

UMass Amherst **Libraries**

Digital Preservation Policy

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Purpose

The University of Massachusetts Amherst Libraries Digital Preservation Policy establishes a framework to support sustainable access to our digital collections. The primary purpose of all research libraries is to select, preserve and provide access to documents or information that have permanent or continuing research value. The UMass Amherst Libraries are no exception. We have a strong commitment to preservation and have been active in developing the infrastructure to collect, manage, preserve and keep our digital collections available. This is recognized as an ongoing core function for the Libraries and critical to our future relevance. The Libraries recognize digital information resources as a vitally important and increasingly large component of our collecting and preservation responsibilities. The Libraries assume responsibility for the long-term preservation and accessibility of digital material, whether born digital or digitized. This policy is subject to change as technology and standards evolve, impacting our ability to preserve digital materials. The development of a reliable digital preservation program that adheres to standards and best practices remains the best opportunity for the Libraries' success in providing long-term access to our digital collections. In this context, long-term means a period of time long enough for there to be concern about the impacts of changing technologies, including support for new media and data formats, on the information being held in a repository. This period extends into the indefinite future.

Objectives

The Libraries recognize our responsibility for building and preserving print and digital collections in support of teaching, learning, scholarship, and research. To ensure the continued use of these collections, the Libraries will follow a policy of active preservation with the aim of safeguarding the authenticity and utility of all resources entrusted to its care. The specific objectives of the Library's digital preservation program are to:

- Maintain and develop processes and systems to capture, manage, preserve, find, and make accessible digital materials now and into the future
- Identify collections to digitize that are unique to UMass Amherst and that have regional, state, national, and international interest
- Continue to develop expertise in the creation and management of digital collections and information
- Provide context for digital materials by creating the metadata necessary to understand them
- Provide authentic and reliable digital materials to our users with provenance and authorized change histories for each item
- Adapt preservation strategies to incorporate the capabilities afforded by new and emerging technologies in cost-effective and responsible way
- Serve the needs of our users by enabling persistent access to digital content over time as the technology for digital content creation and distribution evolves
- Demonstrate auditable compliance with the development of the standards and practice of the digital preservation community

- Contribute to the development of the standards and practice of the digital preservation community
- Explore collaborative opportunities to collect and preserve digital materials so as to make the best use of available resources and avoid duplicative efforts

Scope

This policy addresses all aspects of preservation of digital collections for which the University of Massachusetts Amherst University Libraries are the primary custodian and applies to digital materials held by the University Libraries. These digital resources are subject to the same criteria for selection and preservation as other resources in the UMass Libraries. These decisions are made by experts on the value of the content in consultation with the relevant information technology and preservation experts. Digital preservation decisions are made on the basis of this Policy, the Libraries' Three Year Plan, the Libraries' Selection Criteria for Collecting and Storing Digital Content, the enduring value of the digital resources, and the feasibility of preserving the digital resources. When possible, decisions about the need for preservation are made at the time of creation or acquisition of digital resources.

Although this policy only covers digital collections for which the Libraries are the primary custodian, the Libraries will also work externally through consortial action, licensing agreements, etc., to assure that UMass Amherst faculty, staff, and students will have adequate ongoing access to all currently available digital resources. Particular emphasis will be given to resources that exist in digital form only. The Libraries will also inform, consult, and coordinate with other units of the University as necessary to assure that UMass Amherst faculty, staff, and students will have adequate ongoing access to administrative, scholarly, and other digital resources created at the University. The Libraries, however, cannot guarantee preservation for materials that we do not own and manage.

Challenges

According to the Libraries' Three-Year Plan for 2009-2011, the Library plans to "preserve and provide access to the scholarly record." In order to accomplish this plan, it is necessary for the Library's preservation program to face a number of challenges. These challenges include:

- The increasing volume of digital materials to be maintained
- The rapid evolution of technologies used to capture, store, and represent digital materials
- Continuing to update staff expertise as technologies change
- The need to maintain and describe the complex relationships between the components of digital objects
- Uncertainty about the significant properties or essential characteristics that must be described and maintained for digital resources
- Intellectual property and other rights-based constraints on providing access
- The financial commitment necessary to ensure long-term viability of a preservation program
- Administrative complexities in ensuring cost-effective and timely action to implement preservation strategies

The objective of the University of Massachusetts Amherst Libraries' Digital Preservation Program is to address these and other challenges to the long-term preservation of our digital resources.

Principles

The University of Massachusetts Amherst Digital Preservation Program will operate in accordance with the following principles:

- Commit to provide continued access to digital materials selected for preservation
- Commit to taking on the challenges and responsibilities of preserving our own digital materials rather than outsourcing this key function to an outside service provider
- Take action even if no perfect solution exists, but strive to follow current best practices in a new and rapidly evolving field.
- Commit to lifecycle management which includes making decisions of retention, use, and preservation of digital material at the acquisition and/or creation stage.
- Work with producers of digital material to influence the standards and practices they use and to increase their awareness of preservation needs.
- Provide appropriate skills training (digital capture techniques and metadata creation) and increase awareness of digital preservation in the Libraries.
- Keep abreast of technological change and monitor new developments in the digital preservation field, including an awareness of international standards.
- Establish procedures to meet archival requirements pertaining to provenance, chain of custody, authenticity, and integrity.
- Document and identify any remedial treatment, alterations and/or additions to an original object and make them as minimal and reversible as possible.
- Comply with intellectual property, copyright, and ownership rights for all content.
- Clearly and consistently document policies, procedures, and practices and review them on a regular basis.
- Strive to comply with the Open Archival Information System (OAIS) Reference Model standard and the requirements for a Trusted Digital Repository.
- Adhere to prevailing community standards for preserving access to digital content whenever possible.
- Commit to an interoperable, scalable digital archive with appropriate storage management capabilities.
- Consider developing and implementing any and/or all of the following digital preservation strategies as appropriate:
 - Technology conservation: maintaining obsolete hardware and software as a means of access in the short to medium term

- Refreshing: copying information content from one storage media to the same storage media
 - Migration: transferring digital resources from one hardware/software generation to another
 - Persistent identifiers: the name for a resource that will remain the same regardless of the resource's location, so that links to the resource will continue to work, even if it is moved
- Select the most appropriate and cost-effective strategy for the preservation of the digital object.
 - Identify and describe digital materials using appropriate metadata for resource discovery, management and preservation.
 - Use standardized metadata schema as they become available for interoperability between programs.
 - Preserve metadata and always maintain the links between digital objects and their metadata.
 - Work collaboratively whenever it is the most appropriate and cost-effective solution.

Roles and Responsibilities

This section of the UMass Amherst Libraries' Digital Preservation Policy describes key stakeholders and their respective roles in digital preservation in general terms. Key stakeholders include the UMass Amherst Libraries, the Libraries' Administration, the Libraries' Systems Department, content creators, digital collection managers, the Digital Creation and Preservation Working Group, and the University of Massachusetts Amherst. See Section B of this document for a more detailed outline of the roles and responsibilities of stakeholders.

UMass Amherst Libraries

The UMass Amherst Libraries have long been entrusted to provide access to scholarly and historically important materials. As a continuation of this responsibility to preserve information in analog formats, the UMass Amherst Libraries assume responsibility for the long-term preservation of, and access to, digital materials of enduring value that are entrusted to our care.

UMass Amherst Libraries' Administration

It is the responsibility of the UMass Amherst Libraries' administration to commit to supporting an environment in which digital preservation is regarded as a critically necessary endeavor. This support includes providing adequate managerial and financial commitment to develop a digital preservation program. Resource allocation in support of digital preservation is crucial to the future of valuable digital materials created, owned, or managed by the University of Massachusetts Libraries.

UMass Amherst Libraries Systems Department

The preservation of digital materials requires a much higher involvement of information technology experts than needed with analog materials. The Libraries Systems Department will need to be heavily

involved in this effort. They will need to provide conceptual advice at the inception of the program as well as ongoing technical support in order to ensure its success.

UMass Amherst Libraries Content Creators and Digital Collection Managers

Content creators and digital collection managers will play a key role in identifying and collecting digital content for the Libraries' Digital Preservation Program. Due to a higher risk of loss associated with digital formats, content creators, digital collection managers, and the Digital Creation and Preservation Working Group must collaborate closely to manage digital assets throughout their entire lifecycle. Members of this stakeholder group will be responsible for a wide variety of tasks. Their work will include following best practices and the procedures recommended by the Digital Strategies Group, the Digital Creation and Preservation Working Group, and the Metadata Working Group.

UMass Amherst Libraries Digital Creation and Preservation Working Group

Digital Creation and Preservation Working Group members will be responsible for collaborating with content creators and collection managers to determine the long-term value of digital collections and assess the likelihood that preservation of the materials is feasible given existing technical support and available resources. Other responsibilities of the Digital Creation and Preservation Working Group will include working with content creators and collection managers to develop a process for depositing materials into the digital preservation repository, monitoring digital materials for potential risks such as format obsolescence, and taking action to preserve materials.

University of Massachusetts Amherst

The campus' role is to provide the Libraries with materials that have enduring value so that they may be preserved. The campus will also need to provide financial support for the Libraries to establish and maintain a digital preservation program.

Collaboration

The Libraries recognize that ensuring the long-term preservation of digital materials is a complex and potentially costly endeavor. It may prove too expensive for every cultural heritage institution to build its own technological infrastructure for digital preservation. In addition, we have a commitment to preserving not only our own unique digital content, but also to participating in efforts to preserve the digital scholarly record. For these reasons, the Libraries will seek to work collaboratively on digital preservation efforts where appropriate.

In pursuing collaborative relationships, the Libraries will:

- Identify appropriate partners
- Establish written agreements on roles and responsibilities
- Help develop the policies, procedures, and tools necessary to support any collaborative digital preservation efforts
- Work with the producers of digital content to encourage practices that enable preservation

- Share information on its own experiences, and learn from the experience of others

All collaborative digital preservation activities must be in keeping with the Libraries' own digital preservation policy.

Selection and Acquisition

The UMass Amherst Libraries *Collection Development Policy* (see Appendix A), and more specifically, the document *Collecting, Digitizing and Storing Digital Content Criteria* (see Appendix B) defines the priorities and criteria for acquiring digital content for long-term digital preservation. Materials should also conform to the UMass Amherst Libraries *Guidelines for Digitization*.

Access and Use Criteria

It is the Libraries' goal to make information available to the widest possible audience. With this goal in mind, digital materials designated by the Collecting, Digitizing and Storing Digital Content Criteria and preserved by the UMass Amherst Libraries will be made available for access into the future. Each individual digital collection will have its own defined restrictions for access and use. These restrictions may be determined by intellectual property rights, legal requirements, privacy concerns, or a project's mission.

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