BOSTON

National Digital Stewardship Residency Program
2015-2016 Cohort
NDSR Program History

IMLS-funded national program

Developed by Library of Congress

Piloted in Washington DC in 2013

Expanded to include projects in Metro New York and Boston
NDSR Mission

... to develop the next generation of stewards to collect, manage, preserve, and make accessible our nation’s digital assets

... to provide residents with a combination of hands-on learning and expert guidance

... to develop the professional community through group activities involving residents, hosts and alumni
NDSR Program Structure

Residents work on a digital preservation project at a host institutions (80%)

Residents pursue professional development, personal interests, attend conferences and network with peers (20%)
Boston Residents 2015-16

JFK Presidential Library
  • Digital preservation planning

MIT Libraries
  • Preservation storage for digital content

UMass Boston
  • Digital preservation planning

Massachusetts State Library
  • Digital preservation workflows

Harvard Libraries
  • TDR Self Assessment based on ISO 16363
NDSR 2016-17

Hosts – Public Broadcasting organizations located across the country

New York; Baton Rouge; St. Paul; Hollywood; Washington DC; Madison, WI; Yellow Springs, OH
NDSR Links

NDSR Boston Website
http://projects.iq.harvard.edu/ndsr_boston

NDSR Boston Residents’ Blog
https://ndsrboston2015.wordpress.com

Library of Congress NDSR Website
http://www.digitalpreservation.gov/ndsr

NDSR AAPB Website
http://ndsr.americanarchive.org
UMass Boston University Archives and Special Collections
NDSR 2015-16 Project

Jeffrey Erickson

Digital Commonwealth 2016 Annual Conference, April 5, 2016
NDSR Project

Digital Preservation Planning and Implementation using ArchivesDirect

ArchivesDirect: a hosted digital preservation solution combining the Archivematica workflow tool and the DuraCloud storage service
A community-based digital humanities project that captures Massachusetts history as told by the residents of each community

Mission: Build communities and create a collection of images and videos for educational purposes
Three phased approach to digital preservation planning

1. Research
2. Development
3. Implementation
Work Product

- Created file inventory and digital content review
  - Identify scope, growth and preservation needs of collection

- Documented existing MMRS workflows
  - Understand existing practices

- Performed a GAP Analysis
  - Identify where digital preservation efforts and resources should be concentrated
Gap Analysis

Identify where digital preservation efforts should be concentrated
Gap Analysis - Summary

- Ingest preparation
- Archival storage implementation

1. Generate checksums
2. Screen for duplicate and unwanted files
3. Create/assign unique IDs to files
4. Store files in multiple locations
5. Include descriptive metadata in archival storage
6. Create/manage administrative, technical and preservation metadata
Adjustments to Existing Practices

- Generate checksums – protect authenticity and data integrity
- Digitize registration forms – improve intellectual control
- Teracopy file copy tool – preserves creation dates
Data cleaning, remove duplicate files and weed unwanted files

Incorporate standard terminology
- “original” → preservation masters
- “edited masters” → production masters

Adjust file naming conventions to identify file versions
- .f0 suffix indicates preservation master files
- .f1 suffix indicates production master files
Archivematica – Pros

- Verifies fixity information of submissions to ensure objects aren’t corrupted during upload
- Manages metadata in METS.XML file
  - Extracts technical metadata from objects
  - Produces administrative and preservation metadata
- Accepts descriptive metadata exported from DAM and includes it in the METS.XML file
Archivematica – Cons

- Problems processing large submission packages
  - Requires modifying composition of submission packages to manage processing limitations of large video files

- Default normalization rules create of duplicate files
  - TIF files are normalized to new TIF files
Next Steps

- Complete testing and review of Archivematica workflows
- Begin processing collection through Archivematica
- Continue data clean-up
- Document new digital preservation workflows and train staff
Thank You

Jeffrey Erickson

Contact me:

- jeffreyk.erickson@gmail.com
- www.linkedin.com/in/jeffreykerickson
INVESTIGATING DIGITAL PRESERVATION STORAGE OPTIONS AND WORKFLOWS FOR MIT LIBRARIES

ALEXANDRA CURRAN

Digital Commonwealth Annual Conference
April 5, 2016
SCOPE

• Personal Background
• Host
• Project Description
• Project Activities
• Moving Forward
• Challenges
• Professional Development
PERSONAL BACKGROUND

• Moved from Tarpon Springs, Florida

• B.S. Digital Cinema from DePaul University

• MLIS from University of South Florida
  • Graduate Certificate in Museum Studies
DIGITAL PRESERVATION
@ MIT LIBRARIES
PROJECT DESCRIPTION

• Identify and gather information on possible storage options

• Contribute to the collaborative assessment process

• Outcomes will contribute to future preservation storage planning and an upcoming preservation storage initiative
PROJECT ACTIVITIES

1. Analyze relevant digital preservation standards for preservation storage
2. Define review criteria for preservation storage options
3. Identify preservation storage options to consider
4. Gather information about possible preservation storage options
5. Coordinate with Content Curators about their content to preserve
6. Suggest additions to Preservation Storage in Managing Digital Content workflow
PAST ACTIVITIES

1. Analyze relevant digital preservation standards for preservation storage
2. Define review criteria for preservation storage options
3. Identify preservation storage options to consider
4. Gather information about possible preservation storage options
5. Coordinate with Content Curators about their content to preserve
6. Suggest additions to Preservation Storage in Managing Digital Content workflow
PRESENT ACTIVITIES

1. Analyze relevant digital preservation standards for preservation storage
2. Define review criteria for preservation storage options
3. Identify preservation storage options to consider
4. Gather information about possible preservation storage options
5. Coordinate with Content Curators about their content to preserve
6. Suggest additions to Preservation Storage in Managing Digital Content workflow
FUTURE ACTIVITIES

1. Analyze relevant digital preservation standards for preservation storage
2. Define review criteria for preservation storage options
3. Identify preservation storage options to consider
4. Gather information about possible preservation storage options
5. Coordinate with Content Curators about their content to preserve
6. Suggest additions to Preservation Storage in Managing Digital Content workflow
CHALLENGES

• Extending my understanding of digital collections beyond access concerns

• Educating myself about digital preservation standards and practice

• Organizing documentation framework
PROFESSIONAL DEVELOPMENT
SHARING UPDATES & OUTCOMES

• The Signal blog post
  • http://goo.gl/HLzp5u

• NDSR Boston blog
  • https://goo.gl/h0Uao3

• Digital Preservation website at MIT Libraries
  • http://goo.gl/pfHUya
THANK YOU!

Alexandra Curran
acurran@mit.edu
@ArchiveTea

It's the computer age. Nerds are in.
Digital Preservation at the JFK Library

Alice Prael
alicesaraprael@gmail.com
@AlicePrael
The Goals

“Develop a long-range digital preservation strategy for born-digital and digitized archival assets in our holdings.”

Research current infrastructure and identify challenges and problems

Report on Findings - by December

Explore potential management systems and solutions for digital assets

Report on multiple possible paths forward - by March

Conduct in-depth analysis of one of the solutions examined in report #2

Cost-benefit analysis and detailed action plan - by June
Currently...

The Systems
Documentum
Centera
Iron Mountain
Endeca
The Website

The Documentation
Help Guide from EMC
Internal Policies

The Bigger Picture
The Library
The Foundation
National Archives (NARA)
How to Measure Up

Which standard do you start with?

OAIS

ISO 16363

NDSA Levels of Digital Preservation
### Table 1: Version 1 of the Levels of Digital Preservation

<table>
<thead>
<tr>
<th>Level 1 (Protect your data)</th>
<th>Level 2 (Know your data)</th>
<th>Level 3 (Monitor your data)</th>
<th>Level 4 (Repair your data)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage and Geographic Location</strong></td>
<td><strong>File Integrity and Data Integrity</strong></td>
<td><strong>Information Security</strong></td>
<td><strong>Metadata</strong></td>
</tr>
<tr>
<td>- Two complete copies that are not collocated</td>
<td>- Check fixity on ingest if it has been provided with the content</td>
<td>- Identify who has read, write, move and delete authorization to individual files</td>
<td>- Inventory of content and its storage location</td>
</tr>
<tr>
<td>- For data on heterogeneous media (optical discs, hard drives, etc.) get the content off the medium and into your storage system</td>
<td>- Create fixity info if it wasn’t provided with the content</td>
<td>- Restrict who has those authorizations to individual files</td>
<td>- Ensure backup and non-colocation of inventory</td>
</tr>
<tr>
<td>- At least three complete copies</td>
<td>- Check fixity on all ingests</td>
<td>- Document access restrictions for content</td>
<td>- Store administrative metadata</td>
</tr>
<tr>
<td>- At least one copy in a different geographic location</td>
<td>- Use write-blockers when working with original media</td>
<td>- Maintain logs of who performed actions on files, including deletions and preservation actions</td>
<td>- Store transformative metadata and log events</td>
</tr>
<tr>
<td>- Document your storage system(s) and storage media and what you need to use them</td>
<td>- Virus-check high risk content</td>
<td></td>
<td>- Monitor file format obsolescence issues</td>
</tr>
<tr>
<td>- At least one copy in a different geographic location with a different disaster threat</td>
<td>- Check fixity of content at fixed intervals</td>
<td></td>
<td>- Perform format migrations, emulation and similar activities as needed</td>
</tr>
<tr>
<td>- Obsolescence monitoring process for your storage system(s) and media</td>
<td>- Maintain logs of fixity info; supply audit on demand</td>
<td></td>
<td>- Store standard technical and descriptive metadata</td>
</tr>
<tr>
<td></td>
<td>- Ability to detect corrupt data</td>
<td></td>
<td>- Store standard preservation metadata</td>
</tr>
<tr>
<td></td>
<td>- Ability to replace/repair corrupted data</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ensure no one person has write access to all copies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**The NDSA Levels**

Strengths

- **Information Security**
  - Recommendations: Audit logs of who performed what actions on files, including deletions and preservation actions

- **Metadata**
  - Recommendations: Improve preservation metadata

- **File Formats**
  - No Recommendations
Weaknesses

Storage and Geographic Location
- Recommendations:
  - monitoring for obsolescence
  - creation of digital preservation storage
  - move all digital content off physical storage media

File Fixity
- Recommendations:
  - check file fixity at regular intervals and create and maintain fixity logs
  - Currently working with limited born-digital media
Documentation

New Policies

- Digital Preservation Policy
- Selection Policy for Digitization
- Disaster Recovery Procedures for Digital Archives
- Born Digital Standard Operating Procedures

Policies Requiring Update

- Access Policy
- Inventory of File Formats in Use
- Acquisition Workflow for Born Digital Files
Possible Tools for

- Digital Preservation Storage
- File Fixity

Tape Backup
Thank You!

Alice Sara Prael
John F. Kennedy Presidential Library
alicesaraprael@gmail.com
@AlicePrael
ANALYZING DIGITAL PRESERVATION WORKFLOWS AT THE STATE LIBRARY OF MASSACHUSETTS

Stefanie Ramsay
NDSR Boston
My Background

- MLIS from the University of Washington
- Experience in digital collections for academic and corporate archives
- NDSR provides continuing education with hands-on experience in a supportive community
The State Library

- Located in the State House
- Collects and preserves state documents and historical materials
- Early stages of digital preservation
Project Context

- State agencies produce thousands of digital publications for the public
- State Library mandated to collect and preserve them
- Agencies mandated to send the Library copies...
How can we efficiently and effectively collect thousands of electronic state publications posted to individual websites without consistency or notification to State Library staff?
Project Highlights

- Web statistics to assess content types and scope
- Incorporating Archive-It into workflow
- Agency outreach
Web Statistics

- From Mass.gov
- Provide URL by agency
Web Statistics & Priority Documents

- Categorized by agency
- Reviewed over 45,000 documents to date
- Instituted ranking process
  - High priority documents: reports, meeting material
  - Low priority documents: forms, event information
- Collection policy statement
- Used priority rankings to create information page for agencies
Information For State Agencies Regarding The Submission of Documents

The mission of the State Library of Massachusetts is to provide long-term access to a comprehensive repository of state publications. In order to help us achieve this, please regularly submit your state agency’s print and electronic publications to us.

Why should my state agency submit publications to the State Library of Massachusetts?

- Publications are preserved for long-term access and use in our digital repository.
- It enables the creation of a complete and centralized historical record of Massachusetts.
- The Library provides reference services, which saves your agency staff time and resources.
- All of this is done at no charge to your agency.
- It’s the law! M.G.L. ch.63, §39R requires that each state agency send eight copies of their publications to the Library for long-term storage and distribution to regional libraries and the Library of Congress.

What kinds of publications should my agency submit?

We aim to preserve valuable, informative publications intended for public use, including reports, guides, Executive Orders, and meeting minutes. Please note that we prefer PDF files. Some examples of other documents we’d like you to send us include:

<table>
<thead>
<tr>
<th>Advisories</th>
<th>Bulletins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports</td>
<td>Executive summaries</td>
</tr>
<tr>
<td>(including Preliminary, Interim, and Annual)</td>
<td></td>
</tr>
<tr>
<td>Brochures</td>
<td>Guidelines</td>
</tr>
<tr>
<td>Inaugural addresses</td>
<td>State published serials</td>
</tr>
<tr>
<td>Handbooks, guides, and manuals</td>
<td>Meeting minutes and other meeting materials</td>
</tr>
<tr>
<td>Reference guides</td>
<td>Proclamations</td>
</tr>
<tr>
<td>Summaries of reports, meetings, and projects</td>
<td>Task Force findings and recommendations</td>
</tr>
<tr>
<td>Project reviews</td>
<td>Publications relating to significant events in MA history (e.g., the Boston Marathon Bombing, the Big Dig)</td>
</tr>
</tbody>
</table>
Publications that you do not need to send us include ephemeral items, documents for internal agency use, RFPs, or state regulations. Some examples of other documents we do not need include:

<table>
<thead>
<tr>
<th>Agendas</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting or event announcements</td>
<td>Legal documentation</td>
</tr>
<tr>
<td>Regulations</td>
<td>Forms</td>
</tr>
<tr>
<td>RFPs</td>
<td>Public notices</td>
</tr>
<tr>
<td>Posters</td>
<td>Transcripts of hearings</td>
</tr>
<tr>
<td>Sample documents</td>
<td>Publications intended for internal agency use only</td>
</tr>
</tbody>
</table>

Feel free to contact the State Library staff for a consultation if you’re unsure about whether or not to submit a publication. Our contact information is below.

**Where should we send our electronic publications?**

Please email your publications to us at: electronic_documents@state.ma.us

**Where should we send our print publications?**

Please send them to us or drop them off with us at:

State Library of Massachusetts
24 Beacon Street
State House, Room 341
Boston, MA 02133

**How many copies should we send?**

Please send eight copies of your print publications.

**Do we still need to send print copies of electronic documents?**

If your agency published both a print and digital copy of a publication, please send us both versions. If the document is only available in print, please send us the print copy. If the document is only available digitally, please send us the digital copy, with no need to also include a printed version.

**What will the Library do with these copies?**

- Print copies will be distributed to depository libraries around the state and the Library of Congress, and will be saved in our stacks for public use.
Archive-It

- Collaborated with MassIT to customize Archive-It
- Highlight the site on our webpage
- Use as another discovery platform with DSpace
Agency Outreach

- Informational materials
- Video production
- Sending content to webmasters
What’s Ahead

- Refining cataloging workflow
- Continued outreach efforts
- Developing final report
Thank you!

stefanie.ramsay@gmail.com
https://ndsrstatelibraryofma.wordpress.com
“Preparing for a Trustworthy Repository Certification of Harvard Library’s DRS”

Julie Seifert
Overview

- About Me
- About the Digital Repository Service
- The Project
- The Certification standard: ISO16363
- Project Procedure & Next Steps
- Challenges & Lessons Learned
About Me

• From Tampa, Florida

• Started working in archives as an undergraduate at the University of Florida

• Continued studying and working in archives at UNC, got more interested in digital

• Lived in Maine and worked as a Project Manager for massive online course

• Excited to be in Boston! Lots of rowing!
About Harvard DRS

- Provides long-term preservation and access to digitized and born-digital content
- In production for almost 15 years
- Used by about 50 libraries, archives, and museums across Harvard
The Project

- Prepare Harvard DRS for trustworthy repository certification
- Self-assessment based on ISO 16363 – high standard for digital preservation
- Inventory DRS documentation & organize.
- Documentation = proof
- Identify areas needing improvement and change. Determine what documentation is needed – and how to most effectively fill the gaps.
Project Impact

- Good opportunity to examine your organization & improve
- Increase confidence from stakeholders
- Contribute to community
About the Standard

• ISO 16363

• Over 100 metrics

• Covers variety of topics, such as business planning, financial risk management, technical infrastructure, rights management, ingest workflows, etc.

• Broken down into three sections: Organizational Infrastructure, Digital Object Management, & Infrastructure and Security Risk Management

• Process for getting certified is still in progress
Recommendation for Space Data System Practices

AUDIT AND CERTIFICATION OF TRUSTWORTHY DIGITAL REPOSITORIES

RECOMMENDED PRACTICE

CCSDS 652.0-M-1

MAGENTA BOOK
September 2011
3 ORGANIZATIONAL INFRASTRUCTURE

3.1 GOVERNANCE AND ORGANIZATIONAL VIABILITY

3.1.1 The repository shall have a mission statement that reflects a commitment to the preservation of, long term retention of, management of, and access to digital information.

Supporting Text

This is necessary in order to ensure commitment to preservation, retention, management and access at the repository’s highest administrative level.

Examples of Ways the Repository Can Demonstrate It Is Meeting This Requirement

Mission statement or charter of the repository or its parent organization that specifically addresses or implicitly calls for the preservation of information and/or other resources under its purview; a legal, statutory, or government regulatory mandate applicable to the repository that specifically addresses or implicitly requires the preservation, retention, management and access to information and/or other resources under its purview.

Discussion

The repository’s or its parent organization’s mission statement should explicitly address preservation. If preservation is not among the primary purposes of an organization that houses a digital repository then preservation may not be essential to the organization’s mission. In some instances a repository pursues its preservation mission as an outgrowth of the larger goals of an organization in which it is housed, such as a university or a government agency, and its narrower mission may be formalized through policies explicitly adopted and approved by the larger organization. Government agencies and other organizations may have legal mandates that require they preserve materials, in which case these mandates can be substituted for mission statements, as they define the purpose of the organization. Mission statements should be kept up to date and continue to reflect the common goals and practices for preservation.

3.1.2 The repository shall have a Preservation Strategic Plan that defines the approach the repository will take in the long-term support of its mission.

Supporting Text

This is necessary in order to help the repository make administrative decisions, shape policies, and allocate resources in order to successfully preserve its holdings.

Examples of Ways the Repository Can Demonstrate It Is Meeting This Requirement

Preservation Strategic Plan; meeting minutes; documentation of administrative decisions which have been made.
Project Procedure

• Information gathering – what have other organizations done? Example of CLOCKSS Internal audit

• Review existing documentation

• Getting organized & finding gaps – wiki and Excel documents
3) Organizational Infrastructure

3.1 Governance and Organizational Viability

3.1.1 The repository shall have a mission statement that reflects a commitment to preservation of, long-term retention of, management of, and access to digital information.

3.1.2 The repository shall have a Preservation Strategic Plan that defines the approach the repository will take in the long-term support of its mission.

3.1.2.1 The repository shall have an appropriate succession plan, contingency plans, and/or escrow arrangements in place in case the repository ceases to operate or the governing or funding institution substantially changes its scope.

3.1.2.2 The repository shall monitor its organizational environment to determine when to execute its succession plan, contingency plans, and/or escrow arrangements.

3.1.3 The repository shall have a Collection Policy or other document that specifies the type of information it will preserve, retain, manage and provide access to.

3.2 Organizational Structure and Staffing

3.2.1 The repository shall have identified and established the duties that it needs to perform and shall have appointed staff with adequate skills and experience to fulfill these duties.

3.2.1.1 The repository shall have identified and established the duties that it needs to perform.

3.2.1.2 The repository shall have the appropriate number of staff to support all functions and services.

3.2.1.3 The repository shall have in place an active professional development program that provides staff with skills and expertise development opportunities.

3.3 Procedural Accountability and Preservation Policy Framework

3.3.1 The repository shall have defined its Designated Community and associated knowledge base(s) and shall have these definitions appropriately, accessible.

3.3.2 The repository shall have Preservation Policies in place to ensure its Preservation Strategic Plan will be met.

3.3.2.1 The repository shall have mechanisms for review, update, and ongoing development of its Preservation Policies as the repository grows and as technology and community practice evolve.

3.3.3 The repository shall have a documented history of the changes to its operations, procedures, software, and hardware.

3.3.4 The repository shall commit to transparency and accountability in all actions supporting the operation and management of the repository that affect the preservation of digital content over time.

3.3.5 The repository shall define, collect, track, and appropriately provide its information integrity measurements.

3.3.6 The repository shall commit to a regular schedule of self-assessment and external certification.

3.4 Financial Sustainability

3.4.1 The repository shall have short- and long-term business planning processes in place to sustain the repository over time.

3.4.2 The repository shall have financial practices and procedures which are transparent, compliant with relevant accounting standards and practices, and audited by third parties in accordance with territorial legal requirements.

3.4.3 The repository shall have an ongoing commitment to analyze and report on financial risk, benefit, investment, and expenditure (including assets, licenses, and liabilities).

3.5 Contracts, Licenses, and Liabilities

3.5.1 The repository shall have and maintain appropriate contracts or deposit agreements for digital materials that it manages, preserves, and/or to which it provides access.

3.5.1.1 The repository shall have contracts or deposit agreements which specify and transfer all necessary preservation rights, and those rights transferred shall be documented.

3.5.1.2 The repository shall have specified all appropriate aspects of acquisition, maintenance, access, and withdrawal in written agreements with depositors and other relevant parties.

3.5.1.3 The repository shall have written policies that indicate when it accepts preservation responsibility for contents of each set of submitted data objects.

3.5.1.4 The repository shall have policies in place to address liability and challenges to ownership rights.

3.5.2 The repository shall track and manage intellectual property rights and restrictions on use of repository content as required by deposit agreement, contract, or license.
3.1.1 The repository shall have a mission statement that reflects a commitment to the preservation of, long term retention of, management of, and access to digital information.

Created by Julie Elizabeth Berlot, last modified on Jun 11, 2016

Supporting Text:
This is necessary in order to ensure commitment to preservation, retention, management and access at the repository's highest administrative level.

Examples of Ways the Repository Can Demonstrate It is Meeting This Requirement:
Mission statement or charter of the repository or its parent organization that specifically addresses or implicitly calls for the preservation of information and/or other resources under its purview, a legal, statutory, or government regulatory mandate applicable to the repository that specifically addresses or implicitly requires the preservation, retention, management and access to information and/or other resources under its purview.

Discussion:
The repository's or its parent organization's mission statement should explicitly address preservation. If preservation is not among the primary purposes of an organization that houses a digital repository then preservation may not be essential to the organization's mission. In some instances a repository pursues its preservation mission as an outgrowth of the larger goals of an organization in which it is housed, such as a university or a government agency, and its narrower mission may be formalized through policies explicitly adopted and approved by the larger organization. Government agencies and other organizations may have legal mandates that require they preserve materials, in which case these mandates can be substituted for mission statements as they define the purpose of the organization. Mission statements should be kept up to date and continue to reflect the common goals and practices for preservation.

Supporting Documents:
- Harvard Library Website - has mission statement:

  "Mission: The Harvard Library advances scholarship and teaching by committing itself to the creation, application, preservation and dissemination of knowledge."

  http://library.harvard.edu/vision-mission

- DRS policy guide:

  1. What is the purpose of the Digital Repository Service?

  The DRS provides professionally managed services to ensure the usability of stored digital objects over time. The DRS is both a preservation and an access repository. In other words, its obligations include assurances that stored digital content will remain both usable and accessible into the indefinite future despite a constantly changing technological environment. All objects managed in the DRS will receive the highest level of preservation service consistent with the object's characteristics and the current technical capabilities of the DRS and its staff.

  The DRS is part of a suite of independent but cooperating services operated by HUL that provide a comprehensive infrastructure for digital content management, discovery, and delivery. Further information about the HUL infrastructure is available on the OIS website at <http://hul.harvard.edu/oirsystems/>.

  Note that the DRS is not intended to function as a record management system or an institutional repository (i.e., it is not designed to capture all of the research output of the university).

<table>
<thead>
<tr>
<th>Standard</th>
<th>(Possible) Supporting Document</th>
<th>Person to talk to (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1 Mission Statement</td>
<td>Harvard library portal</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Preservation Strategic Plan</td>
<td>DRS Policy Guide</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Preservation Strategic Plan</td>
<td>Dig Preservation Roadmap</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Preservation Strategic Plan</td>
<td>Format Migration Plan</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Collection policy</td>
<td>DRS Policy Guide</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Collection policy</td>
<td>DRS Policy Guide</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Collection policy</td>
<td>DRS Roles and responsibilities</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Established duties, adequate staff with adequate skills</td>
<td>New document - what?</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Established duties, adequate staff with adequate skills</td>
<td>Professional development committee</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Established duties, adequate staff with adequate skills</td>
<td>Harvard library portal</td>
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<tr>
<td>3.1.2 Established duties, adequate staff with adequate skills</td>
<td>Library HR Portal</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Established duties, adequate staff with adequate skills</td>
<td>Harvard Library Portal - check this, nothing found</td>
<td></td>
</tr>
<tr>
<td>3.1.2 Established duties, adequate staff with adequate skills</td>
<td>Mission Statement - checked this, nothing found</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Defined designated community, definition available**</td>
<td>General preservation - in process</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Defined designated community, definition available**</td>
<td>DRSP Policy Guide</td>
<td></td>
</tr>
<tr>
<td>3.1.3 Defined designated community, definition available**</td>
<td>Harvard Financial endowment</td>
<td></td>
</tr>
</tbody>
</table>
| 3.4 Transparency and accountability in all actions | @ | Anne Swartzell
| 3.4 Transparency and accountability in all actions | @ | Tom Scorpa
| 3.5 Information integrity measurements | DRS check | |
| 3.6 Regular schedule of self-assessment and external certification | New document - what? | |
| 3.4.1 Short and long term business planning processes | @ | Anne, Sharon
| 3.4.1 Short and long term business planning processes | Library budgets | |
| 3.4.2 Financial practices and procedures are transparent | Harvard library portal | |
| 3.5.2 ongoing commitment to analyze and report financial risk, benefit, investment, expenditure | @ | Anne
| 3.5.1 Appropriate contracts or deposit agreement | DRS Policy Guide | |
| 3.5.1 Appropriate contracts or deposit agreement | @ | Wendy
<p>| 3.5.3 Track and manage intellectual property rights and restrictions | New document - what? | |
| 3.4.1 Identify Content information that repository will preserve | Content Guide | |
| 3.4.1 Identify Content information that repository will preserve | Content Model Guide | |
| 3.4.2 Record of Content information that repository will preserve | Batch builder guide | |
| 3.4.3 Adequate specifications enabling recognition and parsing of SIPS | Content Model Guide | |
| 3.4.4 Have mechanism to appropriately verify identity of Producer | Batch builder guide | |
| 3.4.4 Have mechanism to appropriately verify identity of Producer | Metadata related to this, i.e. depositor name | |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Standard</th>
<th>Documentation/Comments</th>
<th>Link</th>
<th>Wiki Page</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3.2</td>
<td>Preservation strategic Plan**</td>
<td>DRS Road Map; Library IT Planning for FY17 presentation</td>
<td>G Drive: Preservation Services, Digital</td>
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<tr>
<td>3.3.3</td>
<td>Collection policy</td>
<td>DRS Policy Guide</td>
<td><a href="https://library.harvard.edu/policies/DRS_Policy_Guide">https://library.harvard.edu/policies/DRS_Policy_Guide</a></td>
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<tr>
<td>3.3.4</td>
<td>Established duties, adequate staff with adequate skills</td>
<td>May need more documentation regarding skills training, DRS Roles and Responsibilities?</td>
<td><a href="http://library.harvard.edu/policies/DRS/roles-and-responsibilities">http://library.harvard.edu/policies/DRS/roles-and-responsibilities</a></td>
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</tr>
<tr>
<td>3.3.5</td>
<td>Defined designated community, definition available</td>
<td>DRS Policy Guide - &quot;Who May Deposit into DRS?&quot;</td>
<td><a href="https://library.harvard.edu/policies/DRS/who-may-deposit">https://library.harvard.edu/policies/DRS/who-may-deposit</a></td>
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<tr>
<td>3.3.6</td>
<td>Preservation policies in place to ensure preservation strategic plan will be met</td>
<td>DRS Policy Guide</td>
<td><a href="https://library.harvard.edu/policies/DRS/who-may-deposit">https://library.harvard.edu/policies/DRS/who-may-deposit</a></td>
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</tr>
<tr>
<td>3.3.7</td>
<td>Documented history of changes to operations, procedures, software, hardware</td>
<td>Yes, these changes are documented throughout all the DRS documentation; however, documentation is all over the place.</td>
<td><a href="https://library.harvard.edu/policies/DRS/who-may-deposit">https://library.harvard.edu/policies/DRS/who-may-deposit</a></td>
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<td>Green</td>
</tr>
<tr>
<td>3.3.8</td>
<td>Transparency and accountability in all actions</td>
<td>Some policies are available online, but sometimes hard to find. Some are not available at all.</td>
<td><a href="https://library.harvard.edu/policies/DRS/who-may-deposit">https://library.harvard.edu/policies/DRS/who-may-deposit</a></td>
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<tr>
<td>3.3.9</td>
<td>Information integrity measurements</td>
<td>A review interview with Tim - logs are kept. Can there something on system admin via DAS Check?</td>
<td><a href="https://library.harvard.edu/policies/DRS/who-may-deposit">https://library.harvard.edu/policies/DRS/who-may-deposit</a></td>
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</tbody>
</table>
Procedure, Continued

- Determining things that are being done but not documented vs. things that are not done at all
- Filling in metric by metric
- Interviewing staff members
5.2.3 Shall have delineated roles, responsibilities, and authorization related to implementing changes within systems.
Procedure: Next Steps

- How do we improve?
- How to characterize the gap areas? Any commonalities
- How do we best fill the gaps? Can one piece of documentation fill many gaps?
- Creating data visualizations
## Double-dipping documentation in the CLOCKSS Audit

<table>
<thead>
<tr>
<th>Document</th>
<th>Metrics used with</th>
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</thead>
<tbody>
<tr>
<td>Mission Statement</td>
<td>3.1.1</td>
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<tr>
<td>Preservation Strategy</td>
<td>3.1.2, 3.1.3, 3.4.1</td>
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<td>Collection Development Policy</td>
<td>3.1.3</td>
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<tr>
<td>Governance and Organization</td>
<td>3.2.1, 3.2.5, 5.2.3</td>
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<td>Mandatory Responsibilities</td>
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<tr>
<td>Designated Community</td>
<td>4.2.1, 4.2.7, 4.3.2</td>
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<td>Polling and Repair Protocol</td>
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<tr>
<td>Logging and Records</td>
<td>4.3.5, 4.3.6, 4.1.5, 4.1.7, 4.1.8, 4.2.1, 4.2.10, 4.3.4, 4.4.2, 5.1.2</td>
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<tr>
<td>Budget and Planning Process</td>
<td>3.3.6, 3.4.1, 3.4.3</td>
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<td>Software Development Process</td>
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<tr>
<td>Hardware and Software Inventory</td>
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<td><strong>Definition of AIP</strong></td>
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</table>
Challenges & Lessons Learned

• Understanding the metrics

• Where to start?

• Where is the documentation?

• Matching the documentation to the metrics vs. matching metrics to documentation
Challenges & Lessons Learned

• Determining what’s done but not documented vs. what’s not done at all

• Knowing who to ask

• How to best display the information
Review

- About NDSR
- About Me
- About the Digital Repository Service
- The Project
- The Certification standard: ISO16363
- Project Procedure & Next Steps
- Challenges & Lessons Learned
Conclusion

- Value of identifying areas needing change
- Taking the time to think in detail about all aspects of repository
- Identify missing policies and practices
- Importance of sharing this experience – many people are facing the same challenges
Thank You!
Questions?