

Exploratory Search:

Lessons learned from browsing
movies and digital photographs

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Caveats:

- § Workshop talk (ie. half baked!)
- § Tons of references that exist to related work. (Build on the shoulder of giants – many of whom are here!)
- § Many of the interfaces that I'll show are better suited to collections of information that you've already seen, not necessarily the case for exploratory search
- § Photos and Movies are well represented by visual thumbnails, not necessarily the case for more general information

Five principles (no – three, sir!)

- § Browsing through associations
- § Filtering through facets and metadata
- § Clustering and representing clusters

- § Use animation for maintaining context in filters, zooming, focus changes.

Browsing through associations

Movie Variations:

- § Basic idea: get to an area that you're interested in and pre-find material that's related.
- § Use motion to indicate focus changes.
- § Some generalized search tools that do similar work:
teoma

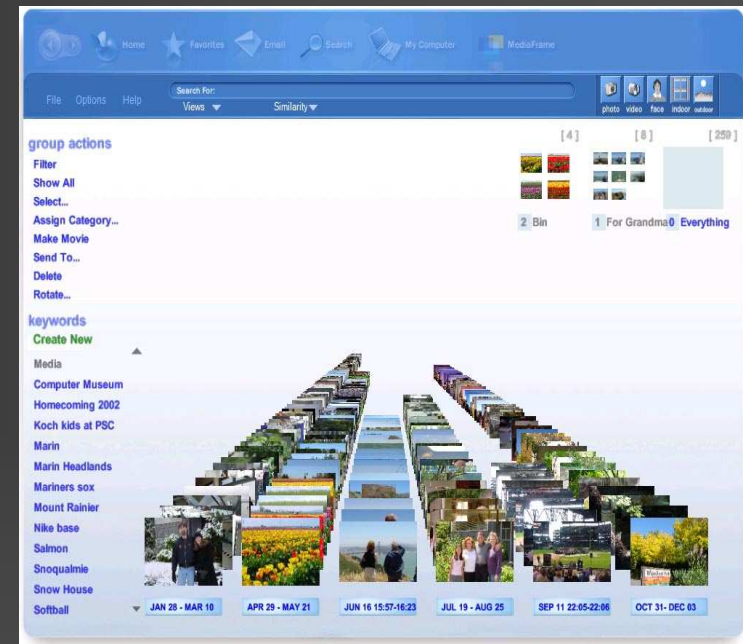


DEMO

Filtering through facets and metadata (and clustering)

Media Browser

- Filter along keywords, analyzed metadata, temporal clusters. Allow easy tag assignment. Preview changes.
- Challenges: scaling to large numbers, concise representation of information.
- Facetted browsing used a great deal.



DEMO

Clustering and representing clusters

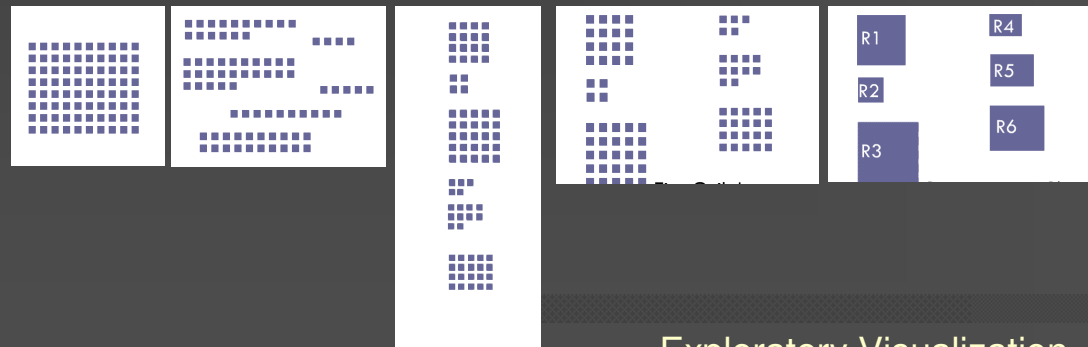
DEMO

TimeQuilt:

- Use temporal clustering to create groups.
- Represent groups with individual thumbnails.
- Allow rapid transitions between with and without thumbnails.



§ Some generalized search tools that do similar work: vivisimo



Lessons learned (or not)...

- § Wide variety of preferences based on individuals and tasks
- § Assigning metadata often not done but a few exceptions:
 - § ESP game: www.espgame.org
 - § Folksonomies: flickr, technorati, etc.
 - § Deferred benefits not a compelling enough reason for most people
- § People enjoy browsing media. In all cases, people spent significant time simply browsing their collections in new ways. This may be different than behavior for specific information finding.
- § Need to build in ways to find specific info AND find things related (or nearby).
- § For photos, temporal clustering is appropriate most of the time.

Challenges:

§ Design:

- § Generalize to more generic information types
- § Combining the aforementioned principles without being overwhelming
- § Graduated abilities for novice/occasional user to expert.
- § Deal with large volumes of information
- § Design ways to deal with latency, inaccuracy of analysis

§ Engineering:

- § Deal with large volumes of information
- § Optimize system performance
 - § (a fast system seems to often beat out 'an elegant' one)
- § Create accurate results
 - § (same as above)

§ Research:

- § What measures/metrics can we use to validate exploratory search interfaces?
- § Separating out design and engineering issues: how possible is that in this domain?