Personalizing Socially-Aware Multimedia

Is Bigger Better?

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Fundamental shift over last 20 years

From faithful reproduction of the original ...

... to a faithful projection based on the contexts and interests of the producer/viewer.
Most social networking systems maintain weak ties

More interesting: support for maintaining strong ties:

• Bonds among people who know each other well
• Aspects of the personal relationship(s) can be used
Creating content and media engagement
Philosophical model of content binding

Content as a pre-packaged atomic object (good for weak ties)
Supporting social media sharing: weak ties
Characteristics of weak sharing

Composition
- Typically close to the author
- Usually happens statically
- Usually done once
- Can be multi-scope (DASH-like)

Audience
- Potentially large
- Probably diffuse
- Expected feedback is also weak
Philosophical model of content binding

Content as a pre-packaged atomic object (good for weak ties)

Content as fragments to be dynamically sewn together ((potentially) powerful for strong ties)
Supporting social media sharing: strong ties
Characteristics of strong sharing

Composition

• Typically close to the viewer(s)
• Usually happens dynamically
• Usually done many times
• Often created for custom environment

Audience

• Probably small per dynamic production
• Probably focused per dynamic production
• Expected feedback is strong
  (based on interaction)
Supporting social media sharing: traditional
End-user content navigation perspective
Presentation Building Blocks

There is a fundamental difference between *content reduction within a known scope* and *content discovery*

Build graph of events of interest

- People
- Instruments
- Parents (actually: parent’s cameras)
- Portions of events:
  - Concert / Set / Song / Solo

Building stories as compilations of structure, assets and customization activities.....
Social Engagement – What is it?

Social Participation is engagement in a variety of roles with others. Social roles include domestic roles of home-maintainer and caregiver, interpersonal roles of friend and family member, major life roles as student, worker and volunteer, and community roles such as participant in organizations, religious participant and hobbyist.

Social engagement

Web definitions

Social engagement (also social involvement, social participation) refers to one's degree of participation in a community or society.

Implications of Social Engagement

Facebook, Obesity, and Your Friends’ Friends

By Nicholas A. Christakis and James H. Fowler

Thanksgiving is a time of year when we gather with friends and family. But it is also a time when we eat. And eat. And eat! Two years ago, we published an article in the New England Journal of Medicine that showed such family gatherings can help to explain the obesity epidemic. The propensity to put on pounds is not isolated to a single individual—when we gain weight, so do our friends, siblings, spouses, and even our coworkers. And the effect doesn’t stop there—it seems to spread to friend’s spouses, siblings’ coworkers, and even to friends’ friends’ friends. Our social networks contain “clusters” of people with the same weight that extend all the way out to three degrees of separation.
“You Become What You Share”

Assume for the moment that this is true …

- How do you control what you share?
- How do you control people’s interpretation on what you share?

Key concern in sharing:
- Explicitly manipulating context
Evaluation of ‘Big Media’ Social Engagement

Top Hashtag Distribution in Tweets containing Obama during 2009

(a) Boston Marathon.

(b) Chinese Student Poisoning Incident.

(c) Grammy Award.

(d) Gold Statue Award.

Figure 3: Activity of retweet and reply for the most popular tweet.
Measuring media engagement
What are strong ties?

Mark Granovetter about the strength of an interpersonal tie (1973):

“... a combination of the amount of time,
the emotional intensity, the intimacy (mutual confiding), and
the reciprocal services which characterize the tie.”

What are his requirements?

- Privacy
- Ease of Use
- Effort in Relationship
- Reciprocity
Adding context to presentation semantics

Key to defining context

- Be cautious: context changes
- There are many contexts per item
Capturing evolving context

Key idea:
- Managing *uncertainty*

Context contains:
- What, when, why, where and who
- There are multiple contexts
- None of these are static
- All are evolutionary
- The is no absolute answer
Uncertainty in *interpretation*

Event as seen by a camera

Event as seen by a young person
Not only the context/metadata is dynamic

Content is *not* a static projection
More on annotations

Available on YouTube: “Bulterman” + “Annotation”
A real Grand Challenge

Watch this video

- With your eyes & ears open
- Watch it again with your eyes closed
- Watch it a third time with ear plugs in

Making content really accessible is:

- An interesting technical problem
- Transcends the trivial
- Provides a useful result for everyone
New compendium on *Intimate Interactions*

*Together Anywhere, Together Anytime*

*Trends for Intimate Interactions*

Dick C.A. Buterman, Editor

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Modern social media systems are geared to serving weak ties: informal collections of individuals acting in relative isolation. But what about strong ties: the family and friends who form life's inner circle? More and more people are living apart. Can technology help keep them together?

This book surveys research into technologies for maintaining a feeling of togetherness, anywhere and anytime. It provides new results in networked audio and video for real people: playing games, sharing videos, reading stories. The book also considers the
So, is Bigger Better?

‘Bigger’ is better:
• During content bootstrap
• When building broadcast-based content
• For easily feeding your ego

“Smaller’ is (probably) better:
• For archiving content (personal + professional)
• For strengthening/maintaining person relationships
• For making lasting impressions that actually get watched…
FX Palo Alto Laboratory (FXPAL) is seeking talented researchers to work as permanent employees or visiting scientists. FXPAL's current research spans multimedia, information access, smart spaces, and remote collaboration. We are developing distributed collaboration and multimedia applications that run on handheld devices, PCs, and servers. The following research areas are of particular interest, although we will consider candidates in other relevant areas.

Data Mining and Visual Analytics
A research scientist in the area of data mining and visual analytics. The ideal candidate has expertise in analysis, visualization and management of media such as text, image, video, and audio. Experience in network analysis as applied to social and enterprise media such as microblogs, forums, and emails is desirable. The research area also involves the development of data visualizations and interactive large-scale data applications as well as the use of tools supporting the collection, organization and processing of large data sets, both structured and unstructured.

Collaborative Spaces and Telepresence
A research scientist in the area of collaborative spaces and telepresence. This candidate will join an existing, technically diverse team working on a variety of presence and communication technologies. We seek candidates from a diversity of backgrounds, including but not limited to multimedia systems, ubiquitous computing, distributed systems, and human-computer interaction. Ideal candidates will have prior experience working on communication tools and/or telepresence applications.

Requirements: Candidates should be interested in working on practical applications in a collaborative setting. These positions require a Ph.D. in Computer Science or related field and strong development skills.

To apply, please email your resume to: resumes@fxpal.com. The deadline is January 1, 2014. Please feel free to contact FXPAL President Dick Bulterman or other FXPAL employees in person at the conference. We are an equal opportunity employer and value diversity in the workplace.

About FXPAL
FX Palo Alto Laboratory (FXPAL) provides multimedia and document services technology research for Fuji Xerox Co., Ltd. FXPAL's mission is to research and invent new technologies, cooperate with Fuji Xerox business units to develop technologies and interact with the US software industry to deliver new products for the Fuji Xerox market.

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