Assisted Metadata Propagation

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Goal of Visualization

- We are attempting to create the “ideal” layout of a photo collection
  - Arranging the photo thumbnails in such a way as to match people's underlying cognitive process of identifying groups of related photos.

- The metadata associated with each photo includes
  - Who
  - When
  - Where

- The layout is determined by a dynamically calculated value of “closeness” between any two photos, based on similarities in the photos' metadata.

- Our hope is that the interface will be intuitive enough as to allow people to adjust the weights to maximize the similarity between the on-screen grouping of photographs
Our Dataset

Personal Photos Collections

Enabled By “Big Brother” aka MMM2

Types of Sensed Metadata

Who
- Co-presence – Who is nearby with Bluetooth on
- Photographer – Who took the picture
- Photos Shared – Who you shared the photograph with

When
- Hour of Day
- Day of Week

Where
- Location – Based on Cell Tower ID
Visualization Techniques

Layout

Edge weights are determined by the who, when, where factors that are interactively defined the users’ position of the sliders

Simple force directed layout (no fancy stuff…)

[Diagram of a network graph with nodes and edges labeled with images and numbers, illustrating the visualization techniques discussed.]
Sliders

Create a simple interface for data exploration

Doesn’t require a user to be familiar with data values

Colour/Shading

Accentuate grouping of photos

people around you

people you shared with

location
Demo
Future Directions

**Interface**
- Slider Feedback
- Time range Selector

**Visualization Stuff**
- Colour could be used to indicate groups
- Display common metadata for group

**Tagging**
- We believe this interface could be used to accelerate photo annotation