

Needfinding: beyond the surface

LYDIA CHILTON

THANKS TO DEV PATNAIK, SCOTT KLEMMER, MANEESH AGRAWALA AND MICHAEL BERNSTEIN

Before we design...

- We need a clear picture of the need we are designing for.
- Satisfying that need becomes the goal for your design.
- Getting the scope of goal right:
 - Start with a **need**, a.k.a a **design space**
 - Example: “*How might we help weekend extreme sports enthusiasts share their digital media?*”

**It is tempting to express
surface-level needs**

What are the needs?



What are the needs?



The biggest need finding failure:

Skimming the surface

- Symptoms
 - Describing only what is visibly obvious
 - Assuming the tasks are fixed
 - Recommending local tweaks to the environment



Skimming the surface

- What gives rise to it?
 - Our intuitive reasoning skills reward us for fast thinking and reacting.
 - See a problem, react with a solution.
- Why is it dangerous?
 - Although it often captures an immediate need,
 - It misses the root cause, and the recurring need.

Take 2:
What are the needs?



Needs are verbs, not nouns

Noun: “*She needs a **ladder**.*”

Verb: “*She **needs to grab**
all her items before leaving.*”

Needs are verbs, not nouns

Noun: “*She needs a **ladder**.*” Nouns assume a solution

Verb: “*She **needs to grab** all her items before leaving.*” Verbs identify needs with many possible solutions.

Take 3:
What are the needs?

VERBS



Needfinding Steps

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

Observation vs. Interpretation

- Let's separate *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?

Take 4: Observations



Interpretation

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

Take 4: Interpretations



Getting to the root cause

- Often need finding results in observations that focus on what subjects **do**.
- Make sure you also consider what they **think** and **feel**, these are usually the root causes of what subjects do.

Take 5: Interpretations of feelings



Your turn!

- Observations (nouns)
- Interpretations (verbs)
- Feelings (root cause)

Create groups of three

What are needs suggested in the next slide's picture?

Five minutes



Share with another group

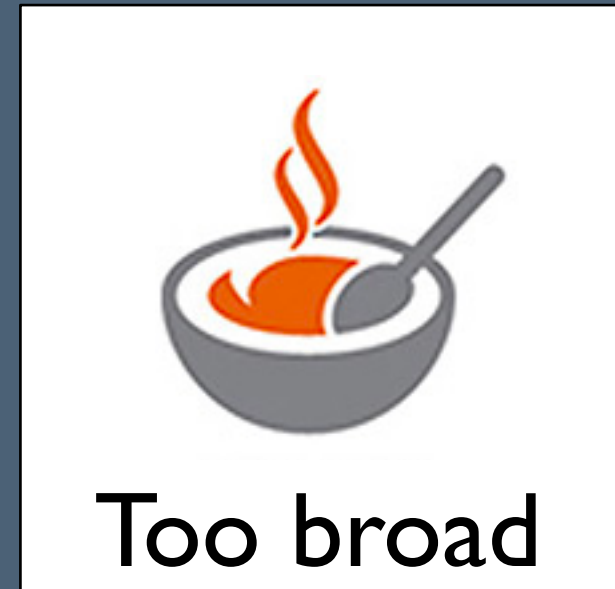
Three minutes

How might we...?

“How might we...?” questions

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

The Goldilocks of How Might We



- *How might we help people organize all their digital media?*

The Goldilocks of How Might We



Too broad

- *How might we help people organize all their digital media?*



Too narrow

- *How might we help people retrieve their favorite digital media with just a click?*

The Goldilocks of How Might We



Too broad

- *How might we help people organize all their digital media?*



Just right

- *How might we help weekend extreme sports enthusiasts share their digital media?*



Too narrow

- *How might we help people retrieve their favorite digital media with just a click?*

Take 6:
How might we...?



Needfinding Takeaways



- Think beyond the immediate need
- Interpret the root cause, and formulate a design space in which to brainstorm.
- Observe (noun)
- Interpret (verb)
- Feelings (root causes)
- How might we...?



A2.1 Needfinding Assignment

- Out Today at 5pm
- Due in 1 week
- Prompt:
 - Needfinding for learners mastering material that you do not know:
 - The equestrian team learning to ride new horses
 - Theater class learning a new play
 - Grad students in the MBA program learning to negotiate
 - Journalists learning about new technologies
 - Medical students learning to care for patients
 - Improv class
 - People learning a foreign language

Break Into Studios for AI Feedback

- Andrew Martin
- Zhengshan (Kitty) Shi
- Chen Luo
- Clay Jones
- Lindsey Redd
- Ramin Ahmari
- Harper Carroll
- Mathieu Rolfo
- Karen Wang
- Joanne Jang
- Jeff Sheng
- Sunmi Lee
- Jessica Ouyang
- Gloria Chua Jia Min
- Jacqueline Lin
- Shutong Zhang
- Louis Brion
- Robert Fearon
- Kalpana Manickavasagam
- Kevin Rakestraw
- Nicole Crawford
- Amit Bhatnagar
- Skyler Sin
- Melisa Tokmak
- Grace Young
- Austin Chambers