

HCI 2/6

Reagan Shirk

February 6, 2020

- Sorry for no notes from 2/4, I couldn't make it to class that day

Observation

People and Roles

- You have primaries, secondaries, facilitators, and indirect participants
 - Primaries: Who interacts with the interface directly?
 - Secondaries: Who supplies input and consumes output?
 - Facilitators: Who develops/maintains the design?
 - Indirect: Who is affected indirectly?
 - * Coworkers, subordinates, superiors, clients, vendors, suppliers, stockholders, journalists, policy-makers, researchers, students, the public
 - * Lots of indirect participants
 - All of this is in reference to the glasses video that was seen last class but I wasn't here oops

Organizations and Environments

- Where will people be working while they're using the product?
 - Work, school, etc
 - * At work are you in an office, in the field, etc
- How does the product impact social, cultural, physical, and environmental aspects of someone's life?

Tasks and Processes

- What are the scope of the tasks? Are they quick and easy or long and difficult?
- Who is performing the tasks/activities/process?
- Where, when, and under what conditions/circumstances?
- What data is involved and how is it created, transformed, and consumed?

Tradeoffs of Observation

- They can be arbitrary and expensive in both time and effort
 - You can spend **years** observing how shit works
 - There's direct and indirect
 - * Direct is talk and watch, indirect is record
- Both are **invasive** though and no one likes that
 - Can we guarantee that our data is pure if people know that they're being watched/listened to?
- Fails to take into account **distributed cognition**
 - We suck at remembering details so we "externalize" these things
 - * Notes, writing on ourselves, etc
 - Funnily enough... this is what we're trying to accomplish!
 - Hard to get an accurate observation because some people "hide" their activities

- * i.e. you know they're writing down a phone number, but is it on a sticky note or in a notes app?

Elicitation

Elicitation Methods

- Interviews (direct)
 - onsite or offsite
 - face-to-face, phone, video
 - scripted but with open-ended questions
 - frame situations and guide through scenarios to see how they work through things
- Focus Groups (direct)
 - moderated group interviews
 - guided peer-to-peer exercises
- Data Mining (indirect)
 - existing documentation, policies, logs, notes, etc
- Surveys (indirect)
 - questionnaires
 - verbal or written (but usually written/online form)
 - manual or automated
 - invitation or self selected (**very** important choice to make)
 - * self selection can lead to bias to a particular group that is interested in giving good or bad feedback
 - * usually good to do by invitation so you can target your group

Tradeoffs of Elicitation

- Elicitation methods are **inexpensive** but require **preparation**
 - Direct - same time and place, an offline conversation with the user(s)
 - Indirect - different time and place, a more like Q&A from a distance
- Both of these are **reflective**
 - It allows for more recollection and explanation of activities to answer questions
 - More readily take distributed cognition into account
 - Mitigates invasiveness (physical, social, and psychological)
- Objectivity, targeted, individual style, and social/custom norms are all important to take into consideration

Surveys and Questionnaires

- They can be tough because we can't predict every possible answer for questions, or we might think a question is clear when it's not
- Difference between surveys and questionnaires:
 - **Survey** is a *process* of eliciting useful information
 - **Questionnaire** is a *tool* used to conduct a survey
- You want to design carefully, test, and iterate
- Use the right form entries for the question and responses
- Provide clear instructions and questions (stay away from jargon)
- Be consistent in language, grouping, and formatting
- Progress from easy/uncontroversial to hard/controversial

- Try to avoid bias
- Questionnaires are UIs too

What do you ask about?

- You want to know who will use your design the most
- Ask about context of use, physical factors, cognitive/perceptual ability, individual preferences
- Try to only ask the questions that actually **will** influence your design (like gender probs isn't a necessary question but it's **always** there)
- Factors to consider → questions to ask
 - Style of use: discretionary or mandatory, formal or informal, critical or casual?
 - Skill level: beginner, intermediate, or expert?
 - Frequency of use: frequently, infrequently, never?
 - Social: public or personal, individual or group, synchronous or asynchronous
 - Environmental: indoor or outdoor, visual or auditory “noise” levels, freedom of movement?
 - Technical: networked, fixed or mobile, devices/displays/peripherals
 - Cognitive: education, computational literacy, typing/device skills, general cognitive style (written/spoken/graphical), language
 - Physical: vision, color, hearing, mobility and motor control
 - Personal: Age, gender/gender identity, ethnicity, nationality, other
 - * Age is usually the ones that influence things pretty strongly b/c physical and cognitive capabilities