey
**Publisher:** Neal-Schuman
**Publication Date:** 2016
**Length:** 240 pages
**Price:** $85
**ISBN:** 978-0-8389-1385-7
**Source:** *www.alastore.org*

varieties of metadata (administrative, descriptive, technical, structural, and preservation), with an emphasis on preservation metadata. The chapter also covers other pertinent topics, such as persistent identifiers, metadata schemas and standards, and representation information. The chapter on preservation policy is brief but does include a useful discussion of the costs of curation.

## Part III: The DCC Curation Lifecycle in Action

The final section of *Digital Curation* is titled "The Digital Curation Lifecycle in Action." At seven chapters, it is the largest section. Where Part II covers the DCC Curation Lifecycle Model's Full Lifecycle Actions, Part III is concerned with the model's Sequential Actions and Occasional Actions: Conceptualise; Create or Receive; Appraise and Select; Ingest; Preservation Action; Store; Access, Use, and Reuse; and Transform.

These chapters largely take a long-term view of data curation, approaching the task from an archival standpoint. For instance, the chapter on "deciding what data to keep" conducts a lengthy examination of data appraisal largely without reference

to legal recordkeeping requirements – and "Dispose" itself is only an Occasional Action within the DCC Curation Lifecycle Model.

The discussion of technical topics such as ingest and migration is quite well done, and the chapter on storage contains useful commentary on repository software and related topics.

### Good Addition to Bookshelf

*Digital Curation* provides a concise

and approachable overview of data management and preservation. The authors are professors of information management, and their approach is sympathetic to the needs of researchers and academic data managers, but much of the content should also be relevant for practitioners in other fields.

The use of data curation conceptual models as an arranging principle for the text ensures that, while

some examples and discussions are specific to a particular occupational setting, the content as a whole addresses generic principles and situations. As such, the book should be a welcome addition to the reference shelves of records and information management practitioners and allied audiences. **END**

*Ryan Speer can be contacted at* rps@vt.edu. *See his bio on page 47.*

# New Insights in **Building Digital Repositories**
# Benefit All Information Professionals

Norman Mooradian, Ph.D.
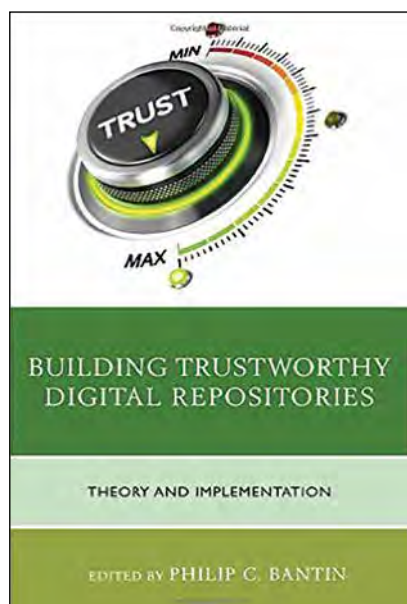


To my knowledge, this is the first text devoted to creating trustworthy digital repositories. Its target audience is professionals in the fields of archives, library science, and records management. As defined early in the text, quoting from the 2002 Online Computer Library Center report "Trusted Digital Repositories: Attributes and Responsibilities," a *trusted system* is "one whose mission is to provide reliable, long term access to managed digital

resources to its designated community, now and in the future."

### Structured by System Functions

The book is an anthology of articles written by 43 experts from across these fields, structured according to component functions that make up a trusted system:
- Policy/management
- Ingestion
- Metadata
- Audit capabilities
- Retention
- Access
- Security
- Preservation

It ends with a section on current trends and future directions.

Each section begins with a brief theoretical piece that provides the conceptual framework for the topic and is followed by implementation articles or case studies. This breakdown into functional areas that balance theory and practice makes the book comprehensive and readable.

### Distinction Between Systems

The type of system on which the book focuses is succinctly described in the theory piece in the chapter on access as one that holds archival or

**Building Trustworthy Digital Repositories: Theory and Implementation**
**Editor:** Philip C. Bantin
**Publisher:** Rowman & Littlefield
**Publication Date:** 2016
**Length:** 388 pages
**Price:** $65
**ISBN:** 978-1-4422-6378-9
**Source:** *https://rowman.com*

library materials for long periods of time by trusted bodies (libraries and archives) for the benefit of multiple, external constituencies. This is in contrast to enterprise content management solutions that manage active files (along with permanent records) in support of business objectives and compliance requirements for a limited set of internal users.

The goal of the book is to provide theoretical and practical guidance on creating digital repositories that satisfy the requirements of the Open Archival Information System model codified as ISO 14721: 2012 *Space data and information transfer systems — Open archival information system (OAIS) — Reference model.*

### Chapters 1-2:
### Policy, Management

The first two chapters (Chapter 1 – "Evaluating and Selecting a Trustworthy Repository" and Chapter 2 – "Resources, Policies and Management Structures") provide a general description of trusted digital repositories (TDRs) from procurement, management, and operational perspectives. The OAIS model/ISO 14721 and its associated audit standard ISO 16363: 2012 *Space data and information transfer systems – Audit and certification of trustworthy digital repositories* are reviewed in these chapters. Standards that apply to both archival and ECM repositories, such as ISO 15489:2016 *Information and documentation – Records Management – Part I – General* and *Model Requirements for the Management of Electronic Records* (better known as MoReq2) are also covered.

### Chapters 3-4:
### Ingestion, Metadata, Audit

The chapters on ingestion, metadata, and audit trails (Chapter 3 – "Building a Trustworthy System: Ingest Process," Chapter 4 – "Creat-ing and Capturing Metadata," and Chapter 5 – "Capturing Audit Trail Data") provide a detailed description of the steps required to capture digital files and metadata of bulk record sets from contributing systems in a way that their provenance, integrity, context, and internal structure are preserved and maintained on a long-term basis and can be disseminated to a broad community in a form that preserves the record sets as originally captured.

### Chapters 6-7: Retention, Access

The chapters on retention and access (Chapter 6 – "Assigning Retention and Disposal Data" and Chapter 7 – "Creating an Access Strategy") do a good job describing the particular goals and challenges of long-term digital preservation undertaken for the benefit of broad and hard-to-define external, future stakeholders.

### Chapters 8-9:
### Security, Preservation

The chapters on security and preservation (Chapter 8 – "Creating a Secure System" and Chapter 9 – "Creating a Preservation Strategy"), along with the chapters on metadata and audit trails, address what I view as the central functional areas of trusted systems in general. Chapter 8 covers basic security elements of any computer network, but it has an excellent case study on implementing a comprehensive architecture to manage access to sensitive behavior-scientific data. Chapter 9 also covers common preservation strategies and provides a case study on implementing a preservation system that includes a helpful discussion of (capture) workflows for different kinds of collections and materials.

### A Different but
### Relevant Perspective

Because the focus of the book is on trusted digital repositories and long-term digital preservation, the implicit meaning of "trusted system" is not identical to that presupposed in records management. A central concern of records professionals managing digital records is that the records can be trusted to provide evidence of business activities when that evidence is produced by the organization itself and where there is an inherent conflict of interest to do just that. For this reason, other ISO, AIIM, and National Institute of Standards and Technology standards have focused on replication to write-once media, for example, as well as metadata, formats, and audit trails.

But while the themes and methods presented are not identical to the interests of records managers as regards to trusted systems, there is considerable overlap. This book provides new insights in managing trustworthy records in general, and especially for the long term, and therefore is a valuable resource for records professionals, archivists, and librarians. **END**

*Norman Mooradian, Ph.D., can be contacted at nmooradian@kmbs.konicaminolta. us. See his bio on page 47.*