Digital Archiving for Individuals, Communities and Small Institutions
Misha shows Grandma how to text. by sashamd on Flickr.

“Friends with Mobile Phones” by Gary Wright on Flickr.

“Misha shows Grandma how to text.” by sashamd on Flickr.
More Libraries Helping Community Preservation

Libraries still oriented toward **digital literacy** but there are independent pockets of community outreach happening around digital preservation.
Accreditation standards
The professional degree in librarianship continually expands with constituents’ needs. Degree programs accredited by the American Library Association now offer more than 20 distinct areas of concentration beyond foundation courses, including cultural heritage, community informatics, and digital archives.
The Preservation Problem
Digital photos and other digital files require a special storage container.
Storage

There is no “best” digital storage medium.

Each one has advantages, disadvantages and a limited lifespan before it becomes obsolete.
Each digital storage medium becomes obsolete as technology improves.

Your files could become difficult to access on obsolete media.
The risk of loss

Your files may become difficult to account for, scattered on CDs, websites, floppies, thumb drives and buried in your computer.
The risk of loss

Email, social media, cloud storage and other online services can go out of business or could get hacked.

Graphics by the Library of Congress
The Solution
Essentially…

1. Organize
2. Backup
Organize

Identify what you want to save. Gather your stuff from:
- Thumb drives
- Social media sites
- CDs
- Floppies
- Video from DVDs
- Email accounts
- Photo sites
- Digitizing

…from everywhere.

Graphics by the Library of Congress
Organize

Decide what is most important to save (appraisal).
Organize

Decide what is most important to save

“commute-2009-03-11-am” on Flickr by Eric E

“riding the cow train” on Flickr by Matt Kowalcyk
Organize your collection however you want. Be consistent with your system.
Organize your collection however you want.
Be consistent with your system.
Organize

Descriptive folder and file names

- My Archive
  - 2006
  - 2007
  - 2008
  - 2009
    - Family
    - Friends
    - School events
  - 2010
    - Blog
    - Digital Photos
    - Digital Video
    - Documents and Important Papers
    - Music
  - 2011
    - Family events
      - Uncle Bobs 70th party
    - Holiday parties
    - Misc
    - Vacations
Backup

Copy the folder to at least two storage devices.
Verify that the files copied over

Spot check your files and open a few -- especially the more important ones -- to verify that they copied over intact.

(Roughly equal to checksums and fixity.)
Backup

Save copies of your collection in different locations.
Backup

If you backup to an online storage service – “The Cloud” – also keep a backup on a nearby storage device.

Use cloud services as secondary backup, not main.

“Clouds” on Flickr by fifikins.
The professional photographer’s 3 - 2 - 1 rule:

- Make 3 copies
Backup

The professional photographer’s 3 - 2 - 1 rule:

- Make 3 copies
- Save at least 2 on different storage devices
Backup

The professional photographer’s 3 - 2 - 1 rule:

- Make 3 copies
- Save at least 2 on different storage devices
- Save 1 in a different location
Manage

Move your collection to a current storage medium once every five to seven years, well before your current storage device becomes obsolete.

Upgrade any storage device that you use frequently.
Manage

When planning your estate, let a loved one know where you store your important documents. Supply passwords, if needed.
Consider creating an inventory of your collected files.

Include information about your stuff that resides online. List URLs, usernames and passwords.

Keep a copy with your important papers in a secure location.
Digital Photos
"The only shots I can get on a rope line are other shots" on Flickr by Albumen
Four things happen immediately when you take a digital photo:
Digital Photos

Four things happen immediately when you take a digital photo:

The camera:

1. saves the photo as a file
Digital Photos

Four things happen immediately when you take a digital photo:

The camera:
1. saves the photo as a file
2. names the file

“You pointing that at me!” on Flickr by Steve 2.0
Digital Photos

Four things happen immediately when you take a digital photo:

The camera:
1. saves the photo as a file
2. names the file
3. inserts technical information inside the file

“You pointing that at me!” on Flickr by Steve 2.0
Four things happen immediately when you take a digital photo:

The camera:
1. saves the photo as a file
2. names the file
3. inserts technical information inside the file
4. saves the file in a JPEG format. (Most consumer cameras.)

“You pointing that at me!” on Flickr by Steve 2.0
Digital Photos

1. The camera saves the photo as a file. As soon as possible, get your photo files off your camera and back them up.
Digital Photos

2. The camera names the file.

![](IMG_1467.JPG)
Digital Photos

2. The camera names the file.

Giving the file a descriptive name can help you find and identify the photo quickly.
Digital Photos

3. The camera embeds technical information within the photo file.
3. The camera embeds technical information within the photo file.

Some photo editing software will enable you to add a **description** into the photo file just as you would write a description on the back of a paper photo.
Digital Photos

Experiment with Embedded Description

http://regex.info/exif.cgi

Graphics by the Library of Congress
Digital Photos

WARNING

With some photo-editing and photo-managing software, after you enter descriptions to the photo, those descriptions remain in a database linked to your photos.

They do not get inserted in the photo files themselves.
Digital Photos

WARNING

If you add descriptions to photo files, uploading your photos to social media sites and photo sites -- and as email attachments -- may wipe out your descriptions.
Digital Photos

WARNING

Backup your original photo.

Never discard your photo just because you have a copy online.
Digital Photos

4. The camera saves the file in a JPEG format. (Most consumer cameras.)

Don’t worry about formats unless you have an interest in working with a special format.

Leave the file as it is and back it up.
Modifying Digital Photos
Digital photos are made up of millions of colored and shaded dots or squares called **pixels**.

This image is ten pixels wide.

Pixel density is usually measured by the inch. If this image was an inch wide, the pixel measurement would be 10 dots per inch (DPI) or 10 pixels per inch (PPI).
Digital Photos

The **more** dots or pixels per inch, the more dense and sharp the photo and...
…the **higher** the quality of the photo.

Digital Photos

The **fewer** the dots or pixels per inch…

MORE

FEWER
Digital Photos

…the lower the quality of the photo.

Digital Photos

WARNING

When you upload photos to some websites, such as photo-sharing or social media websites, they may get compressed to reduce the size of the file.
Digital Photos

WARNING

A compressed file is easier to upload or attach to an email because it is much smaller than the original photo file.
Digital Photos

WARNING
Once a photo is compressed and pixels are removed you can never regain the original quality.

That’s why you should always preserve your originals and work with copies.
Scanning

“Scanner de Diapositivas” on http://www.arteyfotografia.com.ar by leonidas
Scanning

Scan 4"x6" 5"x7" and 8"x 10" photos at 300 dpi/ppi.

300 dpi/ppi
Scanning

Scan slides and tiny photos at about 1800 dpi/ppi.

You need more dots/pixels per inch to capture the detail.
Scanning

Scanner software saves your scanned photo as a digital file.

The most common file types for digital pictures are TIFF and JPEG.

The main difference between TIFF and JPEG files has to do with compression, -- squeezing down the digital data to make a smaller file.
If you have a choice of file format, TIFF is a lossless format that contains the most information.

However, more information means a larger file size. The highest-quality JPEG is fine if storage space is an issue.
Public Libraries and Personal Digital Archiving

How can public libraries help?
Chesterstown — Do you have a stash of World War II letters in the attic of Chesterstown in the 1940s? A stack of wartime ration books from Kent County are invited to bring such treasures to the Chesterstown branch Public Library on Saturday, April 25, to share them with local college students.

From 12:30 to 2:30 p.m., Washington College students will be on hand to photograph and document objects for inclusion in an expanding World War II exhibit. Donations of the objects is not necessary, as the archive will be an online resource.
Public Libraries and Personal Digital Archiving

Please consider hosting a Personal Digital Archiving event

Commit an act of outreach
Public Libraries and Personal Digital Archiving

Visit http://digitalpreservation.gov/personalarchiving/ for personal digital archiving educational resources
Public Libraries and Personal Digital Archiving

Try to confusing and complex terminology

- Photometadata
- Digital objects
- Compression
- File formats
- Metadata
- Records
- Data

"Confused Dog" by Laura-C-F on deviantart.com

“Perplexed” on Flickr by pietroizzo
Public Libraries and Personal Digital Archiving

Too much information may bury the message
Public Libraries and Personal Digital Archiving

Try to keep it simple and get right to the point.

Organize your stuff and back it up.
Artifacts help convey obsolescence
3 of top 10 LC blog posts are people seeking PDA help

<table>
<thead>
<tr>
<th>Blog Post</th>
<th>Month/Year of Publication</th>
<th>Visits in March</th>
<th>Was this a top post last month?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ring Around the Rosie: Metafolklore, Rhyme and Reason</td>
<td>Jul-14</td>
<td>3,875</td>
<td>Yes</td>
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<tr>
<td>You Say You Want a Resolution: How Much DPI/PPI is Too Much?</td>
<td>Jul-13</td>
<td>3,724</td>
<td>Yes</td>
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<tr>
<td>Frequent Reference Question: How Many Federal Laws Are There?</td>
<td>Mar-13</td>
<td>1,912</td>
<td>Yes</td>
</tr>
<tr>
<td>Adding Descriptions to Digital Photos</td>
<td>Oct-11</td>
<td>1,559</td>
<td>Yes</td>
</tr>
<tr>
<td>Archiving Cell Phone Text Messages</td>
<td>Apr-12</td>
<td>1,540</td>
<td>Yes</td>
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<tr>
<td>Ethnography, 21st Century Style</td>
<td>Mar-15</td>
<td>1,448</td>
<td>No</td>
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<tr>
<td>Mark Twain's Huckleberry Finn: Controversy at the Heart of a Classic</td>
<td>Nov-13</td>
<td>1,392</td>
<td>Yes</td>
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<tr>
<td>The Articles of Confederation: The First Constitution of the United States</td>
<td>Sep-11</td>
<td>1,347</td>
<td>Yes</td>
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<tr>
<td>The San Patricios: the Irish Heroes of Mexico</td>
<td>Mar-13</td>
<td>1,248</td>
<td>No</td>
</tr>
<tr>
<td>Using Wayback Machine for Research</td>
<td>Oct-12</td>
<td>1,239</td>
<td>Yes</td>
</tr>
</tbody>
</table>

14 different Library of Congress blogs, total of 50 to 70 per posts per month
The general public will look to you – the information professionals – for help.

Information technology is now part of what you do.
Thank You

Please use our resources:

- http://digitalpreservation.gov/personalarchiving/
- http://blogs.loc.gov/digitalpreservation/
- http://www.facebook.com/digitalpreservation
- Twitter: @ndiipp

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