Understand your users

Translate needs into functionalities

Create design ideas

Prototype design

Test & Evaluate

Build final version
Understand Your Users: Exploratory Studies

Observations

- Record artifacts users manipulate
- Use codes and symbols
- Separate “says” and “does”
- Separate tasks, goals, motivations
- Keep your side notes separately
- Separate actions and body language
- Separate observations and interpretations
Understand Your Users: Exploratory Studies

- In depth discussion of the topic with a participant
- Usually one-on-one
- Written, audio, video recording options (requires consent!)

- Questionnaires
- Observations
- Interviews
- Diary/Camera Studies
- Participatory Design
- Ethnographic Field Studies
- Contextual inquiry
Understand Your Users: Interview

- Structured
- Semi-Structured
- Narrative (Unstructured)
- Focus Groups
Understand Your Users: Interview

**Structured**
- Same set of questions
- Standardized process
- Little freedom of expression
- Often self-reported

**Semi-Structured**
- List of guiding questions / topics
- Trajectories in a conversation
- Often preceded by observation
- One of the most popular

**Narrative (Unstructured)**
- Focus and goal guide the discussion
- Open-ended questions
- Freedom of expression & little control
- Popular in ethnography

**Focus - Groups**
- Semi-structured in a group
- Moderated
- 6-10 homogeneous strangers
- May permit discussion
- Emerged in the 1940s
Understand Your Users: Exploratory Studies

- Questionnaires
- Observations
- Interviews
- Diary/Camera Studies
- Participatory Design
- Ethnographic Field Studies
- Contextual inquiry

- Includes a mechanism (diary or camera) to record / describe relevant activities in “everyday” settings
- Longitudinal
- Data recorded by participants based on provided guidelines
Understand Your Users: Exploratory Studies

- Participants are given design elements
- Inclusive design process - constructing ideal experience real time with a researcher
- Helps to understand values and uncover mental models

- Questionnaires
- Observations
- Interviews
- Diary/Camera Studies
- Participatory Design
- Ethnographic Field Studies
- Contextual inquiry
Understand Your Users: Exploratory Studies

- Natural environment, everyday life
- First-hand participation in users’ activities
- Description of the scene, key events, key actors, key artifacts and actions
- Combination of observations and interviews
- Focus on objective behaviours
Understand Your Users: Exploratory Studies

Ethnographic Field Studies

Observations + Interviews + Natural context
Understand Your Users: Exploratory Studies

- Natural environment, everyday life
- First-hand participation in participants’ activities
- Relatively short (several hours)
- Researcher heavily involved in the process and constantly asks questions
- Mostly rely on self-report data
Understand Your Users: Exploratory Studies

There is a product

- True-Intent Studies
- Remote Unmoderated Usability Studies
- Intercept Surveys
- Clickstream Analysis

There is NO product

- Diary/Camera Studies
- Participatory Design
- Questionnaires
- Observations
- Interviews
- Ethnographic Field Studies
- Contextual inquiry
Translating Needs Into Functionalities

- **Make data actionable**
  - Adjust personas
  - Affinity diagrams
  - Breakdowns
  - Cultural model
  - Artifact models

- **Identify right time and place**
  - Physical model
  - Sequence model
  - Flow model

- **Turn problems into tasks**
  - Thinking
  - Memory
  - Attention
  - Motivations
  - Habitation
Translating Needs Into Functionalities

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Make them more colorful and detailed based on the generalized characteristics of your participants you did not account for previously

(most likely there are several)
Translating Needs Into Functionalities

**Make data actionable**
- Adjust personas
- **Affinity diagrams**
  - Breakdowns
  - Cultural model
  - Artifact models

**A sense-making tool for qualitative data**
(see lecture IV)

- Notes on cards
- Review the cards
- Sorting & grouping
  - Sub-groups
  - Themes in Data
Understand Your Users: Analyzing Qualitative data

Row Qualitative Data = "Fuzzy Data" = Not yet Actionable

Affinity Diagram

Notes on cards → Review the cards → Sorting and grouping → Smaller Subgroups → Themes in Data
Understand Your Users: Analyzing Qualitative data

Affinity Diagram

- Notes on cards
- Review the cards
- Sorting and grouping
- Smaller Subgroups
- Themes in Data

- Prepare space
- Use color
- Use all data
- Regroup often
- Use fresh view
- Give it time
- Trust it

Use all data
Translating Needs Into Functionalities

Make data actionable

Where and when things go wrong in individuals work practice

Points in time or space when individuals have a problem accomplishing the task that should otherwise be easy given the tools that they are using

Unpacking the tacit dimension for possible design solutions

Adjust personas
Affinity diagrams
Breakdowns
Cultural model
Artifact models