

**Photo library project - Users/task analysis**  
**(1<sup>st</sup> DRAFT Catherine 10/12)**

Users	Some characteristics
<p><b>Average Families or Household</b>            (the less organized group)</p>	<p><u>Current practice:</u>            Take about 5-8 rolls a year,            Often write mark rough annotation on the package            (date/place/people)            Try to keep the packages in order.            Only a few photos per roll are really beautiful or important.            Lots of repeat photos.            Orders doubles to give copies to friends            Only very occasionally will add names of            places/people/events on individual photos.</p> <p><u>Hypothesis for Future</u>            Might switch to digital camera, but not very soon because it            is to cumbersome to view, printing, manage the collection.</p> <p>Minimum activity will be to add a group of new photos (a            roll or a group of photos downloaded from digital camera, or            given by friends), send pictures to friends, show the newer            rolls to others, and possibly do very simple albums.            There are known set of classic events types (holidays,            vacations, birthdays) and topics (babies, pets etc.), plus the            need for a few special hobby topics (e.g. garden pictures,            sailboat photos) of pictures that might traditionally be pulled            out of the package and grouped in a special box of non            chronological album. Finding photos is done by browsing.</p> <p>Once in a while, they will go back to find photos of a            particular person or event when friends visit, when a new            member joins the family or a person dies. Parents will review            pictures of the children over the years. Often done with more            than person at a time. The physical browsing of pictures is            part of the pleasure of seeing those photos.</p> <p>Rudimentary metadata at the "roll" level (most likely in            plain text form, not formal categories)            A few individual photos also have metadata .            Those users are more likely to annotate than classify.</p> <p>Users will typically have several cameras, so the            rolls/downloads will overlap in time (some covering possibly            6 months or more)</p>

<p><b>Organized families</b> (The families with at least one organized family member to actively manage the photo collection)</p>	<p><u>Current use:</u> More extensive use of albums. Chronological order albums and special topics albums. Prepare special presentations for friends (e.g. on a recent trip to China, or the last school reunion) Often send copies of photos with special notes to friends. Will create metadata for many individual photos (typically in the form of free text accompanying photos in albums) Carefully keeps the negatives aside</p> <p><u>Future hypothesis</u> May or may not have digital cameras. Those users are more likely to classify photos to be able to find them, but will favor classification of groups of pictures all at once just for speed reasons. They also will probably add more metadata later on while they look at photos.</p> <p>Not everyone is organized all the time so they will always be a lag in the metadata (e.g. the last 4 months of photos will not be annotated)</p>
<p><b>Technology savvy families</b></p>	<p>Will definitely get a digital camera but will keep the traditional ones in parallel because of the quality of the picture.</p> <p>Will actively create websites with some of their pictures (e.g. the best of X, or for special community events).</p> <p>Will expect high quality browsing and searching tools</p> <p>Annotations/classification might be done online with other people.</p>
<p><b>Children</b></p> <p>1) less than 6 (no or limited reading)</p>	<p>All will want to look at themselves changing over time. Will want to make their own albums using copies of photos in the parents collections.</p> <p>Shoulderware activities with parents might be used (e.g. an adult will browse pictures with the child, but also play with tools to make a family tree) Ironically classification might be used as an "educational game", e.g. put all the animal pictures together or all the forest pictures. Parents might like that!</p>

<p>2) 6-13 y.o.</p> <p>3) teenagers</p>	<p>Select photos for school projects (on travel destinations, holiday traditions, family). This is a classic elementary school assignement!</p> <p>Friends and secrets photos or albums. Privacy an issue.</p>
<p><b>Hobbyists</b></p> <p>(e.g. a bird watcher, a fan of civil war reenactments, an architecture professor collecting building photos)</p>	<p><u>Today</u></p> <p>They are doing a lot of systematic annotation already</p> <p>Fairly large collections</p> <p>Might acquire other people's collections (in a shoe box or already organized in a different way)</p> <p>Concerned with archival and security.</p> <p><u>Future:</u></p> <p>Ready to spend the time to do more classification at the group level and at the individual picture level.</p> <p>Will actually probably spend more time classifying than before because of the search capabilities.</p> <p>The type of questions will be very specific to the type of hobby, with special requirements for the database fields, and annotation techniques.</p> <p>Users will use their work in polished presentations, help others by answering specific needs (i.e. do you have a picture of x showing this and that).</p>
<p><b>Professional photograph</b> or photography hobbyists</p>	<p>Similar to the hobbyists but will also be concerned by the photographic quality of the photo.</p> <p>Extensive collections</p> <p>Most likely to create extensive metadata</p> <p>There might be existing tools for them.</p>
<p><b>Professional photo finder</b></p> <p>e.g. journalist</p>	<p>Does not create but use photos.</p> <p>Copyright issues, price?</p>
<p><b>Librarian/Archivist</b></p> <p>(not really for the "personal" libraries, except when your personal libraries of famous people end up in a library...)</p>	<p>Help others find pictures</p> <p>Create highlights or special presentation of collections</p> <p>Will work with a variety of collections with no metadata or extensive metadata.</p> <p>Link to other relevant media (e.g. books or articles)</p>
<p><b>Detectives</b></p>	<p>Might be looking for things you never thought of</p>

	classifying... in particular people (e.g. was Mr. X. at the CHI95 conference) If that person appears in a picture showing only its back or part of the body, you may not have entered it in the list of people, unless you know this kind of question is likely to be asked.
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NOTE:

There is a clear separation of users according to the level of annotation and classification people will be willing to add to their photos.

We may want to limit our work to the "personal collections", i.e. including the home hobbyist but not the professionals? The main characteristic of what we are working on might be:

- a **reasonable volume of photos** so browsing everything (or at least a sample of each group of pictures would take a reasonable time, e.g., less than 15 minutes), and in
- the existence of a **strong connection to the personal life experience** of the user (i.e. importance of the calendar and special events orchestrating the photo collection).

Similarly we will not work on:

- automatic classification techniques (face recognition, indoor/outdoor) or on
  - automatic photo finding based on similarity (color, layout, classification or annotation)
- Those techniques are useful but are not our specialty/strength.

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## Simple scenarios (to be extended!)

Hi Paul! Have you seen our latest vacation pictures? (the best ones only - or all of them)

Find some "good" pictures of a person to make a birthday present.

What is good? (fun, good technical quality, nice setting, given to a lot of people)

Find all the pictures with Pierre and make a special presentation. Could be a search is there is extensive annotation or classification. But could also be just browsing for all summer pictures or groups classified as "taken in France", or a quick reading of all the summer group annotations for locations in France (e.g. Auvergne, Paris, Alps) and then a browsing of the selected groups/rolls.

Find all Halloween costumes photos (e.g. search for Halloween, and browse all the neighboring rolls of groups of photos, or browse all the photos around or overlapping the end of October.

Find that Halloween Greek costume with the striking red cape.

When is the last time we went skiing in Colorado?

Search for ski, if not sure it covered everything, look at all winter groups of photos between 1990 and 1996

Send one photo to another person, to several, to all the people on that photo.

(a snap to the address book would be great)

Is there a negative for this great photo and where is it?

I am editing this photo for fun but I want to keep the original and be able to locate it easily.

Find the best picture with a lot of my French friends (groups, with quality award, around summer or Easter)

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## INTERFACE COMPONENTS

### Overview presentation

for the whole collection (e.g. show 20 years of photos summarized on one screen...), or for a group of photos.

Could be an abstract overview, a calendar view, a collage of photos, sampling, or plain thumbnails if the group is small enough

### Metadata generation

1) Annotation (free text, i.e. a few words for a group of pictures, or a paragraph description in an album)

2) Classification (building a database)

3) Attachment of special "awards" or "markers"

4) automatic classification (e.g. indoors, outdoors) - I don't think this is our chosen domain.

### Metadata browsing

e.g. To read all the group annotations for the last 10 rolls, or the winter groups of the last 5 years.

### Metadata searching

the traditional search! in text annotations, or in the database of classified metadata

### Image browsing

for: 1) the real experience of enjoying images

2) when there is no metadata whatsoever

3) users can't read the metadata (e.g. young children)

Include preview of photos (same as overview)

Speed and enjoyment is the key

Different for small sets and large sets

### Creative construction

From slide show, to story writing or history making

Includes manipulation (e.g. cut, crop), ordering, merging in groups, merging with other media, sharing and presenting

Simplicity and richness is the key

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## OBJECTS AND ACTIONS

photos          view full screen  
                 flip  
                 annotate  
                 classify  
                 delete  
                 send to...  
                 add to group x (or drag and drop to group)  
                 add to pile of temporary pile of photos (by dragging)  
                 select as highlight of group (  
                 give award ...

group          preview  
collection      annotate  
roll            classify  
set            name (title)  
                 send to...

pile (an ephemeral grouping)  
                 same as groups

Presentation   order  
Album          add special presentation annotations  
                 make website

library          get overview  
(the whole thing!) Backup  
                 get stats of

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### Types of photo libraries

No metadata at all  
Some metadata at collection level  
Extensive metadata

Digital photos only  
Scanned old photos  
Mixed (digital and scanned)

Single user / Personal library  
Multiple users: users might just share everything (e.g. a standard family, the hcil lab)  
or not! (e.g. share the classification but have different annotations in different  
personal albums)