



# Personal vs. Commercial Content:

The similarities between consumer use of photos and music



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# Concepts of Photos and Music...

## Photograph/Picture

- Capture image
- Capture memory
- Capture a single event
- Remind me of ...
- In frame, book, trunk, fridge, table...

**Selected from Concept Net (MIT Media Lab)**  
<http://web.media.mit.edu/~hugo/conceptnet/>

# Concepts of Photos and Music...

## Photograph/Picture

- Capture image
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## Music/Song

- Add beauty to life
- Entertain people
- Generate various emotions in people
- Lift spirit
- Set mood
- Used to convey an idea
- In concert, gym, opera, party, radio station...

## Selected from Concept Net (MIT Media Lab)

<http://web.media.mit.edu/~hugo/conceptnet/>

# How we distinguished content

## **Personal content (photos, video clips, etc.)**

- **Created by the user (or close family or friends)**
- **Often capture events that the user or sharer attended**
- **Rich personal meaning**
- **Consumers purchase devices for capturing and processing media**
- **Sharing encouraged by industry**

# How we distinguished content

## Personal content (photos, video clips, etc.)

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## Commercial content (music)

- Created by 3<sup>rd</sup> party with no relation to the user
- Designed for a much broader audience than personal content
- Consumers purchase the media itself
- Sharing discouraged by industry

# Overview

## Personal Photos

- Previous work
- Photo Sharing Study

## Commercial Music

- Previous Work
- Music Context Study

## Similarities and Implications

- Organization
- Search behavior / Satisficing and Sidetracking
- Ties between media and events

# Personal Photos – (some) Previous Work

## Use

**Frohlich – Photos taken to “communicate experiences with others;”  
audiophotography**

**Balabanovic – investigated sharing and storytelling around photos**

**Viégas – Collections allowed customized displays for different  
audiences**

**Crabtree – Photo-talk**

## Organization

**Graham, Gargi – Organizing photos based on events**

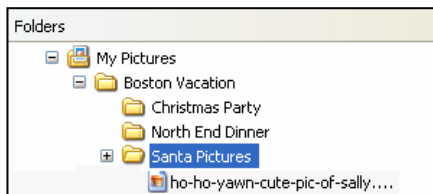
**PhotoFinder, Flickr, Mobile Multimedia Metadata – photo tagging to  
support organization**

**Mills – “users may not be willing to annotate images and may never  
even wish to perform a search”**

# Personal Photos – Primary Research

## Photo Sharing study (n=6)

- Follow-on study to prior work in our lab investigating in-home photo organization and search (n=9)
- Focused on most recent instances of sharing photos
- Semi-structured interviews
- Viewing recorded conversation artifacts (emails, letters, etc.)
- Observing photo organization schemes



-----Original Message-----

**Sent:** Tuesday, December 10, 2002 10:18 AM  
**To:Subject:** HJ was not impressed w/Santa ;)

I'm at work and don't have the email address for Joanne and you at home with me so you get this one to this address... Plus I haven't signed in to my home account for probably a month now-too busy answering these emails to want to go home and do more.

<<HO HO YAWN.JPG>>

But he sure liked the candy cane he got (his first sugar high! - Jodi forgot he has 2 teeth now and didn't think he'd get through the wrapping-he did!).

<<family.JPG>>

Merry Christmas if I don't get an email out to you in the next 15 days!!! When are you heading to Des Moines so I can get something for Payton over to you to take with?



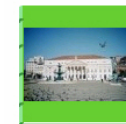
[No final...](#)



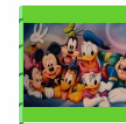
[3h55min](#)

### your photos

These are the 3 albums most recently added to your account. Click on an album to view the photos inside.



[Portugal Resumo - Cópia](#)



[Disney - Thanksgiving](#)



[Aniver](#)

You have 43 albums with a total of 1737 photos in your account.

[view all albums](#)



# Commercial Music – (some) Previous Work

## Social Experiences

**Crozier – “enjoyment of music is essentially a social experience”**

**Cunningham – browsing for music is a social experience**

## Learning about others

**Brown – collaborative music sharing; learning about others through their music**

**Voida – iTunes music sharing to learn about others; proxy for location presence**

## Selection/Mood

**Kim and Belkin – music needs relate to a person’s mood and the context in which music is played**

## Reminiscing

**Caprani – reminiscing about music from a particular decade**

# Commercial Music – Primary Research

## Music Context Study (n=13)

- Focused on the role of context in music selection, organization, sharing, and acquiring
- Home tours
- Semi-structured interviews
- Task-based think-alouds



# Findings across both studies

- **Organization**
- **Search Behavior**
- **Ties to events**

# Findings - Organization

## Active Collection vs. the “archive”

- Some photos or music is “on display” or kept close to the player while others are in binders or bins put away [closetboxes.mov](http://closetboxes.mov)

## Categorization schemes

- Non-standard classifications (e.g. “feel good” music and “emailed photos” directory)
- Often organized based on use, not based on standard metadata

## Poor quality media

- Almost always kept no matter how poor the quality
- Holds special meaning due to event (last section)

## Combinations

- Slide shows or photo DVDs combining music and photos (for gifts)

# Implications - Organization

**Make visible distinction between “active” collection and the “archive”**

- **Songs are often put in the archive because they have fallen out of favor; shouldn't come up nearly as often in random play**

**Allow music and photos to be tied together based on common metadata**

- **Participants spent great effort making rich multimedia slide shows, could be more automated**
- **Metadata libraries should be shared between applications and media types**

# Findings – Search Behavior

## Satisficing

- Two pass method, first select a reasonable subset, then select final CD(s)/photo(s)
- Adaptive aspiration levels (users often “settle” in the end for something they considered unacceptable)
- Active rejection instead of acceptance (iTunes skipping)

[skippingMU8.mov](#)

- Termination and “fall back” collections

## Sidetracking

- Browsing initiated while searching for specific content
- Rediscovering old content in their “archive” while browsing (positive experience)

# Implications – Search Behavior

## Search by usage history

- Allow people to get to content they played/viewed together in the past
- People remember social uses of media as well as traditional metadata

## Encourage exploration and sidetracking opportunities

- Allow people to see related parts of their collections that might be “getting dusty”
- Optimized “search” doesn’t give the same rich experience as today’s browsing

# Findings – Ties to events and People

**Both photos and music allow people to reminisce about past events**

- **Photo reminiscing involves the entire “event” around the photo**
- **Music reminiscing involves events when that particular music was played** [dvd.mov](#)
- **Often very vivid memories are evoked** [nikesweatshirts.mov](#)

**Conversations around media**

- **Getting to know you – “Life of” CDs or collections of photos (also for special occasions)** [mylife.mov](#)
- **Tell stories without words by sharing specific photos or music with friends/loved ones**

# Implications – Ties to Events and People

**Allow people to see all content associated with an event**

- **Ambient slideshows (e.g. Google Desktop Sidebar) could be augmented to show content related to the music that is playing**
- **Searching for content based on dates captured/acquired or viewed/played**

**Creating views into media over time**

- **Creating “life of” snapshots of music/photos**
- **Seeing how music has come in and out of favor**

**Learn about others through their content**

- **Music presence prototype**
- **Ambient photo sharing**

# Music Presence Prototype

Allows people to learn about others through the music that they play

Built to enhance future communication

Limited field study of early prototype showed users explicitly communicating through music choice

“Music Talk” as valuable as “Photo Talk” – sharing music with conversation



# Summary

**Users imbue commercial content with personal meaning**

**Consider connections between media types, especially around people and events**

**Look at social uses of both photos and music – it's about sharing and experiencing together**

**Consider successful applications from one domain to the other (e.g. Photo Talk, file sharing, etc.)**