# Understanding and Representing Users A.J. Brush cse490ra January 22, 2003

# Contextual Design [Beyer, Holtzblatt]

- Customer centered process for gathering user requirements and designing from them
- Several phases to the process
  - > Contextual Inquiry
  - > Building Work models
  - Redesigning the work
  - System Design
  - Prototyping

# **Contextual Inquiry**

- Go where the customer works
- Observe the customer as he/she works
- Talk to the customer about the work

#### How to talk with them?

- Master/apprentice model (Avoid interview/interviewee, expert/novice, guest/host)
- Avoid summary, watch them work
- Get concrete data
- Put some thought into who to talk with

### **Work Models**

- Flow: communication and coordination necessary
- Artifact: showing the physical things created to support the work
- Culture: constraints of policy, culture or values
- > Sequence: detailed work steps to achieve an intent
- > Physical: physical structure of the work environment

# **Sequence Model**

- Sequence of steps for a task (e.g. responding to an elevator emergency)
- State the
- Intent: what's the goal (e.g. fix elevator)
- Trigger: what started the steps (e.g. a call about an elevator problem)
- Steps: how the work is done (e.g. check safety string)
- Notice problems or breakdowns.

# **Physical Model**

- Shows how the physical environment affects the work, and reveals design constraints
- Look for:
  - Organization of workspace
  - Division of space
  - Movement of people

### **Contextual Design:Your turn**

- In your assigned groups, create a sequence and physical model from our visit last week
- Be sure to note places where you want more details as questions to ask or things to observe on our next visit.
- At the end of the time, please have a sequence model, physical model and list of questions written on transparencies.

#### Personas [Cooper]

- "Fake people" or user archetype to guide design designs
- Why:
  - Prevent the "elastic user" problem
  - Shared understanding of user goals among team
  - Complement other methods

#### Creating a Persona

- Synthesized from ethnographic data
- Include: behavior patterns, end user goals, skills, environment, and a few fictional personal details
- Not job descriptions (e.g. experienced elevator technician, new elevator technician)
- A project typically has a small set of personas, with one primary persona
- Note, avoid reusing personas if they don't fit a new project

#### Persona examples

- Airplane entertainment system [from Cooper, pg 142]
- Clevis McCloud, crotchety septuagenarian, An aging but still spry Texan, slightly embarrassed about the touch of arthritis in his hands. He was the only one of the four passengers who didn't own a computer or know how to use one.
- New email software :
  - Jeff is a busy executive at a software company,
  - Goals: Stay on top of product development process, deliver product on time and budget
  - Behavior/Environment: relies on email for everything, primary method of contact with people, uses to schedule meetings. He receives 500 messages a day

## Personas: Your turn

- Start on a group of personas for the elevator diagnostic tool
- Identify: end user goals, skills, behavior, and questions you might have
- Please come up with a start on at least two different personas.
- At the end of the session, I'll expect transparencies with the draft personas and list of questions that you would like answered to help develop your personas.

### References

- Contextual Design:
   Contextual Design: Defining Customer-Centered Systems, Hugh Beyer and Karen Holtzblatt, 1998
   "Personas and Contextual Design", Karen Holtzblatt

#### Personas

- The Inmates are running the asylum, Alan Cooper

  "Perfecting your personas", Kim Goodwin, Cooper Interaction
  Design, Newsletter, July/August 2001.

  http://www.cooper.com/ensetter/2007/07/5/erfeing.your.pensonas.htm
- http://www.cooper.com/newsletters/2001\_07/perfecting\_vour\_personas.htm

  Personas: Practice and Theory, John Pruitt and Jonathan
  Grudin, http://www.research.microsoft.com/users/jgrudin/