Instant Messaging

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Outline
• What is IM?
• IM as groupware

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

How is IM used?

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

<table>
<thead>
<tr>
<th>Function</th>
<th>Conversations (%)</th>
<th>% of work IMs</th>
<th>% of all IMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>61.8</td>
<td>49.8</td>
<td>30.8</td>
</tr>
<tr>
<td>Coordination</td>
<td>30.8</td>
<td>54.0</td>
<td>33.4</td>
</tr>
<tr>
<td>Questions</td>
<td>27.8</td>
<td>12.0</td>
<td>7.4</td>
</tr>
<tr>
<td>Personal</td>
<td>13.0</td>
<td>100.0</td>
<td>61.8</td>
</tr>
<tr>
<td>Saying “hi”</td>
<td>5.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>23.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


How is IM used? (2)

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

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

Patterns of use

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

What is IM?

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

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
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

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

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

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

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…