

Chapter 4

SOCIAL INTERACTION

CHAPTER 9:

Collaboration and Social Media Participation

Designing the User Interface: Strategies for Effective Human-Computer Interaction

Fifth Edition

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Road Map

- Chapter 4: SOCIAL INTERACTION
 - 4.1 Introduction
 - 4.2 Being Social
 - 4.3 Face-to-Face Conversation
 - 4.4 Remote conversation
 - 4.5 Tele-presence
 - 4.6 Co-presence

Objectives

- Explain what is meant by social interaction.
- Describe the social mechanisms that are used by people when communicating and collaborating.
- Discuss how social media have changed the ways in which we keep in touch, make contact, and manage our social and working lives.
- Explain what is meant by tele-presence.
- Give overview of sharable technologies and some of the studies showing how they can facilitate collaboration and group participation.

Overview

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

SOCIAL INTERACTION

- Introduction
 - Imagine not having access to your smartphone or the Internet for a week?
 - How would you cope?

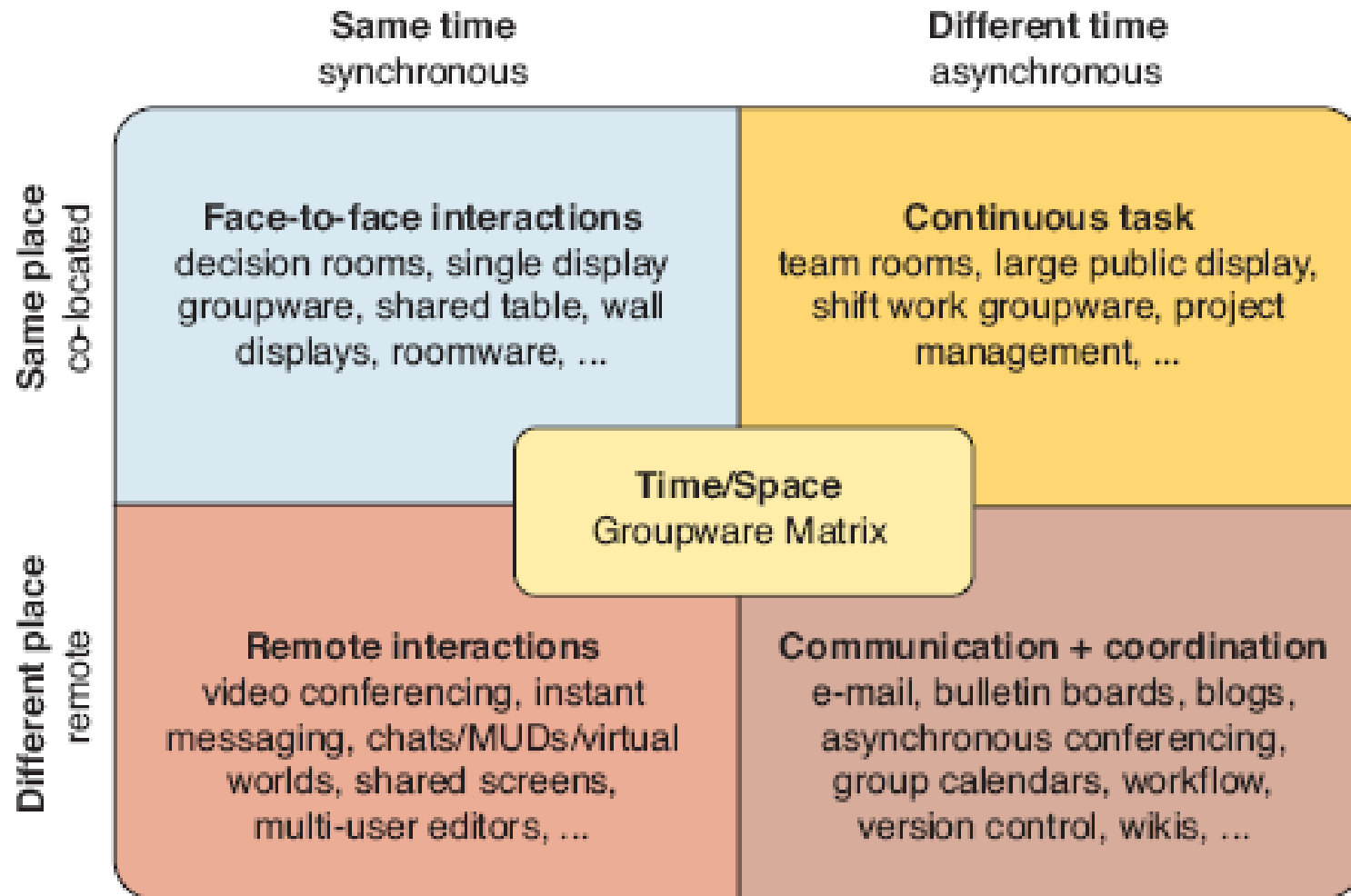
SOCIAL INTERACTION

- Introduction
 - Humans are inherently social, they live together, work together, learn together, interact and talk together and socialize.

Characteristics and examples of collaboration and social media participation

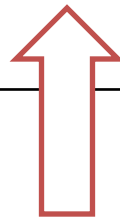
Collaboration	Crossover	Social Media Participation
E-mail, phone calls, audio- and videoconferences, shared documents, collaboratories	Wikis, blogs, chat rooms, instant messages, short messages, listservers, Yahoo!/Google groups	Chat rooms, blogs, user-generated content sites, tagging, rating, reviewing
GoToMeeting [®] , LiveMeeting [®] , WebEx [®] , Skype [®] , Google Docs [™] , GeneBank [™]	Wikipedia, Wikia [™] , LinkedIn, Second Life, Blogger [®]	YouTube, Flickr, Picasa, Netflix, Technorati [™] , MySpace, Facebook, Digg, del.icio.us [™]
Want recognition for contributions May Aspire to Leadership		
Typically 2 to 2000 people	Typically 20 to 200,000,000 people	
Work-related, goal-directed	Playful, process-oriented	
Time-limited, milestones	Open-ended	
Selected identified partners	Open unknown partners	
Assign tasks and review each other's work	Act independently	

Time/space matrix model of group-supported work



How computing can be used to support social interaction

	Synchronous	Asynchronous
	Same Time	Different Time
Same Place	<ul style="list-style-type: none"> - Face-To-Face Conversations and Meetings - Decision room - Telepresence - Co-presence 	<ul style="list-style-type: none"> - Continuous Tasks - Bulletin Boards (Formal announcement) - Stick Notes - Announcement Boards at airports - Team rooms
Different Place	<ul style="list-style-type: none"> - Remote Interactions - Telephone - Video Conferencing - Skype - Face Time - Tango - Viber - Imo - WhatsApp - Call - games 	<ul style="list-style-type: none"> - Communication + Coordination - Postal (mail) system - Email, blogs, wikis - Text Messaging (WhatsApp) - Meta - Snapchat - Instagram - X



4.2 Being social

- Are Face-To-Face (F2F) conversations being replaced by our social media interactions?
- How many friends do you have on Meta , Snapchat, 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?

	Face-To-Face Conversation		
Social			
Work			
Learn	Communication	Coordination	Collaboration
	-Verbal	- Turn-taking (Speak/listen, ask question/request/ answer)	- Usually the shared objects are available
	-Non-verbal (signs)	-Joint Greetings	- Provide information about the progress of collaborated tasks
	-Writing	- Farewell Practice (explicit/implicit)	- Provide information about the schedule of the collaborated work
		-breakdown when misunderstanding occurs	
		-Formal meeting: agenda, minutes, discussions	

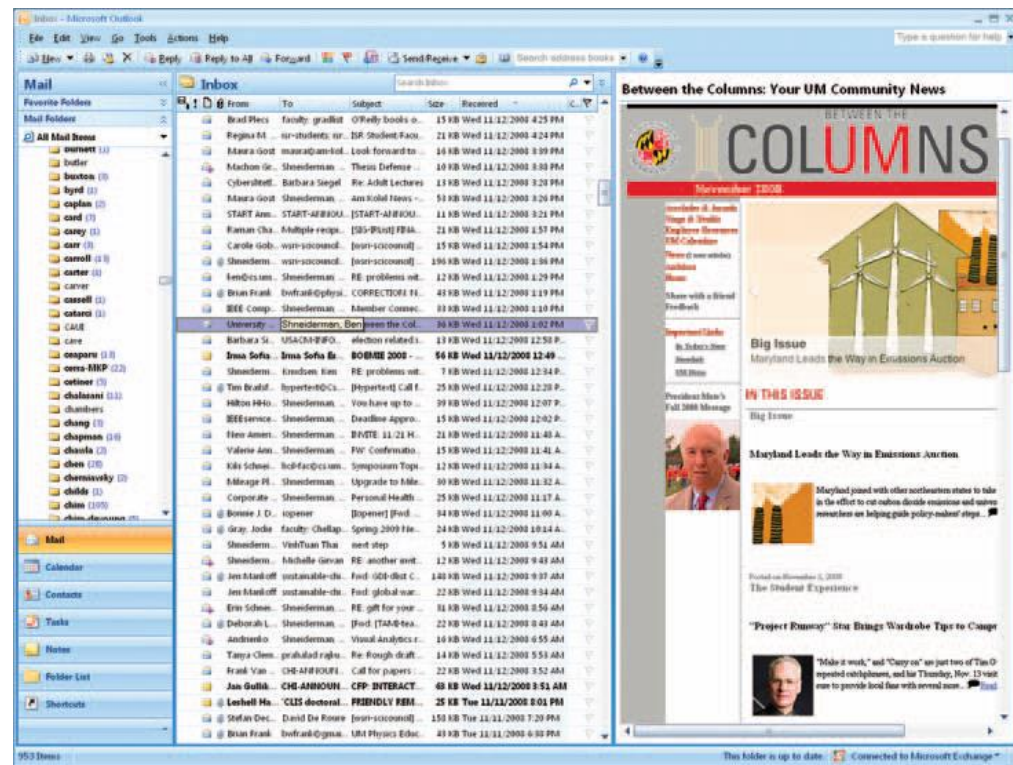
Social Work Learn	Remote Interaction		
	Communication	Coordination	Collaboration
	-Audio	-information about sender, receiver,	- Provide information about shared objects
	-Video	- Message title, date, size, attachments	- Provide information about the progress of collaborated tasks
	-Text	-ways to filter messages, searching, save, delete, archive, report as spam	- Provide information about the schedule of the collaborated work
	-Image	-displayed last in , top in the list	
	Animation, graphics, colors	-message sent to a group such as Google groups(G+)	

Asynchronous distributed interfaces:

Different place, different time

- **Electronic mail: Message**

- From, To, Title, date, size, attachments
- Duration :
 - Few seconds-minutes
 - Replay speed depend on the recipient.
- typically text-only, but increasingly includes other structured objects
 - graphics
 - sounds
 - animations
 - web pointers
 - video
- tools for coordination
 - filtering
 - archiving
 - mailing lists
 - discussion groups



Asynchronous distributed interfaces: Different place, different time (cont.)

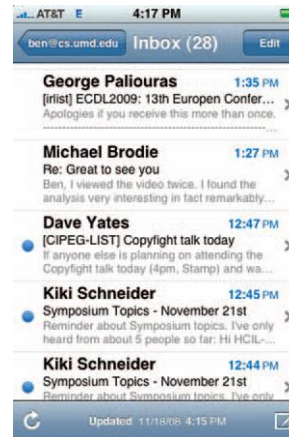
- **Electronic mail (cont.):**

- Email on mobile devices
- Online directories
- Web services with E-mail

- E.g. Hotmail, and Yahoo! Mail

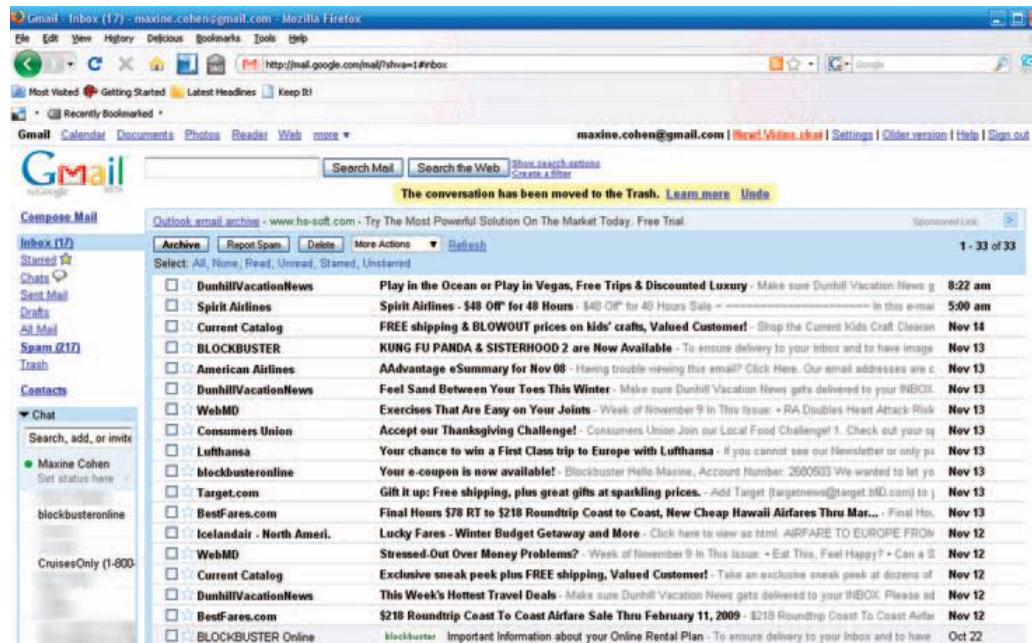
- Applications to support managing or coordinating emails:

- Microsoft Outlook
 - Apple Mail



E-mail message on an iPhone


Google's web-based email (Gmail)



Asynchronous distributed interfaces: Different place, different time (cont.)

- **Newsgroups, listservers, discussion boards, conferences, social media participation web sites, blogs, and wikis**
 - focused electronic discussions by group of people
 - online magazines and newsletters
 - Web-logs/blogs and wikis

Asynchronous distributed interfaces: Different place, different time (cont.)



The screenshot shows the Wikipedia homepage in English. At the top, the Wikipedia logo is displayed. Below it, a globe icon is surrounded by language links for English, Deutsch, Français, Polski, Русский, Nederlands, Español, Italiano, and Português. Each link includes the name of the language and the number of articles in that version. For example, English has 2,626,000+ articles. A search bar is located at the bottom left, and a language dropdown menu is set to English. The right side of the page features a navigation menu, a search bar, and a list of links for interaction and toolboxes. The main content area on the right includes a notice about Wikipedia being a non-profit project, a social media section, and a section titled 'Distinction from industrial media'.

WIKIPEDIA
The Free Encyclopedia

English
The Free Encyclopedia
2 626 000+ articles

Deutsch
Die freie Enzyklopädie
827 000+ Artikel

Français
L'encyclopédie libre
727 000+ articles

Polski
Wolna encyklopedia
553 000+ haseł

Русский
Свободная энциклопедия
331 000+ статей

Nederlands
De vrije encyclopedie
495 000+ artikelen

日本語
フリー百科事典
537 000+ 記事

Español
La enciclopedia libre
417 000+ artículos

Italiano
L'enciclopedia libera
516 000+ voci

Português
A enciclopédia livre
440 000+ artigos

search • suche • rechercher • szukaj • 検索 • ricerca • zoeken • busca • buscar • поиск
sók • 搜索 • sək • haku • cerca • nowyk • ara • căutare • suk • hledání • keresés • serçu • hfadar

100 000+

Català • Česky • Deutsch • English • Español • Esperanto • Français • Italiano • Magyar • Nederlands • 日本語 • Norsk (bokmål) • Polski • Português • Русский • Română • Slovenčina • Suomi • Svenska • Türkçe • Українська • Volapük • 中文

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article discussion edit this page history

Wikipedia is a non-profit project: please donate today.
Donate today

Social media
From Wikipedia, the free encyclopedia

This article needs additional citations for verification.
Please help improve this article by adding reliable references.
Unsourced material may be challenged and removed. (August 2008)

Social media are primarily Internet- and mobile-based tools for sharing and discussing information among human beings.^{[1][2]} The term most often refers to activities that integrate technology, telecommunications and social interaction, and the construction of words, pictures, videos and audio. This interaction, and the manner in which information is presented, depends on the varied perspectives and "building" of shared meaning among communities, as people share their stories and experiences.

Contents [show]

Distinction from industrial media [edit]

Social media are distinct from industrial media, such as newspapers, television, and film. While social media are relatively cheap tools that enable anyone (even private individuals) to publish or access information, industrial media are relatively expensive tools that generally require significant financial capital to publish information (which often limits their use to commercial purposes)^[3]. Examples of industrial media include a printing press or a government-granted spectrum license.

"Industrial media" are commonly referred to as "traditional", "broadcast" or "mass" media.^[4]

Asynchronous distributed interfaces: Different place, different time (cont.)

- **Online and networked communities**
 - **Group identity**
 - **Patient support groups**
 - **Impact on offline communities**
 - **Community policies**
 - **Network communities can be controversial**
 - **hackers**
 - **hate groups**
 - **Distance education courses**
 - **Reputation managers for online stores**

Asynchronous distributed interfaces: Different place, different time

Black Board

The screenshot displays a web browser window with the address bar showing the URL: https://bb.uob.edu.bh/webapps/blackboard/content/listContent.jsp?course_id=_605_1&content_id=_17248_1&mode=reset. The browser's address bar also includes a "Reader" button. The page title is "Quizzes - Human Computer Interaction". The user is logged in as "Lamyia Mohammed Abdulla Al jasmi". The page features a navigation menu on the left with options: Home Page, VB chapters, Lab Assignments, Information, Content, Discussions, Groups, Tools, Help, Course Slides, and Homework. The main content area is titled "Quizzes" and displays a quiz announcement. The announcement includes a document icon, the title "Quiz 2", and two attached files: "Chapter 1- Summary of Design Hueristics.docx (20.384 KB)" and "Quiz2.docx (19.701 KB)". The text of the announcement reads: "Dear Students" and "Please note that Quiz 2 is take-home to be submitted by the 28th, March, 2017." The page also includes a "My Institution" link and a "Courses" link in the top right corner. The "Edit Mode" is set to "ON".

Quizzes - Human Computer Interaction

https://bb.uob.edu.bh/webapps/blackboard/content/listContent.jsp?course_id=_605_1&content_id=_17248_1&mode=reset

Reader

Quizzes - Human Computer Interaction

Quizzes - Human Computer Interaction

Lamyia Mohammed Abdulla Al jasmi -

My Institution Courses

Human Computer Interaction Quizzes

Edit Mode is: ON

Quizzes

Quiz 2

Attached Files: [Chapter 1- Summary of Design Hueristics.docx \(20.384 KB\)](#)
[Quiz2.docx \(19.701 KB\)](#)

Dear Students

Please note that Quiz 2 is take-home to be submitted by the 28th, March, 2017.

4.3 Face-to-Face Conversations

Conversational mechanisms

- There are various mechanisms and 'rules' are followed when holding a conversation. Can you List some?

Face-to-Face Conversations

Conversational mechanisms/ Rules

- Various mechanisms and 'rules' are followed when holding a conversation:

1. Joint greetings

A: AlSalam Alaikum (السلام عليكم)

B: Alaikum Alsalam (عليكم السلام)

C: Alaikum

A: How are you?

C: Good, how's it going?

A: Fine, how are you?

C: OK

- How do you start and end a conversation when:
 - Talking on a phone
 - Chatting online

Conversational rules

2. Turn-taking used to coordinate conversation:

- Sacks et al. (1978) work on conversation analysis describe three basic rules:

Rule 1: the current speaker chooses the next speaker by asking an opinion, question, or request

Rule 2: another person decides to start speaking

Rule 3: the current speaker continues talking

More conversational rules

3. Farewell practice

– مع السلامة, Bye then, see you, see you later....

- Implicit and explicit clues

- e.g. looking at watch, moving bags

- explicitly saying “,,,Name”, must go, look at the time, I’ m late...”

F2F coordinating mechanisms

- Talk is central
- Non-verbal also used to emphasize and as substitute
 - e.g. nods, glances, gestures and hand-raising
- Formal meetings
 - explicit structures such as agendas, memos, and minutes are employed to coordinate the activity

Breakdowns in conversation

4. When someone says something that is misunderstood:

– Speaker will repeat with emphasis:

A: “this one?”

B: “no, I meant that one!”

– Also use tokens:

What? What do you mean?

What happens in social media conversations?

- Do same conversational rules apply?
- Do people greet each other in the same way?
- Do people take turns when online chatting in the way they do when talking with each other face-to-face?
- Are there more breakdowns?

What happens in social media conversations?

- On the phone: The person answering the call will initiate the conversation by saying “hello” or more formally, the name of their company/department (and sometimes the phone number being called). Many phones now have caller ID letting the person answering the call know who he is talking to, which can enable him to be more personal, e.g. “Hello Ahmed, how are you doing?” Phone conversations usually start with a mutual greeting and end with a farewell one.

What happens in social media conversations?

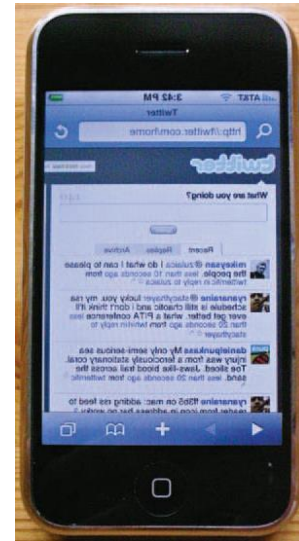
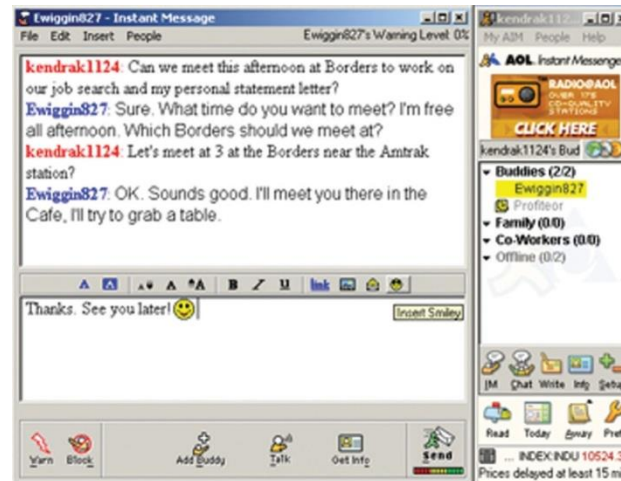
- In contrast, conversations that take place via online chatting or IM have evolved new conventions. The use of opening and ending greetings when joining and leaving are rarely used; instead most people simply start their message with what they want to talk about, and then stop when they have got an answer, as if in the middle of a conversation

Synchronous distributed interfaces: Different place, same time

- **Synchronous distributed applications**
 - group editing
 - shared screens for customer assistance
 - allow sharing of information for various applications
 - interactive games

Synchronous distributed interfaces: Different place, same time (cont.)

- **Chat, instant messaging, and texting**
 - CHAT, Internet Relay Chat (IRC), and TALK
 - Flamers
 - MUDs
 - Instant Messaging
 - LOL etc.
 - X ?
 - Texting and cell phones ?



Synchronous distributed interfaces: Different place, same time (cont.)

The screenshot displays the Sentry Parental Controls web interface. At the top, there is a navigation bar with icons for Home, Activity Logs, Live Action, Settings, My Account, Help, and Log Out. Below this, a user profile section for 'Johnny-PC' shows installation and expiration dates. The main content area is divided into several sections: 'IM/Chat Logs' with a date range selector, 'Conversations Report Summary' comparing today's and this month's statistics, 'Supported Applications' listing AOL, icq, and mspaceim, and a 'Conversation Logs' table. The table lists individual chat sessions with columns for Date, Time, Chatted Users, Windows Account, Session Length, Application, Violation status, and Status. A search bar is located below the table. At the bottom, a 'Conversation Details' section provides a deep dive into a specific chat session, including the date, time, account name, session length, conversation partners, application used, violation category, and violation words found. Action buttons like 'Block This User', 'Print', and 'Delete' are also present.

Sentry PARENTAL CONTROLS

HOME ACTIVITY LOGS LIVE ACTION SETTINGS MY ACCOUNT HELP LOG OUT

Johnny-PC
Installed On: 08-03-2007
Expires On: 08-03-2009

IM/Chat Logs
Displays The Selected User's Instant Message Conversations For A Given Date Or Range Of Dates.

Agar The Great
Last Logged In: 08-03-2007

January

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Conversations Report Summary

Today	This Month
128 Conversations	1,206 Conversations
12 Unique Chat Partners	49 Unique Chat Partners
48 Words Replaced	138 Words Replaced
48 Keyword Violations Found.	256 Keyword Violations Found.
12 Hours of Conversation	68 Hours of Conversation
1,218 Chat Lines.	1,354,218 Chat Lines.

Supported Applications

AOL, icq, mspaceim

Conversation Logs

Display: All Logs Show Conversations With: Select A Screen Name...

Date	Time	Chatted Users	Windows Account	Session Length	Application	Violation	Status
	10:43 AM	Agar The Great	Agar The Great	12 min 20 sec	Yahoo IM		✓
	10:44 AM	Agar The Great	Agar The Great	1 min 15 sec	Yahoo IM		✓
	10:52 AM	Agar The Great	Agar The Great	20 min 1 sec	Yahoo IM		✓
	11:05 AM	Agar The Great	Agar The Great	1 hr 32 min	Yahoo IM		✓
	12:37 PM	Agar The Great	Agar The Great	37 min 25 sec	Yahoo IM		✓
	1:13 PM	Agar The Great	Agar The Great	35 min 7 sec	Yahoo IM		✓
	1:14 PM	Agar The Great	Agar The Great	9 min 22 sec	Yahoo IM		✓

Search Conversation For: [Search]

Agar The Great (37 Min 25 Sec)

Conversation Details

www.google.com

Date: 08/09/07 12:00AM
Windows Account Name: Agar
Session Length: 37 min 25 sec
Conversation Between: grillhoe & Thimble123
Application: Yahoo IM

Violation Category: Pornography, Profanity
Violation Words Found: Sex, Crap

Block This User Print Delete

Parental control system to oversee children's online activities
(<http://www.sentryparentalcontrols.com/>)

Synchronous distributed interfaces: Different place, same time (cont.)

- **Audio and video conferencing (cont.)**
 - issues of ownership and control
 - private and public workspaces
 - identity of participants
 - location of actions
 - care with updating
 - Whether audio or video conferencing is more appealing than chat, IM, and texting, or more effective than asynchronous text, depends on the goals and the task environment

4.4 Remote Conversations

Early videophone and visualphone



(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.

4.4 Remote Conversation

What are the Most Popular
Current Social Media Channels ?

Most Popular Current Social Media Channels

1. WhatsApp
2. Skype, FaceTime, Viber, Tango
3. X
4. Meta
5. Instagram
6. Snapchat
7. LinkedIn
8. Google +
9. Pinterest
10. YouTube

What are the reasons of Skype/
FaceTime/Viber/Tango
success?

Skype (similar apps.) success

- Global household name
- Seeing others on screen enables more **emotional closeness** and **connectedness** than audio phone
- Enables people to get to know each other better
- More convenient for young children
 - Like “to show, not tell” (Ames et al, 2010)

Skype success

Claim →

- Skype, has now become a household name, and is one of the **most popular forms of online conversation worldwide**. Families who live in different places now regularly keep in touch with each other via skype, for daily, weekly and special occasion catch-ups.
- Seeing each other on the screen enables more emotional closeness and connectedness, allowing, for example, grandparents and grandchildren living in different countries to get to know each other better than if they only kept in touch using an audio phone.
- Moreover, it has been found that children prefer having a conversation using videoconferencing compared with only using an audio phone, as it can be less awkward for them, enjoying the ability to “show, not tell” things to their relatives (Ames *et al*, 2010).

Meta and X

- Everyone uses them so what is there to learn?
- 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



- The reliability of the tweeted information can be a problem. For example, some people end up obsessively checking and posting, and sometimes without realizing can start or fuel rumours, by adding news that is old or incorrect.
- Regular Twitterers can go into great amount, intense, and often wild or uncontrolled feed, constantly adding new tweets about an event as witnessed when an impending flood was announced (Starbird *et al*, 2010). While such citizen-led spread wide and retweeting of information from disparate sources is well intentioned, it can also flood the twitter streams, making it difficult to know what is old, actual or rumour.

4.4 Remote conversations

- How do you represent yourself online?
What image and name do you use?
- What would you expect the most retweeted selfie to be?
- Why do people send so many selfies?

One of the most retweeted selfie



NASA astronaut Mike Hopkins took the stunning snap of himself with Earth in the background while performing repairs on the station.

4.5 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

Hypermirror (Morikawa and Maesako, 1998)

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

People in different places are superimposed on the same screen to make them appear as if in same space



(woman in white sweater is in a different room to the other three)

HyperMirror: toward pleasant-to-use video mediated communication system (1998)

by Osamu Morikawa in Proceeding of ACM CSCW'98 Conference on Computer-Supported Cooperative Work

- **Abstract**

We designed HyperMirror to provide a new video image that presents an attractive, highly understandable communication environment, rather than imitating face-to-face communication. The HyperMirror environment enables all participants to feel they are sharing the same virtual space. Participants communicate using images meeting the condition "What I See Is What You See" (WISIWYS). Both local and remote participants appear together on a shared video wall, and all things on the wall-- even those out of reach-- become appear to come within reach. Participants sharing the screen tend to act as if they are in the same room.

BiReality



(a)



(b)



(c)



(d)

Figure 4.7 BiReality: (a) a surrogate robot at a meeting “sitting” between two physically present people; (b) the remote user’s view of the meeting while controlling the surrogate; (c) an early version of the surrogate on the move; and (d) a second-generation surrogate designed to preserve the height and sitting/standing posture of the user (Jouppi, 2002). See also www.hpl.hp.com/personal/Norman_Jouppi/BiReality240x180v1.3.mov

Source: N. P. Jouppi (2002) “First steps towards mutually-immersive mobile telepresence”. In: *Proceedings of the 2002 ACM Conference on Computer Supported Cooperative Work, CSCW '02*. pp. 354–363 ©2002 Association for Computing Machinery, Inc. Reprinted by permission.

A telepresence room



Figure 4.8 A telepresence room

Source: Cisco Systems, Inc with permission.

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 just as good?

Woman (Lucy) sends robot to queue for iPhone 6s so she doesn't have to





The robot called Lucy arrived at 5am at the Apple Store in Sydney and took its position of fourth-in-line.

The robot - which comprises an iPad attached to a remote-controlled stand and was built by US company Double Robotics - was taken seriously in the competitive queue. Lucy is constantly connected to the robot through an app that allows her see with the iPad's camera and communicate with others in the queue using its speakers and microphone. The robot will wait for one night in a special tent that includes a charger to keep it alive and well.

<http://www.mirror.co.uk/news/technology-science/technology/woman-sends-robot-queue-iphone-6505042>

100 Mini Robots queuing for iPhone 7



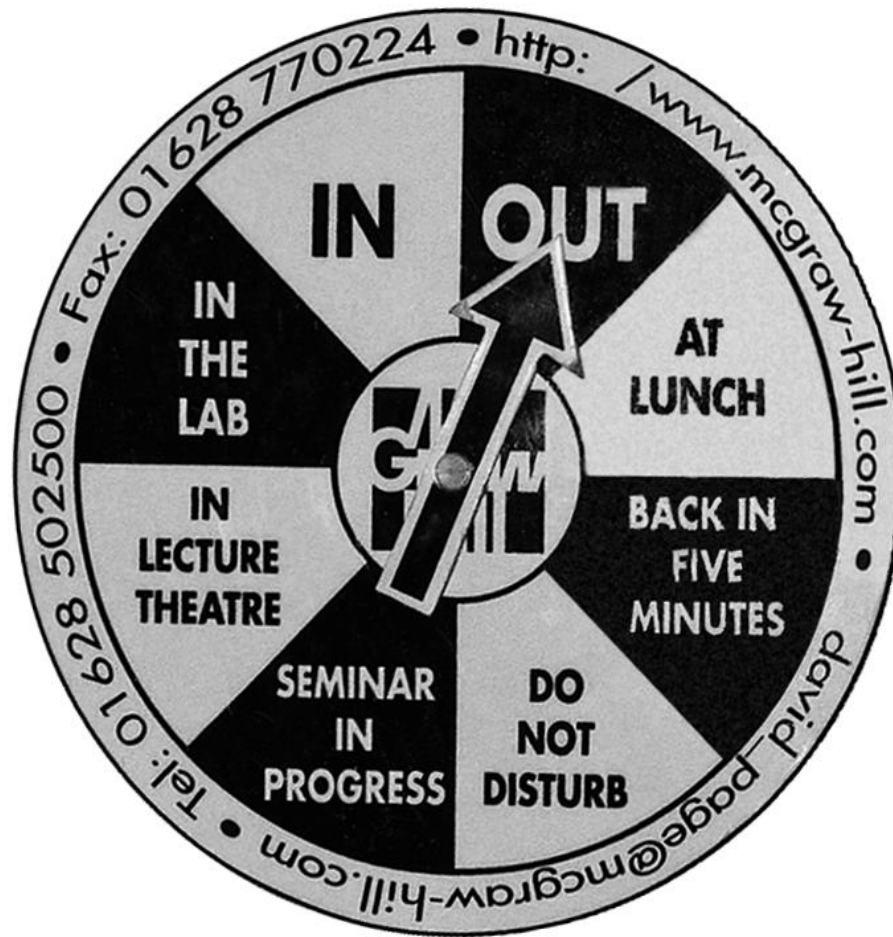
4.6 Co-presence

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

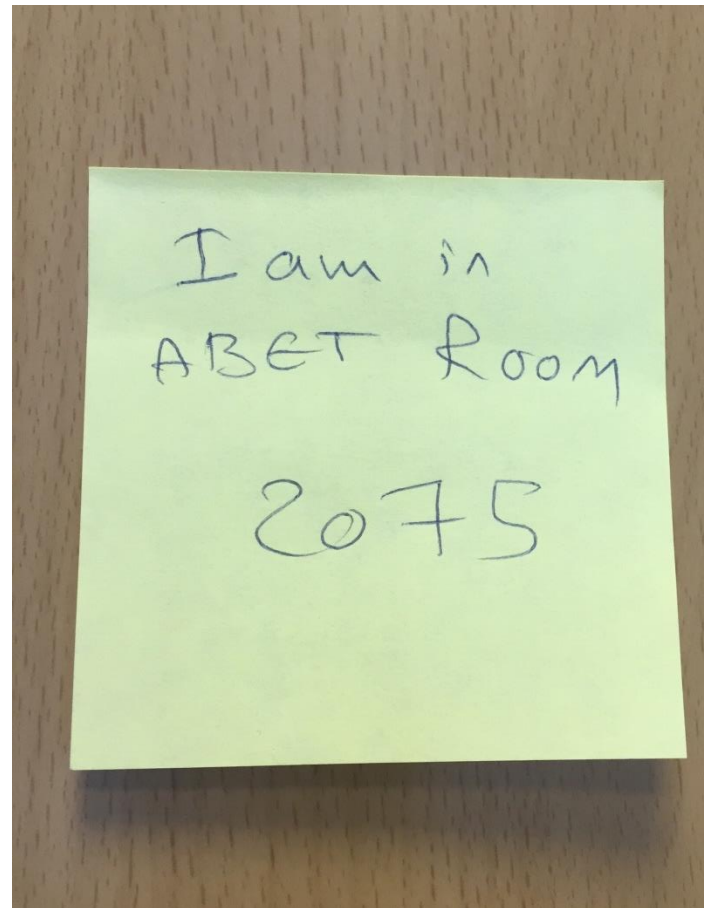
Awareness mechanisms

- **Involves knowing:**
 - who is around,
 - what is happening,
 - and who is talking with whom
- **Peripheral awareness**
 - keeping an eye on things happening in the periphery of vision
 - Overhearing (to hear something that was said to another person by accident) and overseeing - allows tracking of what others are doing without explicit cues

Lo tech awareness mechanism



Awareness mechanism



Designing technologies to support awareness

- Provide awareness of others who are in different locations
- Workspace awareness: “the up-to-the-moment understanding of another person’s interaction with the shared workspace” (Gutwin and Greenberg, 2002)
- Examples: ReacTable and Reflect Table

The Reactable Experience



Figure 4.13 Two girls interacting with the Reactable Experience

Source: Courtesy of Yamaguchi Center for Arts and Media [YCAM]. Photo by Ryuichi Maruo [YCAM].

The reacTable:

A Collaborative Musical Instrument

- The reacTable*, is a novel multi-user electro-acoustic musical instrument with a tabletop tangible user interface. Several simultaneous performers share complete control over the instrument by moving physical artefacts on the table surface while constructing different audio topologies in a kind of tangible modular synthesizer or graspable flow-controlled programming language.
- The instrument hardware is based on a translucent round table. A video camera situated beneath, continuously analyzes the table surface, tracking the nature, position and orientation of the objects that are distributed on its surface. The tangible objects, which are physical representations of the components of a classic modular synthesizer, are passive, without any sensors or actuators; users interact by moving them, changing their position, their orientation or their faces. These actions directly control the topological structure and parameters of the sound synthesizer. A projector, also from underneath the table, draws dynamic animations on its surface, providing a visual feedback of the state, the activity and the main characteristics of the sounds

http://modin.yuri.at/publications/reactable_tice2006.pdf

The Reflect Table

monitors conversations with LEDs, shows who is talking, who talks the most, and who's being left out



Figure 4.14 The Reflect Table

Source: Reproduced with permission from Pierre Dillenbourg.

Notification systems

- Users notify others
- Provide information about shared objects and progress of collaborative tasks
 - Example: **Sococo**

Sococo – an online workplace designed for the distributed team, shows who is where and who is meeting with whom

<https://www.sococo.com>



Figure 4.15 Sococo floor plan of a virtual office, showing who is where and who is meeting with whom <https://www.sococo.com/>

Source: Courtesy of Leeann Brumby.

What does make social computing hard?

- **Research in collaborative interface is often more complicated than a single interface. What makes social computing hard?**

YouTube

- The music video for South Korean singer Psy's Gangnam Style exceeded YouTube's view limit, prompting the site to upgrade its counter.
- CHI 2015, the conference on Human Factors in Computing Systems, was hosted by ACM SIGCHI April 18-23 in Seoul, Korea.



What does make social computing hard?


The image is a screenshot of the BBC News website. At the top, there is a navigation bar with the BBC logo, a 'Sign in' button, and links to 'News', 'Sport', 'Weather', 'Shop', and 'Earth'. Below this is a red banner with the word 'NEWS' in white. Underneath the banner is another navigation bar with links to 'Home', 'Video', 'World', 'UK', 'Business', 'Tech', 'Science', 'Magazine', and 'Entertainment'. Below this, there is a sub-navigation bar with links to 'Asia', 'China', and 'India'. The 'Asia' link is underlined. Below the navigation bars is a dark blue advertisement for the Volkswagen Tiguan, featuring the VW logo and the text 'The all new Tiguan. Expect some attention.' with a button that says 'FIND OUT MORE & BOOK A TEST DRIVE'. Below the advertisement is the headline 'Gangnam Style music video 'broke' YouTube view limit' in large, bold, black text. Below the headline is a sub-headline '4 December 2014 | Asia' with a clock icon on the left and a small green icon on the right.

BBC Sign in News Sport Weather Shop Earth

NEWS

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Asia China India

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🕒 4 December 2014 | Asia

What does make social computing hard?

- Over the last 10 years there have been enormous influence of social media.
- The idea of a famous musician giving a keynote speech in a computer science conference would be impossible few years ago. What is interesting that in Psy biography he referred to himself as a social media inventor so few years ago that was not something that stars did. Also why we talk about him because he broke YouTube counter.

What does make social computing hard?

- A common social question:
 - **Are you free on Thursday evening?**

What does make social computing hard?

- A common social question:
 - Are you free on Thursday evening?
 - The answer depends on who is asking! So there are high and low priority meetings.
 - That's is people have priorities.

What does make social computing hard?

- **Social life is contextual.**

What does make social computing hard?

- **Social life is contextual.**
- **Social life is contextual. This is why it is different of the way you present yourself. It is different if you are at home, work or school. It is different when you are with close friend or when you are with your family friends. This shows the sophistication of human culture.**

What does make social computing hard?

- **In case of software development the fact that social life is multi-dimensional and context specific can make it much more difficult.**

What does make social computing hard?

- **The question, are you free on Thursday evening ? might cause problems? And might make the social software collapse:**
- **Examples:**
 - Meta
 - WhatsApp

What does make social computing hard?

- For example in Meta everybody is friend but in real life there is much difference between a sister, brother, close friend, somebody that you met only once at your friend house or someone that was with you at school seven years ago and barely you can remember.
- So, the question, are you free on Thursday evening ? might cause problems? And might make the social software collapse.

What does make social computing hard?

- **Another example, what WhatsApp did to solve the problem of allowing the receiver to mute a person without letting the sender knows about so want got heart.**
- **So software developers need to address a lot of those problems occurred because we are moving from individual computing era to social computing era.**

What does make social computing hard?

- **Example - Calendars**
- **How social calendar is useful?**
- **From the manager side: the manager has lots of meetings also wants to know other people calendars in order to arrange for meetings.**
- **What about from the worker perspective:**
 - A lot of the things that you want to do is in the worker head not in the system itself.
 - The time that is not scheduled in the calendar is the time actually when work is done.
 - Different infrastructure (Microsoft, mac, google, paper)
 - Available depends who is asking.

What does make social computing hard?

- **Example – Calendars (continue)**
- **Challenge:** Different of work and benefit.
 - Who does the work and who benefits?

What does make social computing hard?

- **Example – Calendars (continue)**
- **Challenge: Different of work and benefit.**
 - Who does the work and who benefits?
 - Groupware applications often require additional work from individuals who do not perceive direct benefit from the use of the application.
 - How can you make a co-operative software work?
 - Managers get the big benefit. Cost < benefit.
 - Worker cost exceed the benefit. Cost > benefit.
 - But in order for the groupware to succeed, everyone should use it.
 - How to solve this?
 - Doodle web-application enable you to schedule individual meeting. So if we want to schedule a meeting for this week, all people involved may use different calendar systems or have preference and also availability depends on who is asking.
 - Google calendar also cost get less, user interface is easier, integrate mail and calendar.

What does make social computing hard?

- **Challenge:** Exception handling
- When the technology medical record started many doctors or users were against using them even though that the technological records have many benefits.

What does make social computing hard?

- **Challenge: Exception handling**
- **When the technology medical record started many doctors or users were against using them even though that the technological records have many benefits.**
- **The reason is that the paper record has much more information than what is written in them:**
 - **When it is on the disk, it means that the next person to look for (awareness).**
 - **When it old, when it is new.**
 - **You can write in pencil then change it to pen**
 - **You will know from the handwritten who entered the previous records.**
 - **Direct eye contact with the patient while when using PCs , doctors turn to the side or to the back.**
- **How can we add the benefits of the paper records to the technology records.**

What does make social computing hard?

- **We have to pay attention to the following points in order for social software to be successful:**
 - Prepare for the shift
 - Coordination
 - awareness
 - The change of the base of power.
 - Who will benefit
 - What things got easier
 - What things got harder

What does make social computing hard?

- Important **heuristic** for social computing is
 - Look for current practice and think what people do now and how to incorporate in the new software that is to minimize the distance between current practice and new technologies
 - This will allow people to learn from their experience, accept the system
 - The more flexible and light weight (simple) the tool without much structure is the better. Example of twitter that is simple tool , allows to write a message with-out any structure even the # started by the users and not the designers. Like the paper that is simple without any structure.

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

CASE STUDY

- The aim of this activity is to analyze how collaboration, coordination and communication are supported in remote conversation application

Tango:

a) Communication

- What is the purpose Tango?
- What kinds of conversations are supported?
- What kinds of social protocols and conventions are used?
- How do users coordinate their actions in the conversation?
- How is awareness supported of others in Tango to facilitate social communication?
- How is notification supported of others in Tango to facilitate social communication?

b) Coordination

- How is awareness supported of others in Tango to facilitate coordination?
- How is notification supported of others in Tango to facilitate social communication?

c) Collaboration

- How can users collaborate together to finish the required task ?

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CASE STUDY

- The aim of this activity is to analyze how collaboration, coordination and communication are supported in remote conversation application

Tango:

a) Communication

- What is the purpose Tango?
 - Make remote conversation especially international.
- What kinds of conversations are supported?
 - Supports video and audio calls
 - Messages: 1 to 1 and group chats

CASE STUDY

- The aim of this activity is to analyze how collaboration, coordination and communication are supported in remote conversation application **Tango**:

a) Communication

- What kinds of social protocols and conventions are used?
 - joint greetings: specially in audio or video calls joint greeting is used.
 - Turn-taking used to coordinate conversation: speak/listen, pause/speak
 - Farewell practice: used such as Bye, see you,...
 - Implicit and explicit clues
 - Implicit Clues are difficult but can be done with video calls e.g. looking at watch
 - explicitly can be easily done by saying “Oh dear, must go, look at the time, I’ m late...”

CASE STUDY

a) Communication

- **How do users coordinate their actions in the conversation?**
 - Call/answer , send message/read message
 - verbal communication: implemented through audio calls by issuing commands and letting others know how you are progressing.
 - non-verbal communication can be done through **video communication** or **messaging**
 - shared external representations: in messaging Emoji symbols can be used

CASE STUDY

a) Communication

- **How is awareness supported of others in Tango to facilitate social communication?**
 - knowing who is around: through the feature discover people: my contacts, you may know, people nearby, popular people, shake (and see who is shaking), around the word
 - what is happening: notification about new people that are in your contacts and joining tango, notification about birthdays, gaming status
 - who is talking with whom: not directly implemented but can be through group chat, or people you may know

CASE STUDY

a) Communication

- How is notification supported of others in Tango to facilitate social communication?
 - Notify when a friend joins Tango, birthdays, changing status, updating profile photo

CASE STUDY

b) Coordination

- How is awareness supported of others in Tango to facilitate coordination?
- How is notification supported of others in Tango to facilitate social communication?

CASE STUDY

b) Coordination

- How is awareness supported of others in Tango to facilitate coordination?
 - Since the purpose of Tango is social communication, Knowing those in our contact that uses Tango will let us aware of those that we can contact by making a call or sending a message.
- How is notification supported of others in Tango to facilitate coordination?
 - Will support call in case of special occasion (birthday), calling friends who just joined Tango.

CASE STUDY

c) Collaboration

- How can users collaborate together to finish the required task ?
- How is awareness and notification of others supported in Tango to facilitate collaboration?

CASE STUDY

c) Collaboration

- How can users collaborate together to finish the required task ?
 - Collaboration can be achieved through gaming.
- How is awareness and notification of others supported in Tango to facilitate collaboration?
 - Awareness about who is using Tango and new users support collaboration in gaming, also notification about the new level reached in common games can support collaboration.

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