Implementation of OCLC’s Digital Archive in North Carolina

Montana Statewide Digital Preservation Planning Meeting
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State Library of North Carolina
Two divisions within the Department of Cultural Resources

- The State Library of North Carolina
  - Targets a variety of statewide needs (Library Development, LBPH, NC ECHO, G&H)
  - The Government and Heritage Library provides direct services to state government employees and researchers
    - State Publications Clearinghouse collects and processes state agency created publications
    - Digital Information Management Program develops recommendations and tests solutions that support the identification, collection, cataloging, storage, and preservation of state government information for permanent public access

- The North Carolina State Archives
  - Provides services to state government and public
    - Designated the official archival agency of the State of North Carolina
    - Public records include all formats regardless of “physical form or characteristics”
Background Information: Mandate and Responsibilities

- Separate mandates, missions, administrative structures
- Mandates overlap, often work together to solve challenges
- Statutory mandate
  - Gather, provide access to, and permanently store state agency electronic publications and records in North Carolina

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<th>Pubs</th>
<th>Websites</th>
<th>Geospatial Data</th>
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<th>Databases</th>
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Background Information: IT

- Information Technology
  - DCR-IT provides desktop support
  - ITS provides network support
  - No defined support for long-term management of born-digital state records at this time
Background Information: Requirements of SLNC

- Must be hosted
- Must be easy to use administratively
  - Due to size and makeup of staff paraprofessionals will be entering state publications and basic metadata
    - fit in existing workflows
    - integrate with existing tools
- Must be standards based
  - Must allow for data to be easily imported/exported in a standard format
- Must be secure and reliable (preferably OAIS compliant)
- Must provide meaningful reporting
- Must ensure long-term access (preferably more than just bit-level preservation)
## Comparison of Digital Archive to SLNC Requirements

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<td><strong>Digital Archive</strong></td>
<td>OCLC hosts the storage in Dublin, Ohio</td>
<td>Content is automatically added either directly to the Digital Archive if we are using CDI or to a volume that can be shipped to OCLC and added to the Digital Archive at any time. Integrated with Connexion and CONTENTdm which are tools we already use.</td>
<td>The Digital Archive supports the mandatory elements of PREMIS for its metadata.</td>
<td>OCLC manages the storage environment by checking storage media life and file integrity (virus, fixity, format verification), backing up all files in off-site storage locations), and verifying inventories. Is OAIS compliant.</td>
<td>Provides a monthly accession report, health report for stored files, file integrity report, and a dissemination report.</td>
<td>Only provides bit-level preservation, but that is good enough for now.</td>
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Storage for SLNC

- Hosted storage
  - Began using summer 2007
  - Current storage: ~100 GB
  - Add content two ways (CDI and bulk)
  - Content backed up in multiple locations

- Local storage
  - Local Storage Area Network (SAN)
  - Content backed up by ITS (off-site)
  - Limited space, funds for growth
CDI Workflow

- the WorldCat record is automatically modified to include a link to the CDM record in the 856 field
- a copy of the file is automatically passed to and stored in DA
- the WorldCat record is automatically crosswalked from to DC and the file and the new DC record are added to CDM
  - DC metadata is manually edited to include additional info. (e.g., creating/submitting Agency)
Bulk Workflow

- Files **automatically** stored in Volumes when loaded to CDM
- On schedule, **manually** move volumes to external drive (or have the volumes housed there from the beginning) and create manifest
- Before shipping external drive to OCLC (optional)
  - Validate checksums
  - Add metadata (update manifest)
- Ship external drive to OCLC so files (including metadata files) can be added to DA
Integration of Tools

Legend

Automated

Manual
Pros and Cons

Pros
- Meets stated requirements
- Requires no additional staffing
- Integrates with other tools
- Works!

Cons
- Not a joint solution with the Archives
- Only provides bit-level preservation
- Expensive
Other Options

- Considered by SLNC
  - CEP (not hosted)
  - ENCompass (too cumbersome, no longer available)

- Under Consideration by SLNC
  - Washington State Digital Archives
    - NDIIPP grant through Oct. 2009, extension requested
    - Establish the Washington State Digital Archives (WSDA) model as one that can be replicated in other states and/or as a viable hosting service
    - No North Carolina publications submitted yet
  - iRODS
    - NHPRC grant through May 2011
    - Build a distributed production preservation environment that meets the needs of archival repositories for trusted archival preservation services
    - Currently identifying required rule set for distributed data management environment and loading Archive-It and CDM files
Funding

- LSTA grant funds for testing
- Dedicated state budget funds for subscriptions
  - Cost share joint subscriptions with Archives
Other Considerations

- State Agency participation
  - Could be accomplished via CDM (project clients or Admin Module)

- DCR-wide Solution (SLNC, State Archives, and NC ECHO)
  - Ideally need a solution that works for all of us