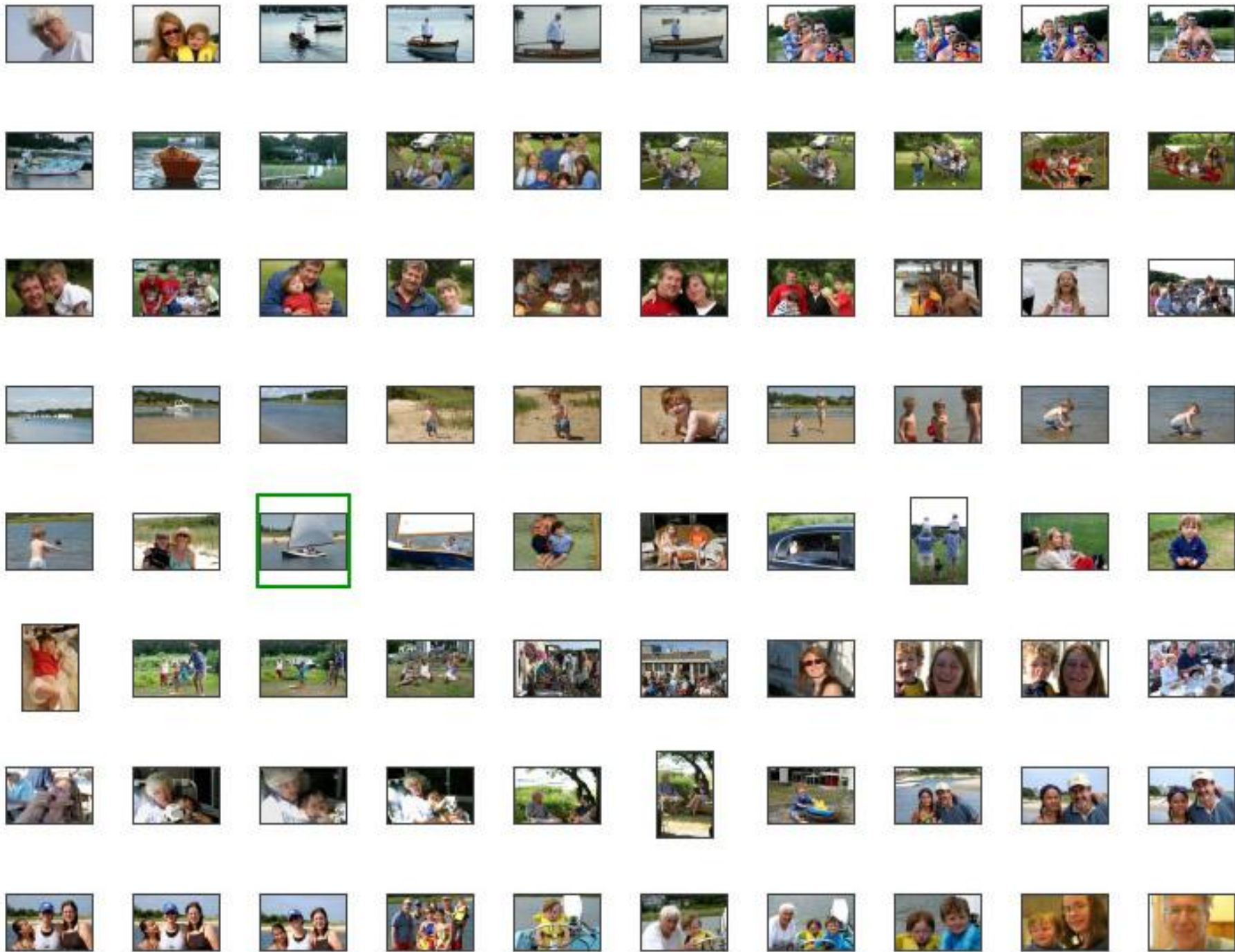


Redesigning the Photo Album

Nivay Anandarajah

CS294 | Fall 08



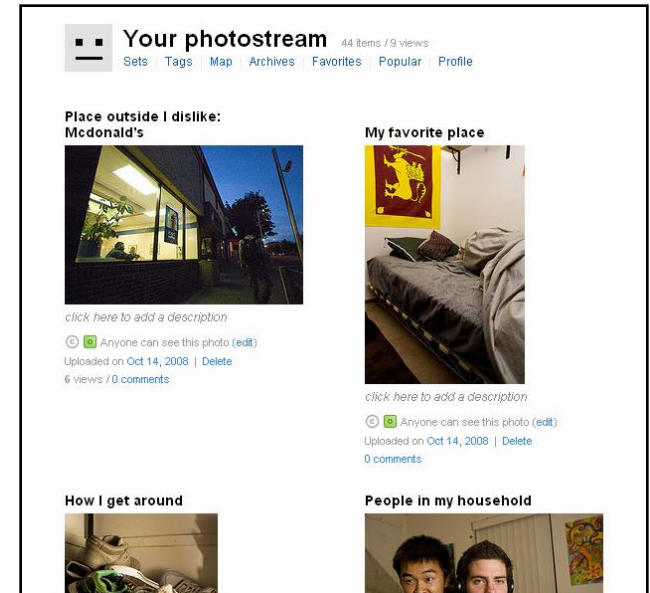
Problem/Motivation

Advancements in digital photo technology have allowed users to take an increasing number of photos. As the quantity of photos taken has risen, the means of organization has stayed relatively the same: the photo album



Problem/Motivation

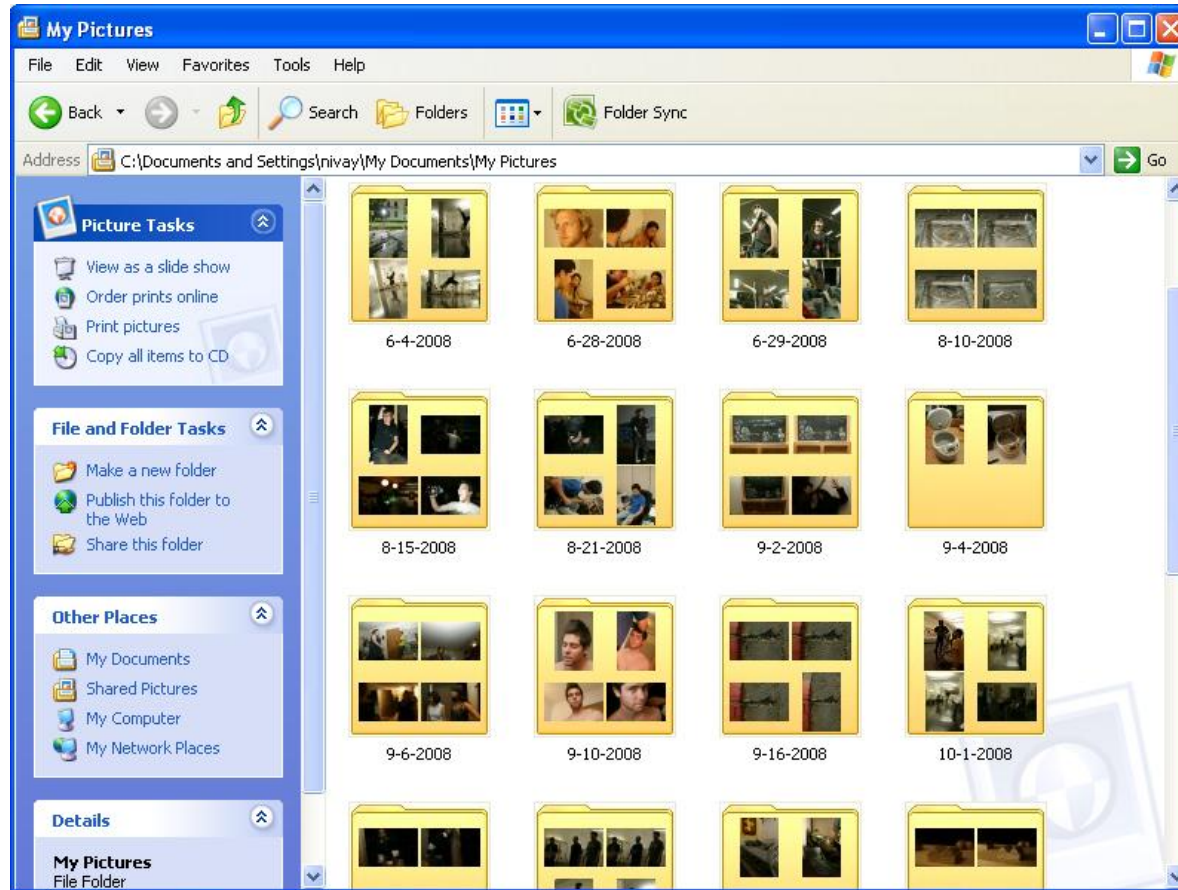
- Finding photos can be overwhelming due to:
 - Folder hierarchy with arbitrary ordinal labels
 - Photos scanned in batches of thumbnails at a time
- Only works provided users are familiar with their albums
- As data storage gets cheaper, organizational problems will only grow



Project Goals

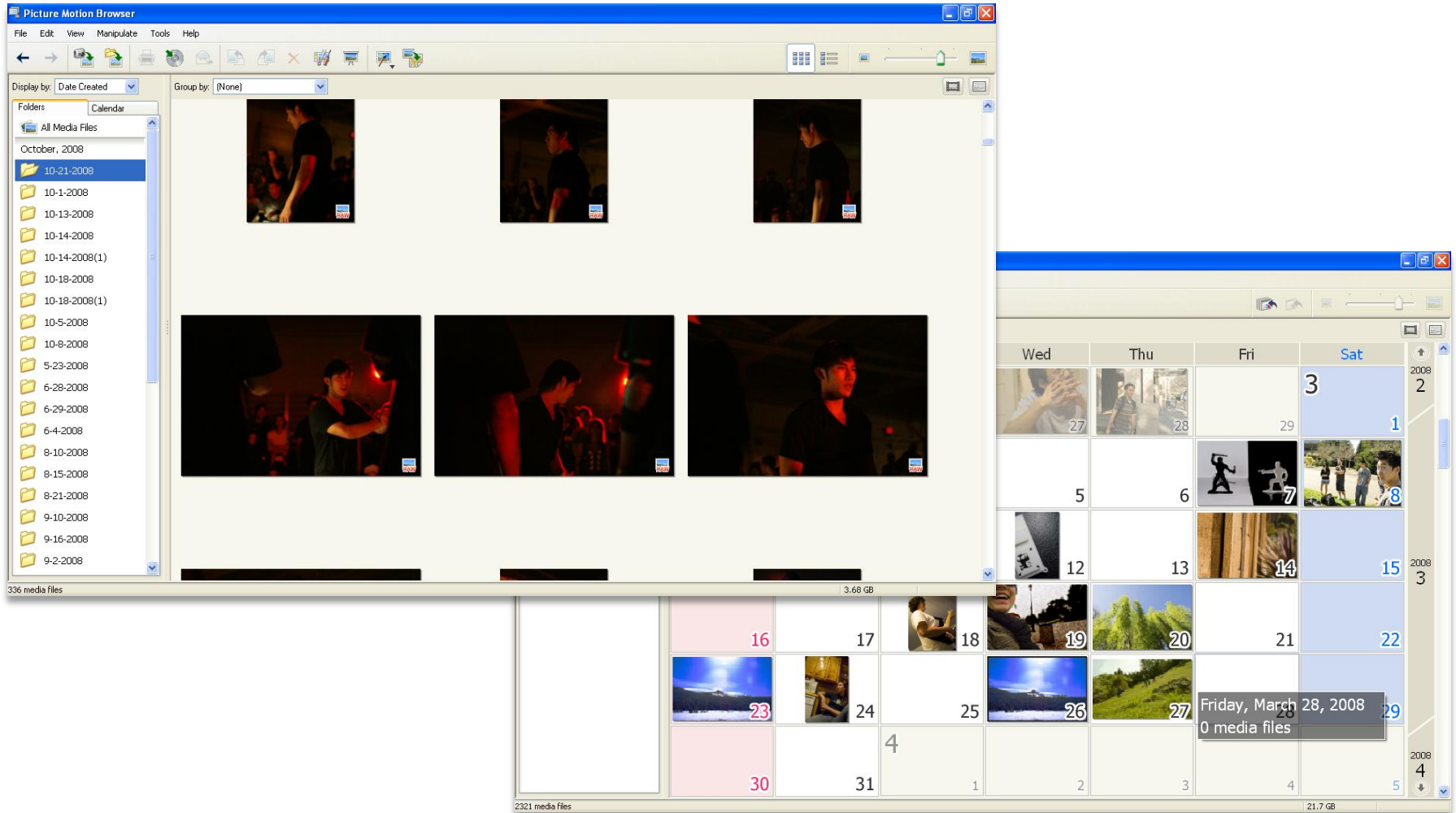
- Minimize amount of time to find a photo
- Allow interesting patterns to emerge through photo organization
- Minimize reliance on data preparation
- Create an experience that users rate:
 - Efficient
 - Enjoyable
 - Intuitive

Related Interfaces



Unfortunately the method many rely on

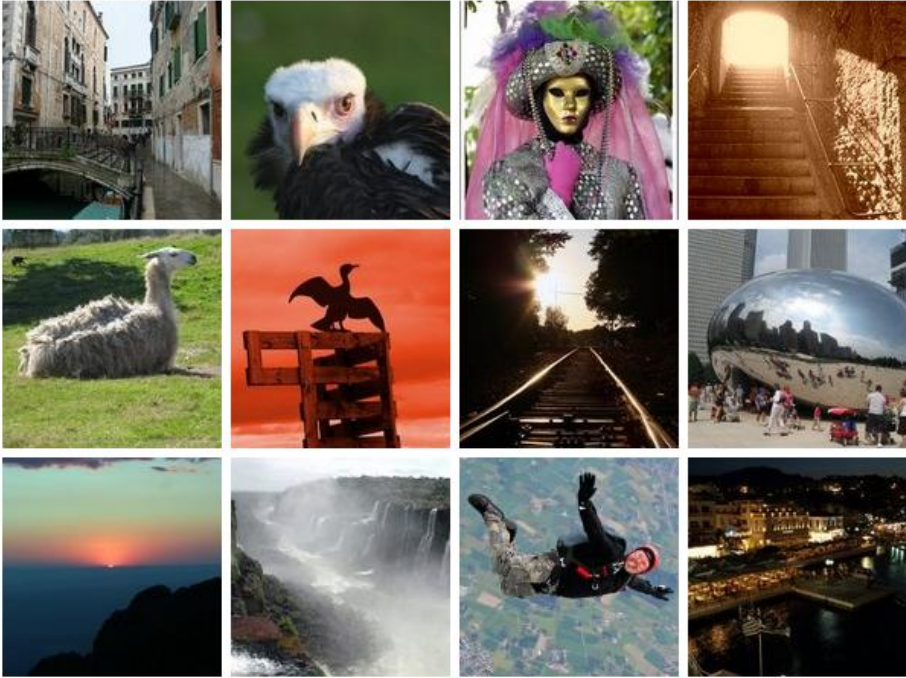
Related Interfaces



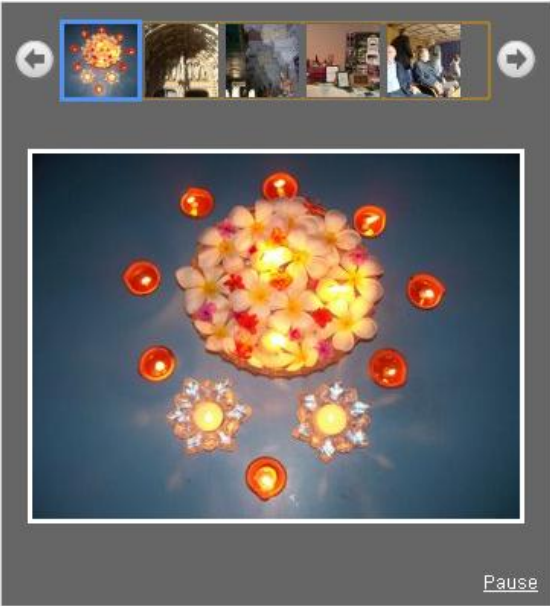
Related Interfaces

Picasa™ Web Albums [Explore](#)

Featured Photos



Recent Photos [Full screen](#)




Popular Tags

wedding	pictures	photography	october
trip	vacation	lake	winter
day	park	house	valley
new	year	cruise	bday
pics	beach	nature	water
christmas	summer	show	south

Locations

europa
italy
usa
paris
china

Where in the World? [Start game](#)



References

- Visual Information Seeking: <ftp://ftp.cs.umd.edu/pub/hcil/Reports-Abstracts-Bibliography/3131html/3131.html>
- Zooming Graphical Interface: <http://portal.acm.org/citation.cfm?doid=192426.192435>
- Dynamic Space Management: <http://monet.cs.columbia.edu/publications/uist00.pdf>
- Artistic Resizing:
- <http://www.intuilab.com/artresize/artresize.pdf>
- Adaptive Grid Based Layout:
- <http://portal.acm.org/citation.cfm?id=882353&coll=GUIDE&dl=GUIDE&CFID=64288392&CFTOKEN=3178345>
- Small Multiples: Tufte Chapter 4
- Gestalt Studies on Grouping

Challenges

- **Primary Challenge:** Use adaptive layout techniques to make browsing an efficient intuitive experience
- Use metadata to selectively group and display photos
- Display information in a interesting way that allows holistic patterns of user to emerge
 - Geographical behavior
 - Historical behavior

Approach

- **User Research:** In a problem so intimately tied to the user's personal life, it is crucial to first perform a needs and usability analysis
- **Exploration of Grouping:** The next step is to find an efficient way to create a relationship between images using metadata
- **Layout Techniques:** The final step would be to prototype a variety of layout and receive user feedback as to which meets initial design goals

Initial Concepts

- **Tag Search:** Provide ability to input multiple tags e.g. time + keyword
 - Search results in relevance value
 - Relevance value correlated to thumbnail size and position
- **Related Pictures Search:** Each picture links to a variety of other pictures based on specified attribute e.g. person, time, location

Milestones

- **Phase I:** User research conducted to find root needs
- **Phase II:** Photo metadata and data prepping is explored
- **Phase III:** Effective grouping relationship determined
- **Phase IV:** Layout techniques prototyped in Flare
- **Phase V:** User feedback gathered; optimizations made