

The Carl Albert Center Congressional Archives Digital Preservation Policy

Drafted: 2021 April 29 by JA Pryse, Senior Archivist III, Updated 2023 April 13 by JA Pryse

Introduction

The Carl Albert Research and Studies Center Archives' Digital Preservation Policy seeks to uphold the institutional mission of “advancing scholarship, learning, and service to strengthen representative democracy” by guiding archival staff in the treatment of digital records that have been entrusted to the repository. The policy is founded upon current archival standards to authorize staff to make sound decisions concerning digital records. It establishes the Archives' preferences for actions and outlines methods for ensuring the integrity and accessibility of born digital and digitized records throughout the processes of acquisition, preservation, description, and use.

Purpose

This policy covers selection criteria for digital collection assets and technical specifications for the the long-term preservation of digital materials. Materials to be considered under this policy include text and manuscript documents, photographs, illustrations, sound recordings, film and video recordings, born-digital data objects, 3-D objects, and other types of materials. Collections considered under this policy may come from the Center's general collections including the Julian P. Kanter Political Commercials Collection (PCC).

Objectives

To achieve its mission the Carl Albert Research and Studies Center Archives' Digital Preservation Policy defines the following objectives:

- Maintain a comprehensive digital preservation program comprised of standards-based archival infrastructure and processes that identifies, acquires, enhances, preserves, and makes digital data assets accessible to the designated user community
- Adapt digital preservation strategies to accommodate emerging technologies and techniques in responsive and cost-effective ways
- Implement and promote data preservation and management best practices to ensure digital data assets meet quality standards for interoperability and reuse over time
- Cultivate collaborative partnerships with members of the professional archives community to establish standards, share practices, and make the best use of available resources to provide comprehensive services
- Complete regular preservation audits to ensure compliance with professional standards and best practices and other applicable standards for trustworthy digital repositories

Roles and Responsibility

The Carl Albert Congressional Research and Studies Center Archives is led by Director of the Center, who provides oversight and direction to Archive operations and enforces Center policies, standards, and best practices. The Senior Archivist, III is responsible for the day-to-day operations of the Archives in accordance with the Center's policies, standards, and best practices. The Senior Archivist, III holds advanced graduate level degrees from accredited Library and Information Science (LIS), or Information Science (IS) programs, and experience in the field. The Archivist, II is responsible for day-to-day operations that support the Archives by performing processing and curation tasks and holds an advanced degree from an accredited Library and Information Science (LIS), or Information Science (IS) program. Graduate Assistants (GRAs) support Archive operations by performing daily archive tasks. GRA positions are filled by graduate students enrolled at the University of Oklahoma and seek to gain practical experience in the archives, data curation, or data management field.

Selection and Acquisition Criteria

Selection for long-term retention at time of digitization, acquisition, or licensing is based on the following criteria:

- **Risk:** Material that is primarily chemically unstable, contaminated, brittle, hazardous to health, or at risk of damage to other collections; or material subject to mechanical or physical damage; or structural damage or alterations colored appearance.
- **Evidence of Use:** Material that is used on a frequent basis or in high demand; material that enhances access and brings greater attention to an existing collection.
- **Demonstrated Interest:** Expressed interest from members of the university community, researchers, or donors is also an indication of significance
- **Added Research Value:** Added research value is determined by assessing whether the digitization and on-line dissemination of collections result in the improved discovery of the materials, unrestricted remote access to the content, and the integration of related materials in various formats derived from disparate physical locations.
- **Uniqueness or Rarity:** Uniqueness is determined by assessing the prevalence of the material.
- **Complements Existing Collections:** The degree to which the material enhances or provides a good complement to existing digital collections—including deepening or diversifying collections, or filling gaps.

Challenges and Risks

The Carl Albert Center Research and Studies Center Archives acknowledges challenges and risks to long-term digital preservation and is committed to providing access to digital materials to support

the research community. The Center's preservation program addresses challenges and risks including:

- Financial sustainability. The Center demonstrates commitment to continued operations of the Archive by cultivating, creating, and pursuing collaborations, partnerships, and funding opportunities.
- Changes in technology. The risk of technological obsolescence and other breakdowns can arise as technologies evolve and introduce new capabilities and content types. Therefore, the Archive continually monitors and responds to changes in technology.
- Shifts in normative research practice. The Archive continues to monitor the new tools, practices, and data management techniques available or developing to adapt the preservation program to accommodate shifts in scholarly practice.
- Expansion of archive roles and responsibilities. The role of the archive is as dynamic as the landscape in which it serves. Changes in technology, research practices, domain definitions, and stakeholder expectations require Archive staff to receive appropriate training and professional development opportunities to be able to expand roles and responsibilities in order to effectively develop, implement, and maintain a comprehensive digital preservation program.
- Education. The Archives is committed to providing appropriate training for, and raising awareness about, digital preservation issues and developments both for its internal staff and for the broader community of digital content producers, information professionals, and users. This includes advanced data analysis, forensic, and data management technology training.

Preservation Storage and Security

The preservation needs of digital files include file normalization, identification of issues of data sensitivity and confidentiality, and resolution of data quality deficiencies. These actions are key to ensuring that the digital data assets are publicly discoverable, accessible, and usable into the long-term future.

The archival infrastructure of the Center is built using reliable and robust system committed to long-term integrity and accessibility of digital materials. Several measures have been put in place to monitor for and prevent unauthorized use and access of systems and digital content. Systems include network, storage, and power redundancy to reduce the risk of system failure and loss of content. A diversified storage solution for file backup stores copies of all content in both local locations and in off-site storage in geographically distributed locations.

The Center partner with the OU Supercomputing Center for Education & Research (OSKER), University of Oklahoma High Performance Computing OURRstore, which is funded by a National Science Foundation (NSF) Major Research Instrumentation (MRI) grant, “Acquisition of a Regional Resource for Long-term Archiving of Large Scale Research Data Collections,” OAC-1828567 and certified under ISO 16163, Audit and Certification of Trustworthy Digital Repositories. Archived master files are stored in multiple secured geographic locations and monitored for health and integrity through our digital preservation service.

Migration Strategy

Digital preservation covers the processes and operations involved in ensuring the technical and intellectual survival of authentic records over time (such as the ongoing monitoring, migration and storage of records and managing the metadata which describes the origin and successive treatment of the record). Migration schedules are assigned at point of digital ingestion:

- Newly acquired or digitized collections, ingested, will be current format and industry standard.
- Batch migration analysis at 2-4 year cycles for physical and digital materials.
- Migration on access is assigned for existing collections requested for use. All items 'handled' will be migrated to current format and industry standard.

Policy Review

The Carl Albert Research and Studies Center Archives continues to expand and improve processes in order to uphold systems accountability and sustainability. As part of these efforts, the Archive routinely revisits and adjusts its policies and procedures to remain responsive to changes and advances in accepted digital preservation standards and best practices.

References

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JISC. (2009, January 27). Establishing a digital preservation policy. Retrieved from <http://www.jiscdigitalmedia.ac.uk/crossmedia/advice/establishing-a-digital-preservation-policy/>

McGovern, N. (2015, November 13). Digital preservation policy framework: Development guideline version 2.1. Retrieved from <http://canada.pch.gc.ca/eng/1443189702298>

OSCER and OURRstore Management Plan:

- **File-systems** OSCER maintains a 346.9 TFLOPs HPC cluster with several distinct user filesystems.
 - **Home:** OURdisk's hardware is a collection of servers full of hard disk drives, specifically Dell PowerEdge R740xd2 servers, each containing 24 hard disk drives and 2 SSDs for metadata and small I/O transactions.
 - Maximum capacity, usable, as currently configured: 83.7 PB (LTO-7 Type M, 10,940 tape cartridge slots in 9 frames), Maximum capacity, usable, maximal system: 114 PB (LTO-7 Type M, 14,900 tape cartridge slots in 12 frames)
 - Current slot capacity: 10,940 tape cartridge slots, 28 tape drive slots, Tape drives, current: 6 × LTO-8 (can read and write LTO-8, LTO-7 Type M, LTO-7)
 - **Software, Tape Control:** IBM Spectrum Archive
 - **Disk Subsystem:** IBM FlashSystem 5030 with disk drive format appliance Nearline SAS 7200 RPM
 - **Servers, Disk Control:** Lenovo ThinkSystem SR650
 - CPUs: Intel Xeon Cascade Lake 4214 12-core 2.2 GHz
 - RAM: 192 GB (12 × 16 GB), DDR4 2933 MHz
 - Disk: dual SAS SSD 800 GB PM1645a
 - Network, Ethernet: Lenovo 10GE SFP+ quad-port with dual transceivers, Intel i350 GigE dual-port, Network, Fibre Channel: QLogic QLE2692SR dual-port 16 Gbps
 - Operating System: Red Hat Enterprise Linux
- **Replication for Resiliency:**
 - **tape_1copy:** One copy inside OURRstore's tape library, one copy shipped back to you, and one copy carried by us to another OU campus to an environmentally controlled facility for off-site storage.
 - **tape_2copies:** One copy inside OURRstore's tape library, one copy carried by us to another OU campus, to an environmentally controlled facility for off-site storage



Congressional Research and Studies

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