Aligning Digital Preservation Policies with Community Standards

Nancy McGovern
Digital Preservation Officer
Topics

• DP Program Infrastructure
• Organizational Infrastructure
• Version 1.0 and 2.0 DPM Policy Framework
• Policy Development Outcomes
• Technology Infrastructure
• Linking the Organizational and Technological
• Benefits and Outcomes
DP Program Infrastructure

(how?)

digital preservation

(how much?)

technology

(what?)

resources

organization
Organizational Infrastructure

• Developed for the Digital Preservation Management (DPM) Workshop

• The “what” leg of the 3-legged stool
  ▪ Policy Framework (overview)
  ▪ Policies and Procedures (functional slice)
  ▪ Plans and Strategies (temporal slice)
Version 1.0 DPM Framework

• Began in 2002 with the development of the Digital Preservation Management workshop curriculum
• Framed by Trusted Digital Repositories
• Informed by scan of existing DP policies
• Version 1.0 available 2003
Components of DPM Version 1.0

Core
1. Purpose
2. Objectives
3. Mandate
4. Scope
5. Challenges/ Incentives
6. Principles
7. Roles and Responsibilities
8. Cooperation/ Collaboration

Enabling
9. Selection/Acquisition Criteria
10. Access/Use Criteria

Administrative
11. Definitions
12. References
Version 1.0 Developments

• Vetted by workshop participants 2003-2006
• Online examples of Version 1.0 policies:
  2004 Cornell University Library
  2005 Library and Archives of Canada
  2005 North Carolina Department of Cultural Resources
Version 2.0 DPM Framework

• Began in 2006 with refinements to Version 1.0
• Aligned explicitly with Trusted Digital Repositories
• Informed by version 1.0 examples and feedback
• Version 2.0 by Spring 2007
• Public as of September 2007: ICPSR
**ICPSR Digital Preservation Policy Framework**

The primary objective of the digital preservation function is to ensure long-term access to the more than 500,000 files in the ICPSR collections. ICPSR is a data archive with a 45-year track record for preserving and making available data. Within that context, digital preservation is carried out as a distributed function that is integrated into ICPSR operations.

The Digital Preservation Officer (DPO) at ICPSR is responsible for developing and promulgating policies and practice that align ICPSR with prevailing standards and practice in the digital preservation community. As the scope of digital content for social science research expands into Web sites, audio, video, and geospatial information systems, the DPO investigates and devises appropriate preservation strategies. Processors in the General Archive and in the topical archives at ICPSR ensure that core preservation activities are completed and documented as data and associated files are acquired, processed, and prepared for release.

The Computer and Network Services (CNS) unit at ICPSR supports digital preservation by ensuring and enforcing data security, overseeing the development of automated tools and workflows for processing and preserving data and its associated content, and coordinating the creation and secure management of copies of files over time.
Components of Version 2.0

- OAIS compliance
- Administrative responsibility
  - Mandate
  - Objectives
- Organizational viability
  - Scope
  - Operating principles
  - Roles and responsibilities
  - Selection and Acquisition
  - Access and Use
  - Challenges
Components of Version 2.0 cont.

- Financial sustainability
  - Institutional commitment
  - Cooperation and collaboration
- Technological and procedural suitability
- Systems security
- Procedural accountability
  - Audit and transparency
  - Policy framework administration
  - Definitions
  - References
Technological Infrastructure

• The “how” leg of the DPM stool
• Best expressed by OAIS
• Combination of:
  ▪ Hardware and software
  ▪ Formats and storage
  ▪ Network and security
  ▪ Functions and workflow
  ▪ Procedures, protocols, documentation
  ▪ Technical and archival skills
Technological Policy Engine Examples

Two examples:

- PLEDGE: PoLicy Enforcement in Data Grid Environments (US)
- PLANETS: Preservation and Long-term Access through NETworked Services (UK/EU)
A note on the PLEDGE Example

• Policy Categories
  ▪ Organizational, Environment, and Legal
  ▪ Community and Usability Policies
  ▪ Process and Procedure Policies
  ▪ Technology and Infrastructure

• Demonstrates how organizational policies translate to rules that are machine encodable
Linking the Organizational and Technological Infrastructure
Policy Development Benefits

• Builds DP team (organizational and technological)
• Defines institutional commitment
• Confirms understanding of issues and challenges
• Raises awareness in and around organization
• Informs and extends stakeholders
• Manages expectations: producers and consumers
• Meets requirements: transparency and audit
Desired Outcomes

- **Organizational**: Standards, common components, and good practice for developing DP policies
- **Technological**: Standardized DP policy engines and rules
- **Collaborative**: Strong organizational/technological DP development partnerships
Acknowledgements

• Anne R. Kenney, co-developer of Version 1.0
• National Endowment for Humanities
• Feedback from DPM workshop participants 2003-2006
Thank you.

Contact Information:
Nancy Y. McGovern
Digital Preservation Officer
ICPSR
nancymcg@umich.edu