

Digital Preservation Storage Workshop: Exploring Preservation Storage Criteria and Distributed Digital Preservation

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ABSTRACT

Preservation storage is an essential component of a sustainable digital preservation program. This workshop uses recent community developments to explore good practice for preservation storage as well as implementation use cases.

Preservation Storage “provides the services and functions for the storage, maintenance and retrieval of [Archival Information Packages, or] AIPs. Archival Storage functions include receiving AIPs from Ingest and adding them to permanent storage, managing the storage hierarchy, refreshing the media on which Archive holdings are stored, performing routine and special error checking, providing disaster recovery capabilities, and providing AIPs to Access to fulfill orders” (see OAIS, 4-2, [2]). For this workshop, the term “Preservation Storage” is used, instead of Archival Storage or Digital Preservation Storage, but is understood to mean storage for digital material under preservation management.

This workshop references two documents that have been informed by community discussions and derive from digital preservation standards and two previous workshops: “Preservation Storage Criteria” initially presented at “What is Preservation Storage?” workshop at iPRES 2016 [5] and “Outer OAIS - Inner OAIS (OO-IO) Model” the focus of the Distributed Digital Preservation Workshop presented as part of the Digital Preservation Management Workshop series prior to iPRES 2015 [4].

KEYWORDS

Preservation Storage, Archival Storage, OAIS Reference Model, Digital Preservation

1 INTRODUCTION

Storage is a fundamental component any organizational program designed to preserve digital content. Digital preservation programs must make use of a combination of storage systems or services that leverage the requirements, opportunities, and challenges of

distributed digital preservation approaches. Good practice for preservation storage must respond to the evolving capabilities and capacity of emerging technologies. Digital preservation managers must continually identify, evaluate, and incorporate available options to provide preservation storage that is suited to the requirements, scale, content, and cost models of individual programs. This workshop will demonstrate the use of the proposed storage criteria as a framework for making decisions and the use cases of the distributed digital preservation model for considering possible approaches to implement preservation storage.

2 WORKSHOP STRUCTURE

Prior to the workshop, attendees will receive current versions of the preservation storage criteria and the OO-IO Model documents along with brief supporting materials as background for the discussion and exercises. During the workshop, presenters will introduce the two main topics, storage criteria and distributed digital preservation, then facilitate interactive discussions and breakout groups explore and apply core preservation storage concepts. After the workshop, presenters will incorporate relevant workshop outcomes into revised versions of the documents discussed as a continuation the digital preservation community’s discussion of preservation storage standards-based practice.

Exercises and discussions will explore the categories of the preservation storage criteria (Content integrity, Cost considerations, Flexibility and resilience, Information security, Scalability and performance, Storage location, and Transparency) and distributed digital preservation use cases.

3 WORKSHOP OBJECTIVES

Attendees of the workshop will develop a deeper understanding of preservation storage, be exposed to current options and challenges, consider the role standards play in achieving good practice, and apply the concepts to realistic use cases. Instructors will include:

Andrea Goethals leads the development and operation of Harvard's digital preservation program and the management and oversight of the Digital Repository Service (DRS), Harvard's large-scale digital preservation repository.

Nancy McGovern is the Director for Digital Preservation at MIT Libraries. She leads the Digital Preservation Management (DPM) workshop series, offered fifty times since 2003. She has held senior positions at ICPSR; Cornell University Library; and the U.S. National Archives. She is the President of the Society of American Archivists, 2016-2017. She completed her PhD on digital preservation at UCL in 2009.

Jane Mandelbaum currently works on IT strategic planning and IT architecture development in the Office of the Chief Information Officer, Library of Congress. She leads and guides enterprise-wide projects and architecture initiatives focusing on digital content management and digital content delivery. She previously served as implementation and operations manager for the Library's largest business system (the Library's Integrated Library System), led the team to establish and operate the Library's first LAN environment, and served as the automation officer for the National Library Service for the Blind and Physically Handicapped. She has also worked as a project manager and business analyst in a management consulting firm.

Sibyl Schaefer is the Chronopolis Program Manager and Digital Preservation Analyst for Research Data Curation at the University of California, San Diego. In addition to working with national digital preservation efforts like the Digital Preservation Network and the National Digital Stewardship Alliance, she helps define long-term digital preservation solutions for the UCSD campus. Schaefer holds an MLIS with a specialization in Archival Studies from the University of California, Los Angeles.

Gail Truman is the lead for Truman Technologies, providing consulting and development services relating to digital archives. Truman Technologies help clients assess and deploy digital preservation systems, from web archives and digital repositories to large-scale on-premise and cloud-based digital storage, on-line archive and business continuity infrastructures.

Eld Zierau is a digital preservation specialist at the Royal Danish Library, responsible for research, design and implementation of various aspects of digital preservation. She has been heavily involved in preservation storage implementation there as a chief architect, auditor of implementation, and creator of the initial Outer OAIS-Inner OAIS model, enhancing it through international collaboration. She completed her PhD in 2011 on digital preservation with a specific focus on preservation storage.

ACKNOWLEDGMENTS

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