

# **Digital Preservation Policy**

**University of Richmond  
University Libraries/Boatwright Memorial Library**

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- **Summary**

- The University Libraries intend to preserve its digital collections with the same level of commitment as it has preserved its physical collections. Digital Preservation is recognized as a core organizational function of the University Libraries' ability to support current and future teaching and learning at the University of Richmond.
- The purpose of a digital preservation policy is to provide a statement on the University Libraries' ongoing commitment and approach to preserving its digital collections. This policy does not include digital preservation processes and procedures to meet accepted standards which would be determined by the needs and requirements of each project or collection. This policy does include the following underlying principles and actions:
  - Access: Ensuring the authenticity, reliability, and long-term accessibility of digital materials that meet current accepted standards
  - Authenticity and Integrity: Document the level of commitment the University Libraries can support for file authenticity and integrity
  - Outreach and Education: Providing guidance and authorization on preservation capabilities and strategies of digital materials
  - Explaining how digital preservation serves the needs of the University Libraries and the University of Richmond
  - Compliance with Standards and Best Practices: Stating and communicating the principles and best practices on specific aspects which support the preservation of digital materials not limited to the creation, maintenance, storage and delivery of digital content and corresponding metadata.

- **Related Policies**

- The digital preservation policy should be read in conjunction with The University of Richmond Libraries' Digital Collections Policy (<http://libguides.richmond.edu/collectiondevelopment>), Digital Collections Policy, Digitization Policy, Metadata Policy, and any other policy written and established as relevant by and to the University Libraries.
- The digital preservation policy should be read in conjunction with The University of Richmond Libraries' Accepted Standards and Best Practices Documents for Digital Preservation Guidelines, Practices, and Procedures.
- The digital preservation policy should be read in conjunction with The University of Richmond Libraries' Accepted Standards and Best Practices Documents for the creation of Digital Preservation Metadata.
- The digital preservation policy should be considered when creating scopes for new digital projects and collections.

- **Target Audience**

- This policy applies to University Libraries' staff who create, collect, and manage digital collections held by or on behalf of Boatwright Memorial Library. The policy may also be of interest to faculty, students, University staff, collection donors, funding bodies, and community users of the University Libraries.
- **Mandate**
  - University Libraries collects, creates, preserves, and provides access to collections, including digital collections. Through preserving its digital collections, University Libraries supports the University's mission "to educate in an academically challenging, intellectually vibrant, and collaborative community dedicated to the holistic development of students and the production of scholarly and creative work" (<https://www.richmond.edu/about/goals.html>).
- **Policy Statement**
  - Scope
    - The digital preservation policy applies to all digital collection material collected and held for the purpose of long term preservation by the University Libraries.
    - The digital preservation policy also applies to preservation metadata and persistent identifiers associated with digital collections.
    - Digitized materials, like their analog counterparts, should primarily support teaching and scholarship at the University of Richmond, secondarily be part of the institutional history and organizational archives, and thirdly serve the needs of other communities. **Collection content covered by the digital preservation policy include priority levels and should be prioritized accordingly**
    - **Content Priority Levels**
      - *Priority 1: born digital materials* - Rigorous effort will be made to ensure preservation in perpetuity of material selected for preservation, both library resources and institutional records.
      - *Priority 2: digitized materials (no available analog)* - Every reasonable step will be taken to preserve materials without a print analog, when re-digitizing of analog is not possible or analog versions are not readily accessible or in no condition to be re-digitized (e.g. Daily Dispatch or other newspapers). Also included are digitized materials that have annotations or other value-added features making them difficult or impossible to recreate.
      - *Priority 3: digitized materials (available analog)* - Reasonable measures will be taken to extend the life of the digital objects with a readily available print analog. However, the cost of re-digitizing as needed will be weighed against the cost of preserving the existing digital objects

- *Priority 4: digitized materials (available analog)* – Preservation will be discouraged for ephemeral materials such as materials scanned for E-reserve and Document Delivery, odds and ends of collections, portions of text, and content that is deemed unessential to the comprehensiveness of collections.
- (adapted from Cornell: Cornell University Library Digital Preservation Policy Framework, <https://ecommons.cornell.edu/handle/1813/11230>)
  - **Content not within the scope of this digital preservation policy are:**
    - Any material which is not intended for permanent retention
    - Data in active use
    - Commercial content and/or content protected by copyright that is not held by the University of Richmond, University Libraries, or in the public domain
    - Content created for or held on behalf of external organizations

## 1. Principles

“The following principles will guide digital preservation actions:

*Access:* Digital preservation activities are performed with the understanding that long-term access is the primary goal. Access to digital collections will be supported to the best of our ability given available technology and resources, however perpetual access to digital materials cannot be guaranteed.

*Authenticity:* Digital objects will be created with supporting metadata to establish authenticity and provenance. Digital objects will be managed to ensure that they are unaltered and the original data is preserved.

*Collaboration:* Successful digital preservation requires collaboration between several Library departments, as well as the larger digital preservation community. University Libraries will investigate and participate in collaborative agreements whenever they are a good use of Library resources.

*College and Library missions:* This policy and actions taken to implement the policy exist in support of stated University of Richmond and Library missions. The digital preservation policy will be annually reviewed against University and Library missions and goals to ensure that it continues to support the core work of the institution.

*Intellectual Property:* University Libraries is committed to providing access to digital materials while respecting and upholding the intellectual property rights of authors and obtaining prior consent when the creator’s identity is known. Rights management actions will be documented and rights information will be preserved with digital content.

*Standards and Best Practices:* University Libraries will observe current standards and best practices related to the creation, maintenance, storage, and delivery of digital objects and

metadata, as determined by international, national, consortial, and local institutions and governing bodies.

*Sustainability:* Digital preservation activities will be planned and implemented in ways that best manage current college resources and can be sustained into the future. Future access to digital resources cannot be assured without institutional commitment to necessary resources.

*Training:* University Libraries will commit to on-going training and development of staff in areas related to digital preservation, as well as outreach to inform faculty, students, and staff of the best practices for creating and maintaining digital objects.

*Technology:* University Libraries will fulfill digital preservation objectives by developing and maintaining necessary hardware, software, expertise, and protocols to ensure long term access.”

(Borrowed from Dartmouth’s Digital Preservation Policy:

[https://www.dartmouth.edu/~library/preservation/docs/dartmouth\\_digital\\_preservation\\_policy.pdf](https://www.dartmouth.edu/~library/preservation/docs/dartmouth_digital_preservation_policy.pdf))

## Appendices:

### Appendix 1: Standards and Best Practices:

Relevant Standards include:

- Open Archival Information System Reference Model (OAIS Reference Model 14721: <http://www.oais.info>)
- PREMIS Data Dictionary for Preservation Metadata (<http://www.loc.gov/standards/premis/v3/>)
- University of Richmond IS Policies/Guidelines: <https://is.richmond.edu/policies/>

### File Support, Standards, and Preservation Best Practices

Although Preservica can handle more than 1,600 different file formats, there are suggested standards and best practices with regards to what file types/formats are best preserved.

The following table details the University Libraries' current preservation support levels for commonly used file formats. Other formats may be preserved but are less common. Best practices for file formats are included.

#### Text and Microsoft Office File Formats

Format	File	Support Level	Best Practices
Microsoft Word	.doc	Bit-Level	Though acceptable for deposit, the best practice is to convert to PDF prior to deposit
Microsoft PowerPoint	.ppt	Bit-Level	Disable all macros and other effects. Conversion to PDF is recommended.
Microsoft Excel	.xls	Bit-Level	Disable all macros. You may also wish to export dataset into a tab-delimited text file (.txt) prior to deposit.
PDF	.pdf	Format	
Rich Text	.rtf	Bit-Level	Conversion to PDF is recommended.

Plain Text	.txt	Format	It is recommended that .txt files be saved using UTF-* (Unicode) character set.
XML	.xml	Bit-Level	To ensure the best available support, include the DTD along with a well-formed XML file that is valid according to the included DTD.

### Image File Formats

Format	File	Support Level	Best Practices
BMP	.bmp	Bit-Level	
GIF	.gif	Format	
JPEG	.jpg	Format	Currently considered optimal for presentation. Best practice is to save with NO Compression
JPEG2000	.jp2	Bit-Level	Best practice is to save with NO Compression (it was once thought jp2 would replace jpg, however this has not happened)
PNG	.png	Format	
Photoshop	.psd	Bit-Level	Proprietary format that may be best saved as a .jpg and/or .tiff
TIFF	.tif	Format	Currently considered to be the archival standard. Best practice is to save with NO Compression

### Audio File Formats

Format	File	Support Level	Best Practices
MPEG	.mp3	Bit-Level	Suggested for presentation of audio files.
WAVE	.wav	Format	Currently considered to be the archival standard. Recommended format for capturing digital audio. This format can store all the



			data in an uncompressed format and its wide use suggests long-term community support.
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### Video File Formats

Format	File	Support Level	Best Practices
AVI	.avi	Bit-Level	
MPEG	.mp1, mp2, mp4	Bit-Level	
Quicktime	.mov	Bit-Level	
Windows Media Video	.wmv	Bit-Level	

### Appendix 2: Definitions/Glossary

**Access:** The ability, permission/right, and means to locate, display, obtain, determine availability of or make use of a digital asset, or information about that resource.

**Archival Information Collection (AIC):** OAIS reference model defines AICs as an Archival Information Package whose Content Information is an aggregation of other Archival Information Packages.

**Archival Information Package (AIP):** AIPs consist of Content Information and the associated Preservation Description Information (PDI), which is preserved within the digital preservation repository.

Archive

**Authentic copies:** A duplicate of a digital asset that is what it purports to be and that is free from tampering or corruption.

**Authenticity:** A quality of a digital asset to be judged trustworthy and genuine based on internal and external evidence.

Backup  
Born Digital  
Deposit  
Digital Archive

**Digital Preservation:** The whole of the activities and processes involved in the physical and intellectual protection and technical stabilization of a digital asset through time in order to reproduce authentic copies of these resources.

Digital Preservation Repository:

Digital Resource/Asset: Encoding of intellectual or cultural context in digital form.

**Dissemination Information Package (DIP):** DIPs are derived from one or more AIPs and received by the consumer in response to a request to the digital preservation repository. Submission Information Package (SIP), the Archival Information Package (AIP), and the Dissemination Information Package (DIP).

File Format:

Institutional Repository  
Life Cycle  
Long-term Storage  
Metadata  
Migration  
Normalization

**Open Archival Information System (OAIS) Reference Model:** A conceptual framework for an archival system dedicated to preserving and maintaining access to digital information over the long term. Within the OAIS model, three types of information packages are identified: the Submission Information Package (SIP), the Archival Information Package (AIP), and the Dissemination Information Package (DIP). <http://www.oais.info>

Preservation:

Provenance: The source and ownership history of an asset.

Selection  
Stakeholders  
Stewards

**Submission Information Package (SIP):** SIPS are created or delivered for use in the construction of one or more AIPS to be ingested into the digital preservation repository

**Trustworthy:** Being able to provide reliable, long-term access to managed digital resources to a designated community, now and in the future. Signs of trustworthiness include organizational, administrative, technical, and financial viability along with system security. This term is rooted in the concept of the Trusted Digital Repository. See: “Trusted Digital Repositories: Attributes and Responsibilities”

<http://www.oclc.org/content/dam/research/activities/trustedrep/repositories.pdf>

### **Appendix 3: Bibliography**

A list of Published Preservation Policies may be found here:

<http://wiki.opf-labs.org/display/SP/Published+Preservation+Policies>

Columbia University Libraries. (2018) Preservation Policy, Preservation and Digital Conversion Division: <http://www.columbia.edu/cu/lweb/services/preservation/dlpolicy.html>  
<https://library.columbia.edu/content/dam/libraryweb/services/preservation/Preservation%20Policy%20revised%202018.pdf>

Cornell University Library Digital Preservation Policy Framework:

<https://ecommons.cornell.edu/handle/1813/11230>

Dartmouth University’s Digital Preservation Policy:

[https://www.dartmouth.edu/~library/preservation/docs/dartmouth\\_digital\\_preservation\\_policy.pdf](https://www.dartmouth.edu/~library/preservation/docs/dartmouth_digital_preservation_policy.pdf)

Digital Preservation Coalition Digital Preservation Handbook:

<https://dpconline.org/handbook>

From Page to Pixel: Using Consistent File Naming Conventions for Digital Preservation Projects:

<http://page2pixel.rutgers.edu/2010/10/using-consistent-file-naming-conventions-for-digital-preservation-projects/>

Northeast Document Conservation Center, Digital Preservation Reading List:

[https://www.nedcc.org/assets/media/documents/DigiPres\\_Biblio\\_Digital\\_Directions\\_2014\\_up\\_date.pdf](https://www.nedcc.org/assets/media/documents/DigiPres_Biblio_Digital_Directions_2014_up_date.pdf)

Northeast Document Conservation Center, Free Resources:

University Libraries Digital Preservation Policy

<https://www.nedcc.org/free-resources/digital-preservation>

Northwestern Library Digital Preservation Policy:

<https://www.library.northwestern.edu/about/administration/policies/digital-preservation-policy.html>

Smith College Libraries' Digital Preservation Policy:

<https://libraries.smith.edu/about/preservation>

Yale University Library's Digital Preservation Policy Framework:

<http://web.library.yale.edu/sites/default/files/files/YUL%20Digital%20Preservation%20Policy%20Framework%20V1%200.pdf>