

DESIGN THINKING

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CONFERENCE
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LEARNING OBJECTIVES

- Product design – problems, solutions, new markets and technology
- Applications in design thinking in planning and architecture
- Appetite for change
- Overview of research and design tools
- Questions

TYPES OF PROBLEMS



Well-defined problems have clearly **defined** solutions

More info:

Richard Buchanan, *Wicked Problems in Design Thinking* (The MIT Press)



Ill-defined problems are those that do not have clear goals, solution paths, or expected solution.



A **wicked problem** is a problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize.

WHAT IS DESIGN THINKING?



Problem solving: applying new technology or ideas to a problem.

WHAT IS DESIGN THINKING?

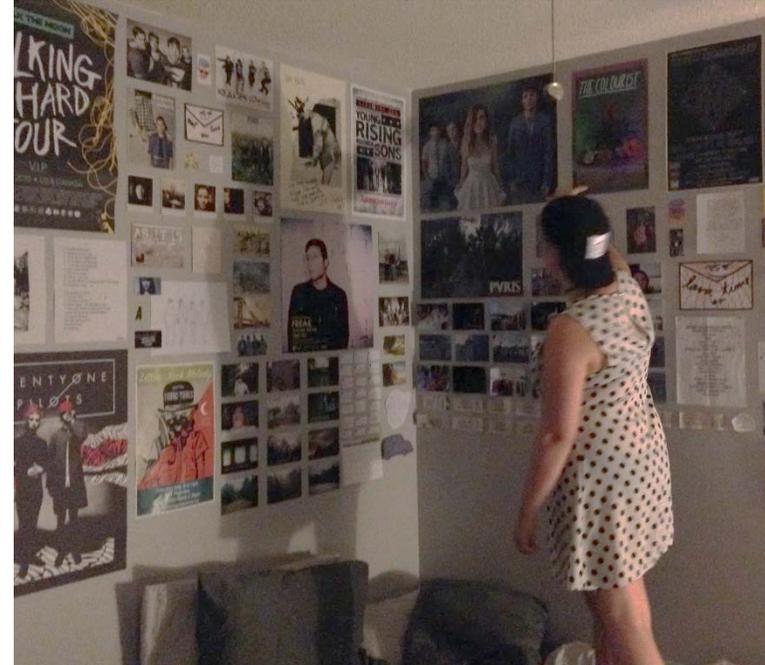


Problem finding: identifying needs based on reality.

PRODUCT DESIGN- THEN AND NOW



Data-driven design- surveys,
market analysis



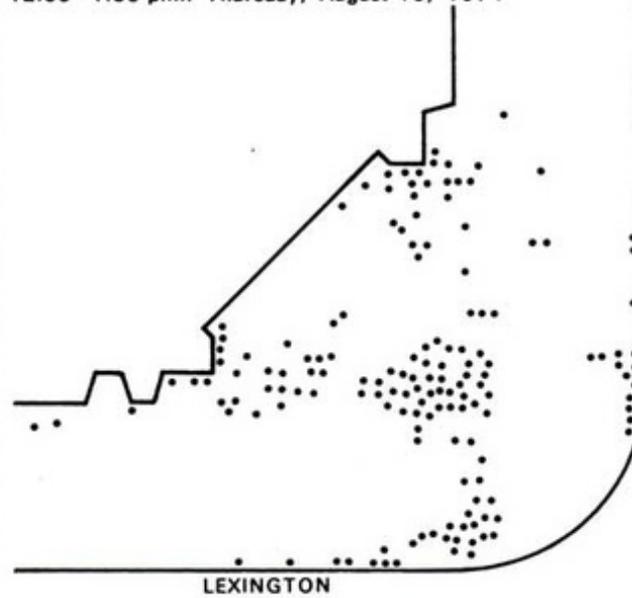
Contextual inquiry- talking with
people in a place that is theirs

WILLIAM WHYTE



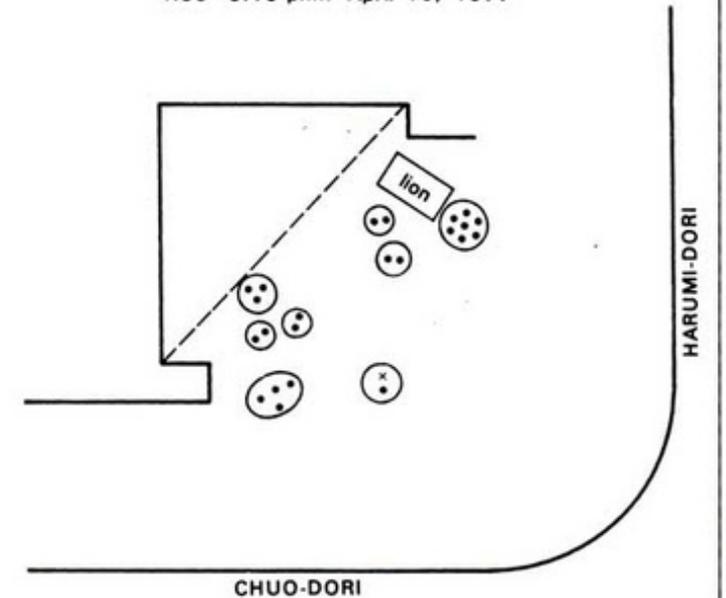
ALEXANDER'S

58th St. corner entrance
Location of people who stopped
12:00–1:00 p.m. Thursday, August 15, 1974



MITSUBUKOSHI

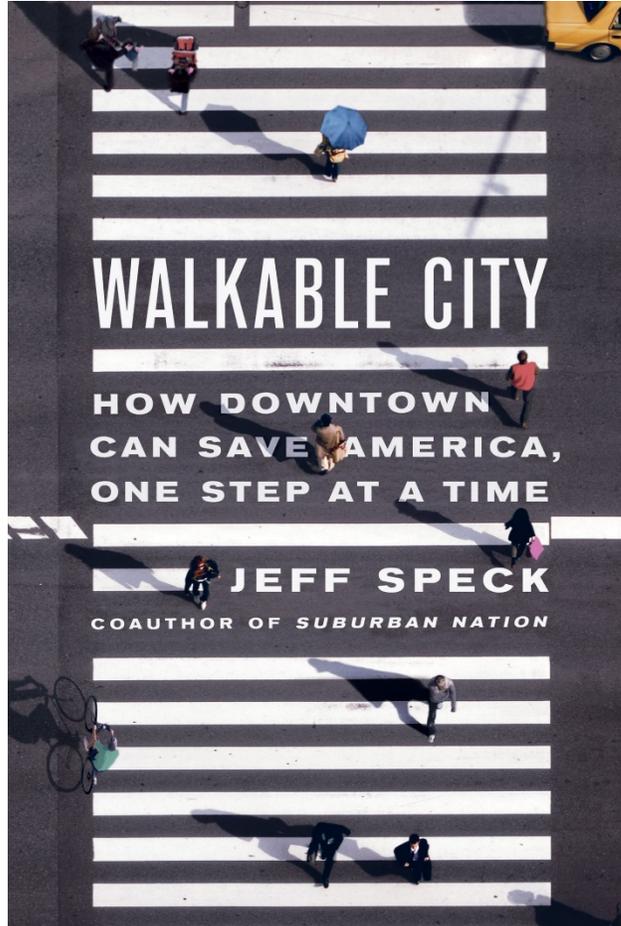
Location of conversations lasting
one minute or more
4:55–5:10 p.m. April 19, 1977



JANE JACOBS



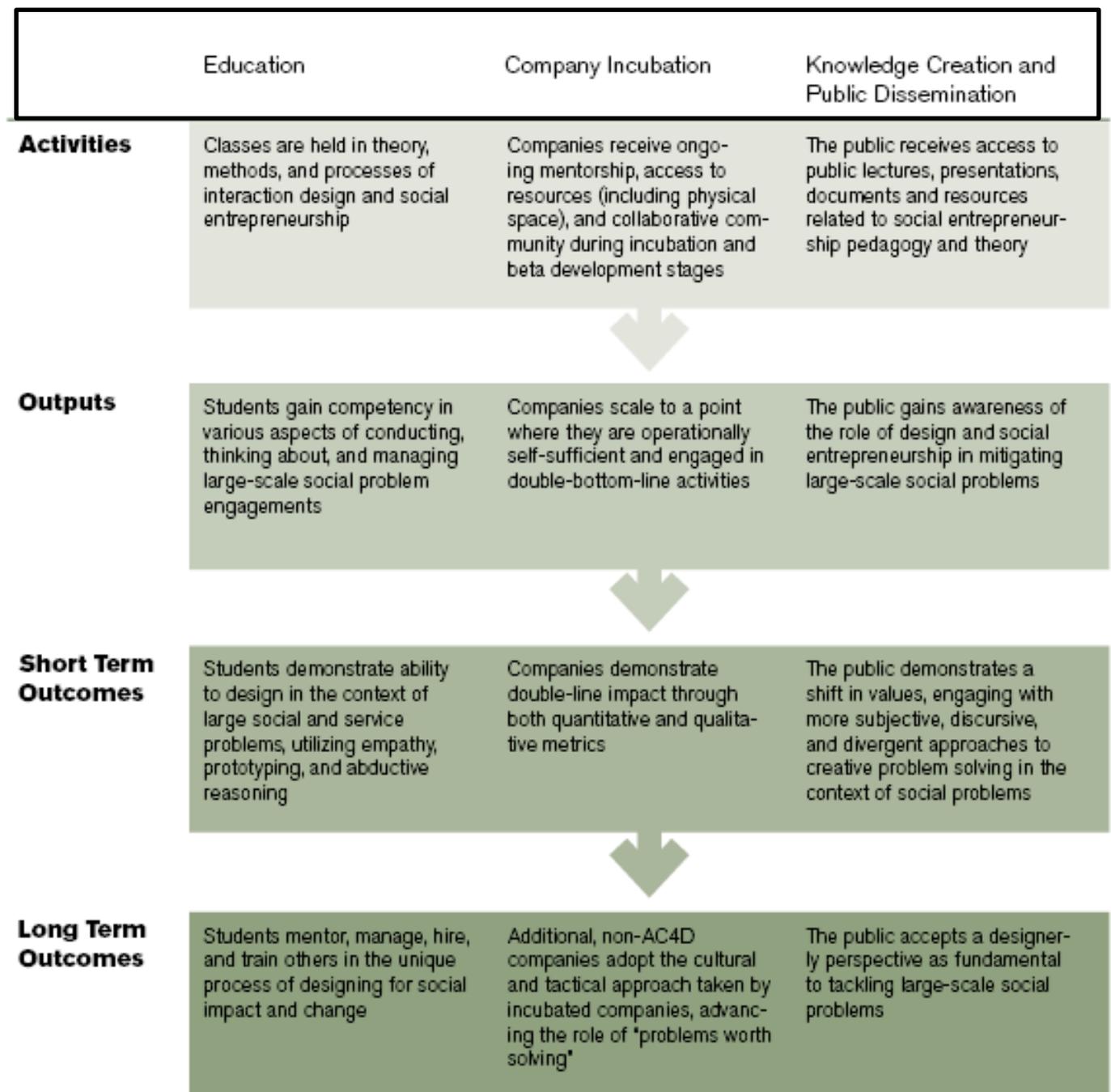
JEFF SPECK



THEORY OF CHANGE

This process identifies outcomes through the dissection of actions and inputs.

More info:
https://wickedproblems.com/5_theory_of_change.php



RESEARCH AND DESIGN- OVERVIEW

1. Planning
2. Contextual interviews and observation
3. Reflections and synthesis
4. Patterns and endless conversation...
5. Insights
6. Design implications and selection criteria
7. "Ideation"
8. Prototype-test-refine (etc.)

RESEARCH AND DESIGN- PLANNING

1. Focus
2. Methods of engagement
3. Participant types and context
4. Recruiting participants or information sources
5. Interview script
6. Photography, recording and note taking (interview roles)
7. Use of info agreements
8. Supplies and physical considerations (sun screen, etc.)

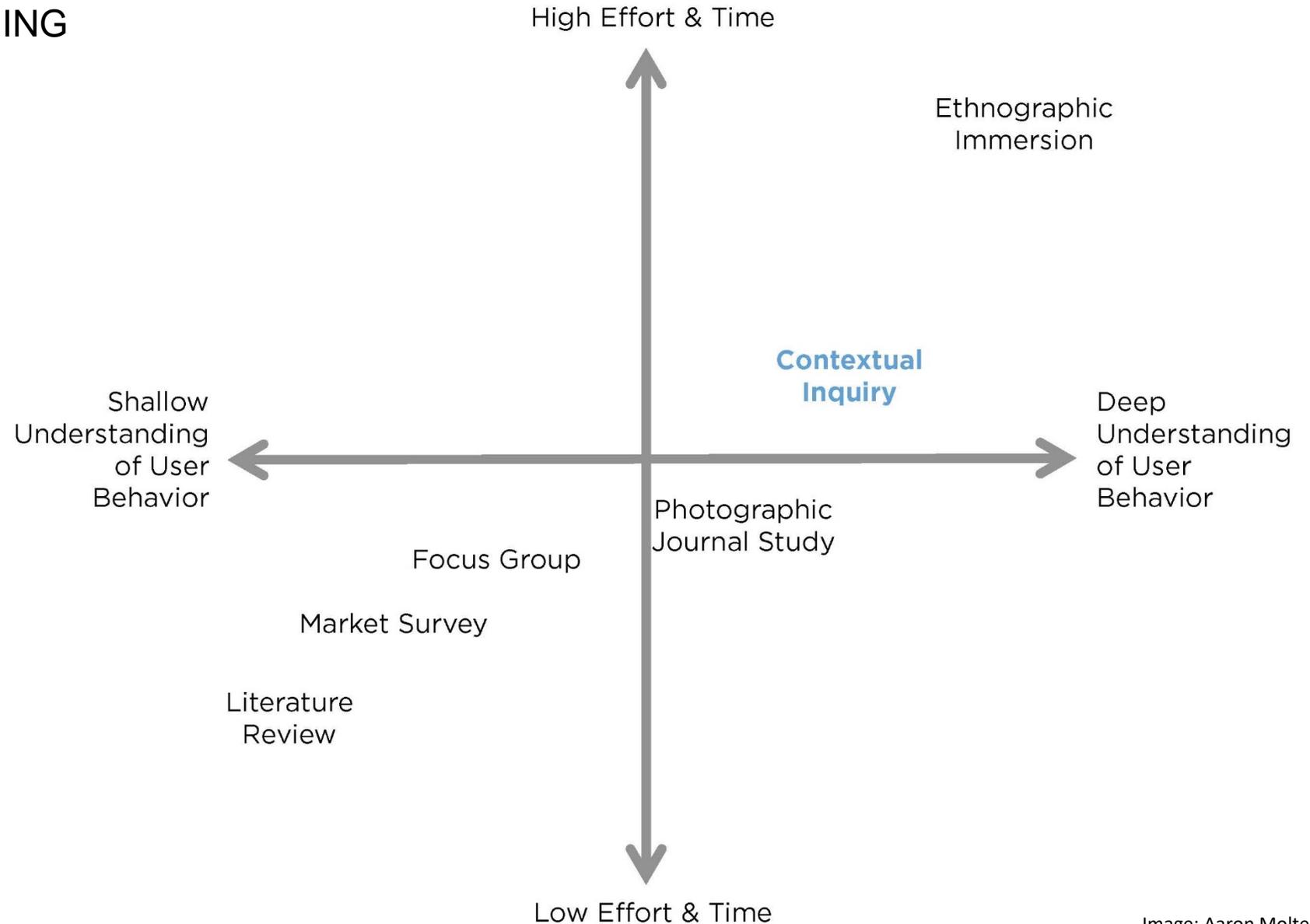


Image: Aaron Molten

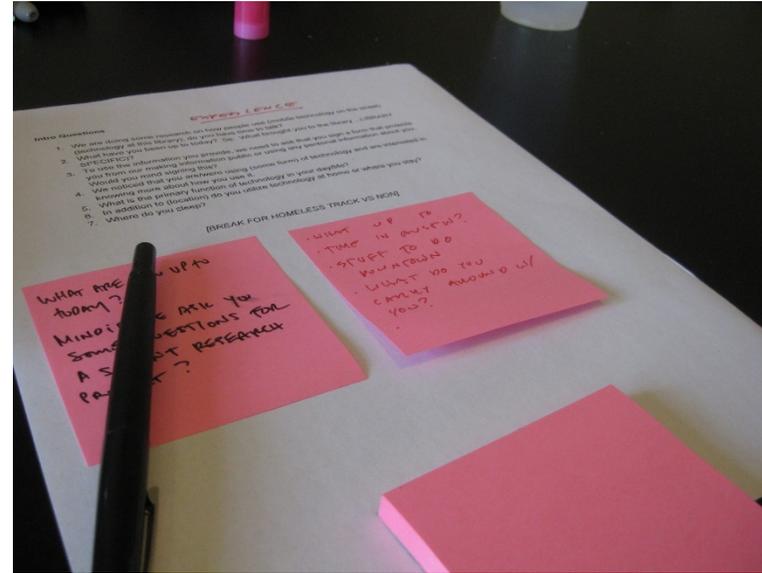
RESEARCH AND DESIGN- INTERVIEWS AND OBSERVATION

1. In a relevant context
2. Active listening and conversation skill
3. (understanding that you get better at it as you go)
4. Stay broad; let them do the diving
5. They are teaching you- let them show you how to do things



RESEARCH AND DESIGN- REFLECTIONS AND SYNTHESIS

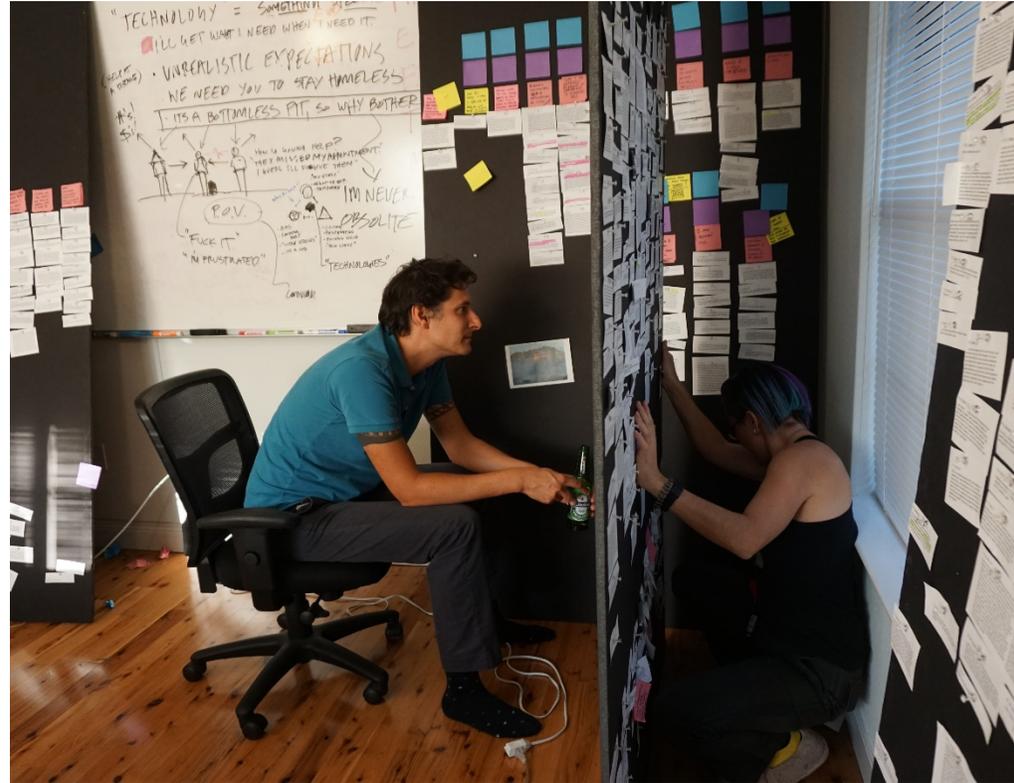
1. Post interview reflection
2. Transcriptions
3. Externalizing the data
4. Begin abductive reasoning...



RESEARCH AND DESIGN- PATTERNS

This is the process of filtering and manipulating gathered data into a cohesive structure to act as a basis for appropriate ideas.

1. You are making sure that progress is externalized because you are working as a team.
2. It is a visual representation of your thinking.
3. It is easily to understand so that team members can cycle in and out.



RESEARCH AND DESIGN- INSIGHTS

Provocative statements of truth,
that aren't necessarily true.



RESEARCH AND DESIGN- DESIGN IMPLICATIONS AND SELECTION CRITERIA

These statements form the background for ideation, and help guide the process of moving an idea forward.

They are generally tied to an insight.

The design will provide...

Our design promises to deliver...

The design will work toward...

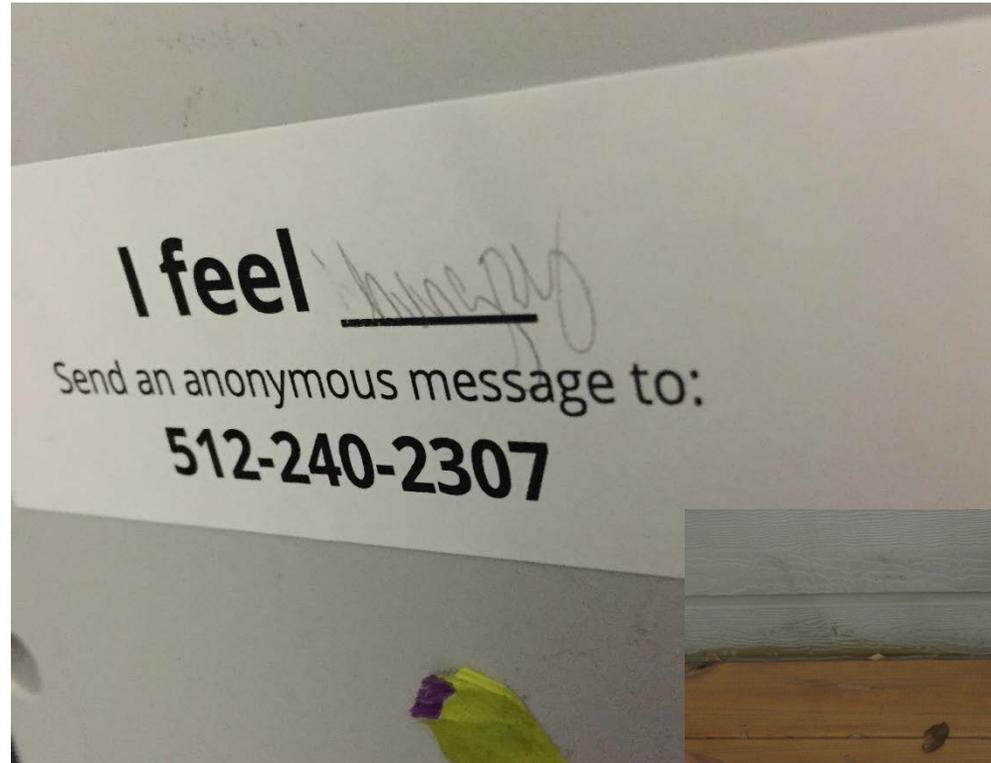
RESEARCH AND DESIGN- IDEATION

1. No bad ideas
2. Draw/photo/collage/sketch/model/anything goes
3. Be patient and make time for everyone to generate and complete
4. Really push yourselves- try creating 100 ideas per person
5. Use the selection criteria to down-select (scoring)
6. Be fast; avoid sacred cows



RESEARCH AND DESIGN- PROTOTYPE AND TESTING

1. Test the basic goals first
2. Find a way to test individual motivations...build your user story and validate demand
3. Be honest with yourself
4. Don't try and test a finished product
5. Don't test with people you know



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QUESTIONS?

How can human-centered design lead to better planning work?

What are the typical goals we are trying to achieve with planning processes and how can human-centered research make them work better?

How can planners push for a more meaningful appetite for change?