

Observing users



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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 & present observational data.
- Examine think-aloud, diary studies & logging.
- Provide you with experience in doing observation and critiquing observation studies.

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What and when to observe

- Goals & questions determine the paradigms and techniques used.
- Observation is 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 (i.e., usability studies)
- Observers can be:
 - outsiders looking on
 - participants, i.e., participant observers
 - ethnographers

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Frameworks 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?

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The Robinson (1993) framework

- *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 to accomplish?
- *Feelings*. What is the mood of the group and of individuals?

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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 to triangulate

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Observing as an outsider

- As in usability testing
- More objective than 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 story

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Participant observation & ethnography

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

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Data collection techniques

- Notes & still camera
- Audio & still camera
- Video
- Tracking users:
 - diaries
 - interaction logging

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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* - collected from interaction & video logs. Presented as values, tables, charts, graphs and treated statistically.

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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' or 'thick descriptions'
- Include quotes, pictures, and anecdotes
- Software tools can be useful e.g., NUDIST, Ethnograph (see URL resource list for examples)

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Looking for patterns

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

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Key points

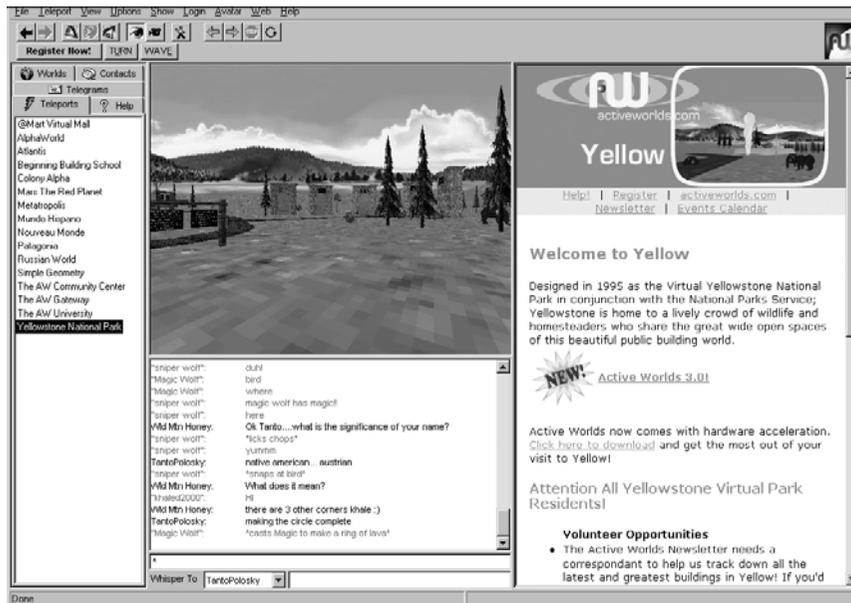
- Observe from outside or as a participant
- Analyzing video and data logs can be time-consuming.
- In participant observation collections of comments, incidents, and artifacts are made. Ethnography is a philosophy with a set of techniques that include participant observation and interviews.
- Ethnographers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

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ActiveWorlds ...An ethnographic project for you ...

- Join ActiveWorld.com if you have a high speed Internet connection or go to another chat room of your choice.
- ActiveWorlds is a 3-D chatroom environment in which you can visit different environments and chat with the people that you meet there.
- To use ActiveWorlds you will need to check the instructions that they provide and download the appropriate software to run on your computer.
- The next slide shows the Yellowstone world.

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- Select one of the worlds to visit and choose an avatar (a graphical personification) to represent you.
- Spend one to two hours doing a participant observation study.
- Use one of the frameworks discussed in the previous slides to guide you and write a one-two page report about your study.
- Also notice and report on any usability issues you encounter and on user experiences in this environment. (Chapters 1, 4 and 5 discuss user experience criteria that are relevant.)

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