

Managing Digital Content over Time

DPOE's Mission

“The mission of the Digital Preservation Outreach and Education (DPOE) program of the Library of Congress is to foster national outreach and education to encourage individuals and organizations to actively preserve their digital content, building on a collaborative network of instructors, contributors, and institutional partners.”

Modules

Identify - what digital content do you have?

Select - what portion of that content will be preserved?

Store - what issues are there for long term storage?

Protect - what steps are needed to protect your digital content?

Manage - what provisions are needed for long-term management?

Provide - what considerations are there for long-term access?

Overview

- Organizational requirements and objectives
- Technology
- Designated Resources
- Standards & Best Practices

Balanced Management



from "A Digital Decade" by Nancy McGovern, <http://deepblue.lib.umich.edu/handle/2027.42/60441>

Organization



Building Your Team

- Your team might involve staff with skills in:
 - Administration
 - Technical Services
 - Systems/IT
 - Law
 - Outreach



Why have a digital preservation policy?

- Demonstrates institutional commitment
- Meets professional best practices and standards
- Manages expectations
- Identifies issues and challenges
- Raises awareness
- Defines roles and responsibilities

Tips on Developing a Digital Preservation Plan

- Purpose Statement
- Relation Statement
- Objective Statement
- Periodic Review Statement
- Descriptive Statement
- Implementation Plans
- Glossary



Policy Examples

- Analysis of Digital Preservation Policies (LOC)
 - <http://blogs.loc.gov/digitalpreservation/2013/08/analysis-of-current-digital-preservation-policies-archives-libraries-and-museums/>
- Sample digital preservation policies:
 - Cornell University Library
 - Dartmouth College Library
- Policy Templates:
 - NEDCC - Northeast Document Conservation Center
 - Lyrasis
 - JISC Digital Media

Technology



Property of Georgia State University Library

Investing in Technology

- Prioritize
- Assess
- Sequence
- Fund
- Anticipate
- Evaluate

Technology Choices

Characteristics of sound software:

- well-documented
- usable on a wide variety of platforms
- support & user community
- modular in design
- supports batch processing and workflows
- licenses support secondary use

Resources

- Staffing
- Equipment
- Succession Planning
- Institutional Knowledge
- Funding

Designated Resources

- Digital preservation may not be an explicit budget line item
 - ... but must be able to make a compelling case
- Put digital preservation into your everyday workflow
- Succession planning

Standards & Best Practices

There are a lot of resources available:

- Preserving Digital Information, 1996
- Trusted Digital Repositories, 2002
- Trustworthy Repositories Audit and Certification (TRAC), 2011
- Open Archival Information Systems (OAIS) Reference Model, 2003 and 2009 revision
- Preservation Metadata Implementation Strategies, 2005 plus updates
- Ten Principles (Center for Research Libraries, Digital Curation Center, DigitalPreservationEurope, NESTOR)
- National Digital Stewardship Alliance (NDSA) Levels of Digital Preservation

Common practices are emerging and evolving

Planning

- Preservation Planning
 - On-going process
- Self-assessment
 - Internal review of project
- Audit
 - External review

Outcomes

- What will standards conformance and good practice look like for your organization?
- How will your organization demonstrate good practice?
- Gap analysis

Providing Long-Term Access to Digital Content

Defining digital preservation

“Digital preservation combines policies, strategies and actions to ensure access to content that is born digital or converted to digital form regardless of the challenges of file corruption, media failure and technological change. The goal of digital preservation is the most accurate rendering possible of authenticated content over time.”

Source: American Library Association

What do we mean by long-term access? *Purpose and focus*

Long term access (Preservation)

-purpose: ensure long-term access,

-focus: current & **future** users,

-relies upon **proven** technologies to preserve digital objects across generations of technology,

-accumulates metadata over the life cycle to trace preserved content,

-preservation systems **create** new versions of digital objects for access to deliver as needs change over time.

Short term access

-purpose: provide content to users now,

-focus: current users,

-relies on **cutting edge** technologies to provide best and fastest access at a point in time,

-selects metadata needed to use and understand content,

-access systems **deliver** objects with user-oriented services.

There are good reasons for accessing digital content overtime

Providing access can be directed by specific demands:

User demand,

Legal mandates, (SB1900, FASTR),

Grant requirements,

Institutional repository, institutional visibility, etc.

Others,

How can content be delivered over time?

Easily – using current and known technologies,
Coherently – well-documented and presented,
Completely – intact and well-formed,
Correctly – accurately representing deposits,
Reliably – using well-managed technologies,
Consistently – in accordance with policies,
Fairly – with equity and precedent.

Organizational Responsibilities

Develop and maintain comprehensive access policies,

Manage legal issues throughout life cycle,

Adapt to technological changes – discovery & delivery

Manage preservation and access in parallel

Whose role may contribute to long-term access?

Some roles may include:

Defining services,
Capture access decisions,
Assist users,
Monitor and manage,
User support.

Access policies: Issues & Implementation

Access Policies: Issues

- Accessing content: who, what, exceptions
- Requesting/getting access: how, options

Access Policies: Implementation

- Documented and translated into policy statements,
- Assure that access policy decisions address requirements of preservation systems and respond to new discovery and delivery issues that emerge,

The management of the life cycle legal issues

- Legal issues include copyright, but copyright is only a portion of legal issues in DP...and most of us are not lawyers,
- Access: managed from submission phase (or before) throughout lifecycle,
- DP requires well-formed, valid documentation:
 - agreements, contracts, licenses, policies, etc.
- Good legal advice should enable well-formed evidential documentation and transparency.

Copyright and Access

Human creator of a work is initial owner. Rights may be transferred.



Exceptions allow for archival storage.

Exceptions allow for Fair Use for some activities. Each case is *unique*.

Besek, June.

Copyright Issues Relevant to the Creation of a Digital Archive: A Preliminary Assessment (CLIR, 2003)

Perpetual Access to Journals

Archival preservation of publisher content

Hosting and infrastructure examples:

- Post-cancellation access systems and access controls
- Dark & dim archives (not archivists!)



Beagrie, Charles.

Ensuring Perpetual Access: establishing a federated strategy on perpetual access and hosting of electronic resources for Germany

Discovery and Delivery

Profiling future users and access

- Who are they? What will they do with it?
- Value of the data over the long run
- How useful is past experience?

Compensate for the unknown

Fitting repositories into scholars' workflows

Digital Preservation Outreach and Education (DPOE)

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Resource List

Resources

Northeast Document Conservation Center (NEDCC)

Digital Preservation Self Assessment

<http://www.nedcc.org/assets/media/documents/DigitalPreservationSelfAssessmentfinal.pdf>

Library of Congress

The Signal: Digital Preservation

Facing Off with Digital Preservation Policy (blog post)

July 6, 2011 by Bill LeFurgy and Kristin Snawder

<http://blogs.loc.gov/digitalpreservation/2011/07/facing-off-with-digital-preservation-policy/>

Charles W. Bailey, Jr.

Digital Curation Resource Guide

<http://digital-scholarship.org/dcrg/dcrg.htm>

Resources (cont.)

The National Archives

Digital Preservation Policies: Guidance for archives

<http://www.nationalarchives.gov.uk/documents/information-management/digital-preservation-policies-guidance-draft-v4.2.pdf>

Nancy Y . McGovern

A Digital Decade: Where Have We Been and Where Are We Going in Digital Preservation?

http://deepblue.lib.umich.edu/bitstream/handle/2027.42/60441/McGovern-Digital_Decade.html?sequence=4

June Besek

Copyright Issues Relevant to the Creation of a Digital Archive: A Preliminary Assessment

<http://www.clir.org/pubs/reports/pub135>

Resources (cont.)

Charles Beagrie Ltd in Association with Globale Informationstechnik GmbH

*Ensuring Perpetual Access: Establishing a
Federated Strategy on Perpetual Access and Hosting of Electronic Resources for
Germany*

http://www.allianzinitiative.de/fileadmin/hosting_studie_e.pdf

National Digital Stewardship Alliance (NDSA)

Staffing for Effective Digital Preservation

<http://digitalpreservation.gov/ndsa/documents/NDSA-Staffing-Survey-Report-Final122013.pdf>

National Digital Stewardship Alliance (NDSA)

National Agenda for Digital Stewardship

<http://digitalpreservation.gov/ndsa/nationalagenda/index.html>

Example Policies

Cornell University Library

Digital Preservation Policy Framework

<http://hdl.handle.net/1813/11230>

Dartmouth College Library

Digital Preservation Policy

<http://www.dartmouth.edu/~library/digital/about/policies/preservation.html>

Inter-University Consortium for Political & Social Research (ICPSR)

<http://www.icpsr.umich.edu/icpsrweb/content/datamanagement/preservation/policies/dpp-framework.html>

University of Minnesota Digital Preservation Framework:

<https://netfiles.umn.edu/ul/Divisions/InfoTech/DigiColl/webDocuments/Digital-Preservation-Framwork-Final.pdf>

Policy Templates/Documentation

Northeast Document Conservation Center

NEDCC Digital Preservation Policy Template

<http://www.nedcc.org/assets/media/documents/SoDAExerciseToolkit.pdf>

[JISC Digital Media](#)

[Establishing a Digital Preservation Policy](#)

[http://www.jiscdigitalmedia.ac.uk/guide/establishing-a-digital-preservation-policy/
%20%E2%80%93](http://www.jiscdigitalmedia.ac.uk/guide/establishing-a-digital-preservation-policy/%20%E2%80%93)

Lyrasis

Contents of a Digital Preservation Policy

[https://www.lyrasis.org/LYRASIS%20Digital/Documents/Preservation%20PDFs/
DigitalPolicy.pdf](https://www.lyrasis.org/LYRASIS%20Digital/Documents/Preservation%20PDFs/DigitalPolicy.pdf)

Technology Planning

D-Lib Magazine

<http://www.dlib.org>

Digital POWRR project

<http://digitalpowrr.niu.edu>

Standards & Community Best Practices

ISO 14721 (CCDS 650.0-B-1)

Reference Model for an Open Archival Information System (OAIS)

<http://public.ccsds.org/publications/archive/650x0m2.pdf>

The RLG- National Archives & Records Administration Digital Repository Certification Task Force

Trustworthy Repositories Audit & Certification: Criteria & Checklist

http://www.crl.edu/sites/default/files/attachments/pages/trac_o.pdf

ISO 16363 (CCSDS 652-R-1)

Audit and Certification of Trustworthy Digital Repositories

<http://public.ccsds.org/publications/archive/652x0m1.pdf>

Library of Congress

Preservation Metadata Implementation Strategy (PREMIS)

<http://www.loc.gov/standards/premis/>

Standards and Community Best Practices (cont.)

Center for Research Libraries

Digital Curation Center, Digital Preservation Europe, NESTOR

Ten Principles

<http://www.crl.edu/archiving-preservation/digital-archives/metrics-assessing-and-certifying/core-re>

National Digital Stewardship Alliance (NDSA)

Levels of Digital Preservation

<http://bit.ly/digpreslevels>

Thank you for attending

I am tomorrow, or some future day, what I establish today. –James Joyce

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