

## Lecture 10: Social Computing - User-Generated Content, Collaboration and Social Media Participation



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## Administrivia

- Project:
  - P4 - 15% (Usability Evaluation, Data Analysis, Final Report, 10 min Presentation)
    - Presentation Schedule – coming soon (Aug 4, 5, 9, 10)
    - Report Due – Aug 10
- Tutorial (P4 Usability Testing, P4 Report Writing)
- Final Exam
  - August 22<sup>nd</sup> 9 – 11 am (MW 170)
- Discussion Questions (2)
- Any Questions?

## Recap

### Interfaces (ID: Ch. 6)

- Design and research issues for different interfaces

<b>1. Command-based</b>	<b>9. Pen</b>
<b>2. WIMP &amp; GUI</b>	<b>10. Touch</b>
<b>3. Multimedia</b>	<b>11. Air Based Gesture</b>
<b>4. Information Visualization &amp; Dashboards</b>	<b>12. Multi-modal</b>
<b>5. Web</b>	<b>13. Shareable</b>
<b>6. Consumer Electronics &amp; Appliances</b>	<b>14. Virtual Reality</b>
<b>7. Mobile</b>	<b>15. Augmented Reality</b>
<b>8. Speech</b>	<b>16. Wearables</b>
	<b>17. Robots and Drones</b>

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## Questions

- Give me an example of an air based gesture system?
- From the list of interfaces we covered, which one creates highly engaging user experiences?
- With wearables – what are the 4 major research and design issues?

## The plan for today...

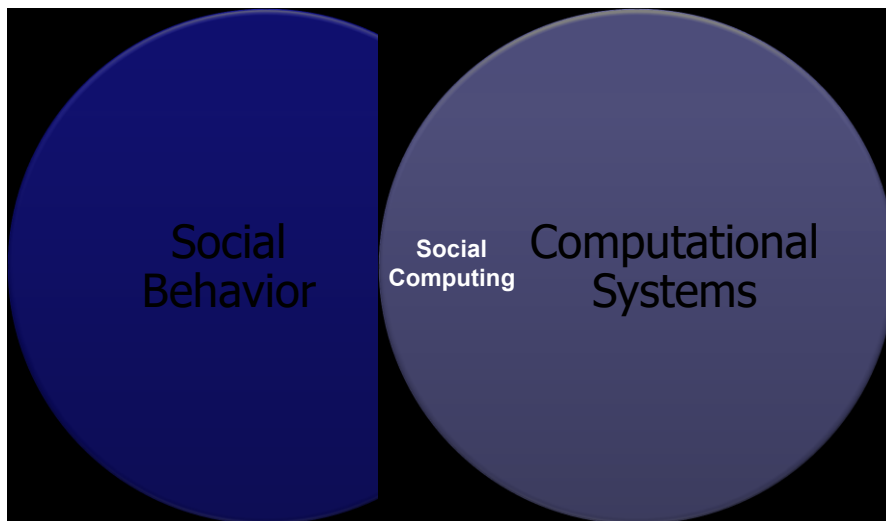
- **Social Computing**
  - Overview
  - Collaboration
  - Social Media Participation
  - User-Generated Content



Source: <https://it.et.byu.edu/emphasis-details/social-computing>

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## What is Social Computing?



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## What are some of the mediums?



Blogs

Microblogs

Multi-player Games

Wikis

Instant Messaging

Open-source Development

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## Overview of Social Interactions

- Being social
- Face to face conversations
- Remote conversations
- Tele-presence
- Co-presence
- Shareable technologies

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## Being Social

- Are F2F conversations being superseded by our social media interactions?
- How many friends do you have on Facebook, LinkedIn, etc vs real life?
- How much overlap?
- How are the ways we live and interact with one another changing?
- Are the established rules and etiquette still applicable to online and offline?

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## Conversational Rules

- Turn-taking used to coordinate conversation
  - A: Shall we meet at 8?
  - B: Um, can we meet a bit later?
  - A: Shall we meet at 8?
  - B: Wow, look at him?
  - A: Yes what a funny hairdo!
  - B: Um, can we meet a bit later?
- Implicit and explicit cues for Farewell
  - e.g. looking at watch, fidgeting with coat and bags
  - explicitly saying “Oh dear, must go, look at the time, I’ m late...”

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## Remote Conversations

- Much research on how to support conversations when people are 'at a distance' from each other
- Many applications have been developed
  - e.g., email, videoconferencing, videophones, instant messaging, chat, etc.
- Do they mimic or move beyond existing ways of conversing?

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## Early videophone and visuaphone



(a)



(b)

**Figure 4.2** (a) One of British Telecom's early videophones and (b) an early mobile visualphone developed in Japan

Source: (a) ©British Telecommunications Plc. Reproduced with permission (b) Reproduced by permission of Kyocera Corporation.

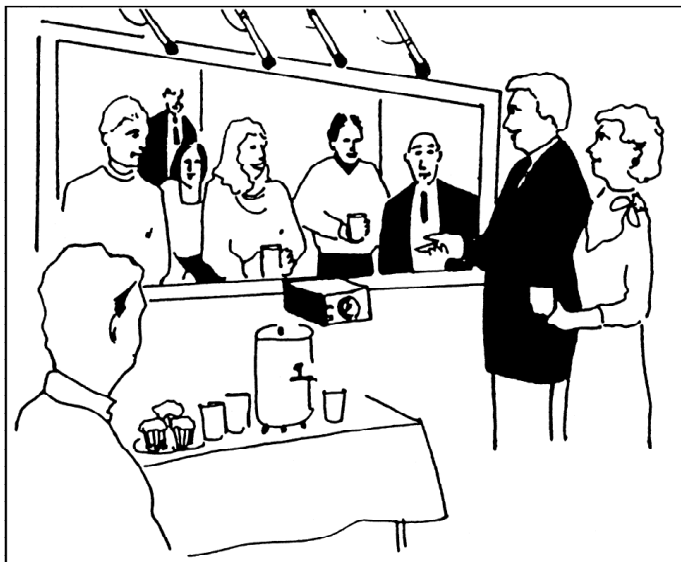
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## VideoWindow system (Bellcore, 1989)

- Shared space that allowed people 50 miles apart to carry on a conversation as if in same room drinking coffee together
- 3 x 8 ft 'picture-window' between two sites with video and audio
- People did interact via the window but strange things happened (Kraut, 1990)

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## Sketch of VideoWindow



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## Skype



- Seeing others on screen enables more intimacy than audio phone
- Enables people to get to know each other better
- Less awkward for young children
  - Like “to show, not tell” (Ames et al, 2010)

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## FaceTime



Source: [http://www.macworld.com.au/reviews/facing-off-with-facetime-12371/#.WCM\\_nv0rKUk](http://www.macworld.com.au/reviews/facing-off-with-facetime-12371/#.WCM_nv0rKUk)

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## Facebook & Twitter

- How many of you use Facebook? Twitter? Instagram?
- Used in emergencies, demos, etc.,
  - e.g., users spread up-to-the minute info and retweet about how a wildfire or gas plume is moving
  - but can also start or fuel rumours, by adding news that is old or incorrect
  - more confusing than helpful

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## Telepresence

- New technologies designed to allow a person to feel as if they were present in the other location
  - projecting their body movements, actions, voice and facial expressions to the other location or person
  - e.g. superimpose images of the other person on a workspace

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## Hypermirror (Morikawa and Maesako, 1998)

- allows people to feel as if they are in the same virtual place even though in physically different spaces



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## A telepresence room



**Figure 4.8** A telepresence room

Source: Cisco Systems, Inc with permission.

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## How much realism?

- Is needed in telepresence to make it compelling?
- *Telepresence rooms* try make the remote people appear to be life-like by using multiple high def cameras with eye-tracking features and directional microphones
- Is Skype good?



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## Co-presence

- Technologies that enable co-located groups to collaborate more effectively
  - when working, learning and socializing
- Examples: Smartboards, Surfaces, Wii and Kinect

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# Models of Collaboration

The screenshot shows a Google Docs interface with a document titled "DTUI6 Rolling agenda". The document content is as follows:

**Agenda:**

- calling instructions see below
- chapter status
  - 2 sets of chapters due Oct 16
- delivery
  - naming conventions
  - folders with figures
  - update table of contents
  - update spreadsheet
  - note to maxine when ready
- references dois??, sample roadmap???, quotes (no change)
- art work update
- flyer - improved, still at <http://hci2.cs.umd.edu/DTUI6/>
- figures
- publisher info
- Topics we don't cover??? robots, affective UI

**Meeting:**

Present: Steve, Maxine, Catherine, Ben, Niklas, Nick

- Renumbering and delivery for October 16
  - Chapter 1 - ready to go (Ben)
  - Chapter 2 - ready to go (Ben)
  - Chapter 3 - ready to go (Ben)
  - Chapter 4 - ready to go (almost!!) (Niklas)
    - Textbooks instead of research articles
    - New image - convergence/divergence, double diamond
  - Chapter 5 - fixing and cleaning up figures (Maxine)
    - Portable usability setup in high resolution
    - Catherine will try to help
  - Chapter 6 - almost ready to go (Steve)
    - Need new apple image (current too low res)
  - Chapter 8 - almost ready to go (Catherine)
    - Perfectness Elonmuskly well done
    - Will be

A chat window on the right shows a conversation with "(4) Catherine Plaisant, Maxine":

me 1:44 PM  
It looks like we're converging on our Oct 16th deadline ... does anyone need any final input on figures?

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## Many Design Considerations

- Cognitive Factors
  - Social Cues
  - Interruptions
- Individual Factors
  - Privacy
  - Identity
  - Trust and Reputation
  - Motivation
- Collective Factors
  - Moderation
  - Policies and Norms

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## Design Consideration (cont'd)



**Nick Diakopoulos** @ndiakopoulos · Aug 6

Very interesting computational journalism tool from @FILWD's lab

**Charles Ornstein** @charlesornstein

To analyze Yelp's 1.3 million health reviews, we used an amazing tool built for us by @nyupoly. Details: [enrico.bertini.io/revex](http://enrico.bertini.io/revex)

RETWEETS

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FAVORITES

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9:56 AM - 6 Aug 2015 · Details



- a tweet on Twitter can embedded references in several ways, including referencing another person's account (i.e. @FILWD) as well as referencing and quoting another person's entire tweet, providing vital context and citation for the information

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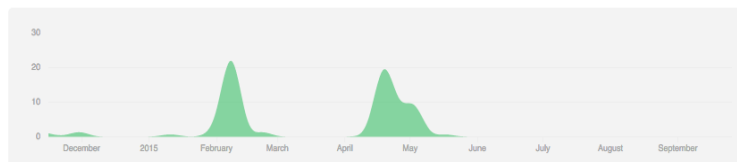
## Design Consideration (cont'd)

Contributors Traffic Commits Code frequency Punch card Network Members

Nov 16, 2014 – Sep 26, 2015

Contributions to master, excluding merge commits

Contributions: Commits ▾



- **Interruptions:** A GitHub dashboard charting project activity over time and indicating two users who are active in the project including their overall coding activity as well as volume over time
  - More details on activity are available by drilling into individual users

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## Design Consideration (cont'd)

David "Ayman" S.  
San Francisco, CA  
246 Friends 845 Reviews 111 Photos  
"Place in direct sunlight, water daily."

**David's Profile**  
Profile Overview  
Friends  
Reviews  
Business Photos  
Compliments  
Tips  
Bookmarks  
Events  
Lists

**Reviews**  
Sort by: Date

**University Cafe**  
82 - Coffee & Tea, British  
87 Bynea Road  
Glasgow G11 5RN  
United Kingdom  
7/5/2015  
1 check-in

I have to do it. I have to eat fried things. I have to have the deep fried haggis here along with my fish and chips. Why? Because yes, coming from the south of the USA, I understand you can deep fry a pizza or a Marmite bar...but taking haggis and frying it into some kinda incredible offal fateful log is just a next level power-up maneuver.

Was this review...?  
Useful 1 Funny Cool

**The Interval At Long Now**  
85 - Museum, Cafe, Cocktail Bars  
3 Marina Blvd, Suite A  
San Francisco, CA 94123  
7/5/2015  
1 check-in

Ok so this is a non-profit coffee shop/bar with artwork by Eno and others hanging behind the bar and friendly servers. I wish there was more than one small booth with a view of the bay but totally I'm a fan of what's happening here. Take time to look at all the artwork and installations because they are as fantastic as the food and drink here.

Was this review...?  
Useful Funny Cool

**About David S.**  
Rating Distribution  
5 stars 182  
4 stars 291  
3 stars 132  
2 stars 61  
1 star 9  
View more graphs

**Review Votes**  
Useful 568  
Funny 308  
Cool 220

**Stats**  
Tips 87  
Review Updates 8  
Bookmarks 172  
Events Submitted 2  
Firts 62  
Firts 13  
Lists 10

**104 Compliments**  
1 12 21 17 8 4

**Location**  
San Francisco, CA  
**Yelping Since**  
January 2007

- **Trust and Reputation:** A user page on Yelp showing a variety of social activity context including volume of activity like reviews and photos, an "elite" badge, a graph of ratings previously made, feedback on the user's reviews including if they were useful, funny, or cool, and other compliments
  - This rich information can help others understand the reliability of this user

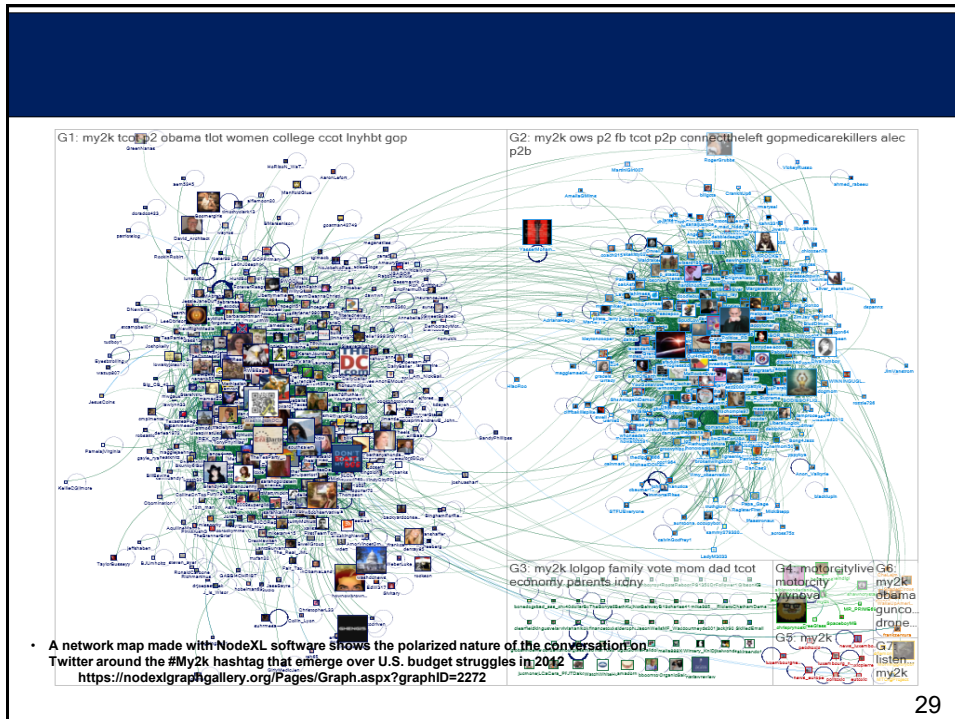
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## The Networked World

Constant and immediate communication and interaction with family, friends, collaborators, colleagues, coworkers, and even pets is now commonplace in the increasingly networked world!

- Social networks, newsfeeds, alerts and have become part of our daily lives
- Designers need to consider the downsides and negative exigencies of such systems
- Communication and collaboration tools shape the ability to work and accomplish shared goals with one another
- Design for these systems can be more complex than single-user interfaces because of its far-reaching, networked, and social aspects

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## User-Generated Content

- More user-generated content with the extensive use of social media sites, wiki's, blogs, etc.
- Lots of research potential!
- What design considerations are needed to enable this kind of interaction?

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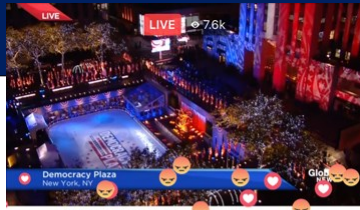


reCAPTCHA

Tough on bots  
Easy on humans







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## Summary

- Social mechanisms, like turn-taking, conventions, etc., enable us to collaborate and coordinate our activities
- Keeping aware of what others are doing and letting others know what you are doing are important aspects of collaborative working and socialising
- Many technologies systems have been built to support telepresence and co-presence

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