NDSR
BOSTON

**National Digital Stewardship Residency Program**
Mid-Year Event   January 26, 2016

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 Spread

3) AAPB NDSR (WGBH)
(Nationwide virtually)

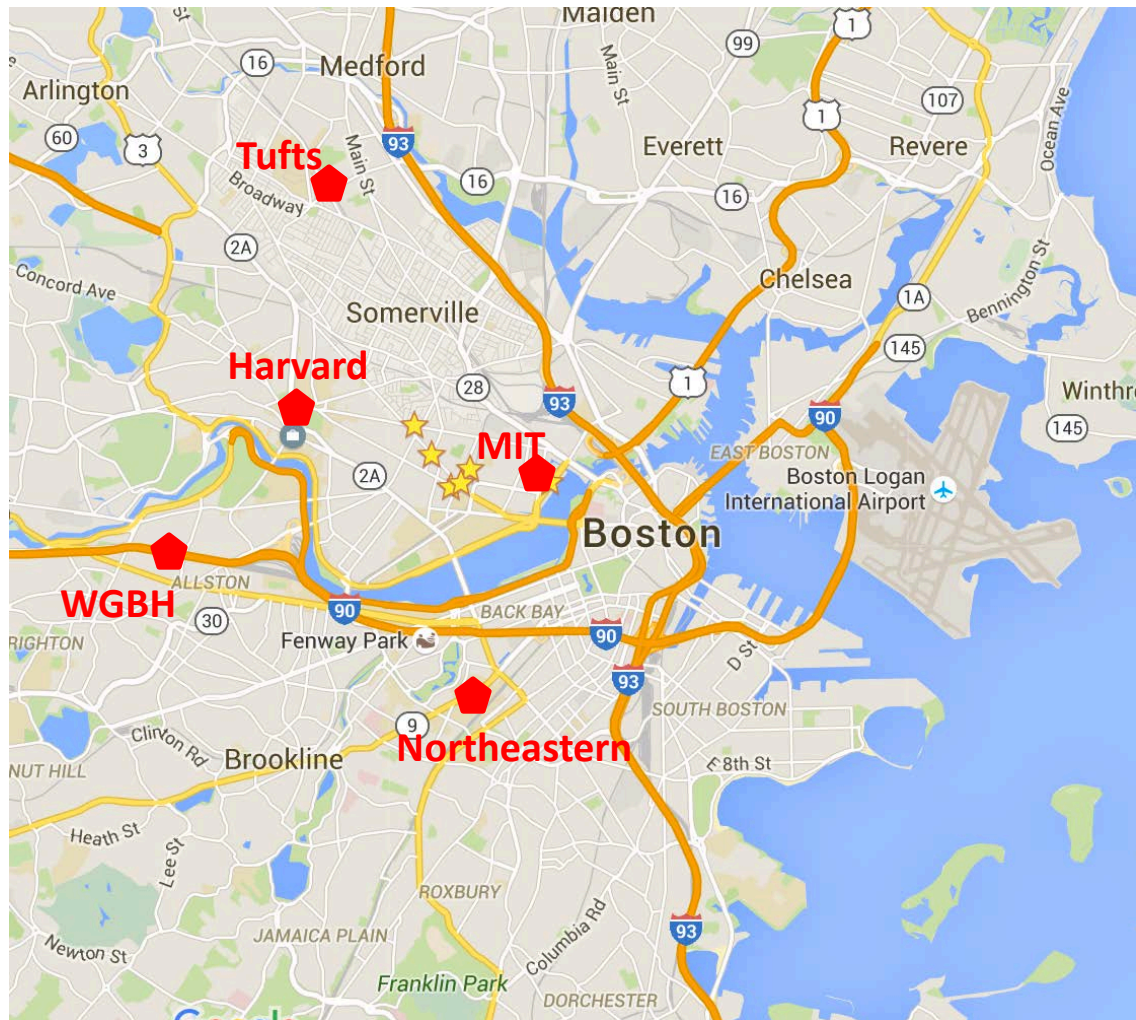2) NDSR Boston (Harvard)

2) NDSR NY (METRO NY)

1) NDSR DC (LC)
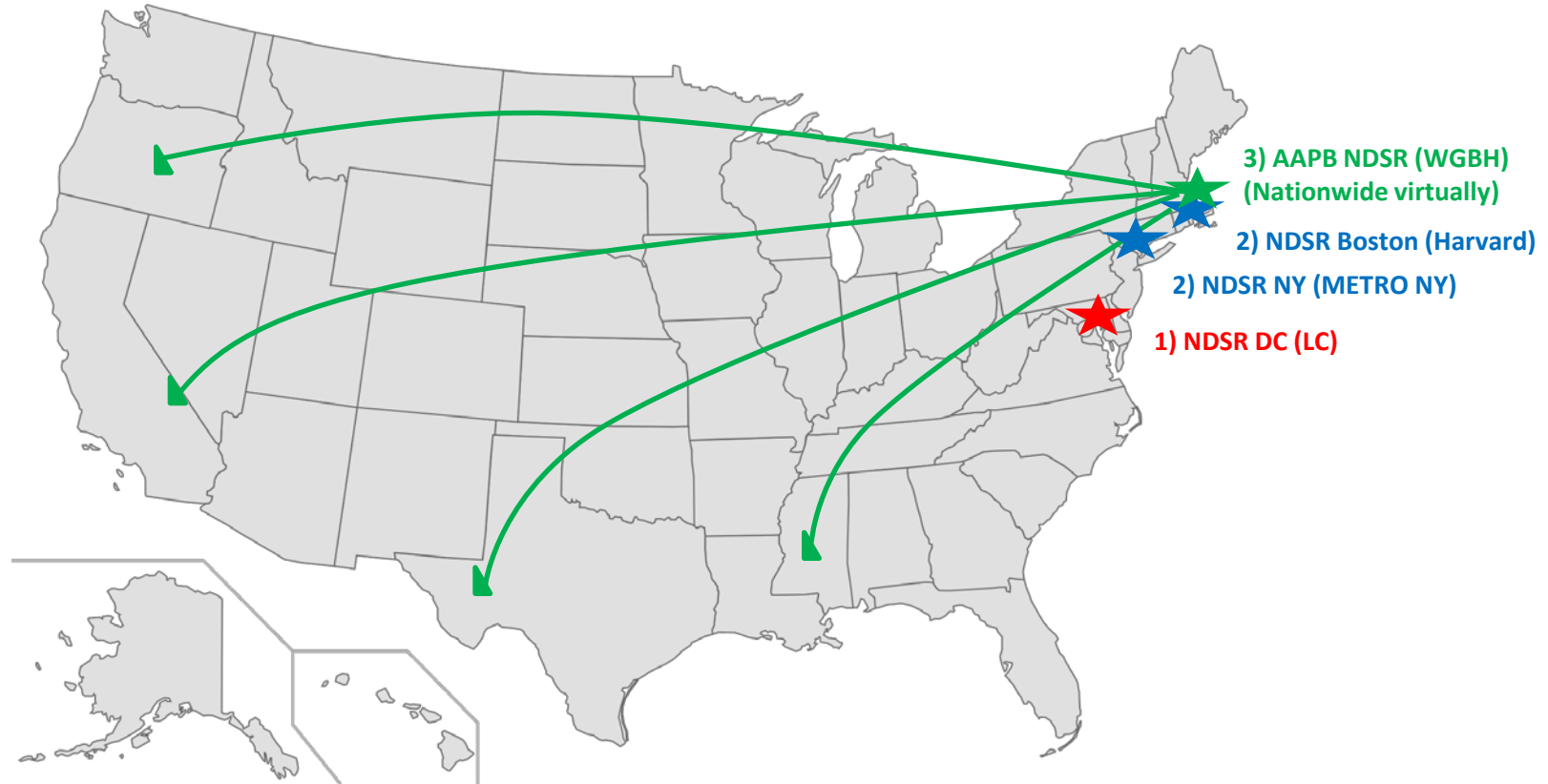
Common to NDSR Programs

- Cohort model (residents and hosts)
- Resident eligibility
- Mentorship
- Residency structure (80% time on projects, 20% time for professional development)
- Real-world strategic projects designed by hosts
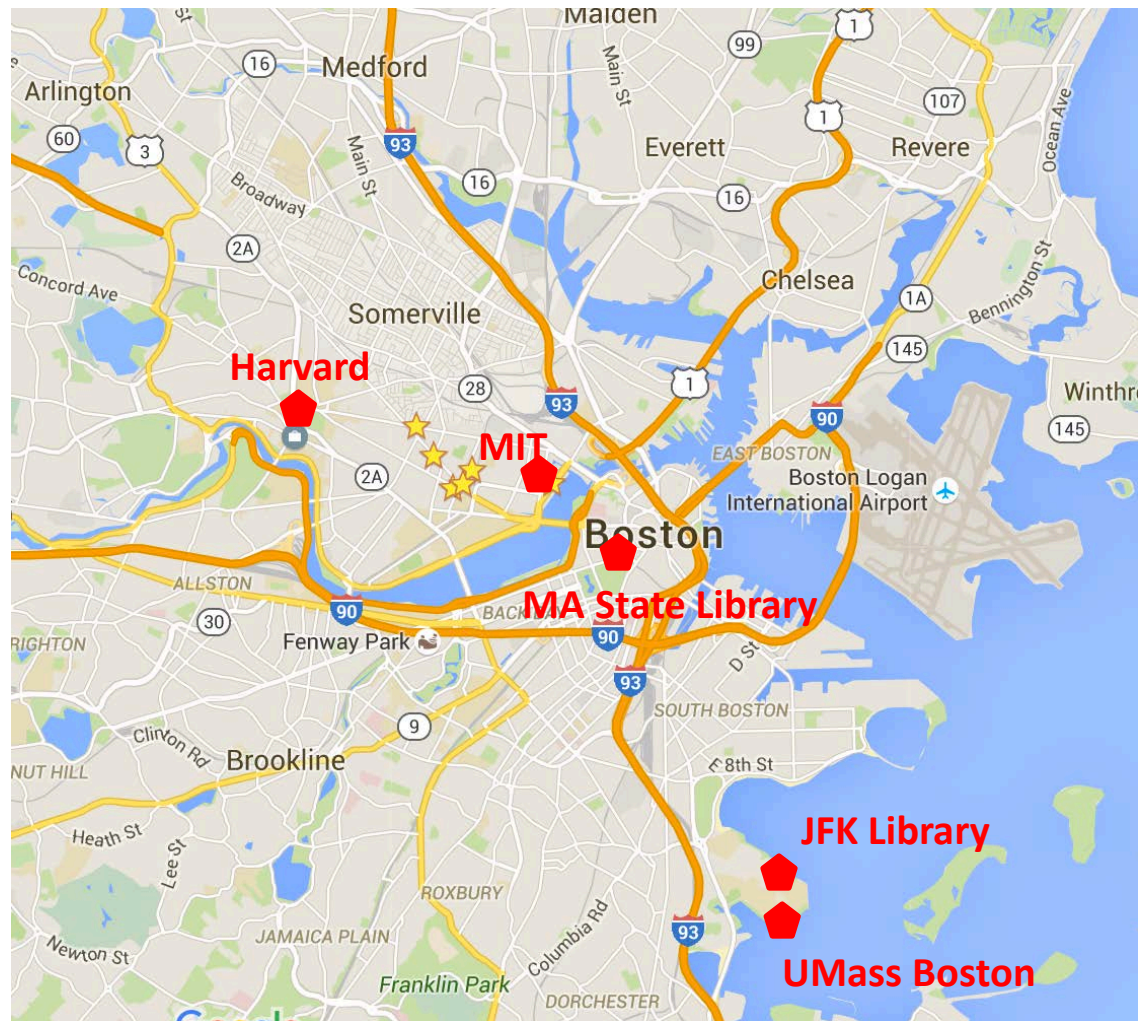- Core curriculum
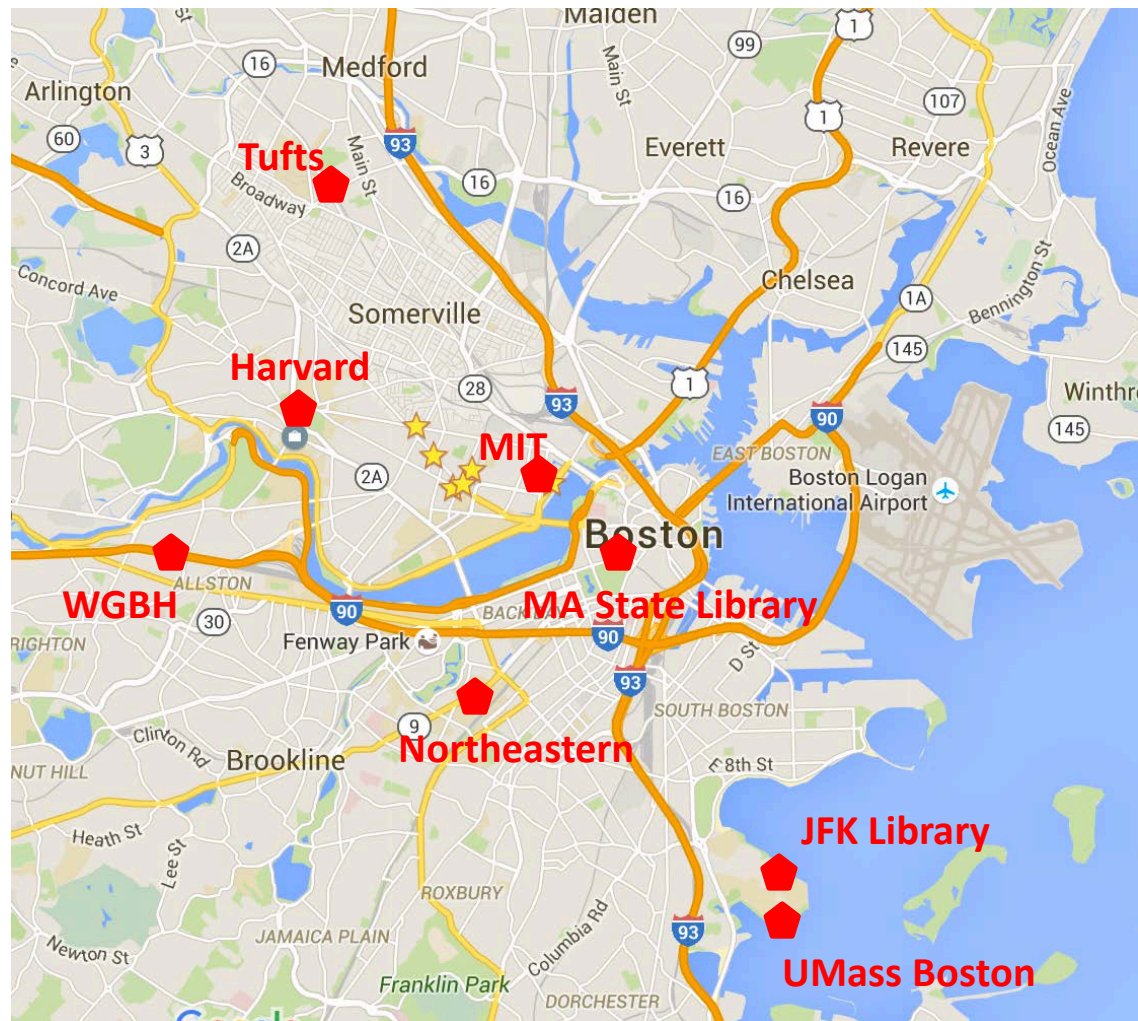
NDSR Boston Hosts

2014-2015

NDSR Boston Hosts

2015-2016

Boston Residents 2014-15

Samantha DeWitt (Tufts resident)

- Harvard Library: Access Services Assistant, Cabot and Fine Arts Libraries
- Participating in a CLIR evaluation of NDSR programs

Rebecca Fraimow (WGBH resident)

- WGBH: Digital Archivist, PBCore Project Lead, Program Coordinator for AAPB NDSR

Joey Heinen (Harvard resident)

- Northeastern University Library: Digital Production Coordinator

Jen LeBarbera (Northeastern resident)

- Lambda Archives of San Diego: Head Archivist

Tricia Patterson (MIT resident)

- Harvard Library: Digital Preservation Analyst

Boston Residents 2015-16

Alice Prael (JFK Library resident)

- Digital preservation planning

Alexandra Curran (MIT Libraries resident)

- Preservation storage for digital content

Jeffrey Erikson (UMass Boston resident)

- Digital preservation planning

Stefanie Ramsay (MA State Library resident)

- Digital preservation workflows

Julie Seifert (Harvard Library resident)

- Self-assessment based on ISO 16363

Digital Preservation

at the John F. Kennedy Presidential Library

—

An NDSR Project Update by Alice Sara Prael

INSTITUTE of Museum and Library SERVICES

JOHN F. KENNEDY
PRESIDENTIAL LIBRARY AND MUSEUM

NDSR Boston

A Little About Me

Recent MLS graduate from University of Maryland, College Park - specialization in Curation and Management of Digital Assets

Graduate Assistant at Digital Programs and Initiatives at UMD Libraries

Intern at National Archives and Records Administration (NARA), Freedom of Information Act (FOIA) and Special Access Department

JFK Library and Access to Legacy

"Access to a Legacy" is a public-private partnership between the John F. Kennedy Presidential Library and Museum and the John F. Kennedy Library Foundation.

Digitize, index, and permanently retain millions of presidential documents, photographs, and audiovisual recordings

Provide online access to materials and facilitate discovery through metadata

Protect historical assets through remote replication

Minimize the deterioration of unique and irreplaceable records and artifacts

Project Summary

"To develop a long-range digital preservation strategy for born-digital and digitized archival assets in our holdings."

Break it down...

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
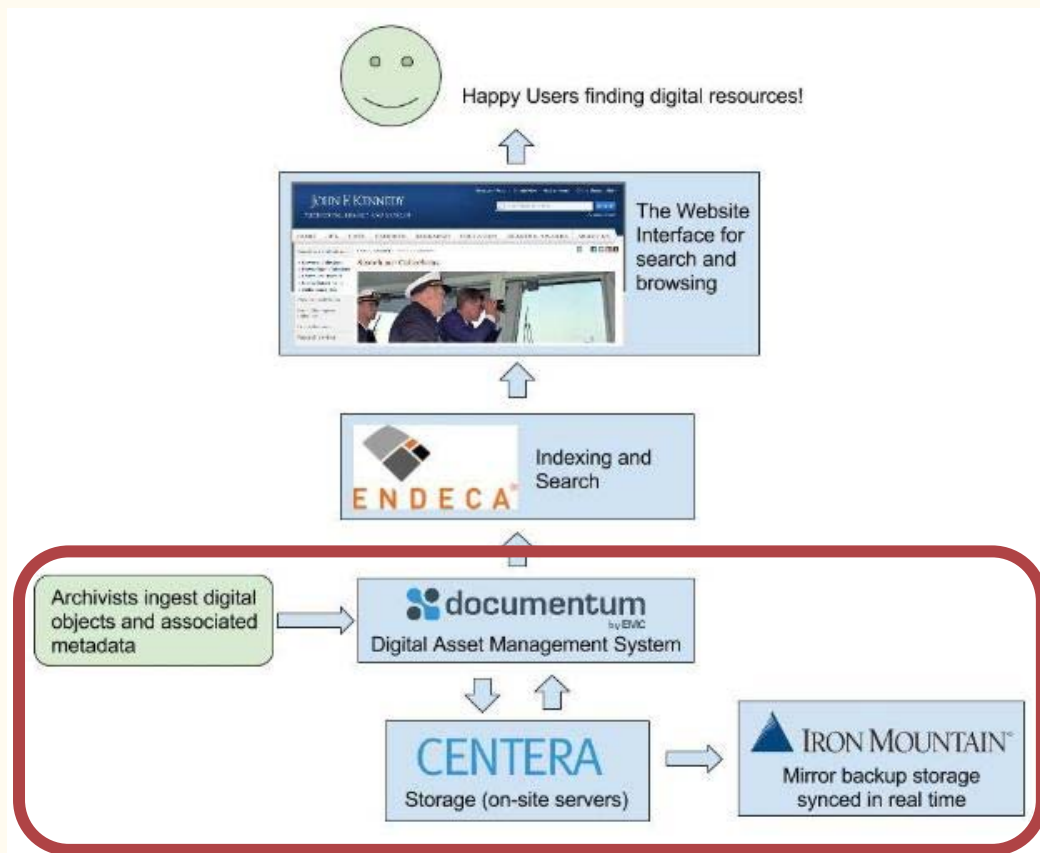
Getting a Lay of the Land

The Systems
- Documentum
- Centera
- Iron Mountain
- Endeca
- The Website

The Documentation
- Help Guide from EMC
- Internal Policies

The Bigger Picture
- The Library
- The Foundation
- NARA

Happy Users finding digital resources!

The Website Interface for search and browsing

ENDECA — Indexing and Search

Archivists ingest digital objects and associated metadata

documentum by EMC — Digital Asset Management System

CENTERA — Storage (on-site servers)

IRON MOUNTAIN — Mirror backup storage synced in real time

How to Measure Up

Which standards and guidelines do you start with?

ISO 14721: OAIS

ISO 16363: Audit and certification of trustworthy digital repositories

NDSA Levels of Digital Preservation

NDSA Levels of Preservation

- Visual representation of progress

- Easy to understand, even for those unfamiliar with digital preservation

- Sets clear benchmarks

The report also included the recommendations of OAIS and ISO 16363 to determine more specific steps forward.

Table 1: Version 1 of the Levels of Digital Preservation

	Level 1 (Protect your data)	Level 2 (Know your data)	Level 3 (Monitor your data)	Level 4 (Repair your data)
Storage and Geographic Location	- Two complete copies that are not collocated - For data on heterogeneous media (optical discs, hard drives, etc.) get the content off the medium and into your storage system	- At least three complete copies - At least one copy in a different geographic location - Document your storage system(s) and storage media and what you need to use them	- At least one copy in a geographic location with a different disaster threat - Obsolescence monitoring process for your storage system(s) and media	- At least three copies in geographic locations with different disaster threats - Have a comprehensive plan in place that will keep files and metadata on currently accessible media or systems
File Fixity and Data Integrity	- Check file fixity on ingest if it has been provided with the content - Create fixity info if it wasn't provided with the content	- Check fixity on all ingests - Use write-blockers when working with original media - Virus-check high risk content	- Check fixity of content at fixed intervals - Maintain logs of fixity info; supply audit on demand - Ability to detect corrupt data - Virus-check all content	- Check fixity of all content in response to specific events or activities - Ability to replace/repair corrupted data - Ensure no one person has write access to all copies
Information Security	- Identify who has read, write, move and delete authorization to individual files - Restrict who has those authorizations to individual files	- Document access restrictions for content	- Maintain logs of who performed what actions on files, including deletions and preservation actions	- Perform audit of logs
Metadata	- Inventory of content and its storage location - Ensure backup and non-collocation of inventory	- Store administrative metadata - Store transformative metadata and log events	- Store standard technical and descriptive metadata	- Store standard preservation metadata
File Formats	- When you can give input into the creation of digital files encourage use of a limited set of known open formats and codecs	- Inventory of file formats in use	- Monitor file format obsolescence issues	- Perform format migrations, emulation and similar activities as needed

NDSA Levels of Preservation

Full Report of Findings

https://goo.gl/HbmhJv

Green = all criteria completed or planned
Yellow = some criteria completed
Red = no criteria completed

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Storage and Geographic Location

1. Third complete copy in a geographic location with a different disaster threat

2. Obsolescence monitoring for storage systems and media

3. Transfer digital content from physical media to the Digital Asset Management System (Documentum)

Storage and Geographic Location	- Two complete copies that are not collocated - For data on heterogeneous media (optical discs, hard drives, etc.) get the content off the medium and into your storage system	- At least three complete copies - At least one copy in a different geographic location - Document your storage system(s) and storage media and what you need to use them	- At least one copy in a geographic location with a different disaster threat - Obsolescence monitoring process for your storage system(s) and media	- At least three copies in geographic locations with different disaster threats - Have a comprehensive plan in place that will keep files and metadata on currently accessible media or systems

File Fixity and Data Integrity

1. Check Fixity of Content at Fixed Intervals

2. Maintain logs of fixity information, supply audit on demand

3. Ensure that no one person has write access to all copies

File Fixity and Data Integrity	- Check file fixity on ingest if it has been provided with the content - Create fixity info if it wasn't provided with the content	- Check fixity on all ingests - Use write-blockers when working with original media - Virus-check high risk content	- Check fixity of content at fixed intervals - Maintain logs of fixity info; supply audit on demand - Ability to detect corrupt data - Virus-check all content	- Check fixity of all content in response to specific events or activities - Ability to replace/repair corrupted data - Ensure no one person has write access to all copies

Information Security

1. Restrict who has authorizations to individual files

2. Maintain and perform audit on logs of who performed what actions on files, including deletions and preservation actions.

3. Introducing preservation storage will require new policies for managing information security

Information Security	- Identify who has read, write, move and delete authorization to individual files - Restrict who has those authorizations to individual files	- Document access restrictions for content	- Maintain logs of who performed what actions on files, including deletions and preservation actions	- Perform audit of logs

Metadata

1. Store standard preservation metadata

   - ISO 16363 and PREMIS for determining which fields
      constitute 'standard preservation metadata'

2. Creating a third copy for Preservation Storage will
require new location metadata

Metadata	- Inventory of content and its storage location - Ensure backup and non-collocation of inventory	- Store administrative metadata - Store transformative metadata and log events	- Store standard technical and descriptive metadata	- Store standard preservation metadata

File Formats

All Green!

The digital preservation policy provides guidance for how migration or emulation should be carried out if necessary.

File Formats	- When you can give input into the creation of digital files encourage use of a limited set of known open formats and codecs	- Inventory of file formats in use	- Monitor file format obsolescence issues	- Perform format migrations, emulation and similar activities as needed

PREMIS

avps
Fixity

MetaArchive cooperative

Digital Commonwealth
Massachusetts Collections Online

ORACLE Cloud

Fixity

ExLibris Rosetta

Tape Backup

Tape Backup

Next Steps

Research Specific Systems and Strategies for Digital Preservation Storage and File Fixity

Planning for Preservation Metadata

Continue organizing and creating documentation

Digital Preservation Tasks

Disaster Recovery Procedures

How would we respond to a disaster in the digital archives?

Exit Strategy

What would we theoretically do if funding or support for Centera and Documentum went away?

Born Digital Procedures

Edward M. Kennedy Papers include floppy disks and magnetic tape reel that will require new tools and procedures

Digital Preservation UnConference

February 23rd, 2016

Attendees propose and lead sessions

Sessions are decided on by attendees the morning of the conference

All are welcome!
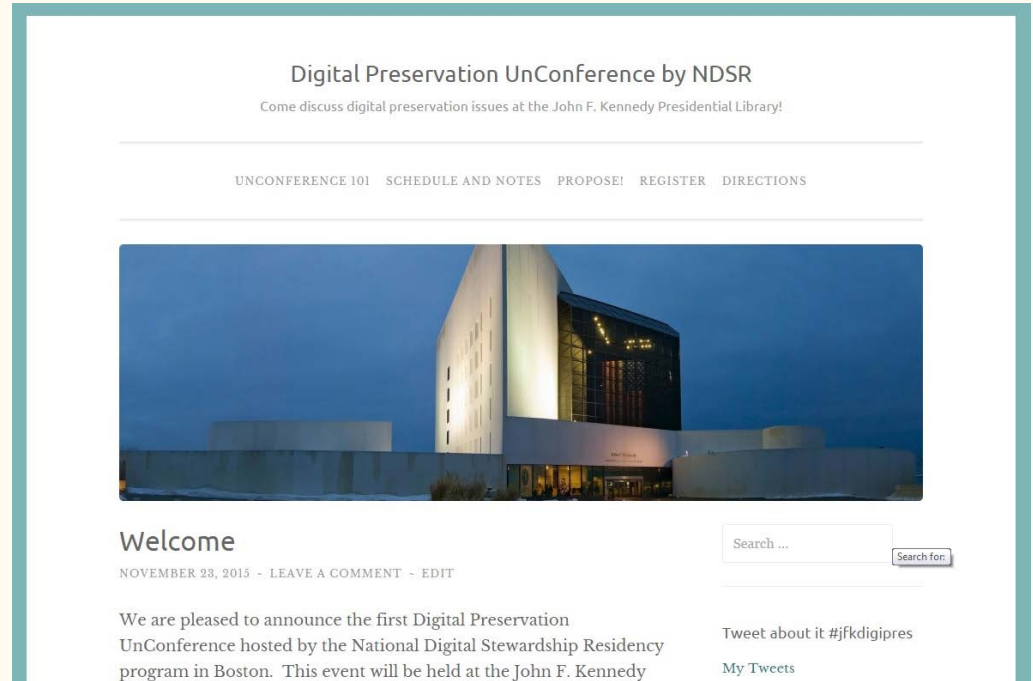
jfkdigipres.wordpress.com
@jfkdigipres

INVESTIGATING DIGITAL PRESERVATION STORAGE OPTIONS AND WORKFLOWS FOR MIT LIBRARIES

ALEXANDRA CURRAN

SCOPE

- Personal Background

- Host

- Project Description & Objectives

- Project Framework

- Moving Forward

- Challenges

- Professional Development

- Sharing Updates & Outcomes

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
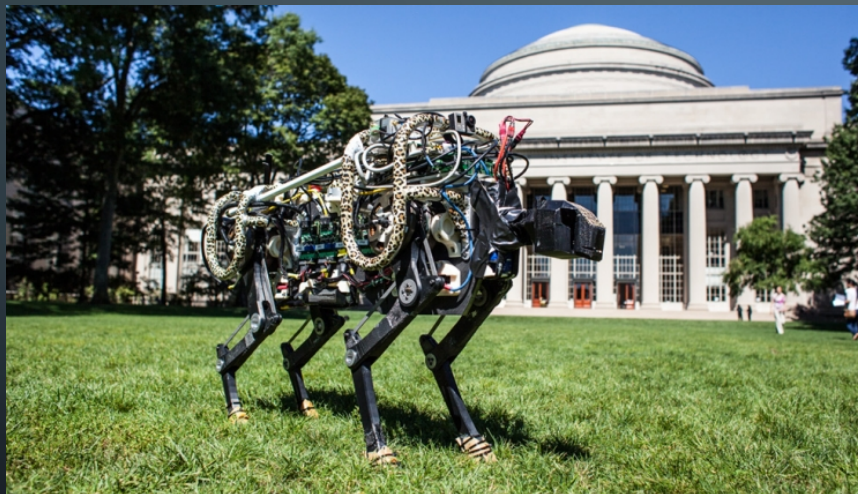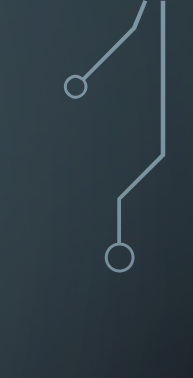
PROJECT DESCRIPTION

- Identify and evaluate possible options for improving preservation storage

- Contribute to the collaborative assessment process

- Options will hopefully contribute to future policies for preservation storage.
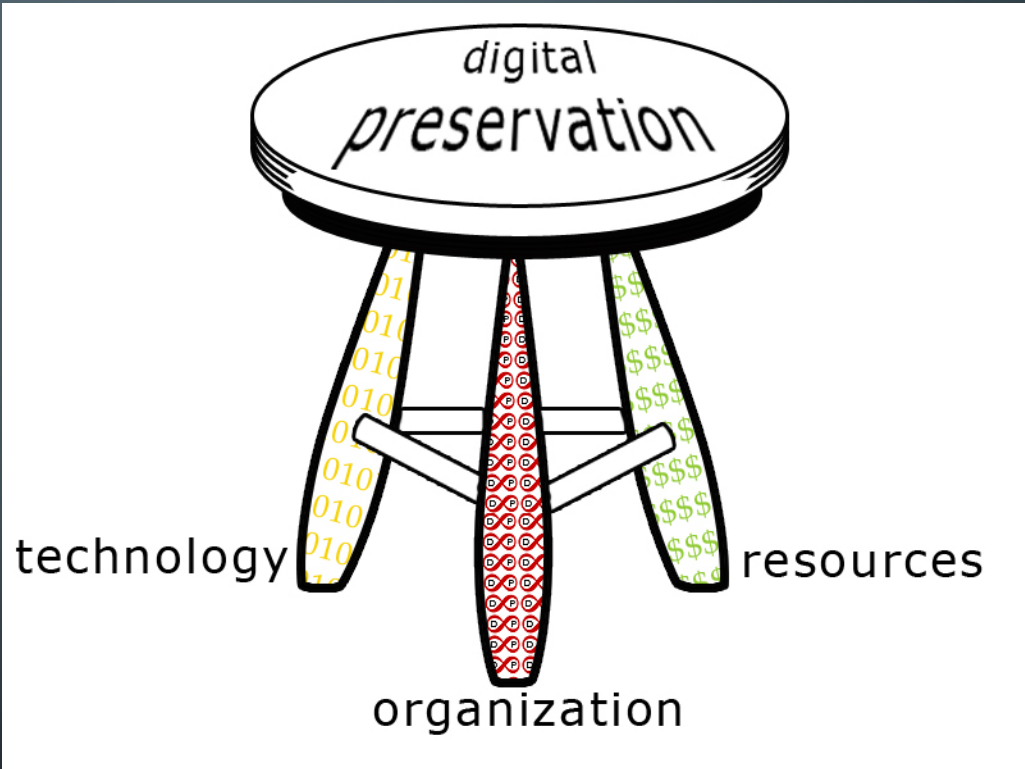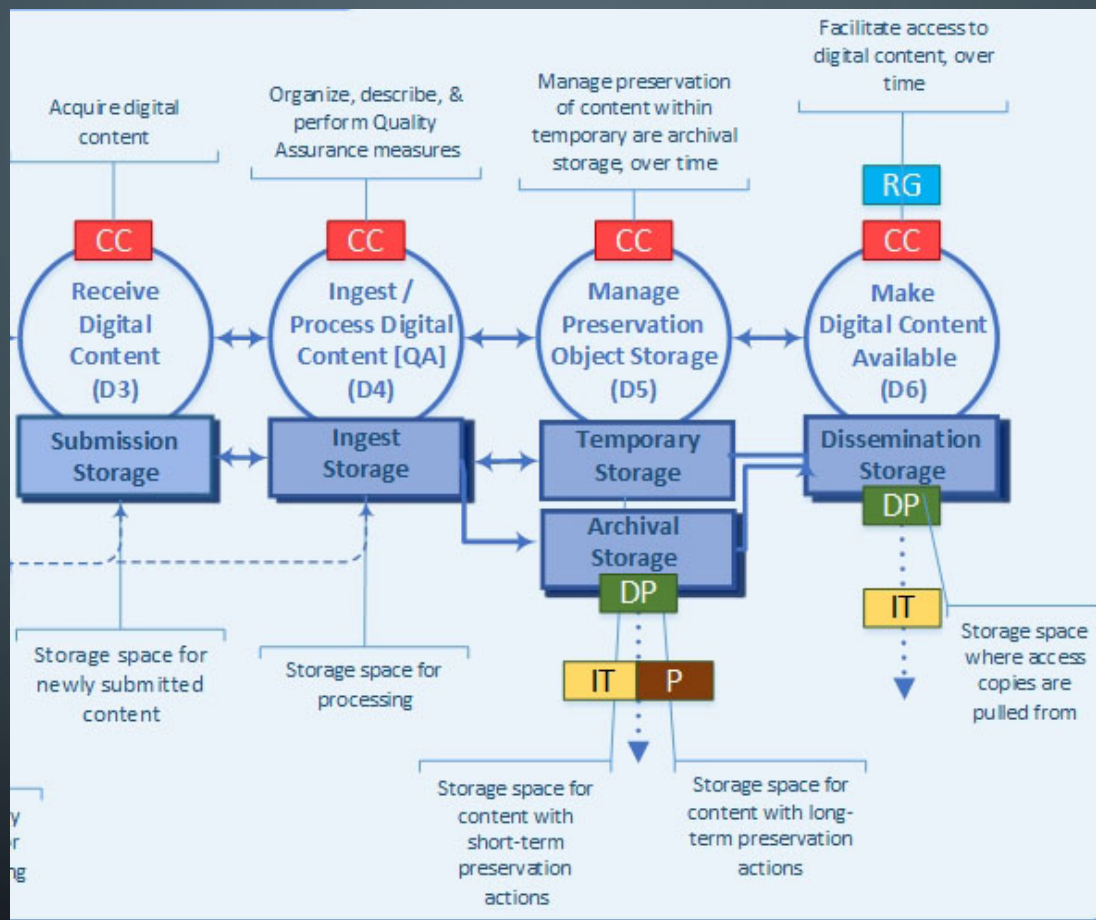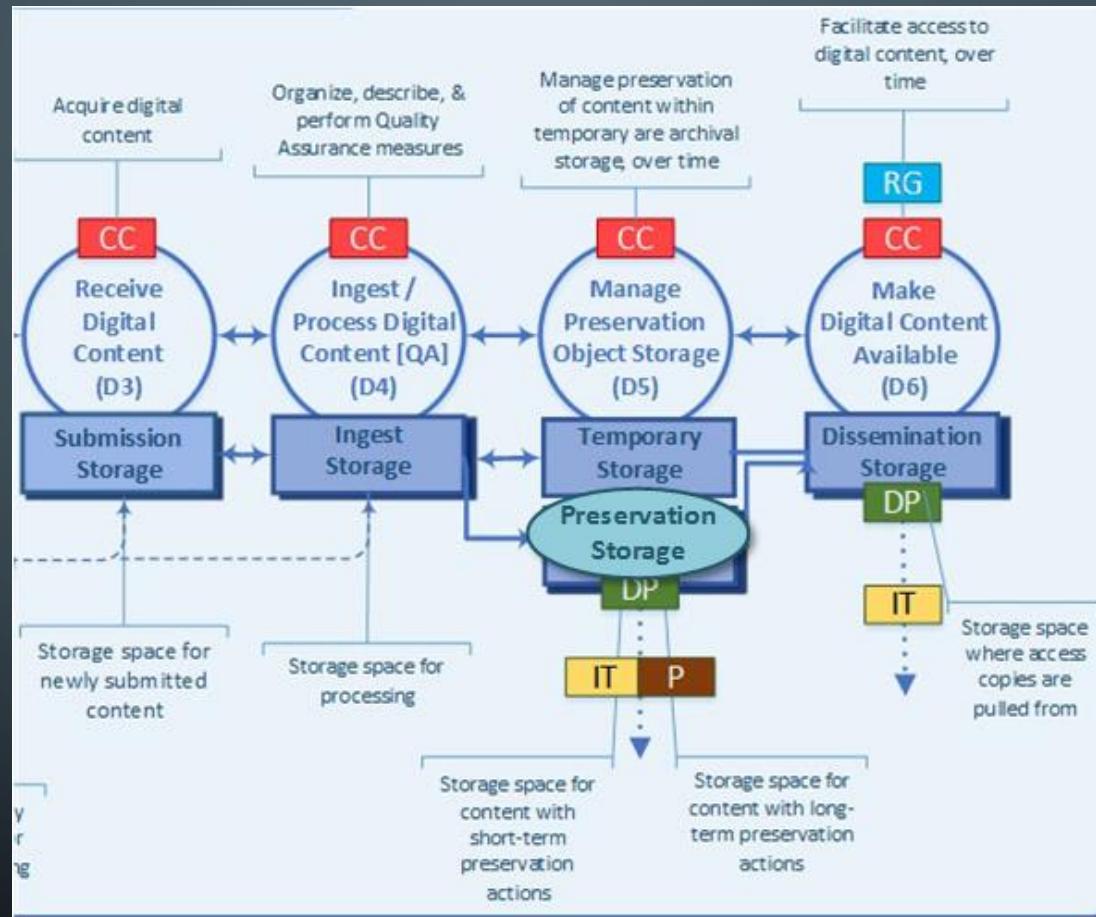
OBJECTIVES

- Knowledge of digital preservation standards and practices

- Understand digital preservation in the context of MIT Libraries

- Current storage needs for the Libraries' digital collections.

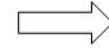# THREE-LEGGED STOOL

@ DIGITAL PRESERVATION MANAGEMENT WORKSHOP

TDR – Trusted Digital Repository

OAIS - Reference Model for an Open Archival Information System

TRAC – Trustworthy Repositories Audit & Certification: Criteria and Checklist

ISO 16363 – Audit & Certification of Trustworthy Digital Repositories

Preservation Storage Standards Research Flow

{ TDR → Research organizational issues for building and managing a trusted digital repository

OAIS → Research technological essential categories for implementing and designing a digital archive.

TRAC → Map and document notes and queries

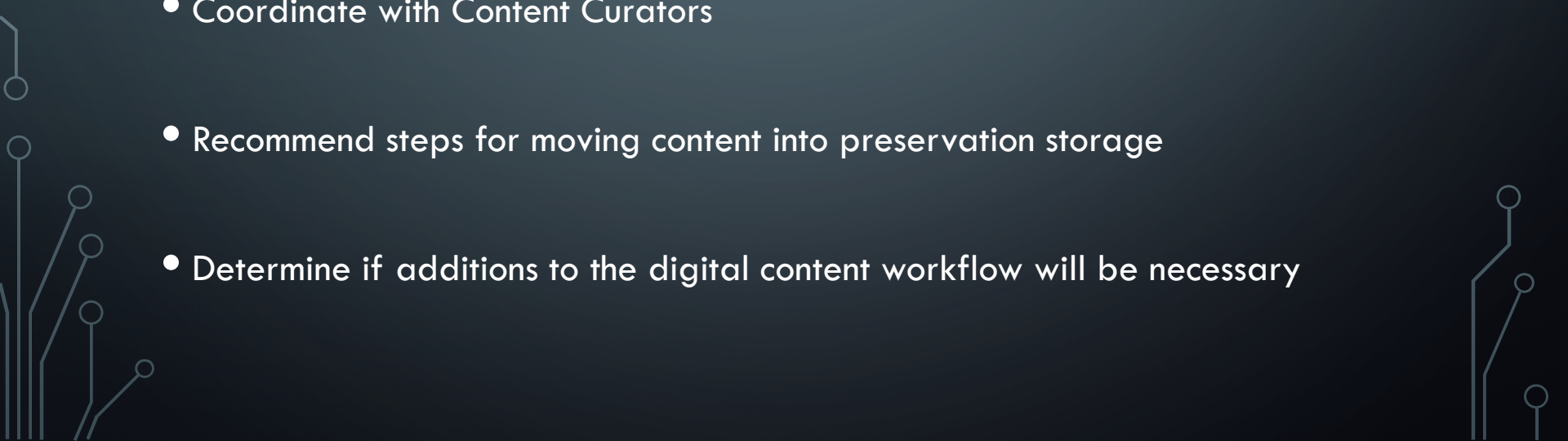ISO 16363 → Map and document notes and queries

SOME ASSESSMENT CRITERIA

- Whether the service is open source or proprietary

- How storage nodes are managed

- What type of preservation security services are used and how they work

- What disaster recovery policies and procedures they have implemented

- How their exit strategy, if they have one, works.

- Possible cost models for storage services and partners

MOVING FORWARD

- Contribute to the collaborative assessment process

- Coordinate with Content Curators

- Recommend steps for moving content into preservation storage

- Determine if additions to the digital content workflow will be necessary
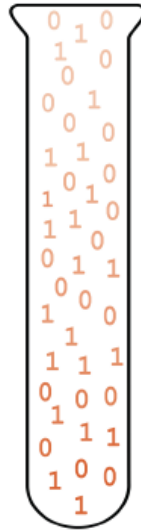
CHALLENGES

- Extending my understanding of digital

- Educating myself about digital preservation standards and practice

- Applicability and availability of tools

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

UMass Boston
University Archives and Special Collections
NDSR Project

Jeffrey Erickson

NDSR Boston Mid-Year Event
January 26, 2016

About Me

Graduate Simmons College School of Library and Information Science

Former IT professional in banking and healthcare

Apply technical skills and knowledge to digital stewardship issues to ensure cultural heritage remains available to future generations

UMass Boston

University Archives and Special Collections (UASC), Healey Library

UASC collects materials related to the University's history and mission, which includes dedication to community service

UASC uses hosted technical systems and services when possible

NDSR Project

Digital Preservation Planning and Implementation using ArchivesDirect

ArchivesDirect: a complete hosted digital preservation solution combining the Archivematica workflow tool and the DuraCloud storage service

Mass. Memories Road Show (MMRS)

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

Currently 6,000+ images & 2,000+ videos in collection

Mass. Memories Road Show at UMass Boston
Your Place in Massachusetts History

Project Phases

Digital Preservation Planning and Implementation using ArchivesDirect

1. Research ✓

2. Development

3. Implementation

Research Phase

Digital Preservation Planning and Implementation using ArchivesDirect

1. Research ✓

2. Development

3. Implementation

UMass Boston's digital stewardship landscape

Existing digitization practices and workflows

Digital preservation good practices, tools & services

Development Phase

Digital Preservation Planning and Implementation using ArchivesDirect

1. Research ✓

2. Development

3. Implementation

Further develop workflows to prepare for future digitization projects

Develop new policies and procedures for long-term digital preservation

Review and test new policies and procedures

Implementation Phase

Digital Preservation Planning and Implementation using ArchivesDirect

1. Research ✓

2. Development

3. Implementation

New digital preservation policies and procedures will be applied to MMRS digital objects

Collection will be uploaded to DuraCloud service

Prepare a final report documenting the project, the procedures and my recommendations

Outcomes To Date

Research:

    Digital preservation concepts, good practices, tools and services

    Mass. Memories Road Show workflows and assets, UASC's DAM

Tasks:

    Created file inventory and digital content review

    Documented MMRS workflows

    Performed a GAP Analysis based on OAIS Reference Model

GAP Analysis

Digital Preservation Planning and Implementation using ArchivesDirect

Ingest preparation

Archival storage implementation

1. Perform virus scans
2. Generate checksums
3. Associate unique IDs with individual files
4. Improve storage practices
5. Screen for duplicate files
6. Extract, collect and manage administrative, technical and preservation metadata

Next Steps

1. Fixity issues- checksums, virus scans

2. System integration – Archivematica, CONTENTdm and DuraCloud

3. Local storage options – server storage, external HDs

4. Metadata – technical and preservation

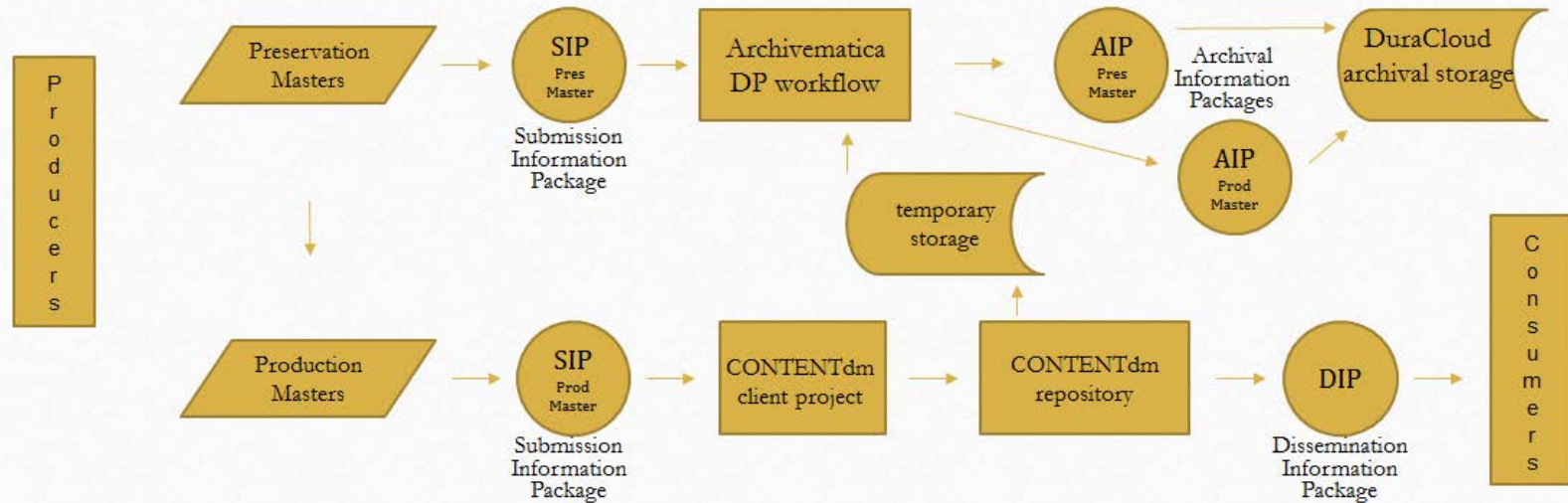5. Exit strategy – uncertain availability of hosted systems/services

Challenges – System Integration

Current workflow without Archivematica and DuraCloud
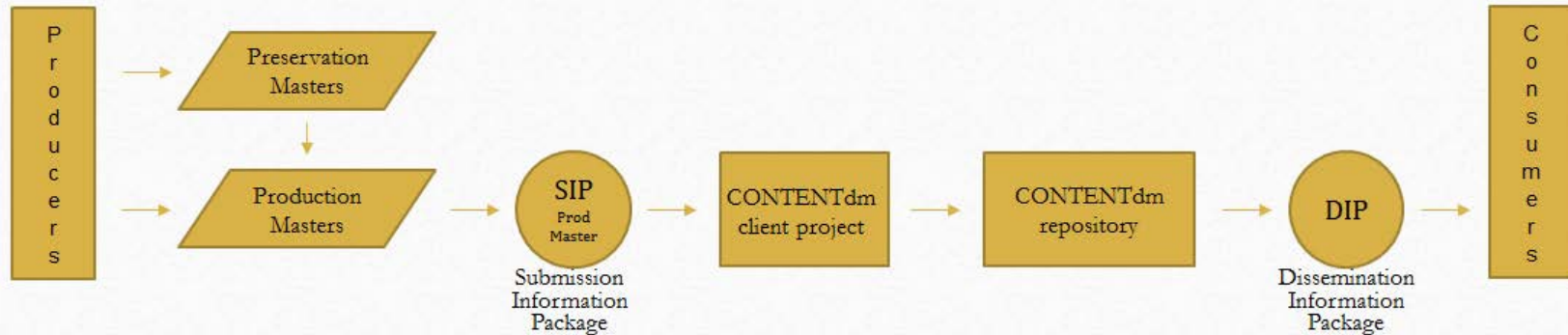
Challenges – System Integration

New workflow with Archivematica and DuraCloud

Lessons Learned

There is not one right approach to digital preservation

Digital preservation is complex

It is easy to become side-tracked by small details

It is necessary to get started as soon as possible

Professional Development

Group activities – tours, host events, educational meetings

Speaking, presenting and blogging

Conferences

Thank You

Jeffrey Erickson

jeffreyk.erickson@gmail.com

Links and contact information is available on the handout

# ANALYZING DIGITAL PRESERVATION WORKFLOWS AT THE STATE LIBRARY OF MASSACHUSETTS

Stefanie Ramsay

About Me

- Recent graduate from the University of Washington

- Experience in digital collections with academic and corporate archives

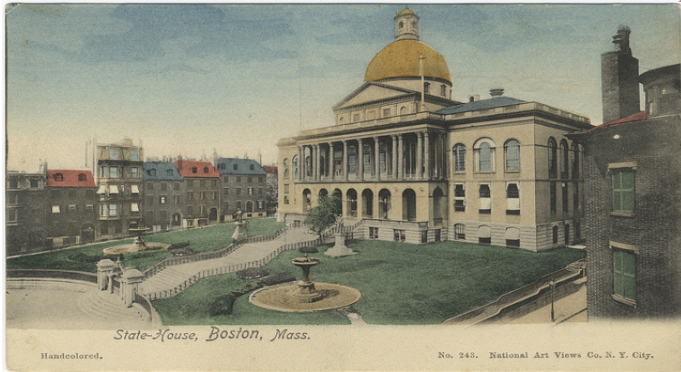- NDSR provides continuing education with hands-on experience in a supportive community

NDSR BOSTON

INSTITUTE of Museum and Library SERVICES

The State Library

State Library of Massachusetts
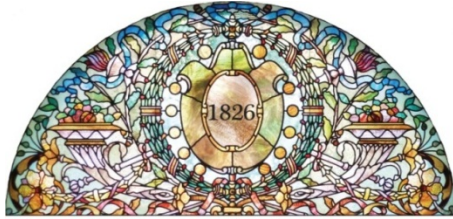
State-House, Boston, Mass.

☐ Alix Quan, Assistant Director

☐ Collects and preserves state documents and historical materials

☐ Early stages of digital preservation

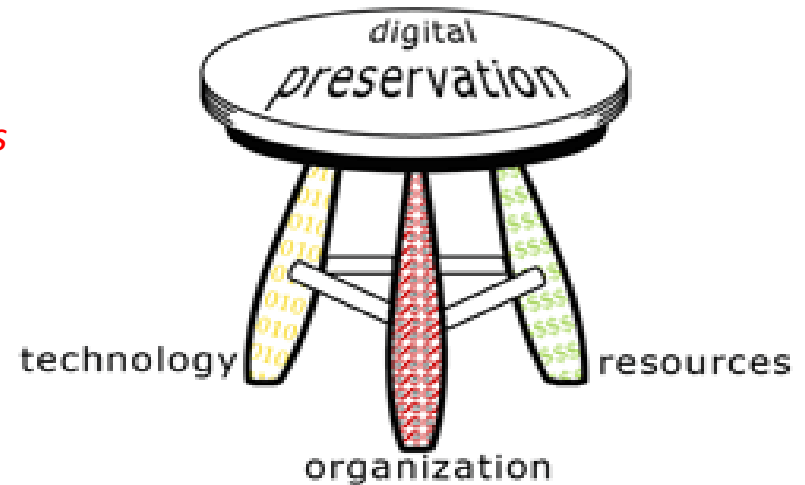# Frameworks

1. Acknowledge
2. Act *initiating digital preservation projects*
3. Consolidate
4. Institutionalize
5. Externalize

Project Context

- State agencies produce thousands of 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?

Objectives

1. To assess the scope of existing state publications
2. To refine the types of publications to which we provide access
3. To survey practices at other state libraries and similar institutions
4. To capture, describe, and preserve documents collected in assessment
5. To establish best practices and procedures
6. To share knowledge

1. To assess the scope of existing state publications

- Used web statistics from Mass.gov
- Show where publications live on agency websites
- After itemization process, see types of documents

2. To refine the types of publications to which we provide access

- Established priority ranking system
  - High priority documents: reports, meeting material
  - Low priority documents: forms, event information
- Used priority rankings to create information page for agencies
- Developing collection policy statement

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.6 §39B 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:

Advisories	Bulletins
Reports (including Preliminary, Interim, and Annual)	Executive summaries
Brochures	Guidelines
Inaugural addresses	State published serials
Handbooks, guides, and manuals	Meeting minutes and other meeting materials
Reference guides	Proclamations
Summaries of reports, meetings, and projects	Task Force findings and recommendations
Project reviews	Publications relating to significant events in MA history (e.g., the Boston Marathon Bombing, the Big Dig)

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:

Agendas	Applications
Meeting or event announcements	Legal documentation
Regulations	Forms
RFPs	Public notices
Posters	Transcripts of hearings
Sample documents	Publications intended for internal agency use only

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.

Agency Outreach

THIS CARD AUTHORIZED.

D 70085 PAUL REVERE'S RIDE, STATE HOUSE, BOSTON, MASS. COPR. ROBERT REID COPR. DETROIT PUBLISHING CO.

☐ Raise awareness of information page

☐ Meet with webmasters

☐ Developing outreach tools to send to agencies

3. To survey practices at other state libraries and similar institutions

- Best Practices Exchange 2015
- Survey sent to state libraries
- Meetings with State Archives, UMass Amherst, MassIT

The Common and State House, Boston, Mass.

Challenges

- ☐ Conditional variations of content

- ☐ Agency cooperation

- ☐ Evergreen and DSpace workflows

- ☐ Library and Archives operate under separate agencies

Common in Winter, Boston, Mass.

Objectives Review

✓ To assess the scope of existing state publications

✓ To refine the types of publications to which we provide access

✓ To survey practices at other state libraries and similar institutions

4. To capture, describe, and preserve documents collected in assessment

5. To establish best practices and procedures

6. To share knowledge

Final Deliverables

- Report with findings and recommendations
- Draft policy statements
- Updated documentation
- A more comprehensive collection of digital state publications for public access

20%

- Conference attendance and presentations
- Webinars and Codecademy
- Special Collections Exhibits Committee
- Blogs

BREWERS FOUNTAIN, BOSTON COMMON SHOWING STATE HOUSE.

Thank you!
stefanie.ramsay@gmail.com

Overview

- About Me & My Host
- The Project – Goals and Impact
- Procedure & Deliverables
- Next Steps
- Challenges & Lessons Learned
- 20% Time
- Conclusion

About Me

- From Tampa, FL

- Started out working in archives as an undergraduate at University of Florida

- Went to grad school at UNC Chapel Hill – More archives, more digital

- Lived in Maine before this, worked as a project manager for massive online class

- Excited to be in Boston! Lots of rowing!

About My Host

- Harvard's Digital Repository Services (DRS)

- Provides long-term preservation and access to digitized and born-digital content

- Used by about 50 libraries, archives, and museums across Harvard

- In production for almost 15 years

Overview

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Project – Goals

- Prepare Harvard DRS for trustworthy repository certification & eventual audit

- Self-assessment based on ISO 16363 – high standard for digital preservation

- Over 100 metrics, on everything from storage to financial planning

- Inventory DRS documentation & organize. Documentation = proof.

- Identify areas needing improvement and change.

Project – Impact

- Opportunity to improve

- Increase confidence among stakeholders: users, curators, repository staff.

Overview

- About Me & My Host
- The Project
- Procedure & Deliverables
- Challenges & Lessons Learned
- Next Steps
- 20% Time
- Conclusion

Procedure

- Information gathering, example of CLOCKSS self-assessment process

- Attended iPRES workshop on auditing

- Review existing documentation

- Initial walk-through of metrics

Procedure

- Getting organized

- Interviewing staff

- Gap analysis & data visualization

Deliverables

- Wiki

- Excel sheets matching metrics with possible documentation

- ISO16363 translation

- CLOCKSS Documentation comparison

- Documentation inventory

Wiki

Harvard Wiki   Spaces ▾   **Create**

DRS Audit

Pages
Blog

SPACE SHORTCUTS

Here you can add shortcut links to the most important content for your team or project. Configure sidebar.

PAGE TREE

- 3) Organizational Infrastructure
  - 3.1) Governance and Organizational
  - 3.2 Organizational Structure and Sta
  - 3.3) Procedural Accountability and F
  - 3.4) Financial Sustainability
  - 3.5) Contracts, Licenses, and Liabilit
  - 4) Digital Object Management
  - 5) Infrastructure and Security Risk Mar
  - Document Locations Key

Pages / DRS Audit Home

✎ Edit   👁 Watch   ⚙ Tools ▾

3) Organizational Infrastructure

Created by Julie Elizabeth Seifert, last modified on Oct 27, 2015

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.

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No labels ✎

⚙ Space tools ▾   «

Write a comment...

Wiki

Excel Sheet – Version 1.0

Red = Document needed. White = Already documented

	A	B	C	D	E	F	G
1	Key: white = We have it. Red = We need it.						
2							
3	**Standard**	**(Possible) Supporting Document**	**Person to talk to (if any)**				
4	3.1.1 Mission Statement	Harvard library portal					
5	3.1.1 Mission Statement	DRS Policy Guide					
6	3.1.2 Preservation Strategic Plan**	Dig Preservation Roadmap					
7	3.1.2 Preservation Strategic Plan	Format Migration Plan					
8	3.1.2 Preservation Strategic Plan	New document - what?					
9	3.1.3 Collection policy	DRS Policy Guide					
10	3.2.1 Established duties, adequate staff with aqequate skills**	DRS Policy Guide					
11	3.2.1 Established duties, adequate staff with aqequate skills	DRS Roles and responsibilities					
12	3.2.1 Established duties, adequate staff with aqequate skills	New document - what?					
13	3.2.1 Established duties, adequate staff with aqequate skills	Professional development committee					
14	3.2.1 Established duties, adequate staff with aqequate skills	Harvard library portal					
15	3.2.1 Established duties, adequate staff with aqequate skills	Library HR Portal					
16	3.3.1 Defined designated community, definition available**	Harvard Library Portal - check this, nothing found					
17	3.3.1 Defined designated community, definition available	Mission Statement - checked this, nothing found					
18	3.3.2 Preservation policies in place to ensure preservation strategic plan will be met	General preservation - in process					
19	3.3.2 Preservation policies in place to ensure preservation strategic plan will be met	DRS Policy Guide					
20	3.3.3 Documented history of changes to operations, procedures, software, hardware	old documentation					
21	3.3.4 Tranparency and accountability in all actions	Harvard Finanical endowment					
22	3.3.4 Tranparency and accountability in all actions	@	Anne Swartzell				
23	3.3.5 information integrity mesaurements	@	Tom Scorpa				
24	3.3.5 information integrity mesaurements	DRS check					
25	3.3.6 Regular schedule of self-assessment and external certifiation	New document - what?					
26	3.4.1 Short and long term business planning processes	@	Anne, Sharon				
27	3.4.1 Short and long term business planning processes	Library budgets					
28	3.4.2 Finanical practices and procedures are transparent	Harvard library portal					
29	3.4.3 Ongoing commitment to analyze and reportfinanical risk, benefit, investment, expenditure	@	Anne				
30	3.5.1 Appropriate contracts or deposit agreement	DRS Policy Guide					
31	3.5.1 Appropriate contracts or deposit agreement	@	Wendy				
32	3.5.2 Track and manage intellectual property rights and restrictions	New document - what?					
33	4.1.1 Identify Content Information that repository will preserve	Content Guide					
34	4.1.1 Identify Content Information that repository will preserve	Content Model Guide					
35	4.1.2 Record of Content informaiton that repository will preserve	Batch builder guide					
36	4.1.3. Adequate specifications enabling recognition and parsing of SIPS	Content Model Guide					
37	4.1.4 Have mechanism to appropriately verify identity of Producer	Batch builder guide					
38	4.1.4 Have mechanism to appropriately verify identity of Producer	Metadata related to this, i.e. depositor name					

Sheet1 | Sheet2 | Sheet3 | Sheet4

Excel Sheet – Sorted by Supporting Document

Red = Document needed. White = Already documented

	A	B	C
1	Key: white = We have it. Red = We need it.		
2			
3	**Standard**	**(Possible) Supporting Document**	**Person to talk to (if any)**
4	3.3.4 Tranparency and accountability in all actions	@	Anne Swartzell
5	3.3.5 information mesaurements	@	Tom Scorpa
6	3.4.1 Short and long term business planning processes	@	Anne, Sharon
7	3.4.3 Ongoing commitment to analyze and reportfinanical risk, benefit, investment, expenditure	@	Anne
8	3.5.1 Appropriate contracts or deposit agreement	@	Wendy
9	4.1.5 Have an ingest process which verifies each SIP for completeness and correctness	@	Chris
10	4.2.8 shall verify each AIP for completeness and correctness	@	Chris - as about what is validated during ingest
11	4.6.1.1 Repository shall log and review all access management failures and anomolies	@	Sharon and Tom - ask about monitoring for security threats
12	5.2.2 Repository shall have implemented controls to adequately address each of the defined security risks	@	Sharon - ask about processes for risk assessment
13	5.2.4 Suitable written disaster preparedness and recovery plan(s)	@	Sharon
14	4.6.1 The repository shall comply with access policies	Access flags on every file - documentation for that?	
15	4.1.2 Record of Content informaiton that repository will preserve	Batch builder guide	
16	4.1.4 Have mechanism to appropriately verify identity of Producer	Batch builder guide	
17	4.1.5 Have an ingest process which verifies each SIP for completeness and correctness	Batch builder guide	
18	4.5.3 Matain bi-directional linkabe between each AIP and its descriptive information	Batch builder guide	
19	4.5.1 Specify minimum informaiton requriements to enable Designated Cmmunity to discovere and identi	Can associate with catalog record	
20	4.5.3 Matain bi-directional linkabe between each AIP and its descriptive information	Cataloging best pracitces	
21	4.1.1 Identify Content Information that repository will preserve	Content Guide	
22	4.5.1 Specify minimum informaiton requriements to enable Designated Cmmunity to discovere and identi	content guide - discovery metadata	
23	4.1.1 Identify Content Information that repository will preserve	Content Model Guide	
24	4.1.3. Adequate specifications enabling recognition and parsing of SIPS	Content Model Guide	
25	4.1.8 Shall have contemporaneous records of actions and administration processes relevant to content acq	Content Model Guide	
26	4.2.1 Associated defintion that is adequate for parsing AIP	Content Model Guide	
27	4.3.2 Shall have mechanisms in place for monitoring its preservation environment	Content Model Guide	
28	4.4.1 Specifications for how the AIPs are stored down to the bit level	Content Model Guide	
29	4.4.2 Shall have contemporaneous records of actions and administration processes that are relevant to stor	Content Model Guide	
30	5.1.1 Identify and manage risks to ts preservation operations and gaols associated with system infrastructu	Content Model Guide	
31	4.6.2.1 Record and act upon problem reports from users	Could maybe use emails, examples of addressing issues from users	
32	4.1.6 Shall obtain sufficient control over the Digital Objects to prserve them	Database for metadata and content	
33	3.1.2 Preservation Strategic Plan**	Dig Preservation Roadmap	
34	4.6.2 repository shall folow policies and procdues to enable dissemination of digital objects that are tracea	Documentation about relationships, what is derived from what	
35	4.2.7 ensure that the Content Information of AIPs is understandable to Designtated Community	Documents about delivery systems on preservation website that sas which formats for which delivery systems	
36	3.3.5 information integrity mesaurements	DRS check	
37	4.2.9 Shall provide independent mechanism for verifying the integrit of the repository collection/content	DRS check	
38	5.1.1.3 Effective mechanisms to detect bit corruntion and loss	DRS check	

Excel Sheet – Version 2.0

Green – Done & documented. Yellow – Done but not documented.
Red – Not done, not documented

Excel Sheet – Sorted by Status

Green – Done & documented. Yellow – Done but not documented. Red – Not done, not documented

Audit2.xlsx

	A	B	C	D	E	F
1	**Gaps**					
2		Key: Green: Is done and documented. Yellow: Done but not documented/Needs Improvement. Red: Not done, not documented. Blue: Documented but not done (?), White: TBD				
3	**Section**	**Standard**	**Documentation/Comments**	**Link**	**Wiki Page**	**Color**
4		3 3.3.4 Tranparency and accountability in all actions	Some policies are available online, but sometimes hard to find. Some are not available at all.		https://wiki.harvard.edu/confluence/pages/viewpage.action?pageId=1947734	Yellow
5		3 3.3.5 information integrity mesaurements	See interview with Tom - logs are kept. Is there something on system admin I-site. DRS Check? Need to investigate more.		https://wiki.harvard.edu/confluence/pages/viewpage.action?pageId=1947734 52	Yellow
6		4 4.1.5 Have an ingest process which verifies each SIP for completeness and correctness		See interview with Chris		Yellow
7		3 3.3.6 Regular schedule of self-assessment and external certifiation			confluence/pages/viewpage.action?pageId=1947734 57	Red
8		4 4.3.3 Shall have mechanisms to change its preservation plans as result of monitoring activities				Red
9		4 4.3.4 Shall provide evidence of the effectivenes of its preservation activities				Red
10		3 3.1.1 Mission Statement	Harvard Library Portal, DRS Policy Guide	http://library.harvard.edu/vision-mission; http://hul.harvard.edu/ois/systems/drs/policyGuide/wwhelp/wwhimpl/js/html/wwhelp.htm	https://wiki.harvard.edu/confluence/pages/viewpage.action?pageId=1947 73352	Green
11		3 3.1.2 Preservation Strategic Plan**	DRS Road Map, Library IT Planning for FY17 presentation	G Drive: Preservation Services; Digital Preservation; DRS; Roadmaps		Green
12		3 3.1.3 Collection policy	DRS Policy Guide	http://hul.harvard.edu/ois/systems/drs/policyGuide/wwhelp/wwhimpl/js/html/wwhelp.htm	https://wiki.harvard.edu/confluence/pages/viewpage.action?pageId=1947733 88	Green

Sheet1 / **Sheet2** / Sheet3 / Sheet4

ISO in Translation

IS016363 for non-rocket scientists

Section 3 Organizational Infrastructure

Section 3 is concerned with the setup of the repository. Before you start ingesting content, you have to make sure you have all the pieces in place to actually do the work. This section asks: What is your purpose? Who do you serve? How are you going to achieve these goals? Do you have the legal right to preserve content? Do you have the financial ability to do so? What's your business plan, and how are you going to uphold your plan over time? Do you make your plans clear to your stakeholders?

- 3.1.1 Mission Statement—what do you do?
- 3.1.2 Strategic plan - How are you going to achieve your mission?
- 3.1.3 Collection Policy - What do you collect?
- 3.2.1 Established duties, adequate staff with adequate skills – Who does what? Are they able to do it?
- 3.3.1 Definition of designated community – who do you serve?
- 3.3.2 Preservation policies in place to ensure Strategic Plan will be met – How are you going to make sure the Plan actually happens?
- 3.3.3 Document history of changes to operations, procedures, hardware, software – If you change something, write it down so that people know what you did and can see your decision making process.
- 3.3.4 Transparency and accountability in all actions related to operation and management of repository that affect the preservation of digital content over time - Make information about your operations available at least to your Designated community and stakeholders.
- 3.3.5 Define, collect, track, and provide information integrity measurements -
- 3.3.6 Commit to a regular schedule of self-assessment—Continue to evaluate the repository over time
- 3.4.1 Need to have short term and long term business planning processes in place – Make sure you have a plan to operate your repository
- 3.4.2 Financial practices that are transparent, compliant with relevant standards and practices, and audited by third parties - Make sure you have the money to actually sustain your repository

Have a way to anticipate risks that might prevent you from having the money to operate your repository

- 3.5.1 Have & maintain appropriate contract and deposit agreements - Make sure you have the right to collect and/or provide access to this material
- 3.5.2 Track and manage intellectual property rights and restrictions – Know the rights and restrictions on your digital objects

Possible documents – Mission statement, preservation plan, org chart, roles and responsibilities, financial statements, budgets, depositor agreements, policy guide.

Section 4 Digital Object Management

Section 4 is concerned with the ingest and preservation of the content. It asks: What properties of the content do you preserve? How do you ensure that the content is complete and that it is what you think it is? How do you communicate about the process with the producer & others? Then, how do you transform the SIP to AIP, and what happens to the SIP afterwards? How do you make the AIP discoverable and accessible to your designated community? How do you ensure the security and integrity of the AIP over time, and how do you mitigate risks?

- 4.1.1 Identify & record what content information & information properties the repository will preserve - What are you going to preserve? What are you NOT going to preserve?
- 4.1.2 Specify the information that needs to be associated with specific Content Information at the time of deposit – Tell the producer what information you need from them about their content
- 4.1.3 Have adequate specifications enabling the recognition and parsing of SIPs – Make sure you have a process for confirming that the content you take in is what it says it is. I.e. that a TIFF is really a TIFF and not just something with .TIFF at the end.
- 4.1.4 Have mechanism the verify the identity of producer of all materials – make sure that the person/org. that you say produced the content really produced it.

Example

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

- Translation: Know your audience, and make this information available.

- Hoping to send this out to NDSR community & get feedback on it, and then share with larger community

One Document, Many Metrics

Double-dipping documentation in the CLOCKSS Audit

Document	Metrics used with
Mission statement	• 3.1.1
Preservation Strategy	• 3.1.2 • 3.3.2 • 3.4.1 • 4.3.1 • 4.3.3
Collection Development Policy	• 3.1.3
Governance and Organization	• 3.2.1 • 3.3.6 • 5.2.3
Mandatory Responsibilities	• 3.2.1
Designated Community	• 3.3.1 • 4.2.7 • 4.3.2 • 4.5.1
Polling and Repair Protocol	• 3.3.5 • 4.2.9 • 4.3.1 • 5.1.2
Logging and Records	• 3.3.5 • 3.3.6 • 4.1.5 • 4.1.7 • 4.1.8 • 4.2.1 • 4.2.10 • 4.3.4 • 4.4.2 • 5.1.2
Budget and Planning Process	• 3.3.6 • 3.4.1 • 3.4.3
Software Development Process	• 3.3.3 • 3.3.6 • 4.2.2 • 4.3.2 • 4.3.3
Hardware and Software Inventory	• 3.3.3
Board Minutes	• 3.3.3 • 3.4.1 • 4.3.4

Box Operations	• 3.3.3 • 4.1.6 • 4.2.9 • 4.3.1 • 4.3.2 • 4.6.1 • 5.1.2 • 5.2.3
Ingest Pipeline	• 3.3.3 • 4.1.3 • 4.1.5 • 4.1.6 • 4.1.7 • 4.1.8 • 4.2.1 • 4.2.2 • 4.2.7 • 4.2.8 • 5.1.2 • 5.2.2
Extracting Triggered Content	• 3.3.3 • 3.5.2 • 4.3.3 • 4.3.4 • 4.5.1 • 4.6.1 • 4.6.2
Property Server Operations	• 3.3.3 • 5.2.3
GuideStar	• 3.4.2
Threats and Mitigations	• 3.4.3 • 4.1.6 • 4.3.1 • 5.1.1 • 5.2.1 • 5.2.3 • 5.2.4
Publisher Agreement	• 3.5.1 • 3.5.2
Definition of SIP	• 4.1.1 • 4.1.2 • 4.1.3 • 4.1.4 • 4.2.3 • 4.2.6

	• 4.2.8 • 4.2.10 • 4.5.1 • 4.5.3
Definition of AIP	• 4.1.3 • 4.1.4 • 4.1.5 • 4.1.6 • 4.2.2 • 4.2.3 • 4.2.4 • 4.2.5 • 4.2.6 • 4.2.7 • 4.2.8 • 4.2.10 • 4.4.1 • 4.4.2 • 4.5.2 • 4.5.3
Extracting Bibliographic Metadata	• 4.2.4 • 4.5.1 • 4.5.2 • 4.5.3
Metadata Database	• 4.2.4 • 4.5.1 • 4.5.3
Format Migration	• 4.3.1 • 4.3.3
2013-2018 Budget	• 4.3.4
Access Policy	• 4.6.1

Documentation Inventory

	File Name/Title	Location	Summary of Content	Date Created	Last Updated	Creator	Type
1	**Documentation Inventory**						
2							
3	DRS Policy Guide	HUL Website: http://hul.harvard.edu/ois/systems/drs/policyGuide/wwhelp/wwhimpl/js/html/wwhelp.htm	Purpose, type of objects, who may deposit, obligations of collections managers & DRS, retetntion policies, discovery & access policies, delivery services	TBA	TBA	TBA	
4	Organizational Charts	http://library.harvard.edu/preservation/staff-resources	Org charts	TBA	TBA	TBA	
5	DRS Road Map	G Drive: Preservation Services; Digital Preservation; DRS; Roadmaps	DRS Improvements for 2015-2020		12/23/2015		
6	LTS FY 17 Planning Presentation (PP)	G Drive: Preservation Services; Digital Preservation; DRS; Roadmaps	FY 16 projects underway, FY 17 Projects planned, proposed timeline, framework		12/14/2015		
7	DRS Content Guide	G Drive: Preservation Services; Digital Preservation; DRS	Explanation of DRS Objects; metadata schemas; content model definitions		1/10/2016		
8	DRS Deletions	G Drive; Preservation Services; Digital Preservation; DRS	Log of Delections?		1/10/2016		
9	DRS2 Migration Cleanup Log	G Drive; Preservation Services; Digital Preservation; DRS; Preservation Actions; Metadata_Cleanup	Log of metadata cleanup actions in DRS 2		8/6/2015		
10	PDS_Document_cleanup	G Drive; Preservation Services; Digital Preservation; DRS; Preservation Actions;	??		1/15/2016		

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Next Steps

- Continuing filling in the Excel sheets, metric by metric

- Suggestions for new documentation – can one piece of documentation apply to several metrics?

Next Steps

- Documentation inventory

- Identify areas needing change/improvement

- Sharing information – excel sheets as templates?

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Challenges & Lessons Learned

- Understanding the metrics

- Where to start?

- Where is the documentation?

Challenges & Lessons Learned

- Matching the documentation to the metrics vs. matching metrics to documentation

- Determining what's done but not documented vs. what's not done at all

- How to best display the information

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20% Time

- Outreach & education

- ALA Preservation Week at Harvard

- Brown bag at Harvard

- Webinar with D.C. Resident

20% Time

- PREMIS Chapter on tools, book out next year

- OSS iPRES Session Summary

- Conferences: Volunteered at iPRES, Presented at NE Code4Lib and ALA, Attended METRO NY and will attend NEA

- Blogging

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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?