

Digital Preservation: What Have We Got to Lose?

11/14/2000

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Digital Preservation: What Have We Got to Lose?

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<http://cugir.mannlib.cornell.edu>

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Today's Talk Will Cover:

- Digital Preservation Rather than Digitization for Preservation
- Approaches to Digital Preservation
- Digital Preservation Policy Framework
- Start a Conversation about Data Preservation in the GIS Community
- Find Others Who are Working on a Preservation Policy Issues

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Who Cares?

- Anyone Required to Use Archives
- Anyone Interested in History (i.e. the 1990s)
- Anyone Who Doesn't Want to Repeat Years of Work
- Data is Already Lost
- We all Should Care

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"Traditional" Preservation: Caring for Media

- Environmental Control for Conservation
- Paper
- Film
- Photographs
- Sound Recordings
- Microfiche
- Transfer to Digital

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Going Digital

- Easy Replication
- Threats to Digital Documents and Data
 - Media Degradation
 - Obsolescence
 - Hardware
 - Software

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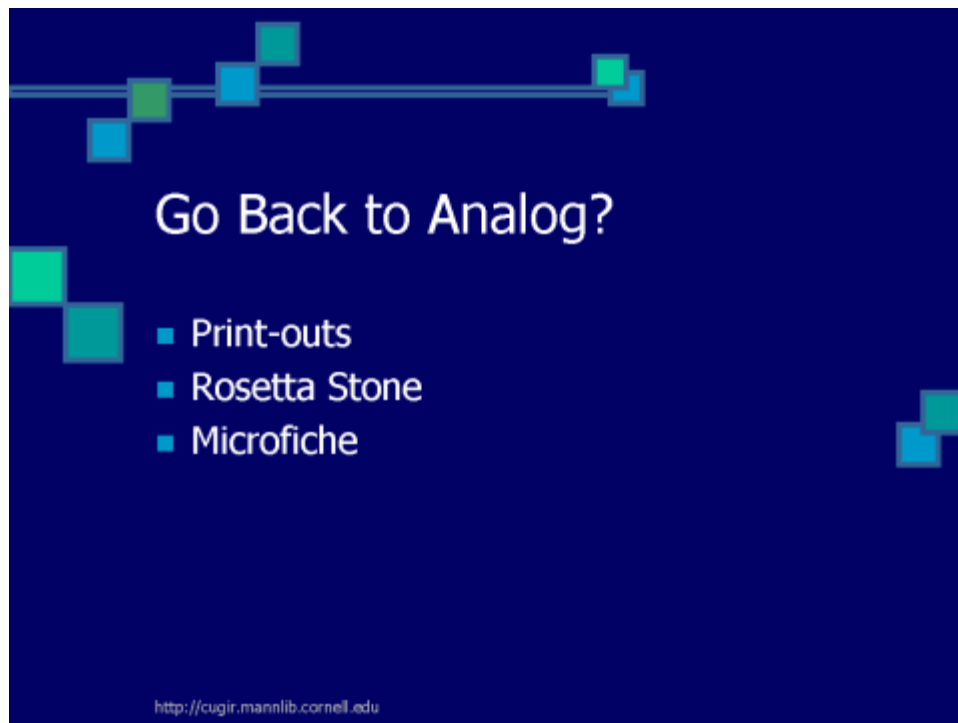
What Has Been Lost?

- 1960 Census - (was rescued)
- Early NASA Digital Photos
 - First Photographs of Mars
 - First Photographs of the Earth from Space
- First E-mail
- 1960s New York State Land Cover

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Go Back to Analog?

- Print-outs
- Rosetta Stone
- Microfiche

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Data Created and used only as a digital document

- Complex Relationships
 - Statistical Data
 - GIS Data

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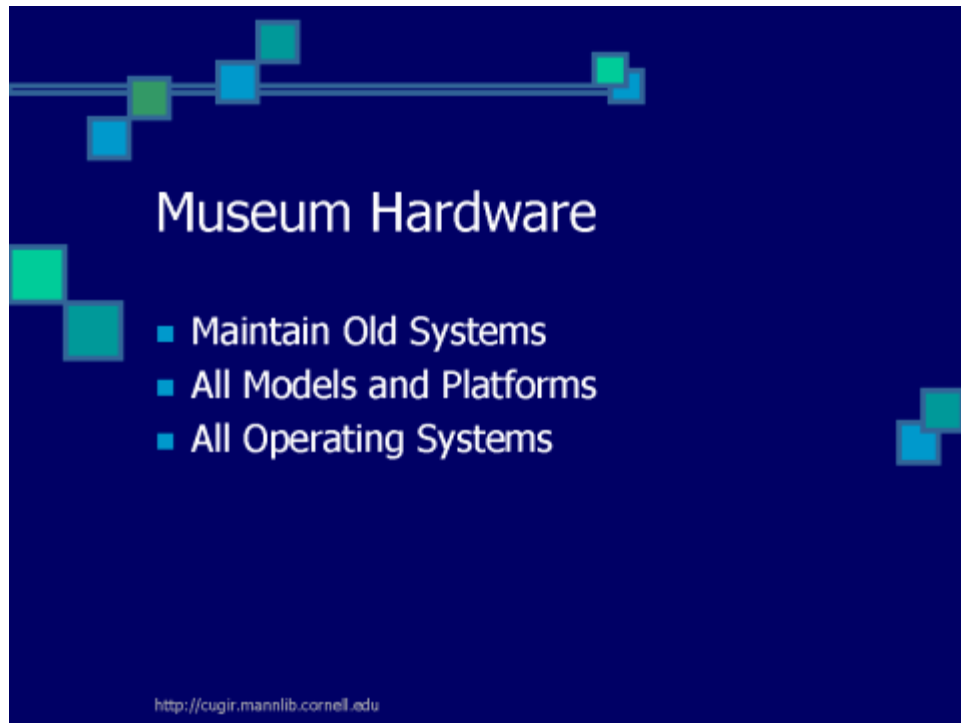
Approaches to Digital Preservation

- Museum Hardware
- Digital Archeology
- Refreshing/Redundancy
- Emulation
- Migration

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Museum Hardware

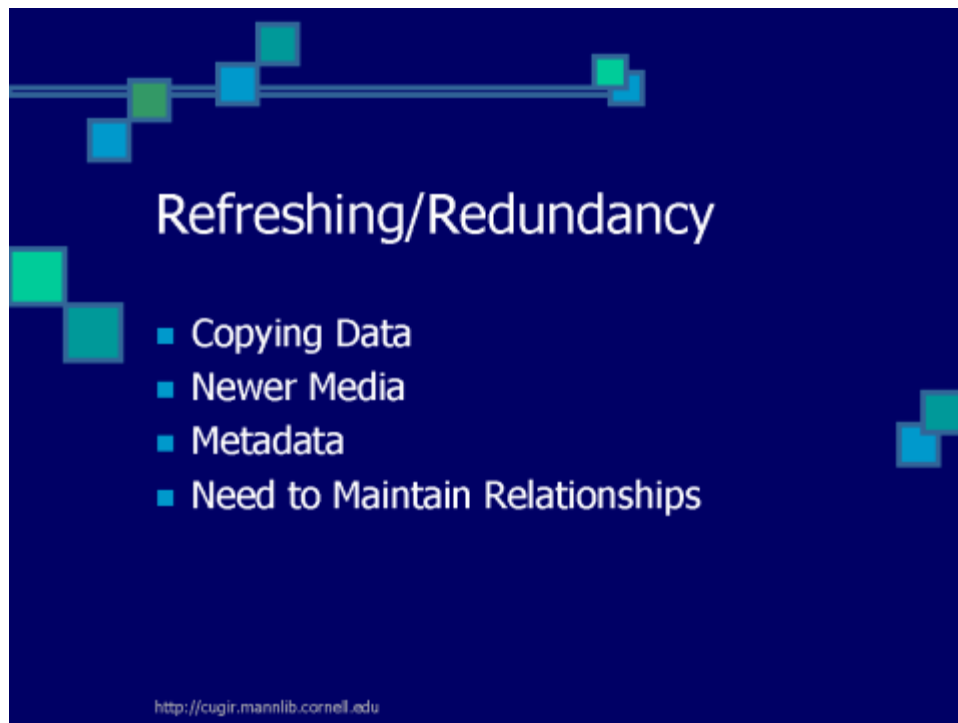
- Maintain Old Systems
- All Models and Platforms
- All Operating Systems

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Refreshing/Redundancy

- Copying Data
- Newer Media
- Metadata
- Need to Maintain Relationships

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Digital Archeology

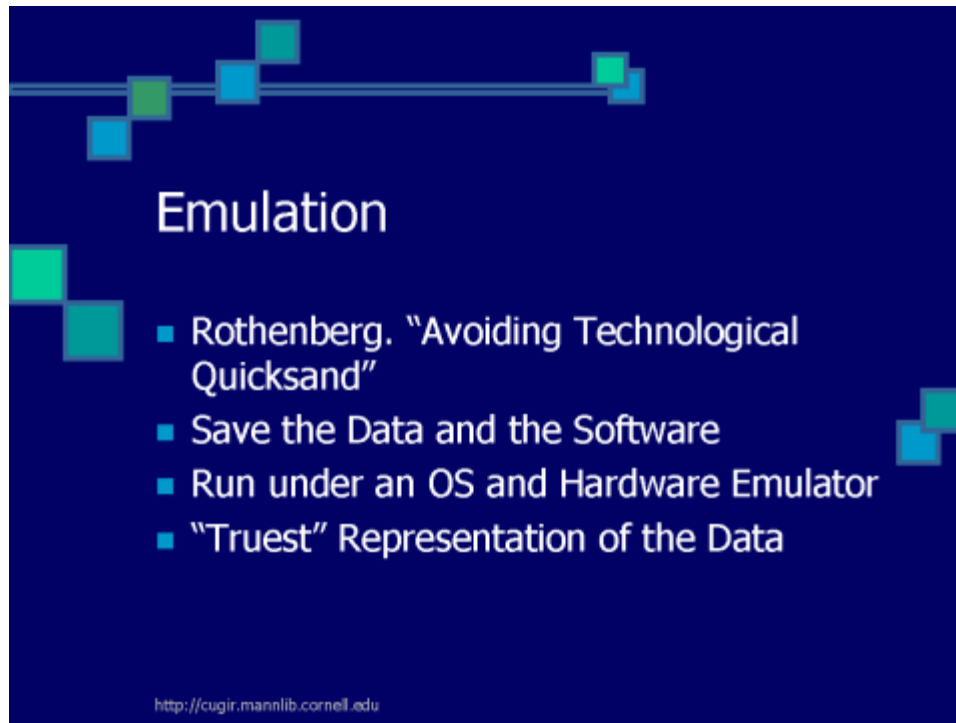
- A New Lucrative Field?
- "Think About it Later"

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Emulation

- Rothenberg. "Avoiding Technological Quicksand"
- Save the Data and the Software
- Run under an OS and Hardware Emulator
- "Truest" Representation of the Data

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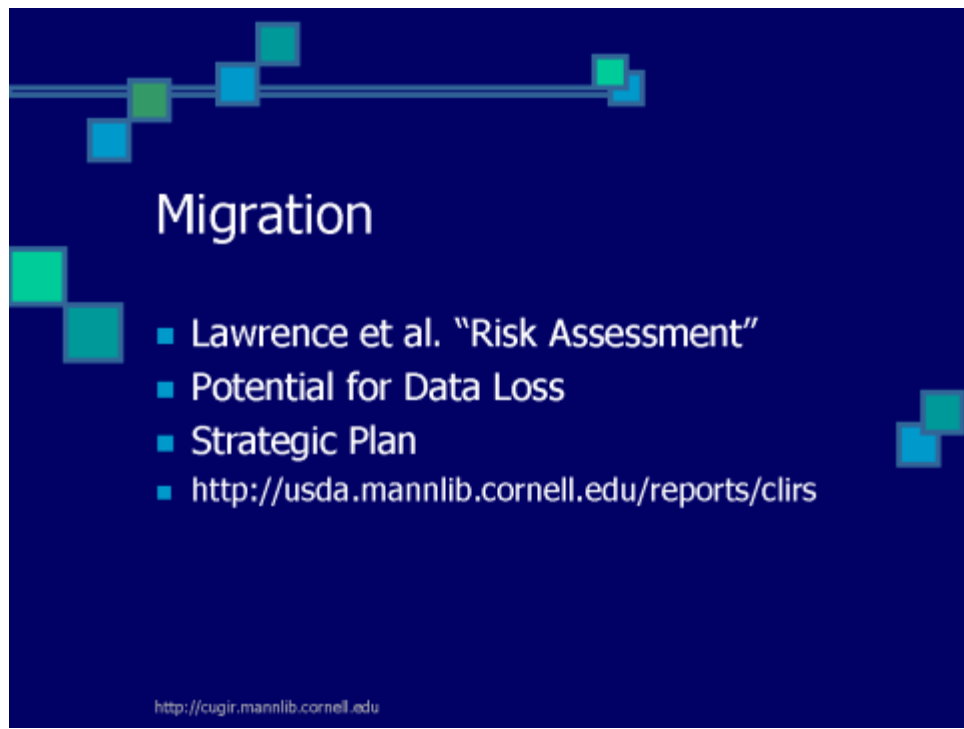


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Notes:

in a form that will remain human-readable, along with metadata which provide the historical, evidential and administrative context for

preserving digital documents




Migration

- Lawrence et al. "Risk Assessment"
- Potential for Data Loss
- Strategic Plan
- <http://usda.mannlib.cornell.edu/reports/clirs>

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What Should the GIS Community Do?

- Preservation Policies for Clearinghouses
- Uphold Metadata Standards
- Support the Open GIS Consortium
- Encourage Open Standards
- Encourage Backward Compatibility in GIS software
- Organization to Decide who Exactly is Responsible?

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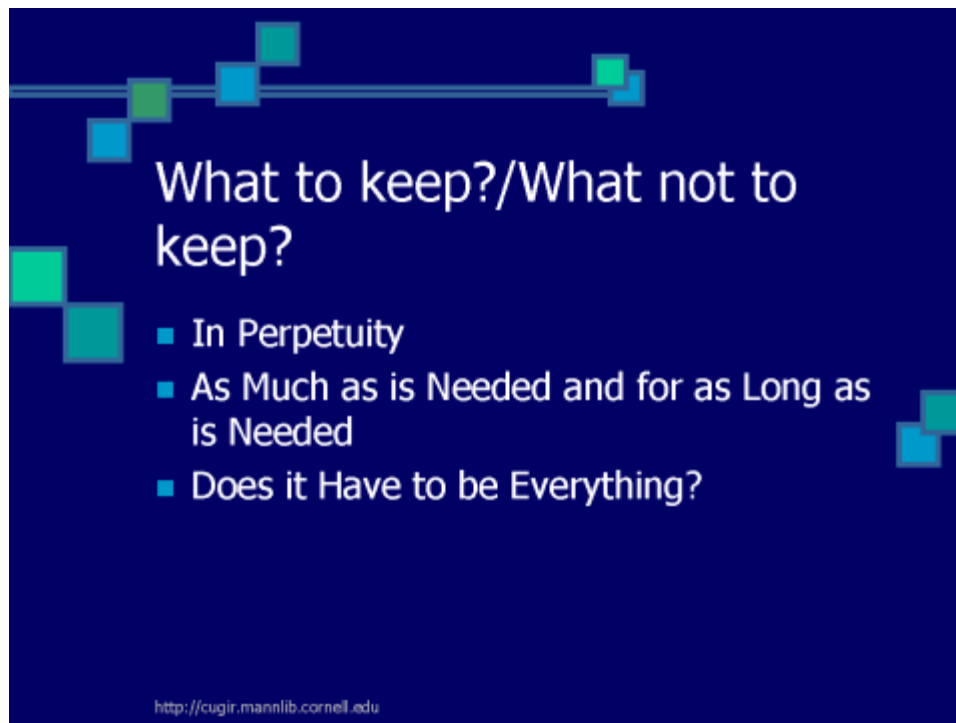
Data Centers and Clearinghouses

- Centralized Collection
- Centralized Responsibility
- Clearly Defined Collection Policy
- Clearly Defined Preservation Policy

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What to keep?/What not to keep?

- In Perpetuity
- As Much as is Needed and for as Long as is Needed
- Does it Have to be Everything?

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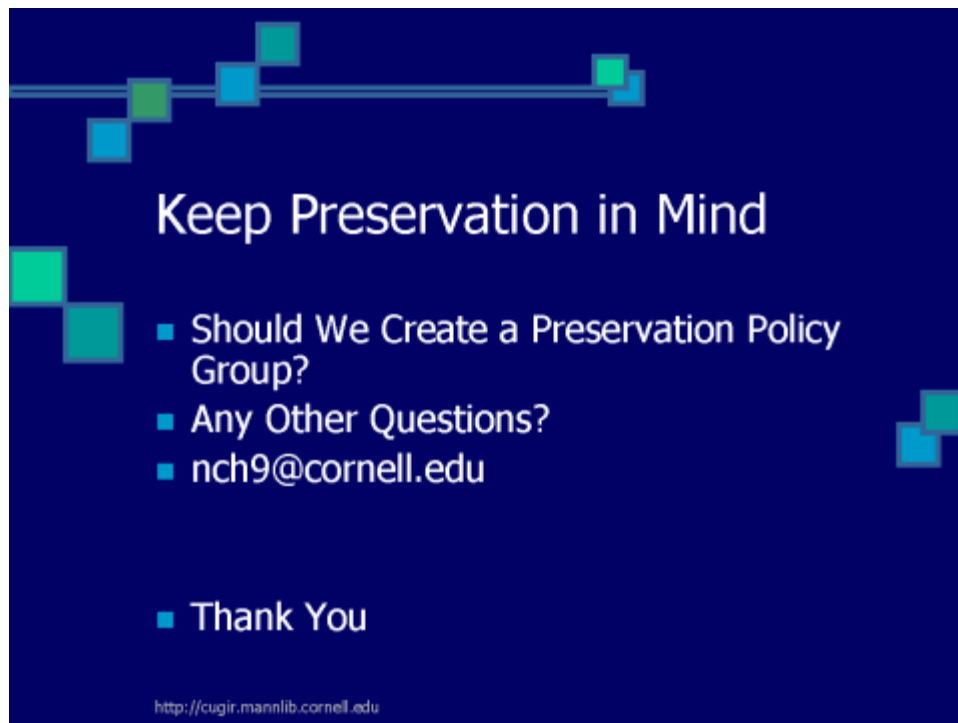
Framework of a Digital Preservation Policy

- Selection Criteria
- File Formats to Support
- Metadata
- Architecture
- Historical Value
- Multiple Copies Over Time

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Keep Preservation in Mind

- Should We Create a Preservation Policy Group?
- Any Other Questions?
- nch9@cornell.edu

- Thank You

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