# Georgia Tech Library Preservation Policy

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# **Executive Summary**

The Georgia Tech Library Preservation Policy articulates the Library's commitment to steward its collections over time for use by current stakeholders and future generations. Positioning preservation as a core Library function, the policy situates preservation in the context of Georgia Tech's mission and outlines the Library's categories of intent and commitment for the preservation of physical and digital collections.

Section 1 describes the purpose of preservation, which is the proactive effort to ensure the authenticity and stability of collections. The Library follows a policy of active preservation over

time with the aims of stewarding the collections entrusted to its care and providing usable versions for research, teaching, and learning.

Section 2 defines the Library's mandate to preserve collections in terms of legal and contractual obligation and organizational commitment. This mandate to preserve collections is grounded in the missions and strategic plans of the Library and the Institute.

Section 3 outlines the Library's commitments to preserving physical, born-digital, and digitized materials selected for the Library's collection according to the Archives Collection Development Policy. These commitments reflect the recognition that preservation is an ongoing service.

Appendix A offers details about the preservation actions taken at each level of preservation commitment. For digital materials, these levels are bit preservation (Level 1); bit and content preservation (Level 2); and bit, content, and functionality preservation (Level 3). For physical materials, these levels are rehousing and flattening (Level 1); staple removal, cleaning, humidification, encapsulation, and flattening (Level 2); and mold removal, deacidification, and intensive cleaning (Level 3).

Appendix B provides a template used by the Library to articulate preservation intent plans for collections in its custody.

Appendix C grounds the policy in the good practices and policies of peer libraries and professional organizations.

# 1. Purpose

Preservation is the proactive, ongoing effort to ensure the authenticity, reliability, integrity, and stability of collections. It is a key component of the curation lifecycle, which encompasses acquiring, processing, and providing access to collections.

The Library follows a policy of active preservation over time with the aims of stewarding the collections entrusted to its care and providing usable versions for research, teaching, and learning. Collections are preserved in accordance with explicit statements of preservation intent, for a period of time determined by striking a balance between the needs of users and the priorities of the Library and the Institute.

The Library acknowledges that preservation is a highly collaborative endeavor that reaches across the Library's functional areas and includes our user communities of donors/depositors and researchers. The Library recognizes that preservation requires human and financial resources to meet challenges such as sustainability, technological change, balancing preservation and access, ongoing training, and evolving user expectations. The Library acknowledges that preserving access to collections requires continuous planning, active management, and organizational commitment from the point of creation or acquisition, through processing, access, and reuse.

This policy formalizes the Library's institutional commitment to preserve its collections and to nurture in-house expertise for responsible stewardship of collections as a core function of the organization. It should be read in conjunction with other Institute and Library policies relevant to

the way collections are created, acquired, processed, and accessed. At the Institute level, related policies are found in the <u>Georgia Tech Policy Library</u>. At the Library level, related policies include the Georgia Tech Records Retention and Management Policy; Archives Collection Development Policy; and emerging policies related to digitization and Archives product governance.

This policy is reviewed annually for revisions. It is maintained by the Physical Collections Preservation Service Owner and Digital Collections Preservation Service Owner within Archives, with feedback from the Library Information Technology, Technical Services, and Community Engagement and Scholarly Outreach departments. The policy is approved by the Dean of Libraries.

# 2. Mandate and Strategy Alignment

### A. Mandate

The Library's responsibility to preserve collections stems from two primary areas of responsibility:

## Legal and contractual obligation:

Georgia Tech has mandated responsibilities to manage, preserve, and maintain access to certain collections (such as institutional records, grant-funded research subject to federal open access mandates, and intellectual property of the Institute). Georgia Tech has charged the Library with maintaining the university archives by collecting and preserving physical and digital university records that best document the history of the Institute.

#### Organizational commitment:

As an institution of higher education, Georgia Tech is obligated to support scholarship, teaching, and learning. As more resources and services associated with these functions become digital, the Library's responsibilities have expanded to include the identification, stewardship, and preservation of designated digital content.

# B. Strategy Alignment

The Georgia Tech Library's mandate to preserve collections is predicated on our explicit institutional missions and strategic plans at both the Library and the Institute level:

Library:

Mission: "The Georgia Tech Library defines excellence in the...preservation...of scholarship."

Institute:

From Georgia Tech values:

"We are responsible stewards. We are careful stewards of the resources we are entrusted with and strive to be an example of sustainability, efficiency, respect, and responsibility."

From Georgia Tech strategic plan:

#### Lead by Example:

- "Lead and inspire by example by creating a culture of deliberate innovation in our own practices and being an example of efficiency, sustainability, ethics, and inclusion."
- "Be an example in the protection, management, and governance of data."
- "Demonstrate our commitment to sustainability in the development and management of our campus."

#### **Expand Access:**

"Empower people of all backgrounds and stages of life to learn and contribute to technological and human progress."

# 3. Categories of Commitment

This policy covers materials selected for the Library's collection according to the Archives Collection Development Policy and materials created by the Georgia Tech Library. In recognition that preservation is an ongoing, resource-intensive endeavor, the Library has outlined its commitment to different categories of materials:

# A. Physical Materials

Minimal preservation is performed during the accessioning, arrangement and description stages, as well as on-going maintenance of the collection by housing them in a storage room with consistent temperature and relative humidity. The Library will preserve according to accepted professional standards, such as but not limited to, rehousing of the collection according to format, and simple repairs may be completed. Depending on the rarity and value of a collection or item, a conservator's services may be needed.

# B. Born Digital Materials

Rigorous effort will be made to ensure preservation of born digital materials (materials created in a digital format) for as long as necessary, in alignment with statements of preservation intent. This effort may include preservation strategies such as: migration, emulation, and geographically distributed and redundant bit-level replication. Digitized materials with no available analog versions will be treated with the same care as born digital materials. Legacy digital materials are materials donated to the Library prior to the development of a digital preservation program that may not have been officially appraised, accessioned, or evaluated for long-term value. Some of these materials are stored on obsolete media, encoded in obsolete file systems or formats, or are otherwise inaccessible. When possible, the Library will attempt to recover this data and evaluate it for preservation. The Library makes no guarantee that recovery will be successful or that it will be able to provide the resources necessary to attempt recovery.

# C. Digitized Materials (With Available Analog Version)

In most cases the analog version of these materials will be considered the preservation format, and preservation activities for the digital materials will be limited to local and non-distributed bit-level replication. Whenever possible, digitized materials will be created using file formats conducive to long-term preservation activities. The cost of re-digitizing materials should be weighed against the cost of long term preservation. In cases where the analog carriers of information are obsolete or at great risk of obsolescence, such as audiovisual materials, the digitized materials will be considered the preservation copy and treated with the same care as born digital materials.

# F. Metadata and Persistent Identifiers

The Library commits to preserving metadata and identifiers required to sustain collections.

# Appendix A: Levels of Preservation Definitions

## **Digital Materials**

#### Digital Preservation Level 1: Bit-Level

#### Description:

Digital Preservation Level 1 is the basic level of preservation support and pledges Georgia Tech Library's best effort to ensure that the material maintains integrity.

#### Qualifying criteria for Level 1:

- Is in a format about which little information is publicly available (example: CAD);
- Is in a format that is not widely adopted across all disciplines (example: LaTeX);
- Is in a format with lossy data compression;
- Is supported by a single or very few software platforms (example CAD); and/or
- Is in a format that does not meet the criteria for Level 2 or 3.

#### Actions:

- Only basic preservation of original object including:
  - o bitstream maintenance;
  - o persistent, permanent identifier;
  - preservation metadata;
  - onsite and offsite backup copies;
  - regular virus and file corruption checks;
  - o periodic refreshments to new storage media.

# Digital Preservation Level 2: Bit-Level and Content-Level

### Description:

Digital Preservation Level 2 is the middle level of digital preservation support and pledges Georgia Tech Library's best effort to ensure that the material maintains integrity and is understandable (can be displayed in a way that does not affect the viewer's ability to understand the file contents). Material of this type will not be migrated to successive formats nor updated to new standards. For example, .html files written in HTML4 will not be migrated to HTML5. For compound files determined to be of high value, Level 1 support could be offered to individual components of that file. For example, a high value MP4 would receive Level 2 support, but its individual streams (AAC audio, H.264 video, SRT/TXT captions, artwork, metadata) could be pulled out and converted to a format that can be preserved at Level 1.

#### Example of qualifying criteria for Level 2:

- Material is in a format that is publicly documented (example: wav), is widely adopted (example: pdf), is renderable by multiple software packages (example: txt), and may have lossy data compression (example: jpeg)
- Material does not meet the criteria for Level 3

#### Preservation actions undertaken for Level 2:

- Monitor file format for changes that might warrant reassessment to Level 1 or 3;
- Rendered formats (such as .html and other markup languages) present challenges with newer versions of rendering software. These formats will not be transformed to newer versions but the content will be wholly preserved.
- Basic preservation including:

- bitstream maintenance;
- persistent, permanent identifier;
- preservation metadata;
- o onsite and offsite backup copies;
- regular virus and file corruption checks;
- periodic refreshments to new storage media.

# **Digital Preservation Level 3: Bit-Level, Content-Level, and Functionality-Level** Description:

Digital Preservation Level 3 is the highest level of digital preservation support and pledges Georgia Tech Library's best effort to ensure that the material maintains integrity and is renderable (can be displayed for viewing), understandable (can be displayed in a way that does not affect the viewer's ability to understand the file contents), and functional (can be used and interacted with as intended).

#### Example of qualifying criteria for Level 3:

- Material is in a format that is publicly documented (example: wav), is widely adopted (example: pdf), is renderable by multiple software packages (example: txt), has lossless data compression (example: uncompressed tiff), and/or contains no embedded files or dynamic content (example: txt)
- Material carries mission-critical evidential and/or informational value

#### Preservation actions undertaken for Level 3:

- Monitor file format for changes that might warrant transformation or reassessment;
- Migration of file to successive format when necessary (most likely due to format obsolescence);
- Proprietary formats present challenges to some preservation activities. When possible, files in proprietary formats will be transformed to a format that preserves the content and formatting of the original (but not necessarily the functionality).
- Basic preservation including:
  - bitstream maintenance;
  - o persistent, permanent identifier;
  - preservation metadata;
  - onsite and offsite backup copies;
  - o regular virus and file corruption checks;
  - o periodic refreshments to new storage media.

## **Physical Materials**

## Physical Preservation Level 1:

# Description:

Physical Preservation Level 1 is the basic level of preservation support and pledges Georgia Tech Library's best effort to ensure that the materials are preserved according to accepted archival standards.

#### Qualifying stage for Level 1:

- Accessioning stage
- Processing stage, if applying MPLP

#### Actions:

- Only basic preservation is applied:
  - Determine any water or pest damaged materials;
  - o rehousing;
  - o flattening;

### Physical Preservation Level 2:

### Description:

Physical Preservation Level 2 is the minimal level of preservation support and pledges Georgia Tech Library's best effort to ensure that the materials are preserved according to accepted archival standards.

### Qualifying stage for Level 2:

Processing

#### Actions:

- Minimal preservation is applied:
  - Staple removal (if water or paper damage)
  - Cleaning
  - Flattening
  - Humidification
  - Encapsulation

### Physical Preservation Level 3:

## Description:

Physical Preservation Level 3 is the dealing with extremely damaged materials and level of preservation must be completed by a conservator outside of Georgia Tech.

#### Qualifying stage for Level 3:

- Mold removal
- Deacidification
- Intensive cleaning

#### Actions:

Contact conservator

# Appendix B: Preservation Intent Template

"A statement of preservation intent lays out exactly why some set of content was collected and what features of that content need to be attended to so that the content can be used for the purpose it was collected for... Establishing preservation intent starts by answering the question 'Why are we doing this?' Articulating preservation intent becomes an ongoing dialog between what matters about the things you want to preserve, what your digital preservation policies are, and your ongoing approach to collection development. We must anchor our work in clear intentions so that as we inevitably make decisions about what is practical given the nature of our objects, our ethical obligations, and resources at hand, if we need to make compromises to those intentions that we are doing so deliberately." (Trevor Owens, *The Theory and Craft of Digital Preservation*)

"Preservation Intent can be described as the agreed expectations for preservation of...content: for instance, whether content is to be preserved...the period over which content must be preserved; and the required level of support for access to the content over time. However, because of resource pressures, the Library may have to allocate priorities for action. These will be decided based on the relative significance of particular materials and on the technical complexity of preserving access to them." (<a href="https://www.nla.gov.au/policy-and-planning/digital-preservation-policy">https://www.nla.gov.au/policy-and-planning/digital-preservation-policy</a>)

- Accession Name:
- Accession Number:
- Why was this accession collected (or created by the Library)?
  - Collection development policy connection(s)
    - Research and scholarly content
      - Traditionally Published or submitted scholarship
      - Graduate and undergraduate theses and dissertations
      - Grav literature
      - Research data
      - Research software
    - University records
      - Archives
      - Records management
    - Special collections
      - Science fiction
      - Textile industry
      - Architectural
      - Rare books
      - retroTECH
    - Library-produced collections
      - Public programming
      - Lecture recording
      - Oral history
      - Digitized material
  - Library mission, vision, and strategic plan connection(s)
- What aspects of this accession are significant?
  - o How might users use this accession now or in the future?

- Possible informational value of this accession:
- Possible evidential value of this accession:
- What features of that content need to be attended to so that the content can be used for the purpose it was collected for? What do we need to do to make sure what matters to us about this accession persists into the future?
- What preservation challenges may be posed by the accession?
  - Condition challenges (such as fragility/damage) [note]
  - Software challenges (such as dependency on proprietary software) [note]
  - o Hardware challenges (such as material encoded on rare removable media) [note]
- Preservation levels recommended for this accession (or pieces of the accession):
  - Digital preservation level(s) recommended:
    - 1: Bit-Level
      - [note about which pieces/aspects of accession]
    - 2: Bit-Level and Content-Level
      - [note about which pieces/aspects of accession]
    - 3: Bit-Level, Content-Level, and Functionality-Level
      - [note about which pieces/aspects of accession]
  - Physical preservation level(s) recommended:
    - 1: Basic preservation at Accession stage
      - [note about which pieces/aspects of accession]
    - 2: Basic preservation at Processing stage
      - [note about which pieces/aspects of accession]
    - 3: Conservation by outside conservator
      - [note about which pieces/aspects of accession]
- How long do we intend to preserve the accession?
  - o Permanent [note about which pieces/aspects of accession]
  - o Short-term and reappraise [note about which pieces/aspects of accession]
  - Short-term and destroy [note about which pieces/aspects of accession]

# Appendix C: Sources Consulted

"Digital Collections Steering Committee Policy Suite," Emory University Libraries: <a href="https://web.library.emory.edu/documents/Digital%20Collections%20Policy%20Suite.pdf">https://web.library.emory.edu/documents/Digital%20Collections%20Policy%20Suite.pdf</a>

"Digital Preservation Policy," Northwestern University Libraries: <a href="https://www.library.northwestern.edu/about/administration/policies/digital-preservation-policy.html">https://www.library.northwestern.edu/about/administration/policies/digital-preservation-policy.html</a>

"Digital Preservation Policy," Rockefeller Archive Center: <a href="https://docs.rockarch.org/digital-preservation-policy">https://docs.rockarch.org/digital-preservation-policy</a>

"Digital Preservation Policy," University of Washington Libraries: <a href="https://www.lib.washington.edu/preservation/preservation services/digitization-and-digital-preservation-policy">https://www.lib.washington.edu/preservation/preservation services/digitization-and-digital-preservation-policy</a>

"Digital Preservation Policy Framework," The Ohio State University
Libraries: <a href="https://library.osu.edu/documents/SDIWG/Digital Preservation Policy Framework.pd">https://library.osu.edu/documents/SDIWG/Digital Preservation Policy Framework.pd</a>
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"Digital Preservation Policy Framework," Yale University Library: https://guides.library.yale.edu/ld.php?content\_id=26251943

"Digital Preservation Policy Toolkit," Digital Preservation Coalition: <a href="https://www.dpconline.org/digipres/implement-digipres/policy-toolkit">https://www.dpconline.org/digipres/implement-digipres/policy-toolkit</a>

Owens, Trevor. *The Theory and Craft of Digital Preservation. LIS Scholarship Archive, 15 July 2017.* https://doi.org/10.31229/osf.io/5cpjt