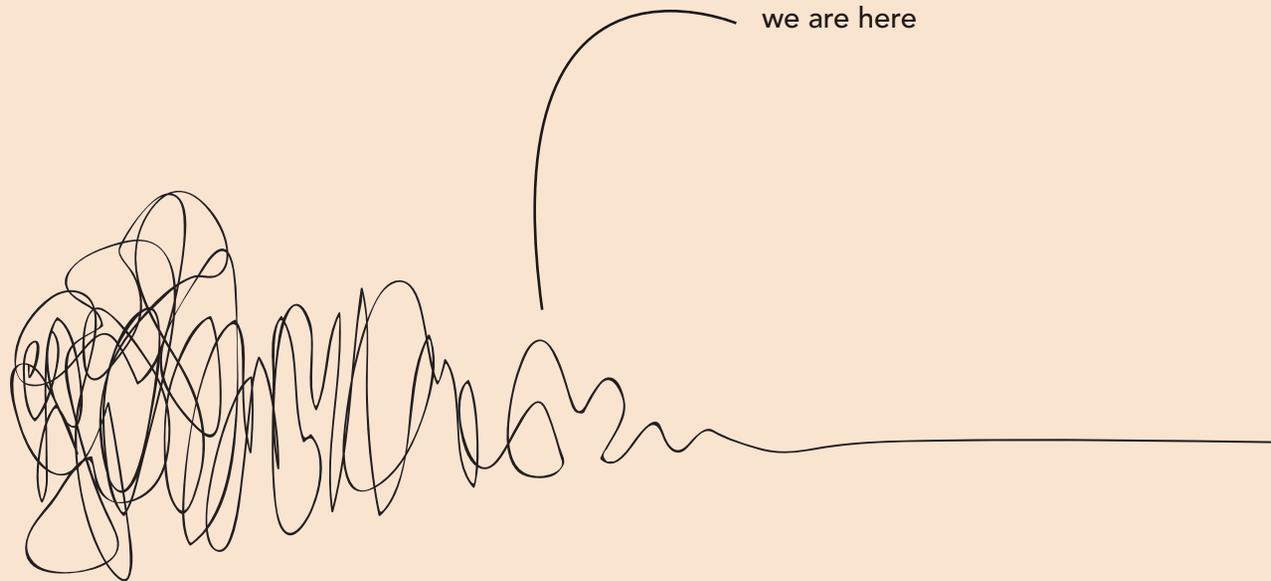


*A short introduction to*

# Making problems for yourself.

Prepared by Central  
for the Future of Fish project.  
Tuesday September 8th, 2009



# Defining the problem.

Einstein said that if he had only one hour to save the world he'd spend fifty-five minutes defining the problem and only five minutes on the solution. Clearly defining the problem you're working on is vital to the developing the solution, but it's often the most difficult part of the process. In this document, we share some of the methods we used to define the problems we were looking to solve.

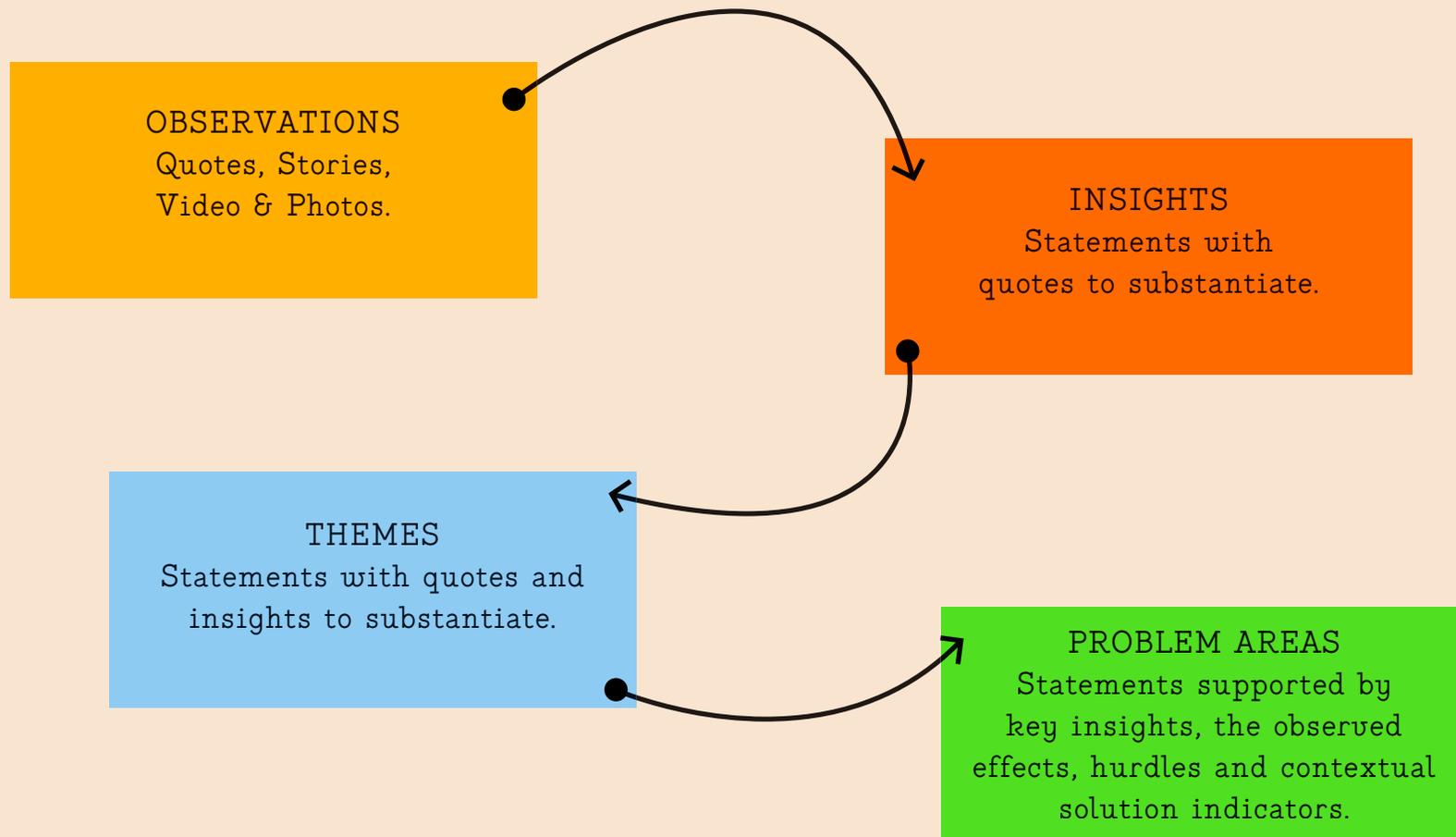
When working on a system level problem, often made up of lots of different kinds of characteristics and attributes, it's important to provide a problem area before refining insights further into an official problem statement.

Most problem statements are created at the beginning of a project to help guide the design process. But because of our long period of research and synthesis we were forced to be somewhat non-traditional and create ours toward the end, just before designing.

There are many different methods you can use to arrive at your problem statement. We've outlined how we used the themes we uncovered throughout the fishing industry to shape our understanding of the problem areas.

# Defining the problem.

Getting to a problem statement starts with basic observations that the team has seen in the field. Those observations then get distilled into insights, or key understandings that develop over the synthesis process. These insights are placed into themes, and problem areas become apparent from that.



# Some of our themes.

As we've mentioned in our Synthesis videos, we took what we saw, heard, and collected in the field and used that to help us create an overall view of the system we were studying. Themes began to emerge which we made sure to substantiate with quotes and observations. We generated about thirty themes, and narrowed them down to a dozen.

Here are some of the themes and how we put them together.

## 1. INFORMATION INCREASES GOOD BEHAVIOR

Lack of information is not neutral. It propagates poor behavior.

## 2. INFORMATION DOES MOVE/PAIR WELL IN HEIGHTENED POINTS OF VALUE

In security environments.

A sub-theme insight

## 3. THE DAILY CATCH MENTALITY

Time horizon is daily for all players which creates poor behavior.

## 4. SYSTEM STRUCTURES REINFORCE THE DAILY CATCH MENTALITY

Scarcity is invisible.

"Expected 200 lbs of Perch. Got 2,000 lbs."

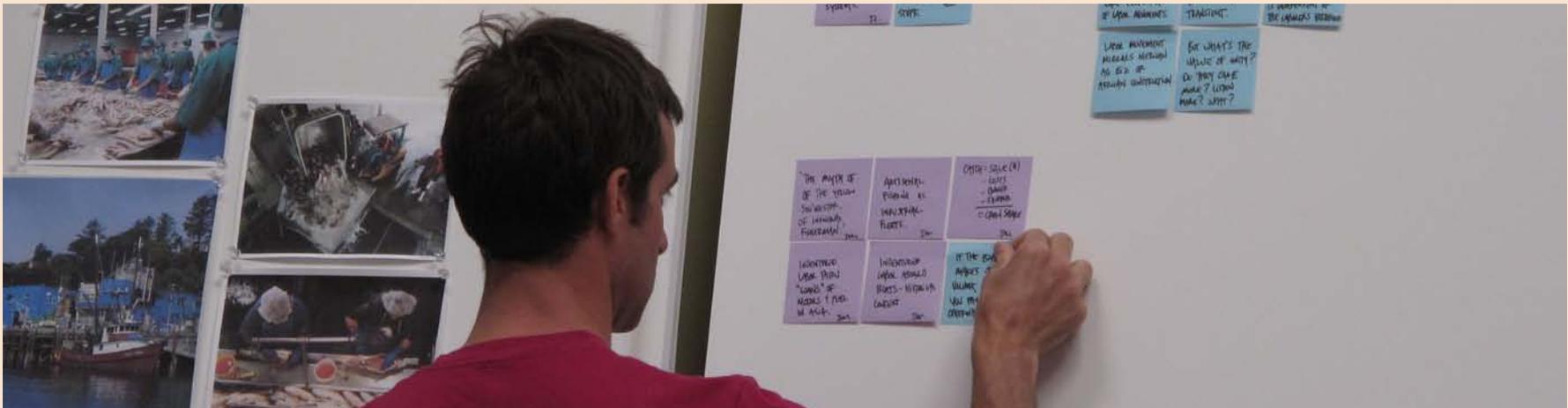
The overall theme statement

Supporting quote



# Creating our problem areas.

Taking all the combined knowledge and assumptions we'd generated over the past fourteen months, we pulled out what we felt were top level problems, and the key insights we felt supported them.

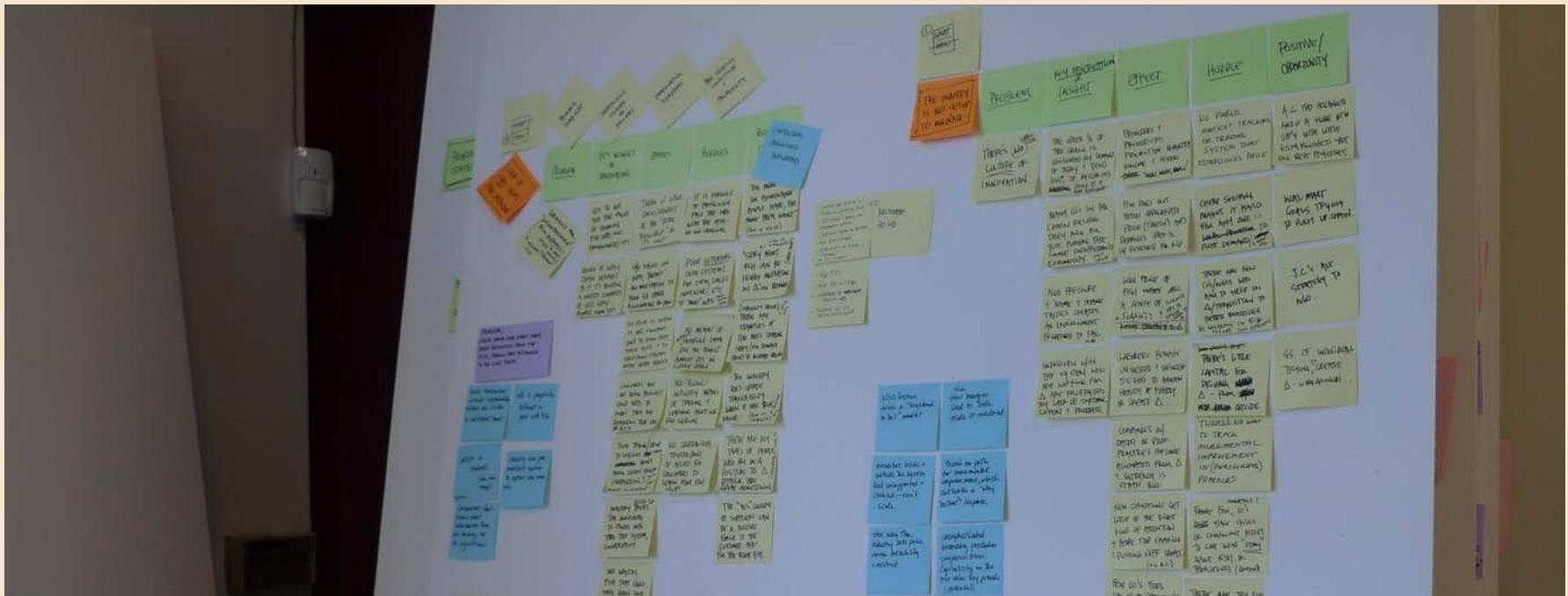


Our exercise then was to take each problem area and identify the hurdles, the evidence of the hurdles, and some positive areas within one particular problem area. The goal was to understand how we were informed by our research. It was a painstaking exercise designed to ensure we were thorough and diligent about our stories to support our point of view. With these problem areas we began to hone in on where we wanted to consider developing solutions. It was important to be diligent so that we could be confident that we were being true to the process and the research.

# Uncovering our problem areas.

The problem areas eventually were collected onto a single board of Post-its so that we could refer to them and use them for brainstorming and creating new ideas.

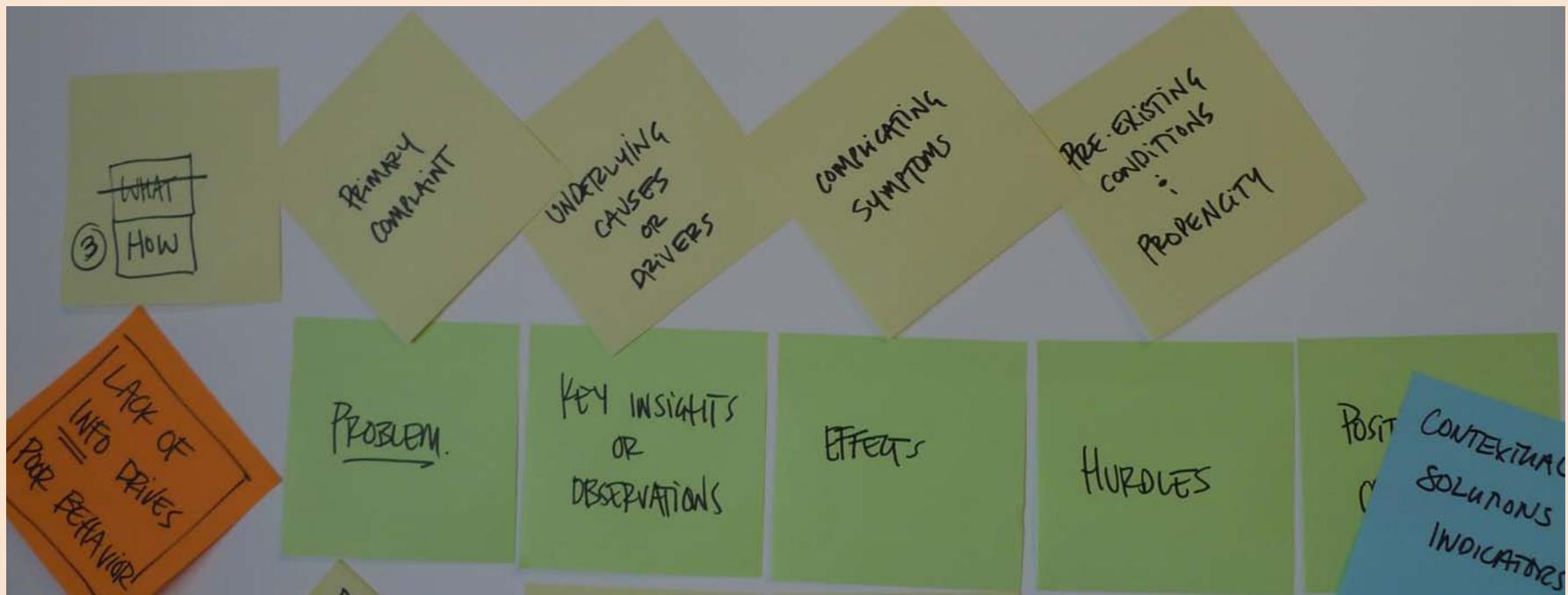
our problem areas on a board, on many post-its.



# Creating our problem areas.

We were pretty disciplined about creating a structure in which to populate the problem areas. Green Post-its represent header categories for our content. The yellow Post-its above them are a suggested alternative for the categories. You can also see that this problem area is focused on the overall idea that 'Lack of information drives poor behavior'. If we were working on a smaller scale context, we might have been able to proceed with a simple statement, but working on a system of this size requires a lot more data to support your defined problem.

the categories in which to frame our problem areas.



# Our problem areas.

**1. Once Data and Story have been uncoupled from the fish, heroics are required to re-link them.**

Key Characteristics:

- Most transactions - critical and sustainability related info resides in individual's heads.
- Waste is endemic (fish, time, and energy)
- Consumers don't know what information they are missing, nor of its significance.
- Industry uses poor makeshift systems to capture and move information

**2. The imminent collapse of the seafood business demands an innovative response that has so far been stymied by industry solipsism.**

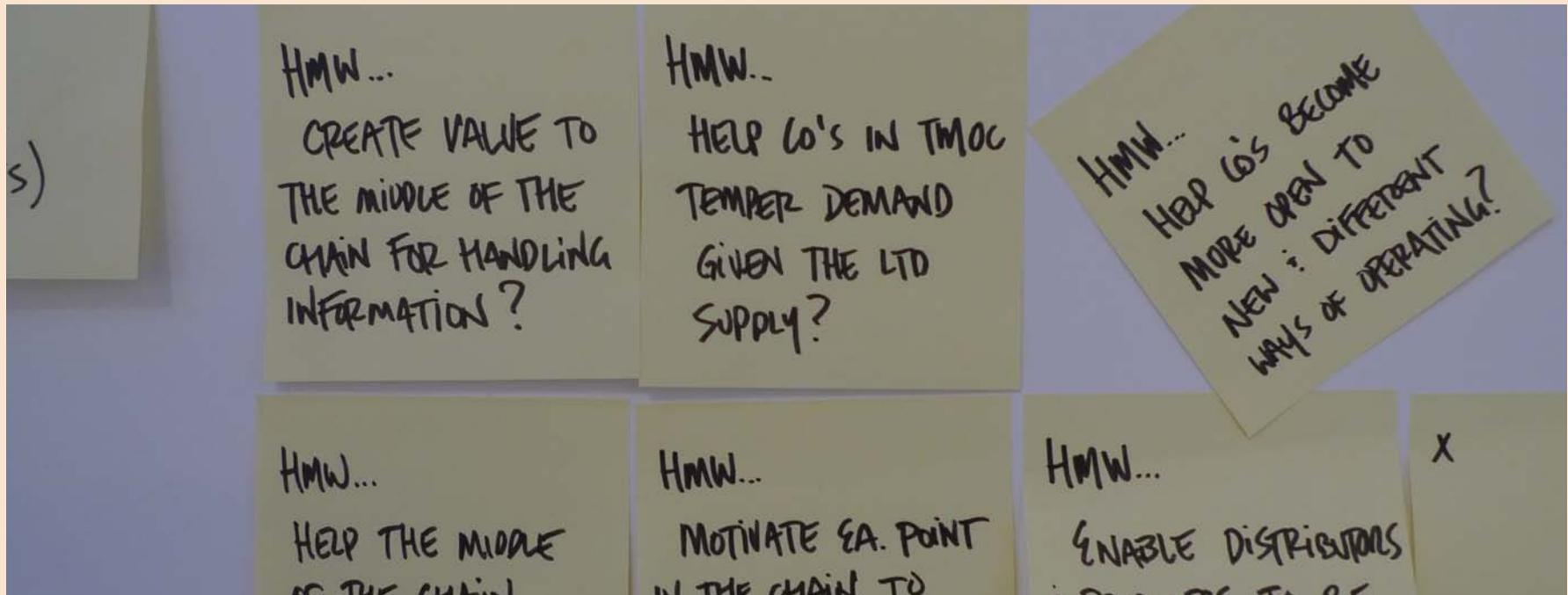
Key Characteristics:

- NGO friction drives a "frightened to fail mind set".
- Innovators inside and outside the system feel unsupported and isolated—can't scale.
- The way the industry sets price drives instability and mistrust.
- Slim margins lead to little inside re-investment
- There's no path for incremental improvement which cultivates a "why bother" response.
- Unsophisticated branding precludes companies from capitalizing on the true value/potential they provide.
- The daily time horizon of business prevents future-orientated thinking and problem solving.

# Using our problem areas.

Once we'd generated our problem statements, we took the hurdles we'd defined as key to one particular problem area, and then asked ourselves "How might we..." overcome that hurdle or design around it. These "How Might We" statements were great prompters for generating brainstorming sessions. We used them to brainstorm as a team for days, creating dozens to work from.

some of the how might we statements we used.



# Wrapping up.

## **Problem area or Problem statement.**

One of things we noticed during this project is that as designers we'd been saying we were going to define the problem statement at a certain point. Yet before then we needed to go through several rounds of refining the area of focus. **Phase 1** allowed us to identify many problem areas and ultimately distill those down to eight opportunity areas. After the field research and synthesis, we've been able to refine the scope of interest to now two clear problem areas. Now we are able to define a smaller problem set which will be more like a traditional problem statement.

## **So what is a problem statement?**

In an area like software design or engineering a problem might be structured as the following:

1. Describe the specific user you're targeting.
2. Describe the work practice or functionality that is needed.
3. Describe the new and better state this target user requires/needs.
4. Describe how this might be measured.

## **So a simple statement might be something like:**

A technology salesperson wishes to be able to, from his or her desk, easily digitize, annotate, and share paper files that have been captured out on sales visits, allowing the salesperson to seamlessly transfer knowledge throughout the organization, which will improve the company's ability to perform.

# Wrapping up.

Why don't we show more of our themes, insights, or problem areas?

There are two reasons we can't be more open about some of the details we have. Primarily, this project is trying to solve an industry problem that an entrepreneur and investor will adopt and implement. We don't share more so as to protect the intellectual property we're working on and thus make it a viable opportunity to invest in.

The other reason is that, as we mentioned about the problem statements, there is a lot of work that has to be done in order to make these Post-its a compelling and easy-to-understand story. However, as the Post-its exist, they work for us as a team and enable us to make progress. Revealing small sections of our work can create confusion or allow some information to be taken out of context, so we want to be careful not to undermine the value of our work when sharing it beyond the key project stakeholders.