Communication
What is Social Computer Mediated Communication?
Signals – brief history

- Smoke signals, water flows, light
  Aeneas, 350 BC (first telegraph)
- First lighthouse, Alexandria 299 BC
- Sign language, flag signals
- Chappe
  audio clock, visual clock
Morse Code, 1832

Samuel Morse's message during the first major exhibition of the telegraph:

“What hath God wrought.”

Transcripts from the first transcontinental telegraph link:

“CAN YOU RECEIVE ME?”

“PLEASE SAY IF YOU CAN READ THIS.”

“YES.”
Telephone, 1876

Alexander Graham Bell’s fabled first words over the telephone:

“Mr. Watson, come here. I want you.”
“Do come over!”

FRIENDS who are linked by telephone have good times

The Pacific Telephone and Telegraph Company

Business office: 446 Railroad Street, Telephone Pittsburg 490.
PLACE—Dundon Square. TIME—8 A.M.

Paterfamilias (waking up): "What is the matter, Jemima?"

Jemimah: "It's dear Charley out a Dinner-Party. The Stingby Robinsons, from Colombo, are there, and Charley's just proposed our Health so nicely. Just listen to the Cheers!"

Paterfamilias: "All right! Wait a minute, and I'll return thanks!"
EDISON'S TELEPHONOSCOPE (TRANSMITS LIGHT AS WELL AS SOUND).

Every evening, before going to bed, Pater and Materfamilias set up an electric camera-observer over their bedroom mantelpiece, and gazed their eyes with the sight of their Children at the Amusement, and converse gaily with them through the wires.

Paterfamilias (in Wilton Place). "Beatrice, come closer, I want to whisper." Beatrice (from Ceylon). "Ye' Papa hear." Paterfamilias. "Who is that charming young lady playing on Charlie's side?"

Doctor. "She's just come over from England, Papa. I'll introduce you to her as soon as the game's over!"
- Arpanet, 1969
Components of Communication

1. The *genre* or type of event (e.g. joke, story)

2. The *topic*, or referential focus

3. The *purpose* or *function*

4. *The setting*, including location, time of day, physical attributes of space, etc.

5. The *key*, or emotional tone of the event

6. The *participants*, including their age, sex, ethnicity, social status, etc.

   • The *message form*, including both vocal and nonvocal channels, and the nature of the code (which language, which variety)
8. The *message content*, or what is communicated about
9. The *act sequence*, or ordering of communicative/speech acts, including turn-taking and overlap phenomena
10. The *rules for interaction*, or what properties should be observed.
11. The *norms of interpretation*, including the common knowledge, the relevant cultural presuppositions, or shared understandings, which allow particular inferences to be drawn about what is to be taken literally, what discounted etc.

(Saville-Troike 2003)
### Four-way distinction of message form

<table>
<thead>
<tr>
<th>CODE</th>
<th>CHANNEL</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Vocal</td>
<td>Nonvocal</td>
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<tr>
<td>Verbal</td>
<td>Spoken language</td>
<td>Written language</td>
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<td>(Deaf) Sign Language</td>
<td>(Deaf) Sign Language</td>
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<td></td>
<td>Whistle/drum languages</td>
<td>Morse code</td>
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<tr>
<td>Nonverbal</td>
<td>Para linguistic and prosodic features</td>
<td>Silence</td>
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<td></td>
<td>Laughter</td>
<td>Kinesics</td>
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<td>Proxemics</td>
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<td></td>
<td></td>
<td>Eye behavior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pictures and cartoons</td>
</tr>
</tbody>
</table>
The Whole Earth 'Lectronic Link', 1985
Hi,
My cable ties have mysteriously disappeared, and I really need some today.
How do you do everybody have any plastic cable ties I could use. I will replace them
soon.
Thank you.
Julie
1:15:46pm
Subject: Putting a label that says "Loading..." while a swing applet is loading

Date: Sun, 27 Feb 2000 21:42:25 -0800

From: "Chains Mail" <chains@imago.edu>

Organization: Gigacorp - Premium News Outsourcing

Newsgroups: comp.lang.java.gui

Hi, I have a swing applet that takes about 30 seconds to load (it has to connect to a RMI component, which in turn connects to a CORBA component, so it takes time). While it is loading, I want to put a label on the applet that says "Loading...". I instantiate a JLabel and call getContentPane().add(), right before I do the long work, but it doesn't show up. I think it's because Swing doesn't paint it until everything is done. I called repaint(), but it didn't either work. Any suggestions?

Thanks,
Chains
Authentic Personal message at 18:06:12 on Tue Feb 29 2000
From: Karrie Karahalios <kkarahal> on obie.media.mit.edu
To: paris@ATHENA.MIT.EDU
hey you, what time is it?

Incoming Message [No More Events]
From: CHEESE
EMail: swimmer_boy_69@hotmail.com
ICQ#: 44313611
Date: 2/27/00
Time: 11:17 PM

Message
ahh i think you have a cousin in newyork!!! and he has a
cousin in illinois named bill cuz he is my cousin

Response Action
[Reply] [Forward] [Add To Ignore List] [Add to Contact List]
[More Functions] [Close] [Read Next]
IRC
MUD's

IRC
MUD's

>connect guest
Okay,... guest is in use. Logging you in as `Green_Guest'
*** Connected ***

The LEGO Closet
It's dark in here, and there are little crunchy plastic things under your feet!
Groping around, you discover what feels like a doorknob on one wall.
Obvious exits: out to The E&L Garden

>out
The E&L Garden
The E&L Garden is a happy jumble of little and big computers, papers,
coffee cups, and stray pieces of LEGO.
Obvious exits: hallway to E&L Hallway, closet to The LEGO Closet, and sts
to STS Centre Lounge
You see a newspaper, a Warhol print, a Sun SPARCstation IPC, Projects
Chalkboard, and Research Directory here. Amy is here.

>say hi
You say, "hi"
Amy says, "Hi Green_Guest! Welcome!"
- Public + Private messaging
- Reputation management
from having an outlet to being a whore

In the discussions on the Friendster firing, someone noted that I do not blog about my work. I found my nose crinkling and I thought I should explore that.

In the last 7 years, I have never signed an agreement with any company or organization that forbids me to blog. Or at least, I do not believe that I have. That said, I have often opted not to blog about the work that I do for companies.

I take contracting gigs in part for the money but in part for the intellectual exercise. I usually respect the companies that I work for and realize that they are working in a competitive market and have hired me to solve a set number of problems, not simply broadcast their strengths and weaknesses to the public.

There are two types of blog posts I typically make about products: rants and theoretical considerations. I still post the theoretical considerations because it's often possible to generalize them beyond a particular product.

The ranting is usually what I stop doing. Rants provide two roles for me. First, they let me vent my frustration. Second, they give me the false hope that I might affect the product somehow remotely. (Note: Friendster paid absolutely no attention to my critiques, thereby dashes this hope.)

When I work at a company, they give me mechanisms to rant and additional insider knowledge to rant with. Why should I bother to rant to a public unknown audience when I can go straight to the creator's cube and chew their ear off? The advantage of the public option is to see if others (dis)agree. But seriously, the cube method is far more effective. I think it's great that people seem to find value from my blog/rants, but the most noticeable impact to me has always been 1-1 anyone.

Once I've gotten out a rant, I feel no desire to actually re-articulate it for the public. Note: this is why my publication rate has dropped dramatically as my blogging rate has increased... warning for the other academics out there.

Pay me to speak and I'll happily craft a theoretical and critical analysis of whatever. But when it comes to blogging, I have no desire to be expected to comment on my work or whatever the latest trend is out there. Nor am I ever remotely outraged when people write me emails asking me to comment on their product on my blog or provide free consulting about how to fix some theoretical snafu.

I hate being expected to do things because I've done them before. Expectations kill the passion. This blog has been the product of passion for 7 years. I can be convinced to operate without passion when other needs are met (like rent money), but it's not really my preferred way of being.

I almost stopped blogging a few months back because I was tired of the expectations. Seriously, if I could give any feedback to readers, it would be lay off, chill the fuck out and don't expect demands things from the writers you're reading. For me (and many of my friends), blogging is an exercise of love, not an effort to meet an audience's needs. Having to face expectations every time I go to my blog makes me feel absolutely disgusting, like I've become some sort of blogging where

Weblogs
Electronic mail

From Wikipedia, the free encyclopedia

Electronic mail, or email, is short for "electronic mail" (as opposed to conventional mail, in this context also called "snail mail") and is a method of composing, sending, and receiving messages over electronic communication systems. Most e-mail systems today use the Internet, and e-mail is one of the most popular areas of the Internet.

Contents

- Origins of e-mail
- Growing popularity

Origins of e-mail

Despite common belief, e-mail actually predates the Internet. In fact, existing e-mail systems were a crucial tool in creating the Internet.

E-mail started in the 1960s as a way for multiple users of a timesharing computer system to communicate, although the exact history is murky, among the first systems to have such a facility were SICS's SICS and MIT's CTSS.

E-mail was quickly extended to become network e-mail, allowing users to pass messages between different computers. The early history of network e-mail is also unclear, the AUTODDE system may have been the first allowing electronic text messages to be transferred between users on different computers, in 1969, but it is possible the SAGE system had something similar some time before.

The ARPANET computer network made a major contribution to the evolution of e-mail. There is one report [1] which indicates experimental ancient computer-to-computer transfers as far back as 1966.

E-mail systems such as SICS's SICS and MIT's CTSS were very important. The ARPANET significantly increased the popularity of e-mail, and it became the "killer app" of the ARPANET.

Growing popularity

As this Wiki entry indicates, a mail on the SICS/SICS system was a crucial feature, the need for a mail bridge to be devised from
Facebook
Second Life
The LEGO Closet
It's dark in her
Groping around.
Obvious exits:

>out
The ESL Garden
The ESL Garden and
coffee cups, etc.
Obvious exits: 

>say hi
You say, "hi"

Say says, "Hi Gr

Authentic Personal message at 12:05:12 on Tue Feb 29 2000
From: Karrie Karahelles <kkarahel> on obis.media.mit.edu
To: pans@ATHENA.MIT.EDU
Hey you, what time is your record.

Incoming Message [No More Events]
From:
Nick Name: CHEEZE
Email: swimmer_boy_59@hotmail.com
IQ#: 44313511
Date: 2/27/00
Time: 11:17 PM

Message:

aah i think you have a cousin in newyork ill and he has a
cousin in illinois named bill cuz he is my cousin

Response Action
Reply Forward Add To Ignore List Add to Contact List

More Functions

Response: more functions

www.lego.com

WorldAway 2.4 - dreamscape

"clicked on ya"
Time elapse

"what am I thinking here?" yes

- Tail

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WorldAway 2.4 - dreamscape
Chat Circles - 1999


Chat Circles - now
Chat Circles
User Study

- 20 participants
- 4 users per session
- Participants never saw each other
- 2 conditions: traces v. no traces
- 5 minute intro
  10 minutes: narrative construction
  15 minutes: sharing stories
  20 minutes: post-study questionnaire
User Study - results

Amount of movement:

traces $\rightarrow$ 1.05 moves per minute on average (s.d.=0.42; p < 0.01)
no traces $\rightarrow$ 0.48 moves per minute on average (s.d.=0.38; p < 0.01)

Kinds of movement:

traces $\rightarrow$ more expressive use of movement for several purposes. 
  to show agreement (mean 2.5 vs. 1.9 on the five-point scale; p < 0.01)
  to annoy another user (mean 2.3 vs. 1.8; p < 0.02)
  to intimidate another user (mean 2.0 vs. 1.6; p < 0.05)

"paint" with traces
"dance" with traces
"write" with traces
User Study - results

Amount of movement:
- traces → 1.05 moves per minute on average (s.d.=0.42; p < 0.01)
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  - to intimidate another user (mean 2.0 vs. 1.6; p < 0.05)
- “paint” with traces
- “dance” with traces
- “write” with traces

extra channel of communication!
Chat Circles - grafitti

these guys are awesome
never saw them. waste of food tho, yes?
blue man group!
blue
Chat Circles - grafitti
Chat Circles - grafitti
Chat Circles - grafitti
Chat Circles - graffitti
Goal: the design of augmented social spaces for people

Challenge:

1. explore which social cues to transmit between mediated spaces
2. sense cues (gaze, agreement, etc.)
3. visualize social patterns, feedback
4. Incorporate cues and media space into catalyst for interaction
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- cue variety
- feedback
- message personalization
- simultaneously being reminded of a need to talk to someone
- having a communication channel
- turn-taking, repair, stylized openings

*Beyond Being There*
Holland and Stornetta
Goal: the design of augmented social spaces for people

Challenge:

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2. sense cues (gaze, agreement, etc.)
3. visualize social patterns, feedback
4. Incorporate cues and media space into catalyst for interaction
Features

- Transformation of Space through Interaction
- Abstraction for Visualizing Conversation
- Physical manifestation of Virtual Presence
- Time and Motion for Blended Spaces
Hole in Space, 1980
Kit Galloway
and Sherrie Rabinowitz
Telemurals

Karrie Karahalios, 2002-3
When we abstract an image through cartooning, we’re not so much eliminating details as we are focusing on specific details.

By stripping down an image to its essential “meaning”, an artist can amplify that meaning in a way that realistic art can’t.

Scott McCloud, *Understanding Comics*
Social: comparisons and contrasts

- Hours of operation
- Events
- Site Selection
- Signage Interface
- Observations
Transformation of Space through Interaction

- Actions of participants over time *Transform* Space – fading, grafitti – publicity and privacy
- Blending Emphasizes Togetherness vs. Remoteness
- Human Scale allows for Similar Gestural Language
- Abstraction for Visualization
Reflection of Presence
by Agamanolis, Westner, and Bove
Breakout for Two
by Floyd Mueller and Stefan Agamanolis
Scale and Form
Interaction and Wearability
Abstraction for Visualizing Conversation

- Abstracted vs. Traditional Audio Representation
- Time and Motion Provide *History* – added social cues
  - Conversational Dominance
  - Turn-taking
  - Feedback that voice is carrying across to the other end
- Shows you what you know, but don’t know you know
- Physical embodiment of medium and cues
Physical Embodiment of Virtual Presence

- Human Scale allows for Similar Gestural Language
- Abstraction in Facial Expression
- Provides Presence and Attention
- Blending Emphasizes Togetherness vs. Remoteness
Krzysztof Wodiczko
The Mouthpiece
Paul Sermon
Telematic Dreaming
Body Movies
Rafael Lozano-Hemmer
Communication Objects
- Conversation
- Chat, IM, SMS
- Matchmaking
- Games
ComTouch

inTouch
“Meme” Tags, Lifelong Kindergarten Group
Visiphone
Programmable Beads
IBM Concept Phone Jewelry
Thinking Materials
SoMo 1
the electric shock mobile

SoMo 2
the speaking mobile

SoMo 3
the musical mobile

SoMo 4
the knocking mobile

SoMo 5
the catapult mobile

IDEO
Social Mobiles
IDEO (material exploration)