CS5340
Human-Computer Interaction

September 21, 2016

Today's Class

- Administrivia
- Interviewing
  - Recap
  - T2
- IDEO Video: User Centered Design
- Design Principles
- Action Research Circles
- If time, AirBnB video
- MONUM Presentation
- To Dos for Next Week

----Quick Break midway-----

Administrivia

- Hot topics sign up
- T1 extension
  - Due Sunday @ 11:59pm
  - Grading criteria
- Team assignment deadlines: Sundays @ 11:59pm
- T2
  - Instructions online later this week
- Doodle
  - Revisit availability

INTERVIEWING

Interviews: Recap

- Data collection to understand
  - User needs
  - Desires
  - Limitations
  - Strengths
  - Context
- Limit preconceived design ideas
- Findings → Design Requirements

INTERVIEWING

- Know who you're interviewing
  - Make sure questions are relevant
  - Gather subject matter knowledge
    - Helps you pivot and reframe questions
    - Help interviewee better understand questions
    - Better know what types of information you're after
- Critical to help interviewee feel comfortable
  - Smooth transitions
  - Empathic neutrality
  - Eye contact
  - Introduce them to the topic
  - Rapport building before interview

INTERVIEWING

- The importance of probing
  - "I will tell you if you ask"
  - Think through potential answers beforehand
  - How to choose and maintain silences as a probe?
    - Observing body language
    - Not appropriate for all interviewees
    - Mix with other probing techniques
- Taking notes is challenging
  - Develop shorthand
  - Pilot to become aware of potentially interesting topics
  - Record!

INTERVIEWING

- Be ready to adapt
  - Help interviewees understand your questions
  - Unexpected answers
  - Answering questions planned for later
  - Deviating from topic
  - Maintain control while allowing the interviewee to do most of the talking (LISTEN!)

I1 Debrief

- Lessons learned?
  - Interview guide construction
  - Interviewing process
  - Notes (during + after)
- What will you do differently in T2?
- The same?

Interview Guide

- Activity: what questions should we ask?
  - Based upon your background research
- In what ways do city residents currently use technology to address their home buying questions, needs, and concerns?
- How do residents' needs during the home-buying process vary across low, middle, and higher income household?
- What do residents feel city government's role is in helping them through the home buying process? During this process, how do residents want to engage with local governments through an app?
- What design opportunities exist for technology to bridge the gap between residents' desire for home ownership and successful completion of the home ownership process?

Types of Questions

- Experience & Behavior
  - What they've *done*, what they *do*
- Opinions & Values
  - What do people *think* about X, assessments
- Feeling
  - How do people *feel* about X
  - Watch for?
    - Opinion answers
- Knowledge
  - Factual
- Sensory
  - What is seen, touched, smelled, tasted, or heard
- Background/Demographic

User-Centered Design – Think of 1 question and 1 insight

IDEO VIDEO

What is User-Centered Design?

- Early focus on users and tasks
  - cognitive, behavioral, anthropomorphic & attitudinal characteristics
- Empirical measurement
  - reactions, performance & adoption
  - scenarios, simulations & prototypes
  - observe, record, probe & analyze

What is User-Centered Design?

- Iterative design
  - when problems are found in user testing, fix them and carry out more evaluations

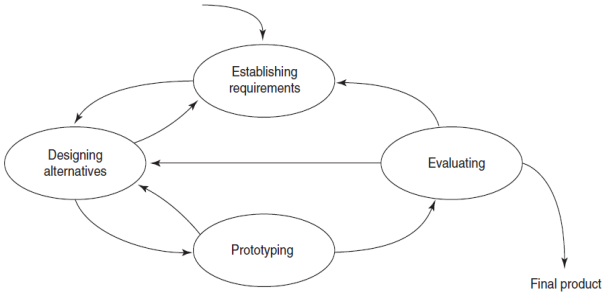

Figure 9.3 A simple interaction design lifecyle model

Involving users in Design: Why?

- Expectation management
  - Realistic expectations
  - No surprises, no disappointments
  - Timely training
- Ownership
  - Make the users active stakeholders
  - More likely to forgive or accept problems
  - Can make a big difference to acceptance and success of product

Involving users in Design: Why?

- Avoids reliance on assumptions & claims
  - taking something for granted when it needs further investigation
  - stating something to be true when it is still open to question

"Needs"?

- Ask users what they need?
- Users often don't know what is possible
  - can't always tell you what they 'need' to help them achieve their goals
  - What to do?
- Look at existing tasks:
  - their context
  - what information do they require?
  - who collaborates to achieve the task?
  - why is the task achieved the way it is?

From Needs to Design

- Not a direct move to final system
- Generating alternatives
  - Humans stick to what they know works
    - But considering alternatives is important to 'break out of the box'
  - Designers are trained to consider alternatives
  - Seek inspiration
    - look at similar products
    - very different products

IDEO TechBox

- Drawers of tagged objects
  - Website for more info
- Contains physical gizmos for inspiration
- Help break out of a rut

http://www.ideo.com/work/tech-box/

Research Paper Circles

- In your circles
  - Discuss the paper
  - Noting questions + insights that arise
- One group to lead class discussion
  - 2 key questions for debate/discussion

To Do for Next Week

1. Read
   - Cognition (PSR CH3)
   - Data Analysis (PSR Ch8.6; Holtzblatt on Blackboard)
2. T2: Interviews
   - We will be contacting you to schedule
3. Hot topics: start next week