

Module 3

Types of Users and Types of Data

To understand the Problem Space

- We carry out a set of techniques.

- These provide us with information (data)

Class Mantra Design is a systematic and data driven ^{process}

— What kind of data will you collect ?

Quantitative Data information that can be transcribed numerically

Qualitative Statistics Thematic information

Mixed method approach

- Collect both quantitative and qualitative

Categorizing Users

- Users as stakeholders

Primary — use the design directly

Secondary — Don't use the design directly but may do so directly because they get some output from it or may provide some input

Tertiary — particular

May not use the design at all but are directly effected by the design in either negative or positive ways

Understanding Stakeholders

- Leads to better user experience design

Improved Design

- Via stakeholder consideration

Discover Technique Overview

Understanding the problem space

Collect information
from the user

about the user to better understand their current practices and needs

4 technology for discovering

① Naturalistic Observation

We observe the user

② Surveys

- self-report Questionnaires
- Closed ended items
- Likert scales
- Ranks
- Open ended items
- opinion

③ Focus Group

5-7 users having a directed conversation

④ Interview

One-on-One interaction between the user and the designer

Interacting with Users

Discover what the user is doing now

Review Module of Interaction with users

Understand the Techniques

- Goal
- Data gathered
- Advantages and short comings

Naturalistic Observation

Goal To Watch the users in action in their own environment
least interaction

Qualitative: designer's handwritten notes

Quantitative: counts of various actions or interactions with other users

advantages:

- No direct interaction with users
- No social desirability bias

Disadvantages:

- Observer Bias may lead to incorrect notes.
- No feedback from user

Ethical Consideration:

- Maintain anonymity of users
- identifying information must only be collected with user permission

Survey

Goal: get the users' opinions

Field / Lab

Interacting with users:

- Discover what the user is doing now
- Review Module of Interacting with users

Quantitative - Closed ended questions

- Ordered response • dichotomous • Likert scales • Rank
- Unordered Response • Lists

Qualitative - Open ended questions

Advantages:

- Efficient data collection • Relatively easy data analyses

disadvantages:

- Superficial knowledge
- Recall bias • Social desirability bias • Sample bias

Focus Group — May be the culmination of design process

Goal: To engage users in direct conversations

high degree interaction

Users: 5-10

Design Team: Moderator

Note taker

Media person(optional)

Structure:

- schedule
- 5 minute warm up
- 5 minute creative exercise
- 45 minute discussion
- 3 topics
- 5 minute wrap up

Advantages:

- Rich data in a timely manner
- Group dynamic inspires

Qualitative:

- note takers
- handwritten notes
- Transcribed date

Quantitative:

collect at the beginning of the focus group

disadvantages:

- Need a team
- Social influence may lead to group think
- Influential members

Interview:

Goal: To gather in depth information from a single user at time

- Discover what the user is doing now
- Review Module of Interacting with users

Qualitative:

- Designer's handwritten notes
- Interview transcript

Quantitative:

short survey

Advantages:

- in depth conversation
- flexible protocol

disadvantages:

- skilled interviewer
- Lead agenda and manage and build rapport
- more time intensive
- Data collection and analyses

User Results

Present our requirements gathering (RGA) findings

About the User

Descriptive Statistics

- Range
- Median
- Mean

User characteristic

Table

Personas

Presenting Task Findings

Main pitfall of Requirements Gathering (RG)

- Designers start designing alternatives when they do NOT completely understand the task, user, or how the user currently accomplishes the task

Pitfall Averted!

- Techniques to understand how the user is currently accomplishing the task
- Collected data via naturalistic observation, survey, focus group, interview

About the Task:

- Scenarios
- Essential Use Case
- Hierarchical Task Analyses
- Current UI Critique

(beyond descriptive statistics)

Module 4

Review of Design Goals

Just review my notes

Design Alternatives

A road map

useful: Improve users ability to complete their task
Usable: understand the functional and non-functional requirements

Useful Design:

What were user's explicit needs?

- Wish they knew more people in class
- No sense of all the daily special events
- Hard to find a place to study on campus- must walk around
- Ranked activities as follow: academics, social events, safety on campus

What were user's implicit needs?

- Do well in class- get the best grade possible
- Know who else is studying for the same exam
- Meet study partners when they want

Functional Requirements:

- What the system should do

Non-functional Requirements:

- Constraints on the system and its development

Generating Ideas in a group

Brainstorming

- Advantage: Individual experience leads to differences in the lists that are created

Affinity Diagrams to help streamline brainstorming data

- Individual ideas are placed on sticky notes
- Team members organize the sticky notes according to how similar they are
- Teams decide on what interface can meet all of the functional requirements in one category