

Don't Get Stranded Alone...Join Us on Digital Preservation Island!

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Minnesota Alliance of Local History Museums Conference

Red Wing, MN

April 24, 2019

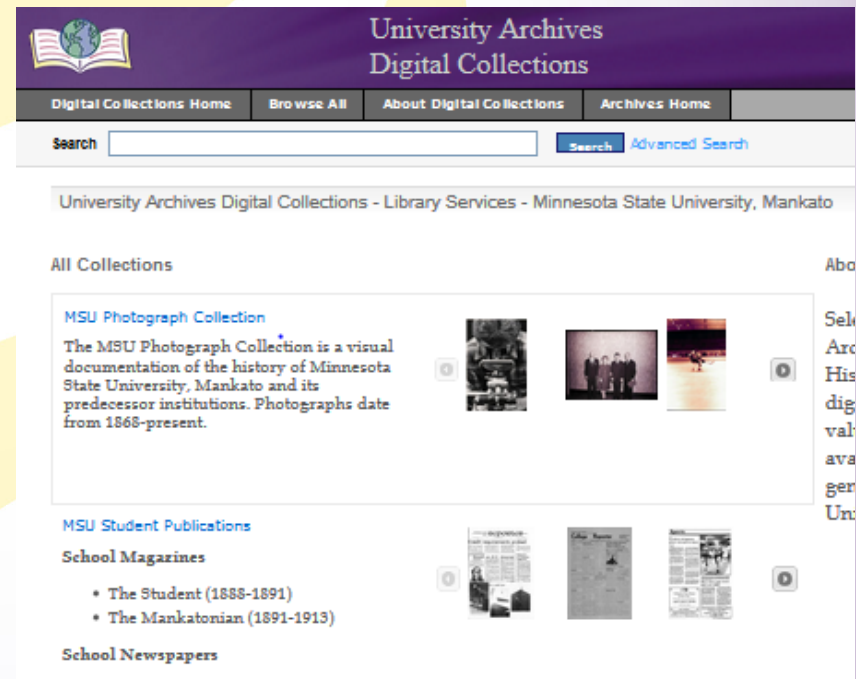


Session Outline:

- The Minnesota State University, Mankato Story
- Digital Preservation Plans
- Professional Development Tools
- Group Activity

Just sit right back And you'll hear a tale...


- Minnesota Digital Library, 2000
- 1st Digitized Images in AY2004
 - In MDL
 - In MSU CONTENTdm
 - In-house scanning



Make us comfortable with our DAM nest



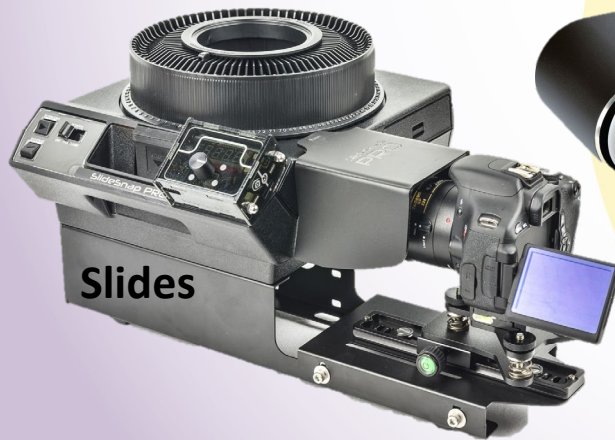
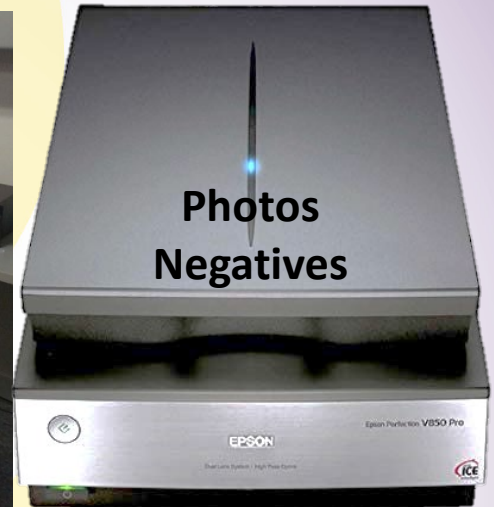
- ARCH
 - <http://arch.lib.mnsu.edu>
 - 133,000 digital items
- Cornerstone
 - <http://cornerstone.lib.mnsu.edu>
 - 4800 digital items



Four passengers set sail that day, For a three hour tour,

- University Archivist
- Digital Initiatives Librarian
- Archives Technician (with Digitization emphasis)
- Archives Technician
- Digital Initiatives Technician (half time)
- Graduate Assistant (sometimes)
- Student Workers – 4-8
- Interns (occasionally)

Lots of Materials—Lots of Digitization



Will do their very best to make each other comfortable

- In-house Digitization
- External Funding
 - MCHF Grants



Male students sitting on comfortable chairs watching movie in a small room, Mankato State College, 1959-02-20

The Storage Started Getting Rough...

- Staff and Projects started to Accelerate
- Started running out of space – backups created but NOT safe nor manageable

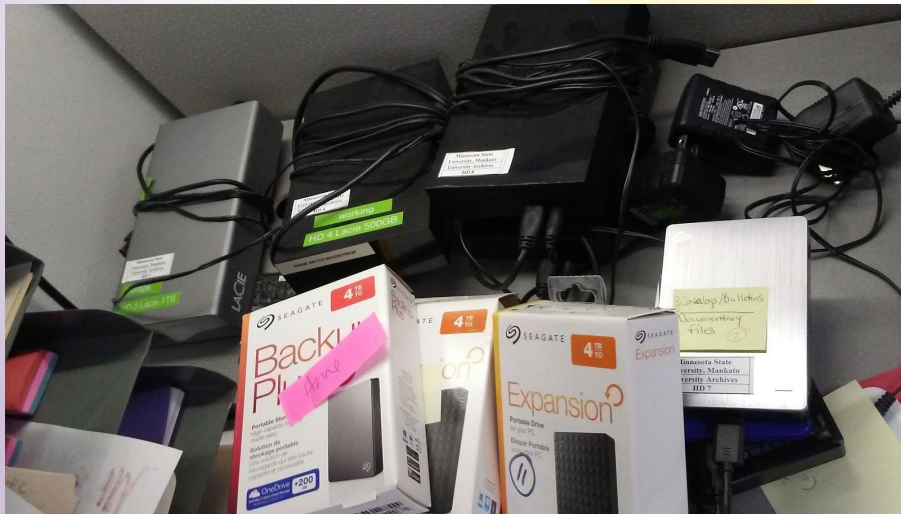
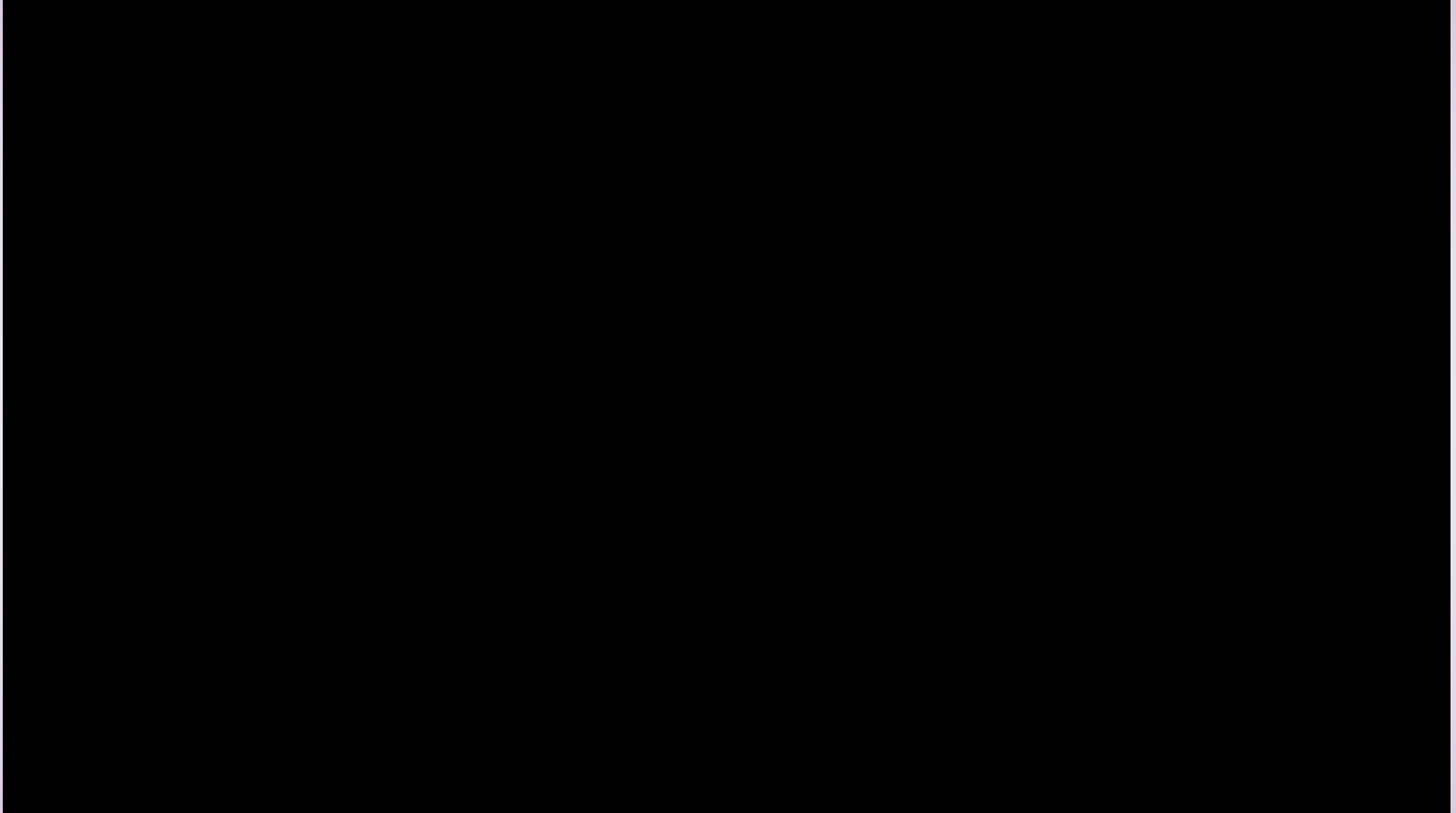


Image courtesy of the University Archives at Minnesota State University, Mankato. Three females in a canoe in Highland Arena Pool at Mankato State College, 1968. <https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A4631>

Born Digital Accessions Set Ground on the Archives Desk!



Our First Commercial Break...



Source: Memorial Library @ Minnesota State University, Mankato (2019, April 16). *Digital Storage Commercial Archives* [Video file]. Retrieved from <https://youtu.be/eR4gHYM25sc>

Credit: Written, Directed, Edited, and Starring: Ben Siglin; Videographer: Shania Gilmore.

Our Bus Got Stuck in a Field of Muck of This Uncharted Preservation Plan.



The Great Collapse of 2016

Image courtesy of the University Archives at Minnesota State University, Mankato. Mankato State College inter-campus bus stuck in the mud, 1961. <https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A4006>

Are You Stranded on the Island?



Image courtesy of the University Archives at Minnesota State University, Mankato.
Students waiting at the bus shelter at Mankato State University, 1988.
<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A49002>

DigiVengers to the Rescue?!

- Storage plan which led to a Digital Preservation plan
- Workshops
- Professional reading

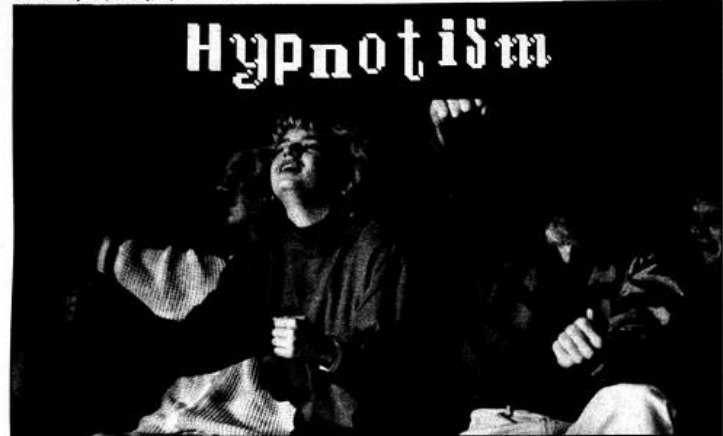
Bitcurator Workstation

<https://bitcurator.net/bitcurator/>

Need a New Plan

Disclaimers

- We are not all-knowing experts in everything.
- We are still learning about digital preservation.
- Possible side effects from today may include:
 - A need to learn more about digital preservation.
 - A desire to create your own digital preservation plan.



MSU falls under a spell

by Michael Champin
Pages Editor

Thirty Mankato State University students zoomed around in racing cars, auditioned for a rock and roll band and vied for a chance to win a million dollars Friday night at the Centennial Student Union Ballroom.

That is they believed they did, thanks to the efforts of Hypnotist/Mentalist Mark Pittman. During his mindbending show, Pittman mesmerized students with his feats of mindreading, memory and hypnosis.

With uncanny accuracy, Pittman demonstrated his version of ESP by correctly guessing three out of three ESP cards.

Displaying a feat of memory, Pittman memorized and recited a list of objects comprised by his audience.

The highlight of Pittman's show was his demonstration of hypnosis. Pittman filled the stage with 20 subjects and gradually put them in a trance. While the group was under Pittman's influence, they were placed in all types of amusing scenarios as vocalist/guitarists trying out for a rock band, game show contestants who kept forgetting the answer and people riding a roller coaster.

Before his show of hypnosis, Pittman explained the powers of the hypnotist and gave his audience a warning.

Pittman said, "Hypnotists, if they are male, they have a masculine and a feminine. They all have an evil eye. They mentally overpower anyone, especially stupid and weak-willed people. He can make them do anything he wants. And if you believe that you've been watching too many old movies."

Pittman first became interested

in hypnosis as a child.

He said, "On my ninth birthday I saw a hypnotist. His name was Pete Revise. He really is one of the finest hypnotists alive today. He works six months out of the year. He has a pretty well-established million-dollar route."

Coincidentally, Pittman acquired his skills from a student of his role model. "I learned my hypnosis from a student of his (Pete Revise), Robert Brown. He had an active career not on college campuses but doing a lot of things for corporations around the Midwest as an entertainer and also as a lecturer of altered states to other psychology professionals.

"I started about five years ago, and I worked with him between nine months to a year before I actually went out and started doing it. I was already out of college working as a professional entertainer," he said.

As a student, Pittman learned about hypnotherapy and his view of hypnosis expanded.

Pittman said, "My first goal as a hypnotist was simply to add it to my show, my repertoire and do it as entertainment. But as I got to doing more shows and reading about the therapy end of hypnosis, I just got so enthused about hypnosis I wanted to expand. That seemed the natural step.

"I really want to work toward a career where I can incorporate some of my talents in a therapy mode as well as an entertainment mode."

To date, Pittman's career has yielded him a good deal of practical experience.

"Happily, I've had very few negative experiences with what I've done, and I can attribute that to some careful training by my teacher, somebody whose dose

the entertainment as well as the therapy and knows the pitfalls."

A disadvantage of a skill such as hypnosis is the skeptics. "Actually I'm almost amused by some of the bad press I get by people who don't understand what hypnosis is and tend to see me as somebody who works with the devil. I get that a lot especially since I work with the mental. I always get a couple of letters to the editor. And people who walk to the other side of the street when I walk."

Pittman's advice to the skeptics is to smell the roses before cutting stems.

"Wake up. Generally those people have made up their minds without really looking into the facts. And if they're willing to make a snap judgment there's nothing I can say to make them change their minds. I say 'wake up,' come to the show and then make up your minds."

Right: Hypnotist Mark Pittman dressed to mesmerize, before MSU students Eric Heath & Jesse Moran caught in trance.



Image courtesy of the University Archives at Minnesota State University, Mankato. *The Reporter*, Tuesday, September 26, 1989, page 10.

<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A129775>



Have received donations of digital files on CDs/digital files/hardware?

Do I have a Digital Preservation Plan?

Do you know if your digital files are backed up?

Do you know where your digital materials are?

Have you lost digital files?

Do born digital items scare you?

Does the word digital scare you?

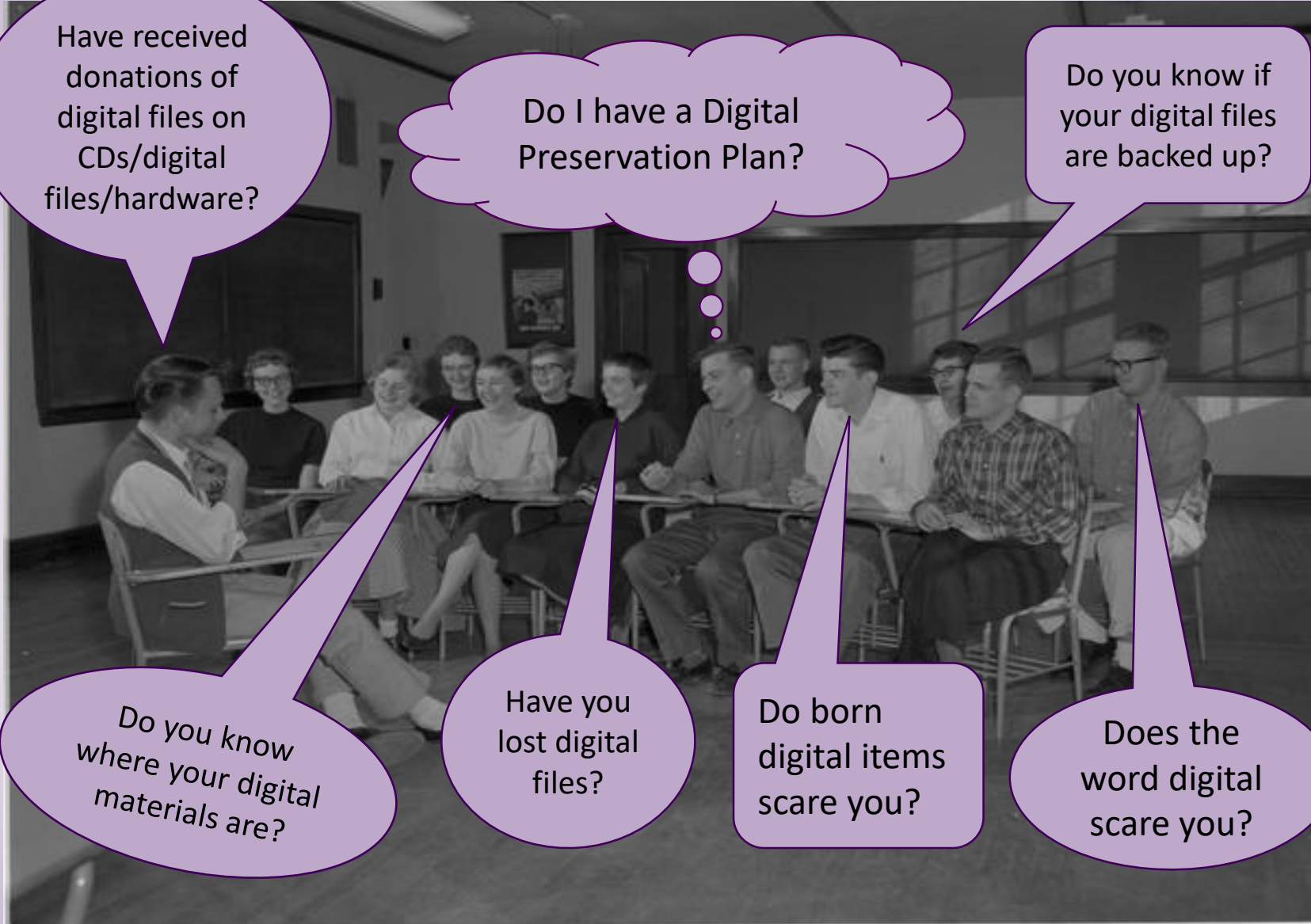


Image courtesy of the University Archives at Minnesota State University, Mankato. A group of students discussing in class, Mankato State College, 1959-03-17. <https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A61509>

SOS!

(AKA: Save Our Stuff with a Digital Preservation Plan)

Our Digital Preservation Plan is at

http://cornerstone.lib.mnsu.edu/lib_services_fac_pubs/53

- Draft (2016)
- Needs updates
- Needs content



Image courtesy of the University Archives at Minnesota State University, Mankato. Mankato State College, Father Halloran from Newman Club posing with boat in front of a house, May 26, 1958.
<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A124575>

Who's On Your Island and How Many Coconuts Do you Have?

- Support?
- Stakeholders?
- Funding?
- What can you Afford?
 - Staff Time
 - Finances
 - Loss (Are you ready to lose everything?)
- Policies?
 - Local/Organizational
<http://lib.mnsu.edu/archives/diglib/intro.html>
 - State/County
<http://lib.mnsu.edu/archives/rm/intro.html>



Image courtesy of the University Archives at Minnesota State University, Mankato. "The Patriots" Fall play 1960 Mankato State College October 31, 1960.
<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A57008>

Survey Your Surroundings



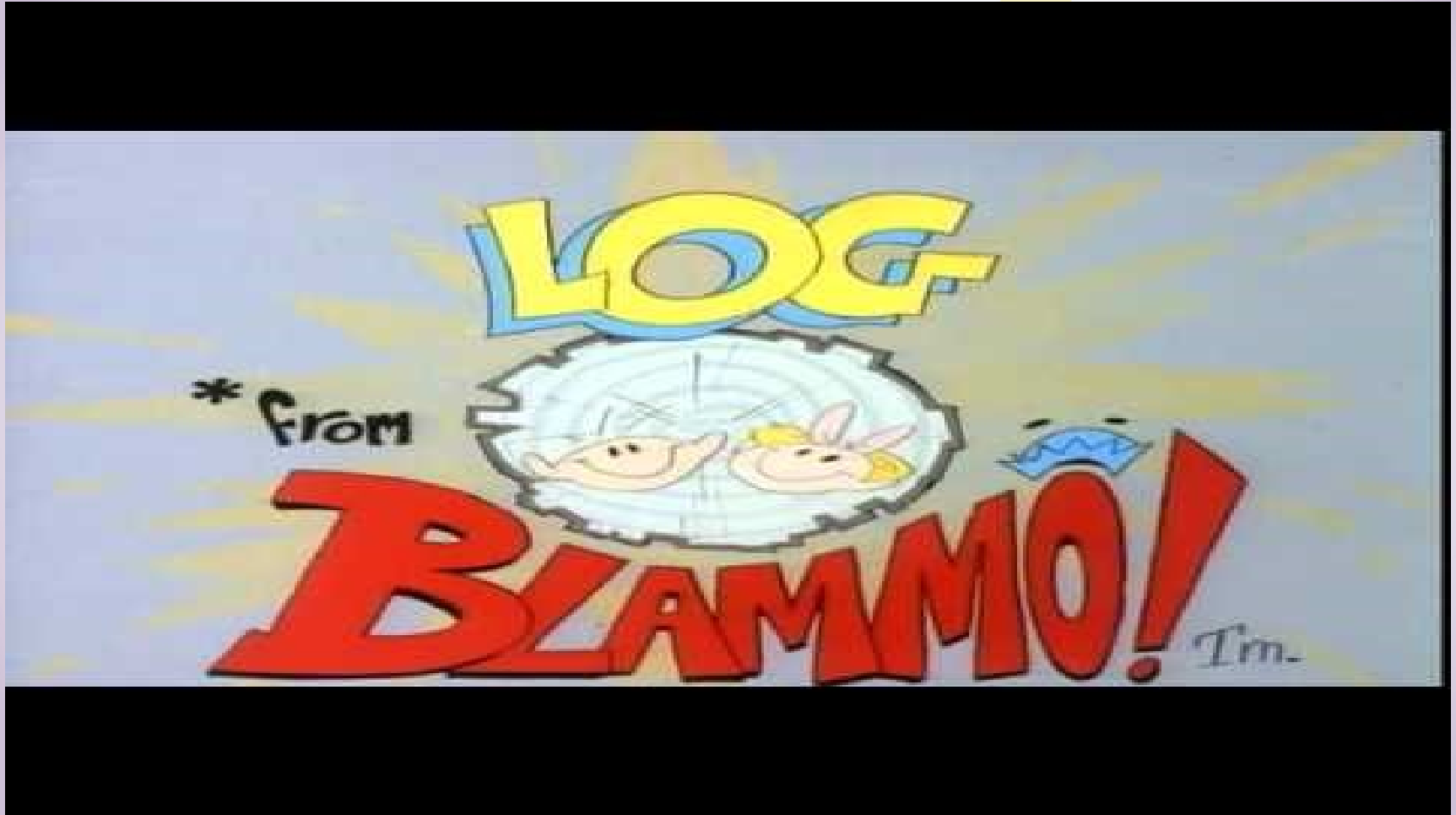
- Begin with a list
- Create a log that includes
 - Unique identifiers
 - Locations

Image courtesy of the University Archives at Minnesota State University, Mankato. Mankato State University Students in surveying class, 1990

<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A4679>

Spreadsheets/Databases are your friends!

Our Second Commercial Break...



Source: rosc2112. (2010, July 25). *log song* [Video file]. Retrieved from <https://youtu.be/8-9scNP5KWk>

Organization (File/Folder Naming)

- Unique Names (version, date)
- Dates = YYYY_MM_DD or YYYYMMDD or YYYY or YYYY-MM or YYYY-YYYY
- Avoid special characters
- Use underscores or dashes to represent spaces
- Use Leading Zeros (001, 002, 003, etc.)
- Filename Extensions = Library of Congress' [Sustainability of Digital Formats Document](#)
- Our Example: msu00072_SMHC_103_07_022_0006.tif
- Tools:
 - ReNamer Lite = <http://www.den4b.com/?x=downloads&product=renamer>
 - Bulk Rename Utility = <http://www.bulkrenameutility.co.uk/Download.php>

Metadata

- **Standards and Best Practices**

- [MODS](#), [Dublin Core](#), [VRA](#) (Metadata Structure Standards)
- Metadata Content Standards (Best Practices)
 - [Describing Archives: A Content Standard \(DACS\)](#)
 - [Minnesota Digital Library \(MDL\) Standards & Best Practices](#)
- How much do you include?
- More Product vs Less Process?

- **Tools**

- Exiftool = <http://www.sno.phy.queensu.ca/~phil/exiftool/>
- NARA File Analyzer and Metadata Harvester
= <https://github.com/usnationalarchives/File-Analyzer>

A large, stylized yellow graphic consisting of several overlapping, curved, flame-like or leaf-like shapes that sweep across the middle of the slide from left to right.

Backup Copies and Storage

- How many copies do you keep?
- How are they arranged/organized?
- Where do you keep them?
- What do you keep?
- Born Digital = 3, Digitized = 2
- Mirror Digital Collections Structures
- Everywhere, On Site, Off Site, Cloud
- Master File (originals), uncompressed?, zipped?

Will We Ever Be Rescued?

- Organization and Proper file/folder naming
- Format Decisions
- Fixity Checking (Running Checksums)
 - Checksums = “Algorithmically-computed numeric value for a file or a set of files used to validate the state and content of the file for the purpose of detecting accidental errors that may have been introduced during its transmission or storage.” page 7 of [U of MN Libraries Digital Preservation Framework](#)
- **Tools**
 - Fixity = <https://www.weareavp.com/products/fixity/#fixity-download>
 - HashMyFiles = http://www.nirsoft.net/utills/hash_my_files.html
 - ExactFile = <https://www.exactfile.com/>

Next Steps for Us

- Newly improved Digital Preservation Plan
- Lots of Re-organization, Re-naming & Re-structuring
- Run Checksums
- Born Digital Accession Plan 2.0
- Launched ArchivesSpace
<https://archivesspace.lib.mnsu.edu>
- Microsoft Azure Cloud Storage

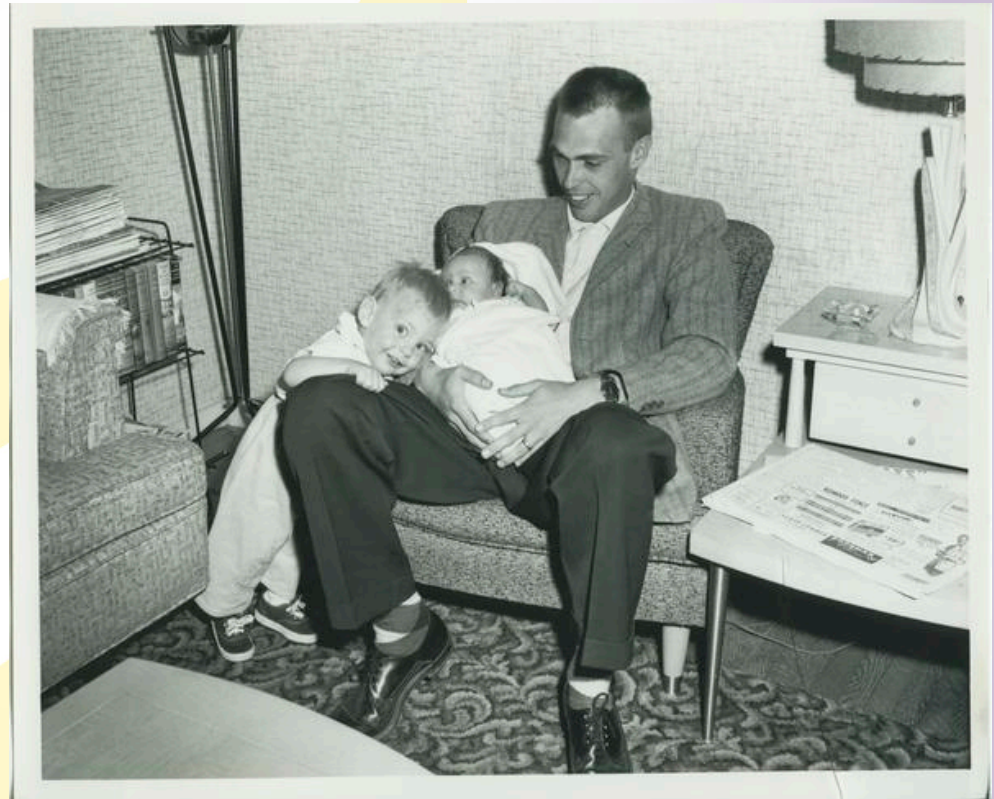


Image courtesy of the University Archives at Minnesota State University, Mankato. A picture of a Mankato State Teachers College student holding his two children in the MSTC barracks dormitory, 1950s.

<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A2086>

Resources and Professional Development

- [Minitex](#)

- Training sessions
- Resources for digitization and digital preservation



- [Minnesota Digital Library](#)

- Standards and Best Practices
- Annual Meeting



Resources and Professional Development

- [University of Minnesota Libraries](#)

- Digital Preservation Framework



- [University of Michigan Library](#)

- Created for personal collections
- Incremental Improvement



Resources and Professional Development - [NDSA](https://ndsa.org/documents/Levels_v1.pdf)

Table 1: Version 1 of the Levels of Digital Preservation

	Level 1 (Protect your data)	Level 2 (Know your data)	Level 3 (Monitor your data)	Level 4 (Repair your data)
Storage and Geographic Location	<ul style="list-style-type: none"> - Two complete copies that are not collocated - For data on heterogeneous media (optical discs, hard drives, etc.) get the content off the medium and into your storage system 	<ul style="list-style-type: none"> - At least three complete copies - At least one copy in a different geographic location - Document your storage system(s) and storage media and what you need to use them 	<ul style="list-style-type: none"> - At least one copy in a geographic location with a different disaster threat - Obsolescence monitoring process for your storage system(s) and media 	<ul style="list-style-type: none"> - At least three copies in geographic locations with different disaster threats - Have a comprehensive plan in place that will keep files and metadata on currently accessible media or systems
File Fixity and Data Integrity	<ul style="list-style-type: none"> - Check file fixity on ingest if it has been provided with the content - Create fixity info if it wasn't provided with the content 	<ul style="list-style-type: none"> - Check fixity on all ingests - Use write-blockers when working with original media - Virus-check high risk content 	<ul style="list-style-type: none"> - Check fixity of content at fixed intervals - Maintain logs of fixity info; supply audit on demand - Ability to detect corrupt data - Virus-check all content 	<ul style="list-style-type: none"> - Check fixity of all content in response to specific events or activities - Ability to replace/repair corrupted data - Ensure no one person has write access to all copies
Information Security	<ul style="list-style-type: none"> - Identify who has read, write, move and delete authorization to individual files - Restrict who has those authorizations to individual files 	<ul style="list-style-type: none"> - Document access restrictions for content 	<ul style="list-style-type: none"> - Maintain logs of who performed what actions on files, including deletions and preservation actions 	<ul style="list-style-type: none"> - Perform audit of logs
Metadata	<ul style="list-style-type: none"> - Inventory of content and its storage location - Ensure backup and non-collocation of inventory 	<ul style="list-style-type: none"> - Store administrative metadata - Store transformative metadata and log events 	<ul style="list-style-type: none"> - Store standard technical and descriptive metadata 	<ul style="list-style-type: none"> - Store standard preservation metadata
File Formats	<ul style="list-style-type: none"> - When you can give input into the creation of digital files encourage use of a limited set of known open formats and codecs 	<ul style="list-style-type: none"> - Inventory of file formats in use 	<ul style="list-style-type: none"> - Monitor file format obsolescence issues 	<ul style="list-style-type: none"> - Perform format migrations, emulation and similar activities as needed

Image courtesy of the National Digital Stewardship Alliance. Version 1 of the Levels of Digital Preservation table. https://ndsa.org/documents/Levels_v1.pdf

Blogs

- Library of Congress
 - [“The Signal”](#) Blog
- [Digital Preservation Matters](#)
 - Preservation, access, archiving, curation, repositories
- [Digipres](#)
 - Listserv focused on digital preservation issues
- [The Archivation Line](#)

The logo for the Library of Congress, featuring the word "LIBRARY" in large, bold, black capital letters, and "LIBRARY OF CONGRESS" in smaller, bold, orange capital letters to its right. The logo is set against a white rectangular background that is partially overlaid by a large, stylized yellow graphic element resembling a flame or a stylized letter 'L'.

Reach out!



Image courtesy of the University Archives at Minnesota State University, Mankato. A professor helping a female student at Mankato State College, 1959-03-19

<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A61679>

- Talk to your colleagues
 - MALHM
 - MNHS Local History Services
 - Other museums
- Ask questions
- Get advice
- See what others are up to

Interactive

- What should you do first? What are action steps?
 - Examples
 - Reachable
 - Incremental improvement
- Digital Preservation Plan worksheet



Image courtesy of the University Archives at Minnesota State University, Mankato. Ladies interact among one another at Mankato State College, 1958-11-11

<https://arch.lib.mnsu.edu/islandora/object/MSUrepository%3A57164>



Contact Us!

507-389-1029

archives@mnsu.edu

Presentation Slides Available at:

https://cornerstone.lib.mnsu.edu/lib_services_fac_pubs/167/