



# Personal Digital Archiving

*Adapted from a workshop by Jaime Mears, National Digital Stewardship Resident, DC Public Library, as presented at the Historical Society of Washington, DC*

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# Agenda

- Inventory
- Storage
- File Names
- File Descriptions
- File Formats



*What is the story behind the image?*



# Inventory

- Take stock of all your photos
- Make a list of:
  - Where you store photos (including photo-sharing sites, social media)
  - What kinds of photos you have
  - Decide what you want to save



# Storage

- Save in at least two locations:
  - Internal drive
  - External drive not connected to your computer (physical separation)
  - Cloud
- Maintain your inventory
- Check yearly to ensure you can read the files
- Update the media often
- Secure a copy of the inventory, too!



# Store and Ignore? Why Not?

- Digital files depend on both hardware and software
- The life of storage media (drives, disks, etc.) is limited by
  - Lack of durability
  - Obsolescence
  - Usage and handling





# Facebook – Terms of Use

- “You own all of the content and information you post on Facebook, and you can control how it is shared through your privacy and application settings. In addition:
  - “For content that is covered by intellectual property rights, like photos and videos (IP content), you specifically give us the following permission, subject to your privacy and application settings: you grant us **a non-exclusive, transferable, sub-licensable, royalty-free, worldwide license** to use any IP content that you post on or in connection with Facebook (IP License). This IP License ends when you delete your IP content or your account unless your content has been shared with others, and they have not deleted it.”
- **Royalty-free: Service provider doesn’t need to pay you for the right to use** your work, even if the service provider uses your content commercially. If the license is nonexclusive you are of course free to license the same work to others and ask them to pay for the usage.
- **Sub-licensable: Licensing party can grant rights of use to other parties.** This is essential for social media websites because users would not otherwise be able to share your content with other users or repost it.

*Design and Arts Copyright Society*

Source: <https://www.dacs.org.uk/knowledge-base/factsheets/understanding-social-media-terms-and-conditions>



# Advantages and Disadvantages of Cloud Storage

Pros	Cons
Usability: Desktop folders on PCs and Macs	Usability: Drag and drop moves file to cloud
Send web links rather than email file attachments	Bandwidth may be limited; may have file type restrictions
Accessibility: Sync data from multiple devices	Accessibility: Requires internet connection
Disaster recovery; backup	Data security: Privacy; service stability
Reasonable cost	Software : May require client on all devices

Source: <http://bigdata-madesimple.com/5-advantages-and-disadvantages-of-cloud-storage>



File Storage/Sync/Share Services At a Glance						
Provider	Amazon Cloud Drive 	Apple iCloud 	Box 	Dropbox 	Google Drive 	Microsoft OneDrive 
<b>Free storage</b>	5GB	5GB	10GB	2GB	15GB	15GB
<b>Lowest cost paid plan</b>	\$10 yearly	\$12 yearly	Starter: \$60 yearly	Dropbox Pro: \$99 yearly	\$24 yearly	\$24 yearly
<b>Storage included</b>	20GB	20GB	100GB	1TB	100GB	100GB
<b>Highest cost paid plan</b>	\$500 yearly	\$240 yearly	Enterprise: \$420 yearly (call company for large-scale user quote)	Dropbox for Business: \$15/user/month	Google Apps Unlimited: \$120/user/year	OneDrive for Business: \$30/user/year
<b>Storage included</b>	1TB	1TB	Unlimited	Unlimited	Unlimited	1TB
<b>Software clients</b>	No desktop clients; Android, iOS	iCloud documents accessed, uploaded and shared via Apple iWorks desktop and mobile apps, web browser	Windows, Mac, iOS, BlackBerry, Android	Windows, Mac, Linux, iOS, Android, BlackBerry	Windows, Mac, iOS, Android,	Windows, Mac, iOS, Android, Windows Phone
<b>File size limits</b>	2GB	1GB	250MB (free plan); 2GB (starter plan); 5GB (business, enterprise plans)	10GB (files uploaded via website); uploads via desktop or mobile apps, no limitation	Varies depending upon file type; see size limits	10GB
<b>Advertised security features include (but not limited to):</b>	<ul style="list-style-type: none"> <li>Data sent to and from company servers using 28-bit RC4 encryption</li> <li>Transport Layer Security (TLS)</li> </ul>	<ul style="list-style-type: none"> <li>Minimum of 128-bit AES encryption</li> <li>SSL encryption</li> </ul>	<ul style="list-style-type: none"> <li>256-bit AES encryption</li> <li>Active Directory and SSO</li> <li>SSL and At Rest Encryption</li> <li>Two-factor authentication</li> <li>A variety of access permissions, including auto-expiration and file locking</li> <li>Audit logs</li> <li>Security policies and automations</li> <li>Custom admin roles</li> <li>Compliance email archive</li> <li>Mobile security controls, including MDM integration</li> </ul>	<ul style="list-style-type: none"> <li>SSL</li> <li>AES 256-bit encryption</li> <li>SSO</li> <li>Two-factor authentication</li> <li>Audit logs</li> </ul>	<ul style="list-style-type: none"> <li>Custom data center servers</li> <li>Two-factor authentication</li> </ul>	<ul style="list-style-type: none"> <li>Perfect Forward Secrecy (PFS) encryption</li> <li>Two-factor authentication</li> </ul>

Source: <http://www.cio.com/article/2684057/cloud-storage/cloud-storage-users-share-pros-and-cons-of-leading-services.html>



# Advantages and Disadvantages of External Storage

Pros	Cons
Unlimited storage	Drives can be lost or damaged
Provides backup	Data can deteriorate over time – drives not designed for longevity
Cheaper option	Possible compatibility issues
Portability	

Source: <http://blog.digistor.com/pros-and-cons-of-data-storage-devices>



# Personal Digital Archiving

Think  
like an  
archivist!

*Who?*  
*What?*  
*Where?*  
*When?*  
*Why?*





# File Names

- Be obvious
- Be consistent
- YYYY\_MM\_DD\_seriestitle\_##
  - Keeps files in chronological order
  - Don't make filenames too long
  - Avoid special characters
  - Use leading zeroes for sequential numbering
  - Use underscores or hyphens rather than spaces
- Consider including a README.txt file in the directory to explain your naming conventions and abbreviations



What is this photo of?  
When and where was it taken?



# Tools for Bulk File Renaming

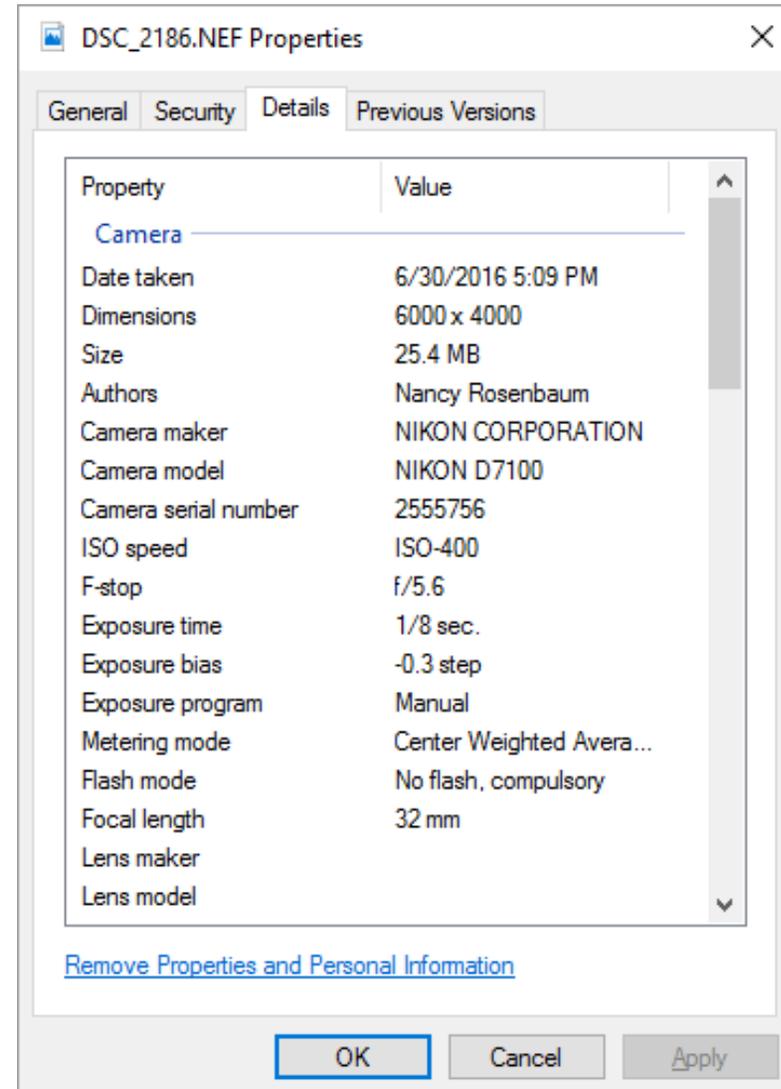
- Picasa
- Adobe Bridge
- Bulk Rename Utility
- Renamer 4
- PSRenamer



# Metadata

- Machine-added
  - Exchangeable Image File Format (EXIF) standard used by digital cameras
  - Metapicz – software for viewing EXIF data

Source: <http://metapicz.com/#landing>





# Additional Metadata

- Creator
- Names of people in photo
- Summary
- Rights

Hand-written data, contextual information (where it was found, from whom it came, etc.) and anecdotal information all contribute to understanding the image





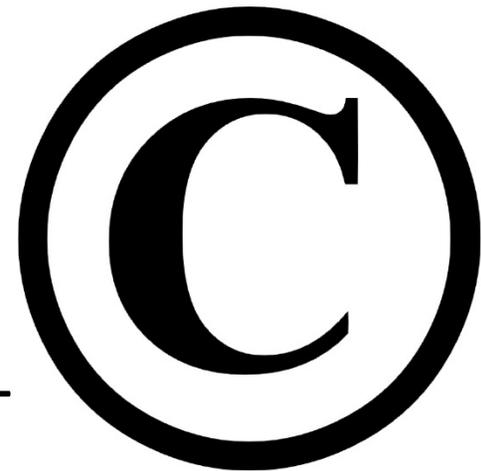
# Creative Commons

- Helps you legally share your work
- Provides free copyright licenses

<https://creativecommons.org/>

- For information about embedding metadata (e.g., copy-information in your photos, see

<http://photometadata.org>





# File Formats

- Highest quality possible
- Use open source format
  - TIFF\*
  - PNG\*
  - JPE2000
  - JPEG
- Convert if necessary
- Don't archive in proprietary format (e.g., NEF, RAW, PSD)

\*Lossless. All of the file's original data are preserved.



*Library of Congress, "Recommended  
Formats Specifications"*



# Library of Congress

Source:

<http://digitalpreservation.gov/personalarchiving/>

The screenshot shows the Library of Congress website's "Personal Archiving" section. At the top, there are navigation links for "ASK A LIBRARIAN", "DIGITAL COLLECTIONS", and "LIBRARY CATALOGS", along with a search bar. The main heading is "Personal Archiving" with the subtitle "Preserving Your Digital Memories". Below this, there is a search bar for the site and a list of navigation links: Home, About, Meetings & Events, Education & Training, and Contact Us. A "Resources" section lists various guides and documents, such as "Digital Formats Sustainability", "Federal Agencies Digitization Guidelines Initiative", and "Library of Congress Recommended Format Specifications". A "Find Us On..." section provides links to Facebook, Twitter, YouTube, and iTunes U. The main content area features an "Overview" section with links to "Introduction to Scanning", "The Library of Congress and Personal Digital Archiving", "How to Scan Your Personal Collections", "How Long Will Digital Storage Media Last?", "Why Digital Preservation is Important for You", "Personal Archiving Brochure", and "Low-Cost Ways to Preserve Family Archives". Below this is a "How to Preserve Your Own Digital Materials" section with links to "Digital Photographs", "Digital Audio", "Digital Video", "Electronic Mail", "Personal Digital Records", and "Websites". The "NDIIPP publication: 'Perspectives on Personal Digital Archiving' (2013)" section describes a series of blog posts compiled from "The Signal" and provides a link to the full publication. Finally, the "Personal Digital Archiving Day Kit" section mentions events held by the Library of Congress to provide guidance on preserving digital memories.



# DC Library Memory Lab

- Located inside MLK Library
- Equipment for digitizing home movies and scanning photos and slides
- DIY model (with instruction)
- Reserved in 3-hour sessions

Formats Accepted	Formats Saved On (Customer Provided)
<ul style="list-style-type: none"><li>• VHS</li><li>• VHS-C</li><li>• DV</li><li>• Mini DV</li><li>• Audio cassette</li><li>• 3.5" Floppy</li><li>• Photos/slides/negatives</li></ul>	<ul style="list-style-type: none"><li>• External hard drive</li><li>• USB</li><li>• Cloud Storage</li><li>• CD</li><li>• DVD</li></ul>

Source: <http://www.dclibrary.org/labs/MemoryLab>