

# Observing users

# The aims

- Discuss the benefits & challenges of different types of observation
- Describe how to observe as an on-looker, a participant, an ethnographer
- Discuss how to collect, analyze and present observational data
- Examine think-aloud, diary studies and logging
- Provide you with experience in doing observation and critiquing observation studies

# What and when to observe

- Goals & questions determine the paradigms and techniques used
- Observation is a valuable any time during design
- Quick & dirty observations early in design
- Observation can be done in the field (i.e field studies) and in controlled environments (usability studies)
- Observers can be
  - Outsiders looking on
  - Participants
  - Ethnographers

# Framworks to guide observation

- The person. Who ?
- The place. Where ?
- The thing. What ?
- The Goetz and LeCompte (1984) framework:
  - Who is present ?
  - What is their role ?
  - What is happening ?
  - When does the activity occur ?
  - Where is it happening ?
  - Why is it happening ?
  - How is the activity organized ?

# The Robinson framework (1993)

- *Space*. What is the physical space like ?
- *Actors*. Who is involved ?
- *Activities*. What are they doing ?
- *Objects*. What objects are present ?
- *Acts*. What are individuals doing ?
- *Events*. What kind of event is it ?
- *Goals*. What do they try to accomplish ?
- *Feelings*. What is the mood of the group and of the individuals ?

# You need to consider

- Goals & questions
- Which framework & techniques
- How to collect data
- Which equipment to use
- How to gain acceptance
- How to handle sensitive issues
- Whether and how to involve informants
- How to analyze the data
- Whether and how to triangulate

# Observing as an outsider

- As in usability testing
- More objective and participant observation
- In usability lab equipment is in place
- Recording is continuous
- Analysis & observation almost simultaneous
- Care needed to avoid drowning in data
- Analysis can be coarse or fine-grained
- Video clips can be powerful for telling a story

# Participant observation & ethnography

- Debate about the differences
- Participant observation is key component of ethnography
- Must get co-operation of people observed
- Informants are useful
- Data analysis is continuous
- Interpretive technique
- Questions get refined as understanding grows
- Reports usually contain examples



# Data collection techniques

- Notes & still camera
- Audio & still camera
  - Think-aloud approach
- Video
- Tracking users
  - Diaries
  - Interaction logging

# Data analysis

- Qualitative data – interpreted & used to tell the “story” about what was observed
- Qualitative data – categorized using techniques such as content analysis
- Quantitative data – collection from interaction & video logs. Presented as values, tables, charts, graphs and treated statistically

# Interpretive data analysis

- Look for key events that drive the group's activity
- Look for patterns of behavior
- Test data sources against each other – triangulate
- Report findings in a convincing and honest way
- Produce rich descriptions
- Include quotes, pictures and anecdotes
- Software tools can be useful (NUDIST, Ethnography)

# Looking for patterns

- Critical incident analysis
- Content analysis
- Discourse analysis
- Quantitative analysis – i.e statistics

# Key points

- Observe from outside or as a participant
- Analyzing video and data logs can be time-consuming
- In participant observation collections of comments, incidents and artifacts are made
- Ethnography is a philosophy with a set of techniques that include participant observation and interviews
- Ethnographers immerse themselves in the culture that they study