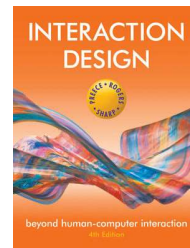


## Chapter 4

# Social Interaction



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## Overview

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



## Conversational Mechanisms

- ❖ Various mechanisms and 'rules' are followed when holding a conversation, e.g. mutual greetings:

A: Hi there

B: Hi!

C: Hi

A: All right?

C: Good, how's it going?

A: Fine, how are you?

C: OK

B: So-so. How's life treating you?



3

## Being Social

- ❖ Are face-to-face (F2F) conversations being outdated by our social media interactions?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 custom still applicable to online and offline?



4

## Conversational Rules

❖ 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 continue talking.



5

## 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 haircut!
- B: Um, can we meet a bit later?

❖ Back channeling to signal to continue and following

- Uh-uh, umm, ahh



6

## More Conversational Rules

- ❖ Farewell custom
  - Bye then, see you, see you later....
- ❖ Implicit and explicit cues
  - e.g. looking at watch, fidgeting (التلملم) with coat and bags.
  - explicitly saying “Oh dear, must go, look at the time, I’m late...”



7

## Breakdowns in Conversation

- ❖ When someone says something that is misunderstood:
  - Speaker will repeat with emphasis:
    - A: “this one?”
    - B: “no, I meant that one!”
  - Also use tokens:
    - Eh? Huh? What?



8

## What happens in social media conversations?

- ❖ Do same conversational rules apply?
- ❖ Are there more breakdowns?
- ❖ How do people repair them for:
  - Phone?
  - email?
  - Instant messaging?
  - texting?
  - Skyping?



9

## Remote Conversations

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



10

## Early Videophone and VisualPhone



11

## 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.
- ❖ 3x8 ft 'picture-window' between two sites with video and audio.
- ❖ People did interact via the window but strange things happened (Kraut, 1990)

12

## Sketch of VideoWindow



## Findings of how VideoWindow System was used

- ❖ Talked constantly about the system.
- ❖ Spoke more to other people in the same room rather than in other room.
- ❖ When tried to get closer to someone in other place had opposite effect - went out of range of camera and microphone.



## Skype Success

- ❖ Global household name.
- ❖ 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)



15

## 3D Virtual Worlds

- ❖ Second Life (2007)
  - Over 8 million users.
- ❖ What kinds of conversation take place in these environments?



16



## Second Life



17

## Facebook and Twitter

- ❖ 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 rumors, by adding news that is old or incorrect.
  - more confusing than helpful.

18

## 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.



19

## 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)



20

## 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?



21

## A Telepresence Room



22

### Live BBC interview gatecrashed by his kids



### BHS (Nawahdah 2012)



## Co-presence

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



25

## Summary

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- ❖ 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.



26