Social Computing Systems

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w/ some awesome slides by: Harmanpreet Kaur

EECS 498, Fall 2018
(http://tiny.cc/socsClass)
Today

- Workplace tools for communication / collaboration
- Collaboration in traditional and new organizational structures
- Collaborative filtering
Workplace Communication Tools
EMail

Gmail

Outlook.com

WEBMAIL
Slack (and IRC)
MUDs (e.g., Second Life)
Second Life and the Walk-In Internet
Design Considerations
Design Considerations

Platform (as always)

User base (who?)

Use case (where/when/why?)

Interaction span (length of time)
(Some) Design Options

Interaction span (length of time)

Modality (text/voice/video/…)

Interaction type (2-way sync, 2-way async, 1-way, …)

Ephemerality (how long does an interaction remain?)

Privacy (what do we reveal to others)
Computer Supported Cooperative Work
CSCW: Definition

“CSCW should be conceived of as an endeavor to understand the nature and requirements of cooperative work with the objective of designing computer-based technologies for cooperative work arrangements.”

- Kjeld Schmidt and Liam Bannon (1992)
CSCW: Definition

“CSCW should be conceived of as an endeavor to understand the nature and requirements of cooperative work with the objective of designing computer-based technologies for cooperative work arrangements.”
- Kjeld Schmidt and Liam Bannon (1992)

“CSCW addresses how collaborative activities and their coordination can be supported by means of computer systems.”
- Peter H. Carstensen and Kjeld Schmidt (1999)
CSCW: Four Concepts

- Common Ground
- Coupling of Work
- Collaboration Readiness
- Technology Readiness

Gary M. Olson, and Judith S. Olson. "Distance matters." Journal of Human-computer interaction (2000)
Common Ground  (Clark and Brennen 1991)

Common ground refers to that knowledge that the participants have in common, and they are aware that they have it in common.
Common Ground (Clark and Brennen 1991)

Common ground refers to that knowledge that the participants have in common, and they are aware that they have it in common.

- **Copresence**: same physical environment
- **Visibility**: visible to each other
- **Audibility**: speech
- **Contemporality**: message received immediately
- **Simultaneity**: both speakers can send and receive at the same time
- **Sequentiality**: turns cannot get out of sequence
- **Reviewability**: able to review other’s messages
- **Revisability**: can revise messages before they are sent
Common Ground

- Copresence
- Visibility
- Audibility
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Common Ground

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(video)
Common Ground

- Copresence
- Visibility
- Audibility
- Contemporality
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- Revisability

(video)
Common Ground

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Common Ground

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Coupling of Work

The extent and kind of communication required by the work

- Tightly coupled: interdependent, nonroutine, ambiguous
- Loosely coupled: fewer dependencies
Collaboration Readiness

Consulting firm

1991

4 roles: staff consultant, senior consultant, manager, and principal

Management introduced Lotus Notes collaboration tool

Wanda J. Orlikowski "Learning from notes: Organizational issues in groupware implementation." In Proceedings of CSCW 1992
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Technology Readiness

- Skype
- #irc
- Chat
- Gmail by Google
- Slack
- Google Hangouts
Communication Tools (examples)
(Some) Design Options

Interaction span (length of time)

Modality (text/voice/video/…)

Interaction type (2-way sync, 2-way async, 1-way, …)

Ephemerality (how long does an interaction remain?)

Privacy (what do we reveal to others)
Technology
Phones
Phones (now)
Phones (now)
Phones (now)
Phones (now)

Why?
SMS and Text Chat
Skype
Hangouts
Vine
Snapchat
Snapchat
Snapchat
‘Minified’ Communication

Image 1: A wristwatch showing a red heart symbol.

Image 2: A smartphone with the word "Yo" and a list of names: LEO, LUKAS, SERENA, MO, JENNY. The text below reads "It's that simple."
‘Minified’ Communication

Hey

When Yo isn’t enough.

Yo

It’s that simple.
‘Minified’ Communication

(Formality level of a ‘hey’ message)
[credit: Business Insider]
Geolocation
Future Tools
Telepresence
Telepresence Robots
Same Features, New Orgs
Peer Production

“Collaboration among large groups of individuals, sometimes in the order of tens or even hundreds of thousands, who cooperate effectively to provide information, knowledge or cultural goods without relying on either market pricing or managerial hierarchies to coordinate their common enterprise”

- Yochai Benkler and Helen Nissenbaum (2006)
Peer Production
Common Ground

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Coupling of Work

- Tightly coupled?
- Loosely Coupled?
- Both?

https://en.wikipedia.org/wiki/The_Beatles
Collaboration Readiness
Technology Readiness
## Technology Readiness

### Articles you might like to edit, from SuggestBot

SuggestBot predicts that you will enjoy editing some of these articles. Have fun!

<table>
<thead>
<tr>
<th>Stubs</th>
<th>Cleanup</th>
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<tbody>
<tr>
<td>Jamie Waylett</td>
<td>Devon Murray</td>
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<tr>
<td>Phineas Nigellus</td>
<td>David Heyman</td>
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<td>Christian Coulson</td>
<td>Chris Rankin</td>
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<td>Molly Parker</td>
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<td>Alfred Enoch</td>
<td>Scabbers</td>
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<td>Hog's Head</td>
<td>Obliviator</td>
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<td>Harry Potter and the Half-Blood Prince (film)</td>
<td>Minor Dark wizards in Harry Potter</td>
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<td>Erskine William Gladstone</td>
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<td>Dartmoor Preservation Association</td>
<td>Tom Felton</td>
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<tr>
<td>Unauthorized Chinese Harry Potter books</td>
<td>Filius Flitwick</td>
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<tr>
<td>Hogwarts headache</td>
<td>Ralph Fiennes</td>
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<td>Major powers - France</td>
<td>Add Sources</td>
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<td>Wikify</td>
<td>Derren Litten</td>
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<td>Biblical judges</td>
<td>Shambuka</td>
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<td>Manitoba Lotteries Corp.</td>
<td>Theatre in education</td>
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<td>Madam Hooch</td>
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<td>Adrian Rawlins</td>
<td>Expand</td>
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<td>Geraldine Somerville</td>
<td>Strabag</td>
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<tr>
<td>Orley St.Catchpole</td>
<td>Froogle</td>
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<tr>
<td>Marvolo Gaunt</td>
<td>The Road Ahead</td>
</tr>
</tbody>
</table>

SuggestBot picks articles in a number of ways, from comparing articles that need work to other articles you've edited, to choosing articles randomly (ensuring that all articles with cleanup tags get a chance to be cleaned up). It tries to recommend only articles that other Wikipedians have marked as needing work. Your contributions make Wikipedia better -- thanks for helping.

Studio
Brainstorming and measures

PITCH PRESENTATIONS NEXT WEEK.

→ What will you pitch? Needs to have a problem, motivation, and measure.

→ Potential solutions are okay for the pitch as well, but focus on how you’ll know which one to pick. How will you find out (hint: prototype)

Get feedback here.
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And find a group ASAP if you don’t have one yet!!