FROM THE DIGITAL DARK AGES TO A DIGITAL RENAISSANCE

THE ROLE OF LONG-TERM STORAGE IN DIGITAL PRESERVATION

Part III. Store
QUICK POLL:

Did you attend The Art of Selecting Digital Content for Preservation webinar on 10/10?

- Yes
- No
Identify - what digital content do you have?
Select - what portion of that content will be preserved?
Store - how should your content be stored for the long term?
Protect - what steps are needed to protect your digital content?
Manage - what provisions are needed for long-term management?
Provide - how should your content be made available over time?
MANAGING DIGITAL CONTENT OVER TIME

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WHAT ARE STORAGE NEEDS?

- Archival storage manages content as objects

- Digital content (files + metadata = object)
  - May include any type of content (images, text, sound, video, etc.)
  - Requires some identification and description (captured as metadata)
  - Need at least two copies in at least two places
Make preservation easier with well-managed collections. You need:

- Basic information about each deposit
- Minimal metadata for objects (you define)
- Common (or normalized) file formats
- Controlled and known storage of content
- Multiple copies in at least 2 locations
IMPORTANCE OF METADATA

Think about these questions:

- How do you know what an object is?
  - Metadata uniquely identifies digital objects

- How do you use content in the future?
  - Metadata makes digital objects understandable

- How do you know an object is authentic?
  - Metadata allows objects to be traced over time.

Metadata enables long-term preservation

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OBJECT-LEVEL METADATA

Preservation Metadata

Content (what), Fixity (unchanged), Provenance (life story), Reference (this thing), Context (relationships)

Administrative (manage)

Structural (understand, use)

Descriptive (find, use)

Diagram courtesy DPM Workshops

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OBJECT METADATA CHARACTERISTICS

More about preservation metadata-

- **Content:** preserve the substance
- **Fixity:** demonstrate content is unchanged
- **Reference:** identify as this content and no other
- **Provenance:** trace to its origin (or to deposit)
- **Context:** preserve linkages with other objects?

How many copies are enough for you?
- Minimum: two (2) copies
- Optimum: six (6) copies

Examples of storage factors:
- Video files are too large to store 6 copies
- Possible legal restrictions (e.g., storage locations)
STORAGE MEDIA OPTIONS

- Content (objects) are kept on storage media
- Options include: online, near-line, offline
- Factors for choosing options include:
  - **Cost:** available resources for preservation
  - **Quantity:** size and number of files
  - **Expertise:** skills required to manage
  - **Partners:** achieving geographic distribution
  - **Services:** outsourcing

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STORAGE CONSIDERATIONS

- Multiple, geographically distributed copies
- Storage partners
- Hosted services, such as:

  
  This is a service to make it easy for organizations to use cloud services to manage content over time

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Is your institution using any type of cloud service for file storage/backup?

- Yes
- No
- I don’t know
REPOSITORY SELECTION

If you decide to use (build, join, buy) a repository

- Range of types to consider:
  - general (any content) to special (format-specific)
  - open source to proprietary
  - easy to advanced installation and management

- Each option has pros and cons
- No system is fully compliant to standards

Select best option for your content – for now
Digital preservation requires an organization to:

- Develop a storage management policy
  - E.g., number of copies, locations
- Specify storage service or partner agreements
- Monitor copies of content for errors/change
- Plan for media replacement
SELECT RESOURCES

- The Signal: Digital Preservation blog (Library of Congress)
  - http://blogs.loc.gov/digitalpreservation/
- Planning for Digital Preservation: 20 Questions for Providers of Digital Storage Services
- Digital Preservation Metadata Standards
  - http://www.loc.gov/standards/premis/FE_Dappert_Enders_MetadataStd s_isqv22no2.pdf

See PDF for additional resources.
Keep in touch!

And for those viewing the recorded version of this webinar on the ALCTS website, *we want to hear from you!* E-mail us to request the resource lists and ask questions.

- Laura Osterhout, Rochester Regional Library Council, losterhout@rrlc.org
- Erin Rhodes, Colby College, enrhodes@colby.edu
QUESTIONS?

What questions do you have for us?