Sharing initial steps on a digital preservation policy and program at the University of Akron

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Background

• Archival Services has been digitizing letters, images and film to put up online since 2009.
  • 36,000+ objects in ContentDM
• Last spring we each attended a workshop:
  • Brittany attended the Biennial Audio-Visual Archival Summer School (BAVASS) held at Indiana University, Bloomington
  • Mark—along with Vic the head of Archival Services—attended the SOA preconference workshop on Digital Preservation
• Between the two of us there was a lot of material disseminated...
Our Reactions After the Workshops
We Needed to Do Something
Why should we proceed with digital preservation?

• More and more records now are born digital and it will only increase.

• Must insure authenticity and continuing usability of records.
  • This includes digital records and images.

• Pride—We try to do good work.
Digitization vs. Digitization for Preservation vs. Digital Preservation

Some definitions
- **Digitization**: the reformatting of analog materials to a digital format

- **Digitization for Preservation**: digitization that results in the creation of digital objects from analog objects worthy of long-term preservation

- **Digital Preservation**: the tools, operations, standards and policies that ensure the long-term access of digital materials over time, including analog materials that have been digitized and born-digital materials

Digitization is *not* Digital Preservation.
Challenges

Technological and Organizational
Hardware and Software: Obsolescence and Failure

OBSCOLETE

FAIL
Data Corruption

• Does not just happen from hardware/software failures
• Can be caused by
  • Files transferring from one technology to another
    • Or format
  • Files repeatedly being opened and saved
  • Viruses/Malware
• Can be random
  • Loss of bits and pieces of a file stream can make an entire file inaccessible
Loss of Context

• Less obvious
• Without metadata and descriptive content it is hard to tell what these objects are
• Can be an organizational risk as well
Lebronto

This article is about the city in Canada. For other uses, see Toronto (disambiguation).

Lebronto (/leˈbrɒntəʊ/ (listen) le-BRON-toh), officially the City of Lebronto, is the capital of the Canadian province of Ontario. It is located within the Golden Horseshoe in Southern Ontario on the northern shore.
Buy In by the Higher Ups

- Variable support
- Resources
  - Funding
  - Equipment
  - Staff/Training
- Illustrate to them why having a digital preservation policy is important
  - We do have a 150th anniversary coming up and it is important to preserve any (digital) history
Selection and Collection Policies

- Lack of selection/collection policy makes it hard to organize collections over time
  - Can lead to inconsistency in what is being collected
  - Do we have a selection/collection policy and so where is it and is it written down?
Procrastination

• One that we try the hardest to avoid but it still ends up happening
• Biggest risk is keep kicking it down the road and not make any decisions
• Organizational Paralysis
• Completing other responsibilities especially ones that are long term
  • Easily distracted
Succession Planning

- Staff turnover
- If the University shuts down or ends the digital preservation program, is there a plan in place that states what happens to the collections
  - Is there a succession plan in how to maintain and transfer our collections to a different repository
Self-Evaluation

Or how do we match up
# Levels of Digital Preservation

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Level 1 (Know your content)</th>
<th>Level 2 (Protect your content)</th>
<th>Level 3 (Monitor your content)</th>
<th>Level 4 (Sustain your content)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage</td>
<td>Have two complete copies in separate locations</td>
<td>Have three complete copies with at least one copy in a separate geographic location</td>
<td>Have at least one copy in a geographic location with a different disaster threat than the other copies</td>
<td>Have at least three copies in geographic locations, each with a different disaster threat</td>
</tr>
<tr>
<td>Integrity</td>
<td>Verify integrity information if it has been provided with the content</td>
<td>Verify integrity information when moving or copying content</td>
<td>Verify integrity information of content at fixed intervals</td>
<td>Verify integrity information in response to specific events or activities</td>
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<tr>
<td></td>
<td>Generate integrity information if not provided with the content</td>
<td>Use write-blockers when working with original media</td>
<td>Document integrity information verification processes and outcomes</td>
<td>Replace or repair corrupted content as necessary</td>
</tr>
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<td></td>
<td>Virus check all content; isolate content for quarantine as needed</td>
<td>Back up integrity information and store copy in a separate location from the content</td>
<td>Perform audit of integrity information on demand</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Determine the human and software agents that should be authorized to read, write, move, and delete content</td>
<td>Document the human and software agents authorized to read, write, move, and delete content and apply these</td>
<td>Maintain logs and identify the human and software agents that performed actions on content</td>
<td>Perform periodic review of actions/access logs</td>
</tr>
<tr>
<td>Metadata</td>
<td>Create inventory of content, also documenting current storage locations</td>
<td>Store enough metadata to know what the content is (this might include some combination of administrative, technical, descriptive, preservation, and structural)</td>
<td>Determine what metadata standards to apply</td>
<td>Record preservation actions associated with content and when those actions occur</td>
</tr>
<tr>
<td></td>
<td>Backup inventory and store at least one copy separately from content</td>
<td></td>
<td>Find and fill gaps in your metadata to meet those standards</td>
<td>Implement metadata standards chosen</td>
</tr>
<tr>
<td>Content</td>
<td>Document file formats and other essential content characteristics including how and when these were identified</td>
<td>Verify file formats and other essential content characteristics</td>
<td>Monitor for obsolescence, and changes in technologies on which content is dependent</td>
<td>Perform migrations, normalizations, emulation, and similar activities that ensure content can be accessed</td>
</tr>
</tbody>
</table>

[https://osf.io/3dx82/](https://osf.io/3dx82/)
Begin Process to Make a Digital Preservation Policy

• Contact stakeholders

• Gather information and articles on digital preservation

• Gather and look at other institutions’ digital preservation policies.
Where do we go from here?

- Learn to use fixity and checksums!!!
- Recruit additional stakeholders to the table.
- Improve and document workflows including selection, evaluation, fixity, and ADA.
Helpful Resources

• Northeast Document conservation center:
  https://www.nedcc.org/free-resources/digital-preservation

• National Archives and Records Administration:
  https://www.archives.gov/preservation/electronic-records

• National Park Service Conserve-o-grams:
  https://www.nps.gov/museum/publications/conserveogram/cons_toc.html

• National Digital Stewardship Alliance:
  https://ndsa.org/
More Helpful Resources

• Digital Preservation Coalition Handbook
  https://www.dpconline.org/handbook/component/content/78-handbook/86-getting-started

• Digital Preservation: A Planning Guide for the Five Colleges
  https://www.fivecolleges.edu/libraries/digital-preservation/digital-preservation-a-guide-for-the-five-colleges

• NEDCC Digital Preservation Policy Template:
  https://www.nedcc.org/assets/media/documents/SoDAExerciseToolkit.pdf

• Digital Preservation Management - Digital Preservation Strategies
  https://dpworkshop.org/dpm-eng/terminology/strategies.html

• DIGITAL PRESERVATION STRATEGIES: AN OVERVIEW: Somipam R. Shimray and Chennupati K. Ramaiah
  https://www.researchgate.net/publication/327221006_Digital_Preservation_Strategies_An_Overview/link/5b80da10a6fdcc5f8b6592f4/download


• Kicking the Habit (of Resistance to Digital Preservation) MAC Newsletter (2015) Meg Miner, Illinois Wesleyan University
  https://works.bepress.com/meg_miner/23/

• National Park Service Conserve-o-grams section 22 is Creation, Care, and Storage of Digital Materials.
  https://www.nps.gov/museum/publications/conserveogram/cons_toc.html
That's all Folks!