Digital Preservation Readiness:

Planning Today for Tomorrow's Resources

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Libraries Shaping Tomorrow

Digital Collection Risk Management

- Digital Disaster Mitigation
- Technical Risks
- Determining Security Threats
- Programmatic and Policy Risks and Threats to Digital Collections

Potential Digital Disaster Risks

- Fire
- Flooding
- Windstorms
- Smoke Damage
- Leaks
- Bomb Threats and Terrorism

Specific Digital Disaster Risks

- Media Failure
- Network Failure
- Hard Drive Crash
- Legacy Software Failure
- No Backups
- Power Surges and Outages
- Employee Errors and Manipulation

NEDCC Survey Findings – Disaster Planning

- None of the individual institutions surveyed has a digital disaster plan
- None had incorporated digital production, content, or storage into their existing disaster plans

Steps to Protecting Your Files

- Prioritizing
- Planning
- Funding
- Staffing and Partnerships
- Policies – Back-up, Monitoring, and Preservation
- Refreshing and Migration Plans

Three Major Risk Categories

- Risks associated with the general collection (institutional; infrastructure)
- Risks associated with the data file format (internal structural elements)
- Risks associated with the file format conversion process (software issues)
  - *Risk Management of Digital Information, CLIR*

General Security Concerns for Digital Materials

- Visitor Access Controlled?
- Key Control?
- Password Control?
- Laptop and Equipment Secured?
- Access to Confidential Data Controlled?
- Information System Activity Monitoring?
- Security Officer/Staff Security Training?
- Employee Record Security and Access?

Determining Risk from Security Threats

- Existing Controls?
- Likelihood of Occurrence?
- Impact Severity?
- Risk Level?

Risk Examples from the Field

Digital Preservation Survey Project

- NEDCC Project, funded by IMLS National Leadership Grant
- 2005 web survey of digital preservation practices
- July 2005 Colloquium of Digital Experts
- Report of web survey appeared in February 15, 2006 RLG *Digi-News*
- Initial Digital Preservation Readiness Site Surveys, January-June 2006; Second Phase January-June 2007

NEDCC Project Overview

- Status of digital collections in cultural heritage institutions
- How are digital collections 'valued' & options for prioritizing digital preservation activities
- Develop guidelines and tools to assist administrators/staff in planning for management, maintenance and preservation of digital resources
- Partnered with MCN, American Institute for Conservation, Center for Research Libraries, Heritage Preservation
- Primary focus was to develop tools for assessing preservation needs of museums' digital collections

2005 Online Survey Results

- Online survey conducted Spring 2005, 169 responses, 12.5% return rate
- 33.1%--academic libraries; 14.5% archives; 9% art museums; 7.8% public libraries; 24.7% other
- Policies—Generally lack specific digital collection policies, or staff responsible for information policy

2005 Survey Results – Digital Preservation

- Who's responsible—66% institutions no one is responsible for digital preservation activities
- Continuing education—84% supported CE activities for digital preservation
- Preservation solutions—
    - 78% networked hard drives;
    - 65% removable magnetic media;
    - data is stored in-house
- Cause for concern: 30% have been backed up one time or not at all

Digital vs. Traditional Surveys

- Traditional Preservation Survey
  - Building Condition
  - Collection Condition
  - Preservation Policies
- Digital Surveys
  - Institutional Profile
  - Digital Collection Administration and Management
  - Digital Selection and Acquisition
  - Access Issues
  - Digital Preservation
  - Rights Issues

Pilot Digital Survey Institutions

- Academic Research Library (2)
- State Historical Society (2)
- Major Metropolitan Art Museum
- Contemporary Art Museum
- Historical Museum
- Urban Public Library
- Small, Specialized Academic Library
- Collaborative Academic (2) and a State Institution with Established Digital Preservation Programs

Key Findings -- Mission

- Most institutions still at "Digital Project" vs. "Digital Program" stage
- Few have coordinated institutional approach to their digital initiative, especially in the areas of:
  - Standards (Imaging, Metadata)
  - Quality Control
  - Access
  - Promotion
  - Digital Preservation

Key Findings – Digital Preservation

- Issue is *just* coming to the forefront
- Education is important before institutions start "doing" digital preservation
- Preservation/Conservation Staff are generally not directly involved in many of the digital initiatives
- DAM: Some projects see DAM as solution to digital preservation issues.

Key Findings – Digital Preservation 2

- CD/DVD major storage media; moving to servers
- Data on CD/DVD—lengthy periods between refreshing
- Quality control of master images – inconsistent at best
- Most institutions still believe back-up is digital preservation

Digital Preservation—Collaborative Programs

- Collaborative programs demonstrated ability to implement long term digital preservation solutions.
- Formal agreements are required for preservation collaboratives, governance issues must be addressed.
- Ongoing development of the software—development of Version 2.0; development of format migration by software provider.
- Staffing—Sufficient level of staffing as service develops is important.
- Financial sustainability—Development of a business model to support the collaborative's program was critical.

Other Key Findings

- Management: Organizations with the strongest digital programs have strong administrative and board awareness and support.
- Standards: A general lack of formal, cross-institutional standards and best practices.
- Documentation: Written policies & documented practices lacking, except for the collaboratives.
- Evaluation: Across all institutions, digital project evaluation focused on interface, technology, etc. not on usefulness of digital materials to the user.

New Developments

- Variety of long term preservation solutions—dark archive, light archive, dim archive and continuous access.
- Issues of born digital aren't being addressed by most institutions—Don't recognize when they have a born digital object.
- Contemporary art museum presented most innovative approach
  - Address installation issues
  - Frequent reinstallation of the art and interaction with the artist/creator and curator to address 'preservation issues'
  - Team approach
  - Address issue of format migration, software obsolescence, as well as intellectual knowledge required to maintain the art for future installation over long period of time.

Next Steps

- NEDCC publishing information on survey trends and written tools, plus links to sample reports.
- Training of additional surveyors; additional pilot surveys to be scheduled.
- Move toward CAP or PAG models.
- NEDCC "Stewardship of Digital Assets" and "Persistence of Memory" Workshop Series and Conferences

For More Information

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