Instant Messaging

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Outline

- What is IM?
- IM as groupware

Readings

- Nardi, B. A., Whittaker, S., & Bradner, E. (2000)
  Interaction and outeraction: instant messaging in action.

- Cameron, A. & Webster, J. (2005).
  Unintended consequences of emerging communication technologies: Instant Messaging in the workplace.

- Isaacs, E., Walendowski, A., Whittaker, S., Schiano, D. & Kamm, C. (2002).
  The Character, Functions, and Styles of Instant Messaging in the Workplace.

- Herbsleb, J., Atkins, D., Boyer, D., Handel, M. & Finholt, T. (2002).
  Introducing Instant Messaging and Chat in the Workplace.

- Grinter, R. & Palen, L. (2002).
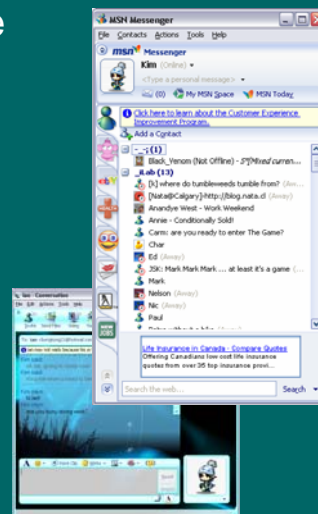 **Instant Messaging in Teen Life.**

History

- previous text chat systems
  - UNIX talk, write
  - multi user dungeons (MUDs)
  - Internet Relay Chat (IRC)
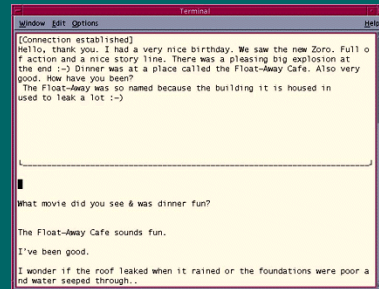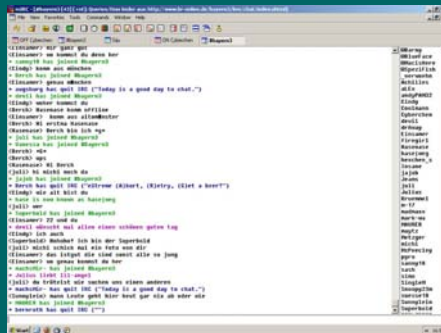
How is IM different?

- know each other in real life
- conversations are brief
- some media switching
- multitasking is common

	real-time	asynchronous
co-located		
distributed	*instant messaging*	

How is IM used?

- coordinating/ scheduling/ doing work tasks
- quick questions and clarifications
- coordinating impromptu social meetings
- keeping in touch with friends & family

Function	Conversations (%)
Work	*61.8*
Coordination	*30.8*
Questions	*27.8*
Personal	*13.0*
Saying "hi"	*5.4*
No response	*23.6*

	% of work IMs	% of all IMs
Work Talk	*49.8*	*30.8*
Work-Related Talk	*54.0*	*33.4*
Doing Work	*12.0*	*7.4*
Any	*100.0*	*61.8*

Isaacs et al. (2002). The Character, Functions, and Styles of Instant Messaging in the Workplace.

How is IM used? (2)

- replacement technology
- multiple conversations at a time
- enhances privacy
- fairness

- for teens:
  - socializing
  - event planning
  - schoolwork collaboration

Grinter, E. and Palen, L. (2002). Instant Messaging in Teen Life.
Cameron, A. F. and Webster, J. (2005). Unintended consequences of emerging communication technologies: Instant Messaging in the Workplace

Patterns of use

- heavy users
  - many turns, short gaps, threaded responses
- light users
  - longer turns, longer gaps, complete thoughts

A: *hi, chocolate bars $3 each*
B: *they have almonds right?*
B: *milk choc?*
A: *yes*
A: *to both*
B: *k, can i get 2 pls*
A: *sure, be right over*

A: *hi, the chocolate bars are $3 each*
B: *do they have almonds and are they milk chocolate?*
A: *yes, they're milk chocolate and have almonds*
B: *ok, could I please get 2?*
A: *sure, I'll be right over*

Isaacs et al. (2002). The Character, Functions, and Styles of Instant Messaging in the Workplace.

Patterns of use (2)

- discrete connectivity
  - dial-up access, shared computer
  - IM use intensive and focused
  - concurrent internet activity
- continuous connectivity
  - high-speed access, personal computer
  - sporadic IM use
  - intermingled with other computer and non-computer activities

Grinter, E. and Palen, L. (2002). Instant Messaging in Teen Life.

IM as groupware

1. work vs. benefit
   – additional work but no perceived benefit
2. critical mass and prisoner's dilemma
   – need "critical mass"
   – may never be to anyone's advantage to use
3. disruption of social processes
   – lead to activity that demotivates users
   – threatens existing political structures
4. exception handling
   – improvisation characterizes much group activity

Grudin, J. (1994). Groupware and Social Dynamics: Eight Challenges for Developers

IM as groupware (2)

5. unobtrusive accessibility
   – integration for group features
6. difficulty of evaluation
   – difficult to learn from experience
7. failure of intuition
   – poor intuition for multiuser applications
8. adoption process
   – requires careful introduction into the workplace

Grudin, J. (1994). Groupware and Social Dynamics: Eight Challenges for Developers

Work vs. benefit

- problems
  - some people's attention in more demand

- benefits
  - plausible deniability
  - lightweight communication, response
  - group chat, questions, broadcasts
  - presence awareness

Critical mass, prisoner's dilemma

- critical mass
  - needs collective adoption to be useful
  - peer pressure, management pressure
  - difficult to predict what people will find valuable

- prisoner's dilemma problem
  - if everyone acts in his own best interest, the result is worse not only for the group, but also for each individual

Disruption of social processes

- reputation of IM
  - most widely-publicized use is teen gossiping
  - informal communication not seen as important

- interruptions
  - don't want more messages

- group dynamics
  - no desire to communicate more with remote people

Exception handling

- informal, lightweight character
  - flexible
  - no restrictions

Unobtrusive accessibility

- basic use
  - few features to learn

- advanced use
  - extra functionality not obvious
  - however, not needed by most

Difficult to evaluate

- need feedback from real users
  - need a real, working system

- example: Rear View Mirror
  - individual, 1-hour appointments with users (!)
  - initially didn't catch on
    - poor reliability and usability
    - mainly adopted by teams

Presence Viewer

Herbsleb et al. (2002). Introducing Instant Messaging and Chat in the Workplace.

Failure of intuition

- related to difficulty in evaluation
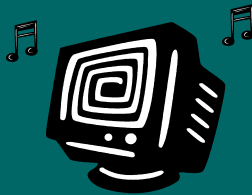 - intuition improves with trial and error

Adoption process

- generally successful
  - relatively straightforward to use
  - free clients available
  - help available from other users

Variation: Hubbub

- users have a "Sound ID"
- can send sound IMs
- partner information visible in chat
  - typing, focus in window, focus outside window

Isaacs et al. (2002). The Character, Functions, and Styles of Instant Messaging in the Workplace.

Conclusion

- IM is successful groupware
  - in terms of popularity
- supports many uses
  - informal communication, coordination, etc.
- not so good in providing awareness
  - better than nothing, but…