



Honors 208W

Fall 2011

A collection solution?

- <http://www.mdsupport.org/images/shoebox.jpg>

Organizing Photographs: History, Techniques, and Technology

Why do people keep photo collections?

The following are some common reasons why people take photos and create collections.

Note that they are not mutually exclusive bullets:

- To allow others to experience things that you have.
- To tell stories.
- To remember events.

“Don't believe his lies. He is the one. Kill him.”

- To be creative.
- To create a moment.

“..taking a picture is a really good excuse to stick
your head in a dolphin shaped trash can...”

- Others?

Will your collection survive?

A serious concern with digital photography, or film photographs transferred to digital storage is that of preservation.

Have you ever looked at a photograph that was more than 15 years? Have you ever tried to access a floppy disk that was more than 15 years old? (I have, I couldn't.)

Have you ever tried opening a document that was created on an older version of your software package and had it look different?

This is a topic onto itself in many ways. We will address some of these concerns as we explore this topic.

Labeling/Identifying Photographs

Organizing collections really starts when you are taking the photos themselves, though you might not preserve this organization.

Do you attach information to your pictures?

Which of these is most important to you:

- Place taken?
- Date taken? Order taken?
- People in the image?
- Objects in the image?
- Placement of people and objects?
- The camera you used?
- The focal length, lens, aperture, shutter speed?
- Others?

Which (if any) are generated automatically for you when you take/develop your picture?

Organizing “physical” collections (I)

There are many ways to organize prints:

- Albums
 - Cheap and simple or archival quality?
 - Captions added beneath / to the side of pictures?
 - Non-photographic items as well?
- Multi-image picture frames
 - Do you have to alter the print to make it fit?
 - Should you use copies to preserve the originals?
- Shoeboxes
 - Organized by year? By person?
 - Being used for compactness or for simplicity?
- Others?

Organizing “physical” collections (II)

How do you organize your organization?

- Index to what each sub-collection (eg: album or shoebox) contains?
- Chronological ordering within sub-collections?

The reason why are you creating the collection can influence the technique you use.

Do you duplicate your physical collection? If so, are the duplicate images stored in a structure that is parallel to that of the originals?

Using computers to organize photos...

“At a library conference in mid-1985, one vendor was demonstrating an impressive library package running on high-end IBM microcomputers - PC XTs and ATs - and the going rate was \$15,000, which puts it somewhat outside the range of even many small businesses.”

– “Organizing Your Photographs” by Ernest Robl, 1986

Computers can still be used to create databases that can be used to find physical or electronic images.

Media for Digital Collections (I)

Storage Media

- Hard drives: appear to be most likely to hold information long-term and be able to have parts recovered, but recovery can be expensive if drive has serious failure and the cost-per-megabyte can still be relatively high.
 - RAID (redundant array of independent disks) systems increase the cost but also improve file safety.
- CDs, DVDs, BluRay: the writeable disks we use alter the composition and reflectivity of chemicals on the disk (unlike pressed disks where there are physical pits). The cost-per-megabyte is rather low, but recovery if the disk is damaged might not be realistically possible.
- The “Cloud”?

Media for Digital Collections (II)

Long-term Planning

- Make multiple copies of image collections.
 - Always verify that the copy was successful and identical.
 - Do not delete the original. If you do, then you don't have a backup, you just have an offline original.
- Use multiple forms of media.
- Have copies in different locations.
 - Physical copies at home, work, friends/family's homes.
 - In “the cloud” somehow.
- “Refresh/Migrate” your files periodically (copy to a new hard drive, copy to new optical disks, copy to new types of media that gets created).

EXIF (or Exif) data

- The “Exchangeable image file format” standard.
- Metadata “about” the JPG or TIFF image such as the camera make and model, camera settings, photographer name, time/date of photograph, etc.
- Not supported by the “new” (and still little-used) JPEG2000 file format.
- Some software will discard all data when resaving an image. Some will insert their name in the “Creation Software” field.

Viewing and altering Exif data

Can view some fields in Windows by going to an image file's **Properties** sheet, selecting the **Summary** tab, and looking at the **Advanced** view. You can also alter the listed fields there though some sites warn NOT to do this at the risk of losing some data.

Other software exists for viewing and/or editing more Exif metadata fields than the Windows properties view.

The Exif data can contain a thumbnail of the image itself. This is often not updated after an image is edited.

Save Software Too!

Each time you get a new computer, reinstall any software you used to create collections to make sure the old software still works on the new computer.

Keep the software installation disks or installer files so that you can do this with each new computer.

Companies go out of business, people take down their sites, new versions are sometimes unable to open formats of older versions and older versions are removed from download pages.

If a new version is released and you upgrade to it, make sure that your information database is correctly imported into the new version's database.

Some mainstream software/sites...

Editing

- Adobe Photoshop, Elements, Lightroom
- GIMP, Paint.NET

Organizing Collections

- ACDSsee
- iPhoto
- Picasa

Online Photo Communities

- Flickr
- ImageShack

Digital Libraries

- ArtStor
- CalPhotos

Others?

Some Past Research Projects

Some local HCIL projects:

- PhotoFinder

<http://www.cs.umd.edu/hcil/photolib/>

- PhotoMesa

<http://www.cs.umd.edu/hcil/photomesa/>

Image Annotation on the Semantic Web

<http://www.w3.org/2005/Incubator/mmsem/XGR-image-annotation/>

Microsoft Research's Media Browser project

<http://research.microsoft.com/pubs/80403/mediaframeAVIlong.pdf>

Some “Old Fashioned” Concepts

Organizations such as the Library of Congress and the National Museum of Natural History have complex cataloging systems and standardized terms to use.

- Do you use the word “clouds” or one of “cirrus, cumulus, nacreous, stratus”?

Contact sheets were an easy way to catalog negatives.

- Is there such a concept in digital image collections?

Others?

Some “Newfangled” Concepts

Digital file systems allow for shortcuts.

- Can these be used for “cross filing”?

There are a wide variety of file formats.

- Should all images be stored using a lossless format?
- Should originals and edits be done in lossless formats, and lossy formats be used for general publishing?
- Since lossless file formats do not suffer degradation from duplication, should copies be stored in multiple formats?

What happens is a compressed file is damaged?

- While a slightly corrupt BMP file could have much of its content recovered, what happens with a compressed file?

Others?

Photo Collection of the Future

What if YOU were on the design team tasked to create the “Photo Collection of the Future” software tool?

- What would it be able to do?
- How would images be sorted?
- What would it look like?
- How would users interact with it?

Some resources:

Book: *Preserving Your Family Photographs* by Maureen Taylor - 2001

http://www.dpreview.com/learn/?/General/Storing_Your_Digital_Images_01.htm