

Scott Klemmer UC San Diego The Design Lab



Bad Design costs lives, money, & time



300,000,000 Americans x 10 minutes per day per American 3,000,000,000 minutes per day = 40,000,000 Intro to HCI lectures





Design

Implementation

Avoiding local optima



Quarter-long design project

Teams of three Shared weekly in studio

FINAL PRESENTATIONS FRIDAY OF WEEK 10

Tuesdays Design Concepts

ns class

Thursdays Lab bring a laptop!

Fridays Studio

Weekly Studio Ritual

- ·Projects due Thursdays, 11.59pm
- ·Participate in studio & check out your peers' work
- ·Reflect on & self-assess your work

I.59pm eck out your peers' work our work

Prereq: CSE8a/11

Take this class if you seek...



5 Units Letter Grade only

Visit office hours! Mine are... Thursdays 12.30-1.30 Atkinson 5204

Be mindful during class time (aka no Facebook during class)

Studio Leaders

- ·Adam
- ·Bonnie
- ·Jasmine
- ·Jesse
- ·Kevin
- ·Rob
- •Tricia
- ·Yasmine

Piazza, not email

The Web Site has all the information it's where to send questions

http://d.ucsd.edu/class/intro-hci



First project: Needfinding

Needs for...

INTERVIEWS

Follow up

- Pick up on and ask for examples
- •Be flexible

•Adjust your questions to their previous answers ·Ask questions in language they use / understand

Scheduled Interviews Facilitate Depth



Plans are useless Planning is invaluable

Create a "Field Guide" (Steve Portigal's insights)

- Introduction and participant background
- •Main body
- Projection/dream questions
- •Wrap Up



Do a Trial Run first (gives you practice, catches bugs)



where to interview?

should you record audio or video?

Audio/Video: Drawbacks

- •Time-consuming to review / edit
- ·Can change participants' responses
- Requires permission

iew / edit s' responses

Audio/video: Benefits

•A robust record ·Highlights are GREAT for communication •Helps you focus on interviewing

Photos Are Powerful Reminders



What are the gems?

- •You can explain why people do unusual things

•You've uncovered a surprise or found what is missing ·You want to tell others about what you have learned

Share with your team

- ·Stories
- Photos
- Sketches
- ·Quotes

Save Records - It'll help later

·Keep photos, notes, and artifacts things on an abstract plane

•Helps tie all design to use, rather than debating



DISTILLING YOUR INSIGHTS

Your goal: a point of view

Flare, then focus.

Observation alone does not guarantee a great design.

Image courtesy of SAP

J Copoperation

THIS REMITS

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Were the users just "dumb"?



Need finding through Facebook

•Scenario: How might we help people get to and around campus without driving solo?

In Facebook, use key terms to search for groups to fit your community (2 mins)

• Turn to your partner to discuss the groups you found (4) mins)



Collecting Needfinding Data on Facebook

- needs
- did you ask? How did they differ? (4 mins)

•From the previous scenario, think of some Facebook status updates you might post to gather information about user

·Share your status ideas with your partner. What questions

•BONUS: if you're curious, choose a time you think will get the best responses to post the status and see what you get



The outcome of activity analysis

- What are the steps?
- What are the artifacts?
- What are the goals? (how you'll measure success)
- What are the pain points?

Example: steps

- Unlock driver's door
- Take a seat behind the wheel
- Insert key in ignition switch
- Turn key fully clockwise
- When engine starts, release the key
- from http://www.nwlink.com/ ~donclark/hrd/isd/cognitive-taskanalysis.html

r he wheel switch vise release the ke dink.com/ ognitive-task-

Example: artifacts

• key

• car

- door-lock
- ignition switch

Example: goals

- (your point of view comes in here)
- Turn on the car?
- Pick up bread?
- Make a meal?
- Have a satisfying evening?



Example: pain points

- In the narrow version: necessary to put the key in? It's already in the car. Why not just drive off?
- In the slightly broader framing, the pain point could be needing a car to get bread. (Alternatively, bread could be delivered, or you could walk/bike/...)

Actvitity Analysis is easiest for...

- Workflows like doing taxes or travel planning
- Repeated activities, like scheduling (why does it take 17 emails?)

Challenge: we don't design tasks

- Activities and objects don't map 1:1 (a smartphone is not just one "activity")
- We design artifacts. So a forum has multiple tasks.

Have multiple related activities

- The same person uses the same design to achieve slightly different things
 Also, different people may do things
- Also, different people slightly differently
- Because they have slightly different goals, expertise, ...
- For empathy, keep 'em human