

Iowa State University Library Digital Preservation Policy

About

Description of Document

The Iowa State University Library Digital Preservation Policy is a reference document which identifies the principles, procedures, challenges and the administrative environment required to support the Library's digital preservation practices.

Document Creator

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Overview

Iowa State University Library (hereafter the Library) is responsible for the preservation of, and where appropriate the access to digital content, associated documentation, and other metadata provided by depositors or by staff in accordance with the Library's Curation Services Collection Development Policy, ongoing preservation activities, and other selection documents. The Library makes an explicit institutional commitment to preserve specific digital content based on levels of prioritization and retention requirements. The Library will maintain digital content in an OAIS-compliant preservation environment.

Scope

This document uses a principle and policy approach to identify provenance, procedures, and challenges. This document includes current and aspirational policy statements identified by the Digital Preservation Policy Committee after discussion and review of a number of institution's digital preservation policies. The Library will periodically review and update the policy and principles, provenance, challenges, and procedures. Additional supporting documents that identify collection unit specific activities, supporting policies, and the administrative framework for digital preservation activities will be developed separately.

Target Audience

The intended audience for this policy is current and future members of the Iowa State University (ISU) library staff, campus community, peer institutions, and the international digital preservation community. Final versions of the document will be shared online via the ISU Institutional Repository, and as a Libguide. Working versions will be retained via CyBox according to the Curation Service's retention schedule.

Policy Committee

The Digital Preservation Policy Committee was comprised of staff members from Library Information Technology, Curation Services (Digital Scholarship & Initiatives, Preservation Services, and Special Collections and University Archives), and Collections and Technical Services. Committee members reviewed peer and aspirant institution policies, discussed values, and wrote the policy. Stakeholders (individuals whose work will be directly affected by policies) and reviewers (individuals who are interested) reviewed the document and provided valuable feedback.

Organization

The Library identified several principles to guide decisions and support curatorial judgement. These principles have been divided into three thematic areas: 1. Provenance; 2. Procedures; and 3. Challenges. Appended documents include a brief glossary; documents to be developed; supporting laws, standards, and policies; policies reviewed; and topics to be addressed with specific collection areas.

1.0 Provenance

The *principles* identified in this section refer to fundamental characteristics of digital objects, including the context of their creation. Policies in this section will support retention of these characteristics.

1.1 Digital objects carry properties that provide context for the understanding of their creation, use, or transfer history.

- The Library will strive to preserve significant properties of items, which will provide evidence of integrity, evidence of the context of their creation, and the chain of custody and actions taken during transfer.

1.2 Digital preservation supports research by maintaining the ability to reproduce digital objects using appropriate technology within a curated environment.

- The Library will preserve digital objects and technical metadata that meet format compliance standards.

1.3 Digital objects can overcome the gaps in the historical record created by historically hegemonic values with narrow selection strategies.

- The Library recognizes that the experiences and perspectives of members of marginalized communities are critical contributions to the academic, scientific, and cultural heritage record, and they commit to prioritizing digital objects received from marginalized communities.
- As appropriate/within ability, the Library will work with members of aforementioned communities to determine selection, retention, access, display, and discovery requirements that would respect and dignify their contributions to the historical record.

1.4 Digital objects are fixed expressions and may have a number of assertions of cultural or intellectual property.

- The Library may retain digital objects with any number of rights assertions, may reformat as a risk management strategy, and will make appropriate resources available with clear rights statements.
- The Library will act with cultural intentionality and will endeavor to preserve donor or curator intent as appropriate.

1.5 Digital preservation supports long-term access to digital objects created or managed by current and future collection units.

- The Library’s digital preservation activities will be conducted collaboratively with collection units.
- The Library will preserve digital objects selected by collection units based on a prioritization schedule, which factors in format, subject interest, content area, rareness, documentation, technical quality, and other salient factors.

1.6 Digital objects are preserved for widespread discovery and access in line with ISU’s land grant mission.

- The Library will strive to adhere to inclusive metadata practices, use open-source and community-developed software, and preserve digital objects that meet applicable accessibility and user experience standards.

2.0 Procedures

The *principles* in this section provide guidance for the development of procedures that support digital preservation.

2.1 Digital preservation is a coordinated activity which requires organizational support, financial commitment, and sophisticated systems and expertise.

- The Library will enact institution-wide policy and implement procedures to ensure long-term access to select digital objects.
- The Library will provide preservation staff with a budget for preservation activities and capital funds for local and distributed storage.
- The Library will test, develop, and maintain systems in order to cultivate expertise to support recovery, migration, management, storage, and delivery of digital objects.
- The Library will support professional development and opportunities for research and testing to cultivate local knowledge and expertise.
- The Library staff will share expertise, knowledge, and time, and they will identify and implement projects that ensure preservation of digital objects.

2.2 Digital preservation is an outcome of collaborative preservation actions made by multiple collection units as well as members of the Iowa State University community; therefore, transparency and recordkeeping are critical factors of a trusted program.

- The Library will use definitions, documentation, and learning communities to share knowledge and provide tools to foster digital preservation activities.
- The Library preservation staff will prepare annual stakeholder assessment reports, which will be used to monitor activities and build service areas.
- The Library will use public outreach opportunities to inform the Iowa State University community about best practices for retention, digital preservation actions, and program goals.

2.3 Digital preservation requires life cycle management.

- The Library supports early intervention to ensure long-term access to and use of digital objects.

- The Library will accept items for digital preservation when they are adequately processed, accompanied by a commitment level, and selected for long-term preservation.
- The Library will require clear licensing, rights statements, or record of due process and reformatting in accordance with Section 108 of the U.S. Copyright Act to support conversion, dissemination, and use of digital objects.
- The Library will apply flexible frameworks for investigating and responding to legal and ethical issues.
- The Library endeavors to make all digital records available to preserve the long-term accessibility and scholarly value of the content. The Library does not redact or remove portions of previously published content from its digital collections except as may be required by state or federal law, by the terms of any agreements governing such records, or where the digital records may no longer be in a form or format supported or usable by the Library. Requests for removal of digital records will be reviewed by the Library in accordance with this section.

2.4 Professional standards establish a guiding framework and outline for accountability.

- The Library will rely on the following operational standards:
 - Open Archival Information System (OAIS) reference model (ISO 14721) for identifying system components.
 - Trusted Digital Repository (ISO 16363) for assessing the trustworthiness of system components.
 - Core Trust Seal for assessing the trustworthiness of data repositories.
- The Library units will adhere to professionally developed technical standards, schemas, and best practices.

3.0 Challenges

The *principles* in this section identify challenges inherent with the preservation of digital objects and policies address these challenges.

3.1 Digital objects retained for long-term access require active maintenance.

- The Library will provide stable storage, periodic review, transfer, and file repair as appropriate to support the preservation of digital objects.

3.2 Digital objects may become lost or corrupted due to accident, malice, or system failure.

- Minimum security practices will be implemented locally and distributed storage will meet ISO 16363 standards (see Appendix).

3.3 Digital objects may contain private, confidential, sensitive, or hidden information that should not be publicly accessible.

- The Library adheres to University policies related to data classification and use (see Appendix).
- Collection units will develop classification strategies for identifying collections with complex legal or ethical considerations.

3.4 A changing climate and socio-cultural evolution necessitate careful consideration of the use and impact of information technology and storage of digital objects.

- The Library will identify the cultural and environmental impact of preservation commitments, use appraisal methods to intentionally select digital objects for long-term retention, and strive to conserve resources and optimize energy use.

3.5 Digital preservation practices draw on the experience of a collaborative network of practitioners.

- The Library will work collaboratively with internal and external agents and systems to sustainably support long-term access and retention.
- The Library will maintain accountability by conducting internal and external audits.

Appendix A – Glossary

Terms used within the policy document

- **Archival Information Object (AIP)** - see Information package.
- **Authorial intent** – “a position that argues that the creator of a text possesses a privileged understanding of its meaning and that consequently any interpretation that contradicts this understanding must defer to the author's intentions.” Oxford Reference
<https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095435694>
- **Collection unit** – local term which refers to the subunits of the Iowa State University library with responsibilities to create, collect, and preserve (A/V Preservation, Data Services, Digital Collections, Digital Publishing, Digital Repository, Digital Scholarship, Open Educational Resources, Special Collections, University Archives)
- **Digital object** – An object composed of a set of bit sequences.
- **Information package** – content Information and associated preservation description information which is needed to aid in the preservation of the content information (OAIS). Packages may be prepared for specific purposes such as submission (submission information package or SIP), dissemination (dissemination information package or DIP), or archival purposes (archival information package or AIP)
- **Intellectual property** – “intangible property that is the result of creativity, such as patents, copyrights, etc.” Oxford Reference
https://www.oxfordreference.com/view/10.1093/acref/9780199571123.001.0001/m_en_gb0415220
- **Learning community** – term drawn from higher education norms “A learning community is a group of people who share common academic goals and attitudes and meet semi-regularly to collaborate on classwork” Wikipedia
https://en.wikipedia.org/wiki/Learning_community
- **Metadata (and types)** – literally "data about data." May be divided into various types depending on use: administrative, descriptive, preservation, rights, structural, and technical. ODLIS
https://products.abc-clio.com/ODLIS/odlis_m.aspx
- **Open Archival Information System (OAIS)** – an abstract model of the system components that support the preservation of digital objects. <http://www.oais.info/>
- **Storage** – “Storage is a process through which digital data is saved within a data storage device by means of computing technology. Storage is a mechanism that enables a computer to retain data, either temporarily or permanently.”
<https://www.techopedia.com/definition/1115/storage> Storage infrastructure (hardware and software) may be local with a data center supported by organization’s Information Technology team. Storage infrastructure may be hosted on the cloud with a data center supported by vendors with proprietary software. Storage may be offline with devices and removable media required to access data. Storage infrastructure may also be geographically distributed with data centers in separate geographic regions (also cloud storage).
- **Technical metadata** – see Metadata.

Appendix B – Assessment Considerations

Working Documents

The digital preservation policy referenced various documents or statements. These documents and statements will be created with stakeholders and responsible units.

- Commitment guidelines
 - Identify levels of commitment and assign storage and handling procedures
- Cultural impact statement
 - Use assessment strategies developed by DLF Cultural Assessment Working Group to develop cultural impact statements about digital resources identified for long-term retention.
- Environmental impact statement
 - Develop an environmental impact statement that acknowledges the environmental impact of digital preservation (local, cloud, and distributed storage, use of magnetic tape, etc.)
- Retention statements
 - Develop a set of retention statements and cycles for review
- Selection guidelines
 - Develop decision-tree for proactive and retroactive collection assessment for levels of digital preservation
 - Identify parameters for selecting distinctive collections
 - Apply methods for identifying at-risk media
 - Identify methods of seeking donor or community input

Appendix C – Laws, Standards, Policies, and Schemas

Applicable International and National Laws, Standards, and Guidelines

- Copyright Act Section 108
 - “Section 108 of the Copyright Act permits libraries and archives to make certain uses of copyrighted materials in order to serve the public and ensure the availability of works over time. Among other things, Section 108 provides limited exceptions for libraries and archives to make copies in specified instances for preservation, replacement and patron access. Section 108 was enacted as part of the Copyright Act of 1976, then amended in 1998 by the Digital Millennium Copyright Act and the Copyright Term Extension Act, and in 2005 by the Preservation of Orphan Works Act.”
<http://www.section108.gov/about.html>
- Library of Congress Digital Library Standards
 - <https://www.loc.gov/standards/>
- ISO 14721
 - ISO 14721:2012 defines the reference model for an open archival information system (OAIS). An OAIS is an archive, consisting of an organization, which may be part of a larger organization, of people and systems that has accepted the responsibility to preserve information and make it available for a designated community. It meets a set of such responsibilities as defined in this International Standard, and this allows an OAIS archive to be distinguished from other uses of the term "archive". The term "open" in OAIS is used to imply that ISO 14721:2012, as well as future related International Standards, are developed in open forums, and it does not imply that access to the archive is unrestricted. <https://www.iso.org/standard/57284.html>
- ISO 16363
 - ISO 16363:2012 defines a recommended practice for assessing the trustworthiness of digital repositories. It is applicable to the entire range of digital repositories. ISO 16363:2012 can be used as a basis for certification.
<https://www.iso.org/standard/56510.html>
- National Archives Preservation Framework for Risk Assessment and Preservation
 - <https://www.archives.gov/preservation/electronic-records/digital-preservation-risk>
 - <https://github.com/usnationalarchives/digital-preservation>
- UI/UX
 - Digital Library Design Guidelines for BVI users
 - <https://sites.uwm.edu/guidelines/>
 - User Interface Design Basics
 - <https://www.usability.gov/what-and-why/user-interface-design.html>

Iowa State University and Library policies

- Collection Development and Selection Policy:
 - Library
<https://iowastate.sharepoint.com/sites/library/Library%20SPO%20Wiki/Collection%20Development%20Wiki.aspx>
 - Curation Services Collection Development Policy (WORKING)

- Data classification and Standards
 - <https://www.policy.iastate.edu/policy/dataclasstdguid>
- Security
 - <https://www.policy.iastate.edu/policy/minsecstdguid>

Iowa State University Mission and vision statements

- Iowa State University Mission and Vision
 - <https://www.president.iastate.edu/projects/mission>
- Iowa State University Library Mission
 - *“We select, organize, present, preserve, and promote information resources for present and future scholarly communities. We are active stewards of our rich collections of knowledge, and we provide innovative services in ways that anticipate needs and respect the diversity of community and ideas.”*
[https://iowastate.sharepoint.com/sites/library/Library%20SPO%20Wiki/ISU%20Library%20Policy%20\(Library%20Mission\).aspx](https://iowastate.sharepoint.com/sites/library/Library%20SPO%20Wiki/ISU%20Library%20Policy%20(Library%20Mission).aspx)

Appendix D – Review of Digital Preservation Policies

Link to review document <https://iastate.box.com/s/j9olu3ddvfu4og4fg23g7rxmaykj0q21>

Institution

Baylor University	Texas A&M University
Cornell University	Texas Christian
Dartmouth University	Texas Tech University
ICPSR Digital Preservation Policy Framework	University of California - Davis
James Madison University	University of Illinois-Urbana
Kansas State	University of Iowa
Library of Congress	University of Kansas
Michigan State University	University of Minnesota - Twin Cities
National Library of Australia	University of Northern Iowa
National Library of New Zealand	University of Oklahoma
NEDCC Policy Template	University of Texas
North Carolina University	University of Utah
Northern Illinois University	University of Washington
Ohio State University	University of Wisconsin-Madison
Oklahoma State	West Virginia University
Pennsylvania State University	Yale University
Purdue University	

