

Lecture 12

Chapter 9 Collaboration

Collaboration

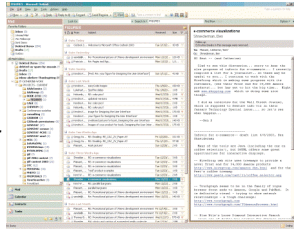
- Goals of Cooperation
 - Focused partnerships
 - Lecture or demo
 - Conference
 - Structured word processor
 - Meeting and decision support
 - Electronic commerce
 - Tele-democracy
 - Collaboratories
 - Telepresence

Time/space matrix

	<i>Same Time (synchronous)</i>	<i>Different Times (asynchronous)</i>
<i>Same Place (co-located)</i>	face to face (classrooms, meeting rooms)	asynchronous interaction (project scheduling, coordination tools)
<i>Different Places (distributed)</i>	synchronous distributed (shared editors, video windows)	asynchronous distributed (email, listservs, conferences)

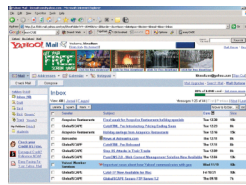
Asynchronous distributed interfaces: Different place, different time

- **Electronic mail:**
 - can be too loosely structured
 - sometimes overwhelming
 - transient
 - tools
 - filtering
 - archiving
 - mailing lists
 - discussion groups
 - typically text-only, but increasingly includes other structured objects
 - graphics
 - sounds
 - animations
 - web pointers
 - video



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

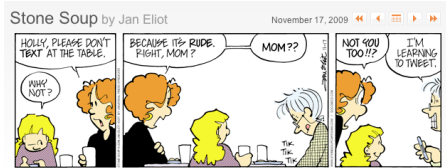
- **Electronic mail (cont.):**
 - In 2003, AOL reported 80% of email that entered its system was spam suppressed by filters
 - Online directories
 - Web services with E-mail
 - E.g. Hotmail, and Yahoo! Mail
 - Email on mobile devices



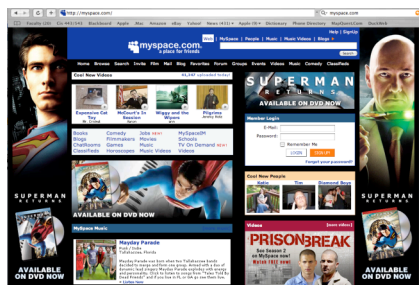


Asynchronous distributed interfaces: Different place, different time (cont.)

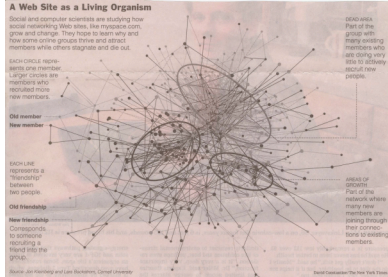
- **Newsgroups, listservers, discussion boards, conferences, blogs, and wikis**
 - focused electronic discussions by group of people
 - **listserv**
 - individual must subscribe to receive e-mail notices
 - may be moderated by a leader
 - may be mail reflector
 - users can get flooded with listserv e-mails
 - server machine keeps searchable archive or past notes and subscriber list
 - **USENET newsgroups**
 - each group dedicated (more or less) to one topic
 - like ordered posting on bulletin board
 - users read as many previous notes and related comments as they wish
 - open to all!
 - **online conference**
 - in addition to listserv tools, may also include additional facilities
 - voting
 - online directories of users
 - online directories of documents
 - **online magazines and newsletters**
 - **Web-logs/blogs and wikis**



MySpace.com



Social Networks Research

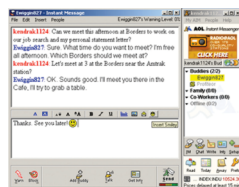


Synchronous distributed interfaces: Different place, same time

- **Synchronous distributed applications**
 - group editing
 - shared screens for customer assistance
 - give demonstrations simultaneously at multiple sites
 - allow sharing of information for various applications
 - interactive games

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

- **Conversational Interaction**
 - Two person
 - CHAT, Internet Relay Chat (IRC), and TALK
 - Texting and Instant Messaging
 - Problems
 - Cell phones: Small screen and lack of keyboard
 - Abbreviations not understood (LOL etc.)



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

- **Multi-person conversation**
 - MOOs (multi-person chat)
 - Example
 - LambdaMoo at Xerox PARC, founded early 1990's
 - <http://www.lambdamoo.info/>
 - Problems
 - Synchronizing action when visual display of other persons not available
 - Flamers
 - Other misbehavior

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

- **MUDs and MMORPGs (massively multi-player online role-playing games)**
 - Examples:
 - The Society www.societygame.com
 - Industry Player www.industryplayer.com
 - Problems
 - Game addiction

Women over 40 biggest online gamers!

- AOL survey Feb 10 2004
 - U.S. women over 40 spend nearly 50% more time each week playing online games than men and are more likely to play online games daily than men or teens
 - Of those women over 40 who had formed online friendships, more than 20% converted those virtual connections into real-life relationships
- Prefer to play puzzle and word games
 - games.yahoo.com

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

- **Audio and video conferencing**

- Videoconferencing problems

- slow response times for entering and leaving session
- distracting background audio
- difficulty in determining who is speaking
- inadequate lighting
- difficulty in making eye contact
- changed social status
- small image size
- potential invasion of privacy
- need for convenient turn taking
- need for document sharing



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

- For example, if it is impossible to travel to Paris for a seminar, a video conference might work even with the limitations

Discussion: Online and networked communities

- **Discussion: Online and networked communities**

- Provide virtual community where f2f doesn't exist

- Distance education courses

- Impact on offline communities

- Group identity

- Patient support groups

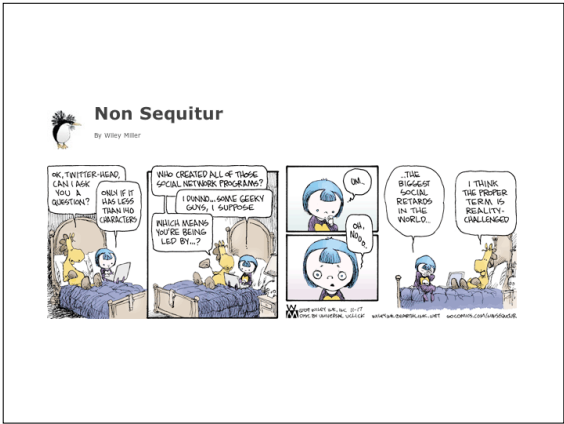
- Need critical mass for synchronous (example: chat room)

- Community policies & freedom of speech

- Network communities can be controversial

- hackers
- hate groups
- para-military groups

- Reputation managers for online stores




**Face-to-face interfaces:
Same place, same time**


- **Innovative approaches to work and learning include:**
 - Shared display from lecturer workstation
 - Audience response units
 - Text or photo submission workstations
 - Brainstorming, voting, and ranking
 - Public spaces facilitate sharing
 - File sharing
 - Shared workspace
 - Group activities
 - Notification systems

**Face-to-face interfaces:
Same place, same time (cont.)**

- Colab and Liveboard
- SMART Board



- Sharing photos is very popular



Benefits of Face-to-face electronic meeting systems

- Parallel communication promotes broader input into the meeting process and reduces the chance that a few people dominate the meeting.
- Anonymity mitigates evaluation apprehension and conformance pressure, so that issues are discussed more candidly.
- The group memory constructed by participants enables them to pause and reflect on information and opinions of others during the meeting and serves as a permanent record of what occurred.
- Process structure helps focus the group on key issues and discourages irrelevant digressions and unproductive behaviors.
- Task support and structure provides information and approaches to analyze it.
