Defining the Problem and Solution
Better to be specifically wrong than vaguely right.
What’s Your Problem?

• What problem are you solving? Who has it (and how badly)?

• What is your solution?

• What makes your solution valuable?
Overview

• Methods for Needfinding
  • Deep needs
• Process Mapping
• The 5 Whys
• Practice applying what you learned
What’s Your Solution?

• Define your work in terms of a solution to the problem you’ve identified
• Describe the primary benefits
What’s the Value Proposition?

• For the user, what’s the most important benefit?

• How would you measure it’s value (to the user)?
To a child with a hammer, everything looks like a nail.
Nothing is more dangerous than an idea when it is the only one we have.
Solve the problem
Don’t just make a “better” cab
Know the problem
Don’t just build a “better” store
Methods for Needfinding

**Broad Needfinding**
- Buglists
- Observations
- Mindmapping

**Deep Needfinding**
- Structured interviews and observations
- Process mapping
- 5 Whys analysis
What Is The Underlying Problem?

“Customers don’t want drills, they want holes...”

...or do they?
Deep Needs

Needs that are:

• Not obvious without a deep understanding of the people engaged in the activities
• Relatively timeless and significant
$3 or $27
Working alone for 5 minutes, then sharing in your groups for 10 minutes.

Revisit the first draft definition of the real world problem you are solving.
Find the Deep Needs
Bug Lists

• A great way to discover unmet needs is to keep a bug list. Any time that you notice something that takes too much time, is complicated, or seems inconvenient to your consumer, write it down on your list.

• Refer to your bug list later to see if it sparks any ideas for inventions or improvements.
Process Mapping

• Process mapping is a tool to understand the complete experience surrounding a problem/process/activity

• Start with the problem/activity you are considering (e.g. digital photography)
  - Take the user’s point of view, and mentally pull back to the earliest stage of the process (e.g. planning a trip, packing a camera, anticipating a shot, etc.)
  - Step through every element of the activity, recording it
  - Analyze your map: what happens at each of these stages? Why? How do the stages relate? What opportunities do you see?
The 5 Whys

A technique for quickly finding the root cause of a problem.

Developed in the Toyota Production System, the 5 Whys involves looking at any problem and asking:

• “Why?”

• “What caused this problem?”

Use it to explore the cause/effect relationships underlying a particular problem.
The 5 Whys: Example

5 Why Analysis

Car Won’t Start

- Why? Dead Battery
- Why? Didn’t Charge
- Why? Belt Slipping
- Why? Worn Belt
- Why? Didn’t Know To Change Belt

Training

Image courtesy of Quality Systems Toolbox (http://www.qualitysystems.com)
Applying What You’ve Learned

Take 5 minutes to identify your problem and solution and we’ll report out

Remember, don’t sell the solution...sell the problem