

Needfinding: beyond the surface

MICHAEL BERNSTEIN

THANKS TO DEV PATNAIK AND SCOTT KLEMMER AND MANEESH AGRAWALA

Give any milestone
material to your
studio staff

Team dynamics

Coping with Hitchhikers and Couch Potatoes on Teams, by Oakley
<http://hci.st/hitchhikers>

What you already know

- Needfinding teaches us how people act today
- Interviewing techniques can elicit new perspectives
- Contextual inquiry is a structured set of practices that support needfinding
- Task analysis can help improve at the micro-level
- *How might we* questions can frame a brainstorm
- People may not be cognizantly aware of their needs, known as *functional fixedness*

Skimming the surface

- This is the biggest needfinding failure we see in CS 247
- Symptoms
 - Describing only what is visible or obvious
 - Assuming the tasks are fixed, rather than the needs
 - Recommendations are local tweaks to the environment

Skimming the surface

- What gives rise to it?
 - Such conclusions are the most obvious ones to draw
- Why is it dangerous?
 - It produces local hill climbing and avoids global optima



Needs are verbs, not nouns

- Nouns assume the solution:
“She needs a ladder.”
- Verbs open up many possible solutions:
“She needs to grab all her items before leaving.”



Observation vs. Interpretation

- A common error is to mix up *what you see* with *what you interpret*
- Start with *what you see*:
 - What's the environment or activity that's framing this behavior?
 - What's out of frame that might be important?
- Capture details! You'll need them later
- Then interpret, why are you seeing what you see?



Interpretation

- Ask yourself *why* you think something happened
 - Suggest a reason
 - Ask yourself why that reason exists and matters
 - Recurse...
- Aim to produce needs



Achieving breadth

- Often needfinding results in observations that focus on what people **see** and **do**
- Make sure you also consider what they **think** and **feel**

Once more,
with feeling

Create groups of three
What are needs suggested in the next slide's picture?
Five minutes



Share with another group

Three minutes

How might we...?

“How might we...?” questions

- Turn large needs into actionable charges
 - e.g., “How might we make CS 247 feel more like trusted, safe spaces?”
- A useful way to ground a brainstorm

The Goldilocks of How Might We

- A good “How Might We...” question is:
 - Not so broad that it is inapproachable
How might we help people organize all their digital media?
 - Not so narrow that it suggests a solution
How might we help people retrieve their favorite digital media with just a click?
 - In a happy middle ground:
How might we help weekend extreme sports enthusiasts organize their digital media?

How might we...?

Groups of three
Three minutes



- 1) Observation
- 2) Interpretation
- 3) How Might We?