

University of Massachusetts Amherst Libraries

Digital Preservation Policy, Version 1.3

Purpose:

The University of Massachusetts Amherst Libraries Digital Preservation Policy establishes a framework to support sustainable access to our digital collections, regardless of origin. 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, affecting our ability to preserve digital materials. A reliable digital preservation program that adheres to standards and best practices remains the best opportunity for the Libraries to succeed 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 together with information on provenance and authorized change histories
- Adapt preservation strategies to incorporate the capabilities afforded by new and emerging technologies in a 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 duplication of effort

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 *Criteria for Collecting and Storing Digital Content* (see Appendix A), 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.

The Libraries will also work externally through consortia action, licensing agreements, and other formal and informal partnerships 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 ensure 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:

In order to preserve and provide access to the scholarly record the Library's preservation program must address a number of challenges, including:

- The increasing volume of digital materials to be maintained
- The rapid evolution of technologies used to capture, store, and represent digital materials
- The need 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. The Libraries will:

- Provide continued access to digital materials selected for preservation
- Take 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 full lifecycle management, including making decisions on retention, use, and preservation of digital material beginning at the stage of creation and acquisition.
- Work with producers of digital material to influence the standards and practices they use and to increase their awareness of preservation needs.
- Provide appropriate training for staff in 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.
- Identify and document all remedial treatment, alterations, or additions to an original objects and make these as small 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 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 constant 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 Library Technology Services Department, content creators and 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 and digital collection managers 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 Creation and Preservation Working Group.

UMass Amherst Libraries Digital Creation and Preservation Working Group:

The Digital Creation and Preservation Working Group will work with content creators and collection managers to develop a process for depositing materials into the digital preservation repository, advise on how to monitor digital materials for potential risks such as format obsolescence, and continue the preservation dialogue with the Libraries administration.

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. The Libraries have a commitment to preserving not only our own unique digital content, but also to participate in efforts to preserve the digital scholarly record more generally, and yet we recognize that the cost of building and maintaining the technological infrastructure for digital preservation may be prohibitive. 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 consistent with the Libraries' own digital preservation policy.

Selection and Acquisition:

The document *Collecting, Digitizing and Storing Digital Content Criteria* (see Appendix A) 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.

The UMass Amherst Libraries are committed to providing equal access to its library collections for all library users. Whenever possible, it is a priority for the Libraries to produce and preserve resources that are accessible under existing legal and best practices frameworks. For library collections that are not accessible, we are committed to providing reasonable accommodations and timely access to users with disabilities.

Appendix A

Criteria for Digitizing, Collecting, and Storing Digital Content

Digitization for long-term retention and re-use of content entails a commitment to providing access to that content and its attendant metadata in perpetuity. Digital projects represent a significant investment of resources. As a result, the UMass Amherst Libraries go through a careful selection process to ensure collections align with campus teaching, learning, and research needs and our ability to provide long-term access and support. The following list of criteria is intended to help potential partners and content managers, such as librarians, faculty, and other libraries, in selecting materials to collect and preserve.

Significance of the collection/item: significance depends on a number of factors and it is always the subjective judgment of a librarian, archivist, curator, or faculty member. The following questions may be used to establish the significance of a collection:

- What is the distinctiveness of the collection?
- How does it align with the Libraries' Collection Priorities?
- How does it fit into current or future research activities?
- What is the impact of the potential use of the collection to the user community?
- How is the collection currently being used?
- Will collecting and preserving the material enhance its intellectual value?
- Does the collection fit into the mission and strategic goals of the library and the University?

Copyright status: the first question that should be asked is what is the copyright status of the materials? The copyright status might vary from item to item and thus may require that some parts of a collection may be more accessible than others.

- Is the work in the public domain?
- Does UMass Amherst own the copyright?
- Does UMass Amherst have permission to digitize the content?
- Does UMass Amherst have permission to disseminate the content?
- Does UMass Amherst have the rights to take actions necessary to preserve the content?
- Does digitization of the content fall under the terms of Fair Use?

UMass Amherst may also digitize works for which the copyright status is unknown and which would require research to determine their copyright status. This category includes Orphan Works, which are works for which the copyright holder has gone out of business or cannot be located. (See also the Orphan Works Policy.)

Current and potential users: while some evidence suggests digitization increases use, current use is an important indicator of the collection's value:

- Are users currently consulting the proposed source materials?
- Is current access significantly difficult that collecting and preserving the collection will create a new user audience?
- Will electronic access enhance the value of the collection to users?
- Will access to the materials be open?
- Does the condition of the original collection limit its use?
- Are related materials widely dispersed?
- Who are we collaborating with on use of the collection?

Organization and descriptive metadata: no matter how important the collection, it must be organized and described before it is ready for distribution:

- Has the collection been organized and processed?
- Are there records that conform to existing metadata standards for the collection?
- Is there a finding aid?

Relationship to Other Digital Collections: it is important to contribute to “critical mass” of digital collections in the subject whenever possible. By complementing existing online collections, the value of the collection will enhance the subject area and the user experience. The following questions can be asked to guide selectors through the decision-making:

- If published material, has it already been digitized? If so, by whom? Has the whole resource been digitized or only part?
- Would cooperative digitization effort improve the content? Is it possible to find project partners?
- How does this collection fit in with other digital collections? Will the whole be greater than the sum of its parts?
- Are their complementary collections at other institutions? Would one of these institutions be interested in partnering?
- Would cooperative retention provide continuing access to materials?

Formats: some formats are better established for digitization and online delivery than others. The UMass Amherst Libraries can digitize or outsource digitization of the following formats:

- Text
- Photographs
- Other visual materials
- Audio
- Multi-media

We are somewhat better equipped to provide sustainable access for textual, visual, and audio materials than we are for video or multi-media. The condition of the materials must also be considered. Digitization may serve either a preservation or access need and most projects address both of these aspects. Digitization may protect fragile items but they must be able to withstand handling necessary for digitization.

Foreign-language materials require project staff to be proficient in the language(s) and that may add to the difficulty in assembling the project team. This may also factor to the expense of the project and the timeline. Creation of searchable texts requires additional time and skills, and adds considerable expense to a text project.

Technical considerations: storage and technical considerations are another important factor to consider when evaluating a collection. Answering “no” to the following does not immediately remove a project proposal from selection: impact to user communities needs to be carefully weighed. Among the items to consider:

- Do the Libraries currently have the technical infrastructure (i.e., hardware, software, server space, network capacity, etc.) to create, deliver, and maintain the digitized resources?

- Do the Libraries have the knowledge, or the capacity to develop, skills to accomplish the project alone and/or with a partner? Ample staff to bring the project to fruition or the ability to hire such staff.

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