
Digital Preservation: Roles and Opportunities for Libraries

Richard Fyffe

Rosenthal Librarian of the College

Grinnell College

Portico Participants' Meeting • 23 June 2007

GRINNELL COLLEGE LIBRARIES 

Copyright

This presentation is copyright 2007 by Richard Fyffe. Some rights are reserved. You are free to copy, distribute, and display the work and to make derivative works only under the following conditions:

Attribution—You must give the author credit; **Noncommercial Use**—You may not use this work for commercial purposes; **Share Alike**—If you alter, transform, or build upon this work, you may distribute the resulting work only under a license identical to this one. For any reuse or distribution, you must make clear to others the license terms of this work. Any of these conditions can be waived if you get permission from the copyright holder. Your fair use rights are not limited by the above.

What is Preservation?

The ongoing process of managing information for continuing access and use.



Preservation: The Print-based Model

- Wide distribution of many enduring copies
- A network of interdependent trusted institutions



Preservation: The Print-based Model

Coordination among:

- ***Publishers:*** organize trusted content into standard bibliographic units
- ***Printers and binders:*** follow industry standards for durable paper, adhesives, and other materials
- ***Libraries:***
 - Catalog bibliographic units according to standards
 - Facilitate access and maintain order and integrity
 - Collaborate with publishers, printers, binders
 - Educate local communities



What Makes Digital Preservation a Challenge?

- Fragility of media
- Unmanaged proliferation (version control)
- Asynchronous lifecycles:
 - Content
 - Hardware
 - Software



Fundamentals of Digital Preservation

- **Security:** Safeguarding the integrity of content
- **Migration:** Transformation of files into new formats as software and hardware change
- **Stability of access:**
 - Persistent file addresses



What Features of Digital Files Must Be Preserved?

- Content (“What is in this file?”)
- Context (“What does this file mean and where did it come from?”)
- Authenticity (“Has this file been changed?”)
- *Functionality* (“*What does this file do?*”)



Preservation: The Print-based Model

The Simplified Version:

- Research institutions maintain “collections of record”
- Smaller institutions maintain “collections of use”



Preservation: The Print-based Model

The More Complex Reality:

- All colleges and universities preserve many specialized collections of enduring value:
 - Library special collections
 - Institutional archives
 - Slide collections
 - Museum collections
- Increasingly these are being converted to or created in digital formats.



Preserving Scholarly Literature: The Portico Model

- Central repository facilitates management, integrity, and migration
- Standardized (“normalized”) files and formats:
 - SGML, XML
 - Metadata
- Rights information
- Contracts among cooperating institutions (publishers and libraries)



Preserving Local Digital Content: Leadership Opportunities for Libraries

- A campus-wide role
- Surveys of digital content
- Education and coordination regarding importance of standards for digital creation
- Evaluation of outsourcing options for digitization and repository services



Preserving Local Digital Content at Grinnell College

Digitization projects under way in:

- Art History Department: Slide Library
- Biology Department: Plant database
- Ecological Research Area: Insect specimens
- Music Department: Musical Instruments Collection
- Physics Department: Historic Scientific Instruments Collection
- Prints and Drawings Collection: Art of the Prairie Region
- Library Special Collections: regional postcards, photographs of a Turkish mission ca. 1911



Preserving Local Digital Content at Grinnell College

Repositories for digital content

- External:
 - ARTStor hosting service
 - NITLE Shared DSpace Repository
- Locally hosted:
 - MDID (Madison Digital Image Database) maintained by Information Technology Services
 - FilemakerPro database maintained by ITS
 - Innovative Millennium ILS maintained by the Libraries



Preserving Local Digital Content at Grinnell College

Challenges

- Proliferation of platforms
 - No common interface
 - Duplication and synchronization
- Standards vary
 - Image capture
 - Metadata
- Lack of adequate central storage
 - Reliance on offline media (DVDs, CDs)



Preserving Local Digital Content at Grinnell College: Early Steps

Review, revision, and documentation of Libraries' workflow and standards

- Image capture
- Metadata
- File names
- Storage of master images



Preserving Local Digital Content at Grinnell College: Early Steps

Outreach to other campus groups involved in digitization

- Art History Slide Collection
- Prints and Drawings: new digitization
- Academic departments: slide digitization
- Collaboration among librarians, curricular technologists, technology professionals
- Suggested guidelines for faculty: under development



Questions?