



Lean Startup Summer Boot Camp

Customer Research & Validation

REVIEW

Assertions of Lean Startup

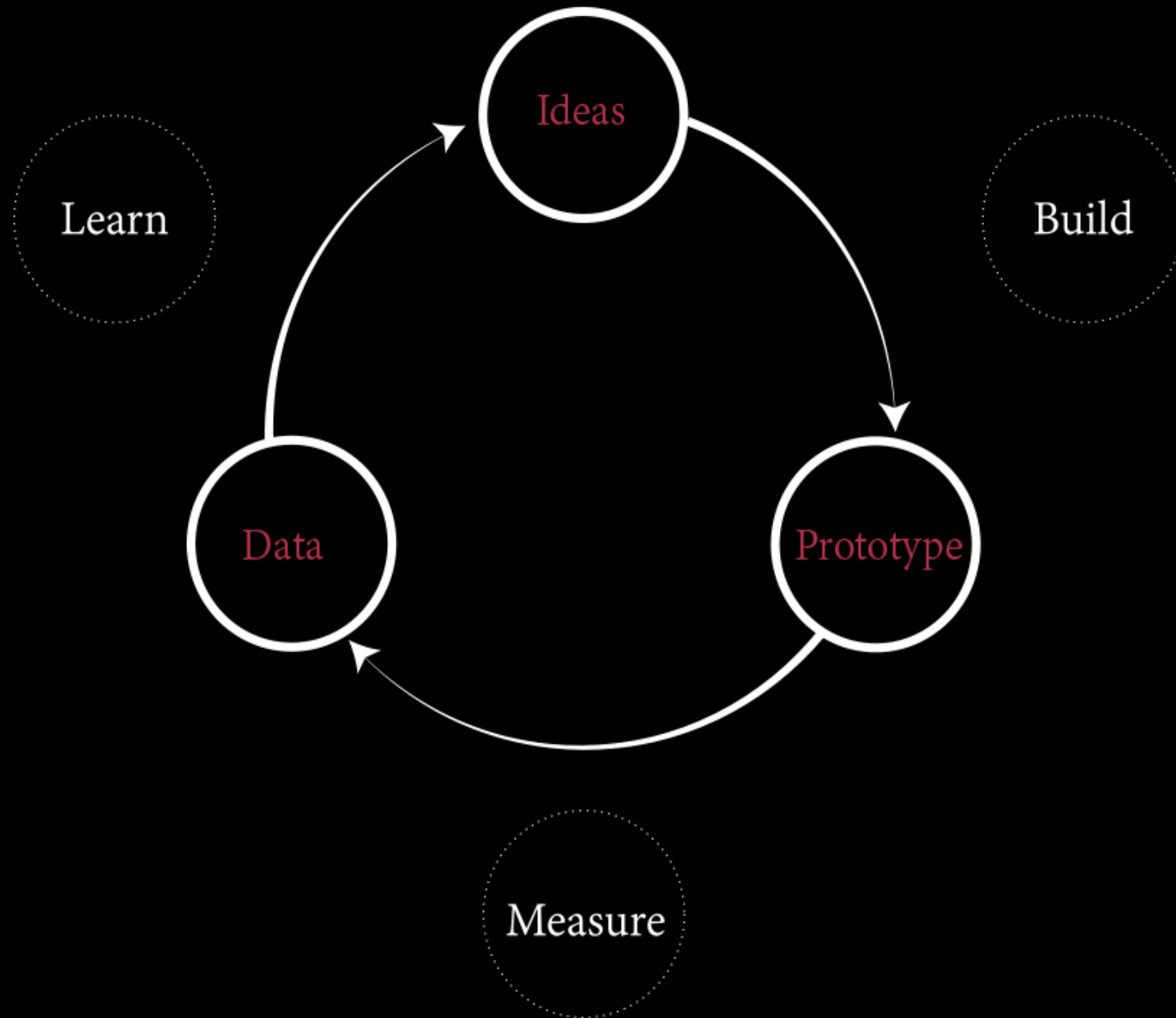
Entrepreneurs are everywhere

Entrepreneurship is Management

Build-Measure-Learn

Validated Learnings

Minimize TOTAL time through the loop



Think

Generative Research
Ideation
Mental Models
Behavior Models
Test Results
Competitive Analysis

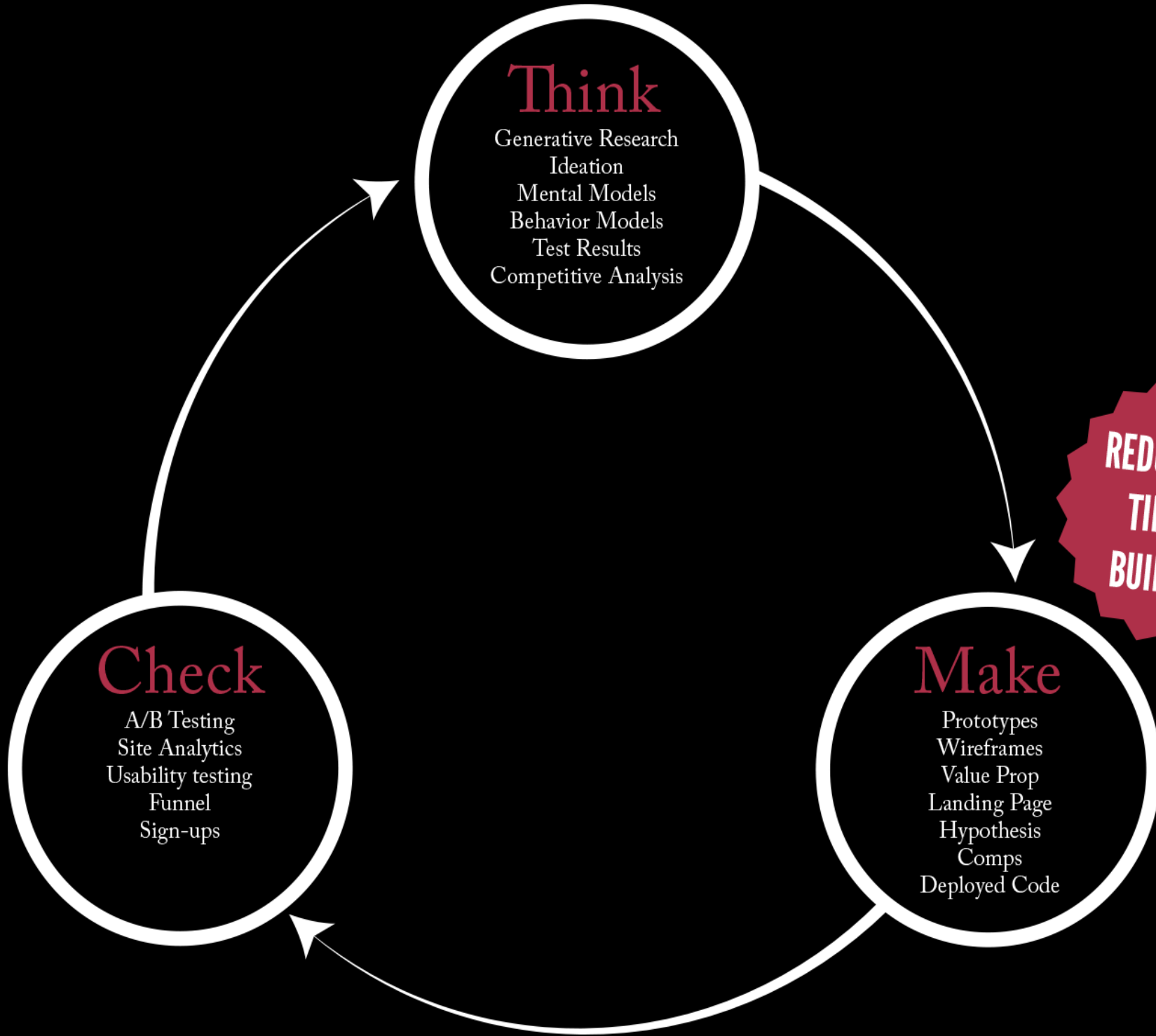
Make

Prototypes
Wireframes
Value Prop
Landing Page
Hypothesis
Comps
Deployed Code

Check

A/B Testing
Site Analytics
Usability testing
Funnel
Sign-ups

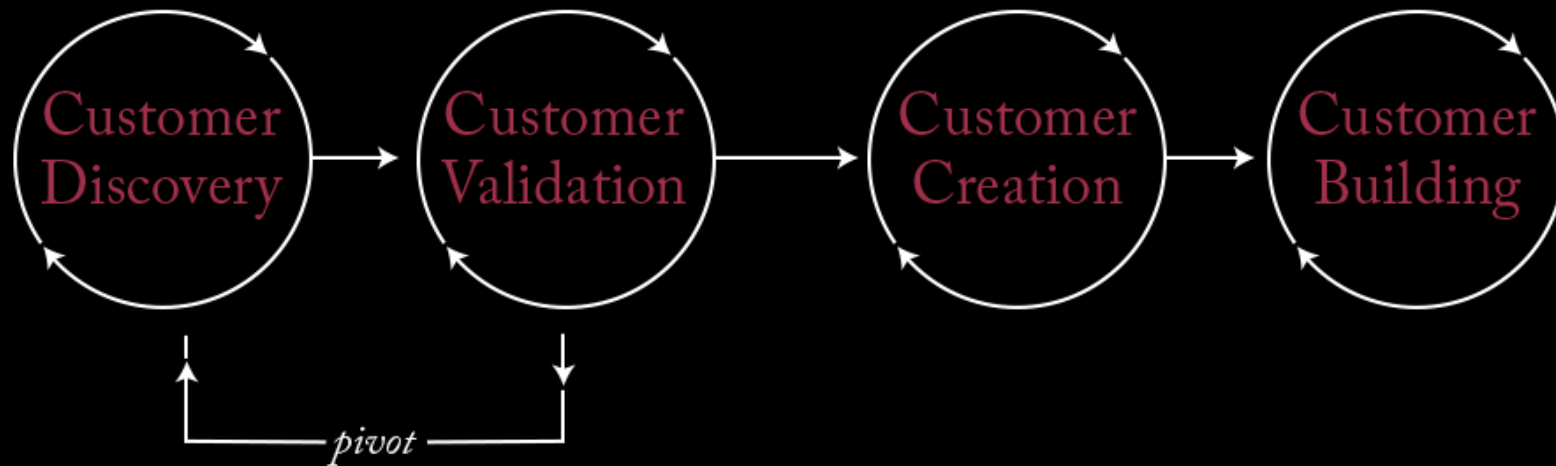
**REDUCE CYCLE
TIME, NOT
BUILD TIME.**



LEAN STARTUP LIFECYCLE

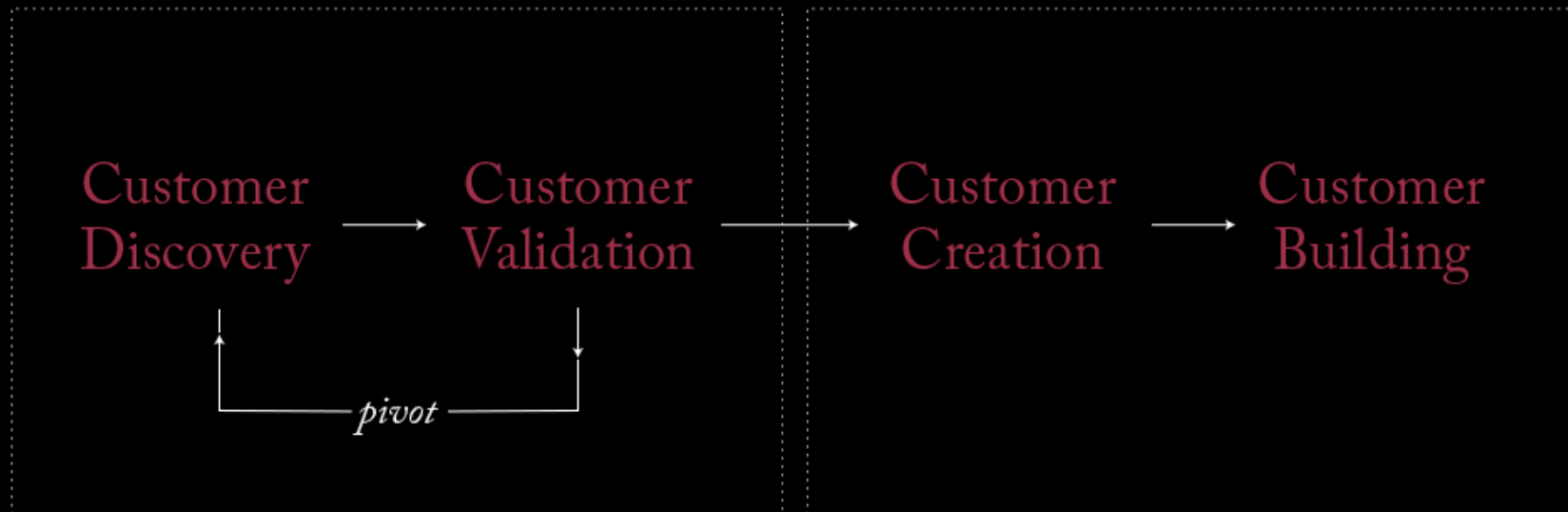


The Customer Development Process



THE CUSTOMER DEVELOPMENT PROCESS

in other words...



EXPLORE

EXECUTE

7 Keys to Lean Startup

Uncover your customers' pain points through research

Question your assumptions

Formulate hypotheses

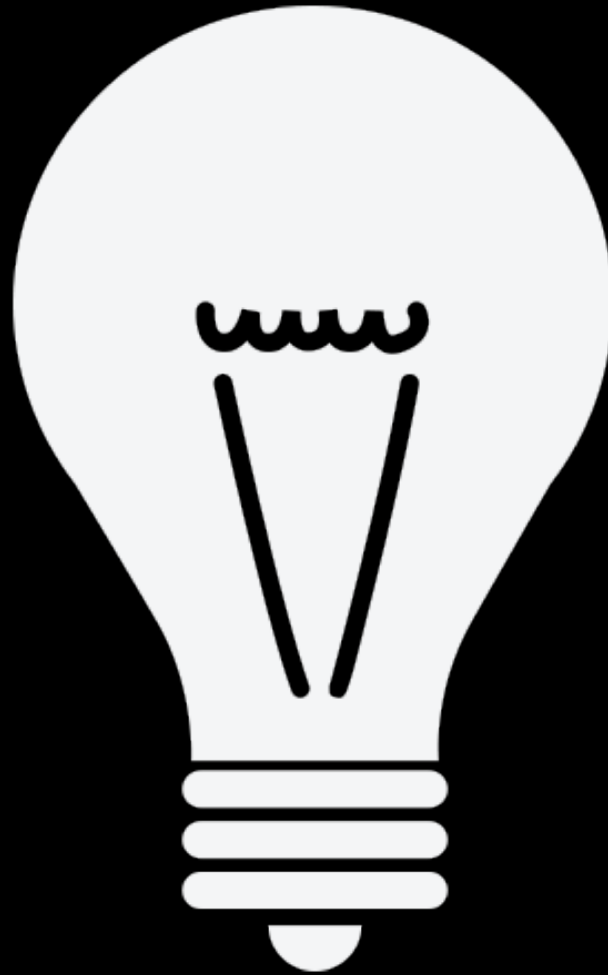
Collaborative ideation

*Experiments, **NOT** releases*

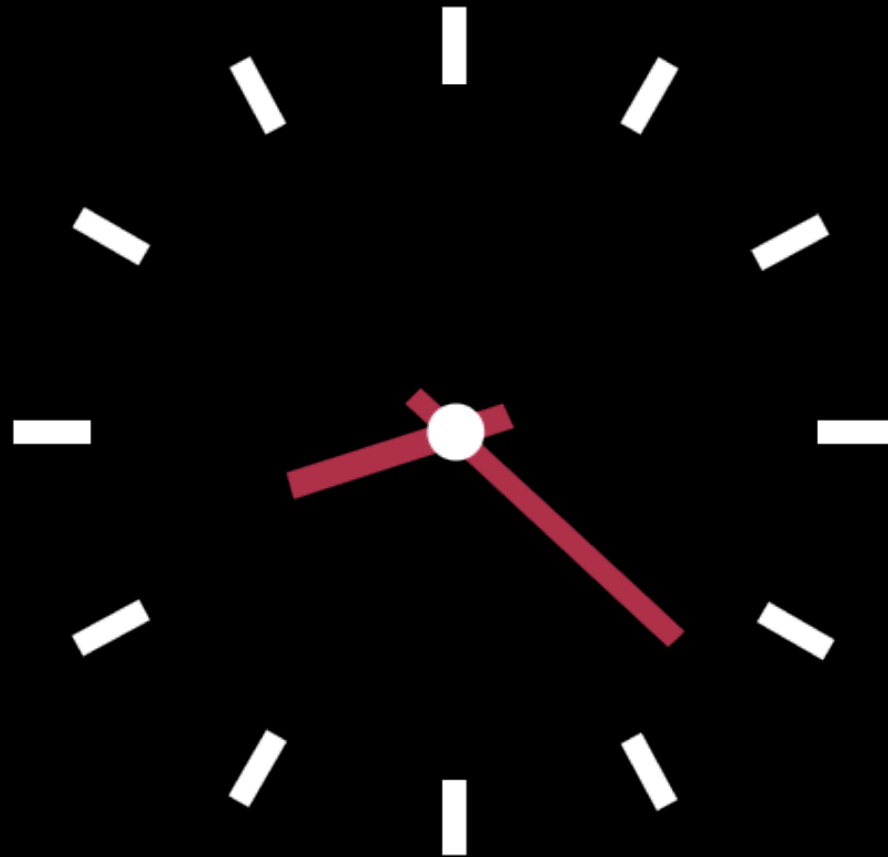
Learning isn't failure

Amplify what works

Let's start with an exercise!



That is timeboxed

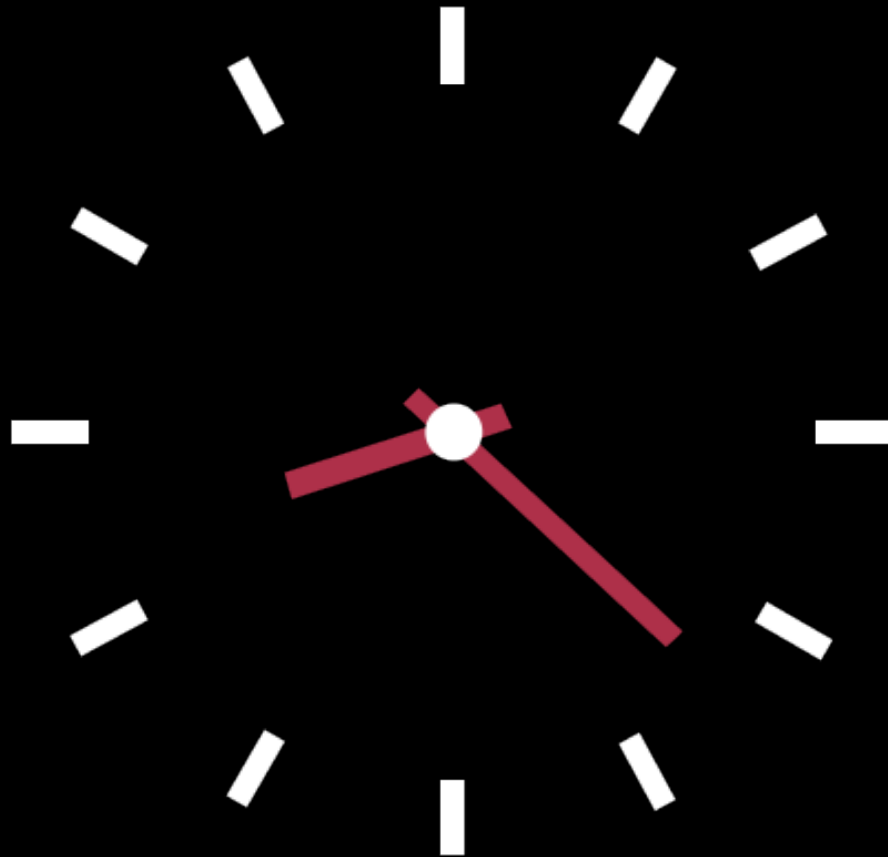


Customer / Problem Hypothesis

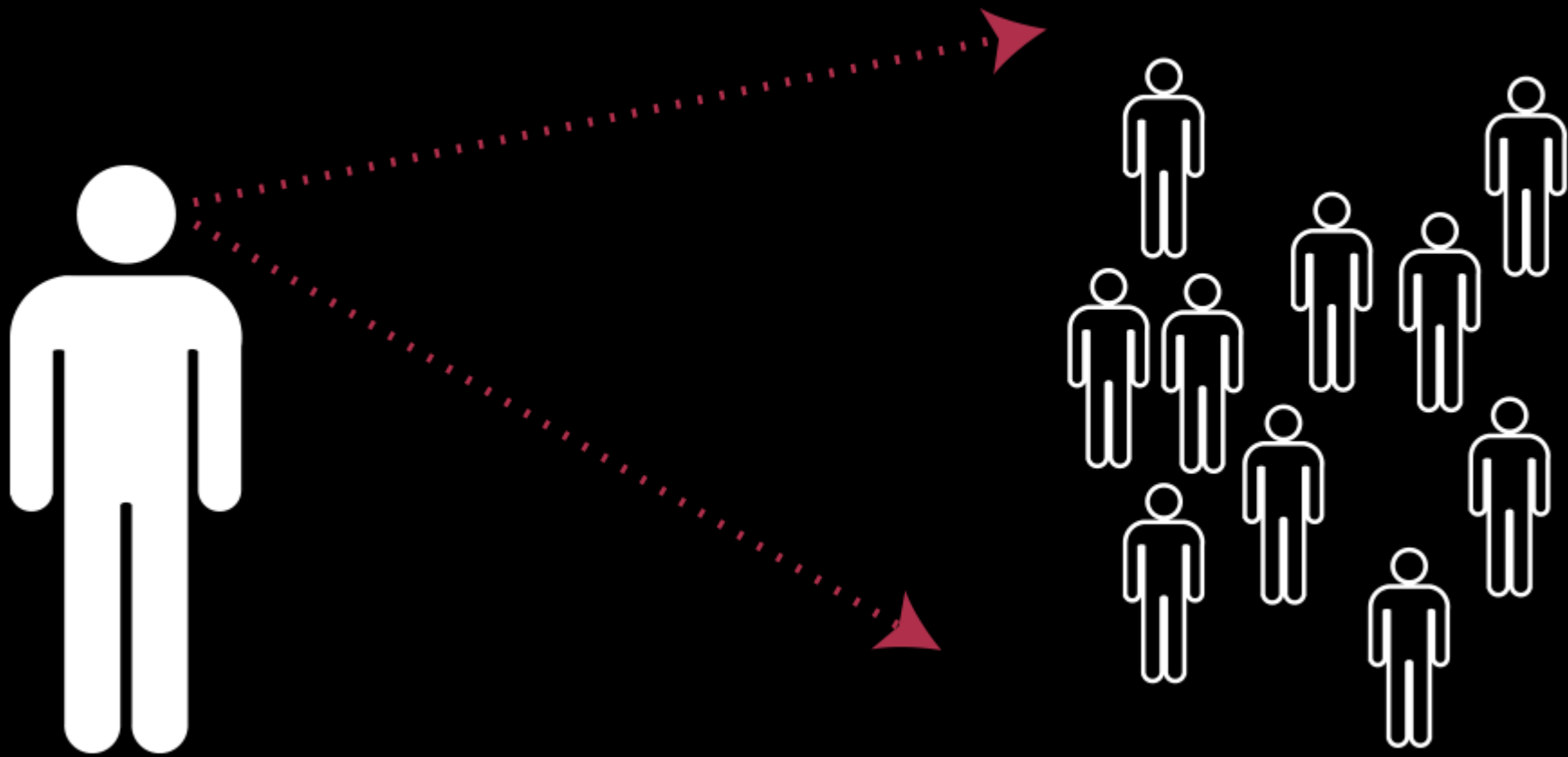
Who, specifically, do you think your customer is?

What problem, specifically, do you think that they have?

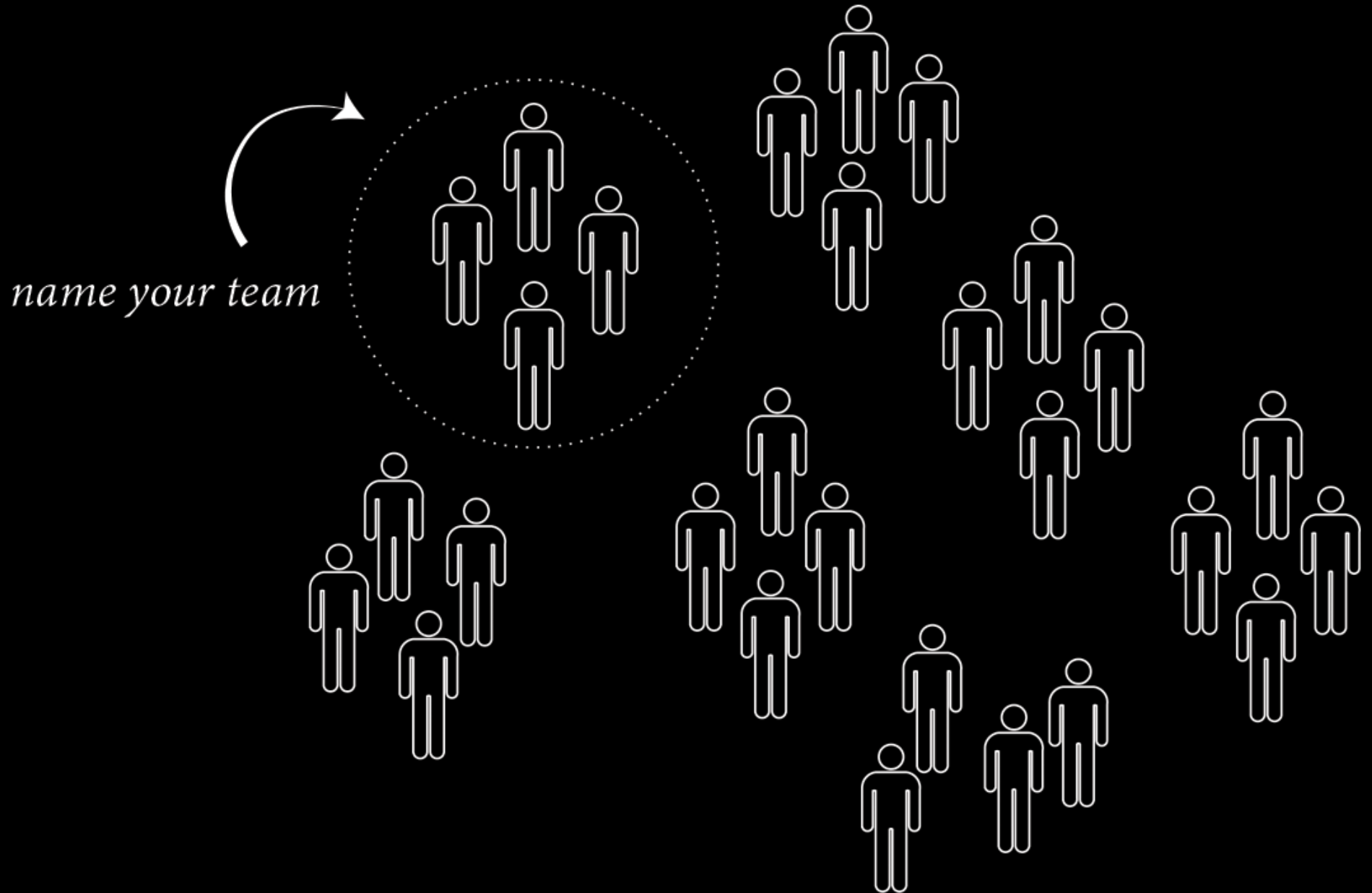
You have 2 minutes

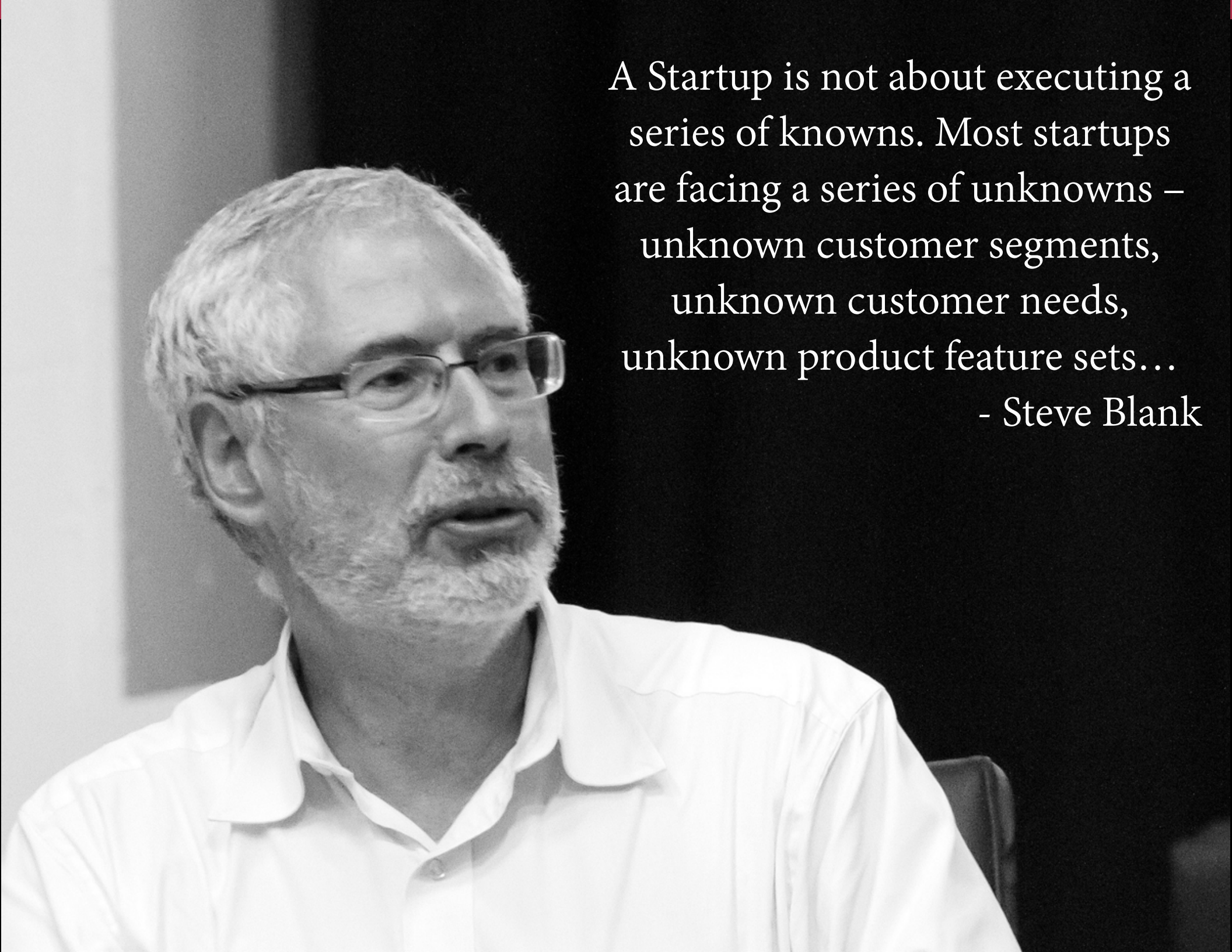


Pitch your concept! *(30 seconds)*



Form Teams (*5 minutes*)





A Startup is not about executing a series of knowns. Most startups are facing a series of unknowns – unknown customer segments, unknown customer needs, unknown product feature sets...

- Steve Blank

Getting Started

HYPOTHESES & ASSUMPTIONS

hy·poth·e·sis
/hī¹päTHəsis/

Noun

- A supposition or proposed explanation made on the *basis of limited evidence* as a starting point for *further investigation*.
- A proposition made as a basis for reasoning, without any assumption of its truth.

Synonyms

supposition - *assumption* - conjecture - presumption

as·sump·tion

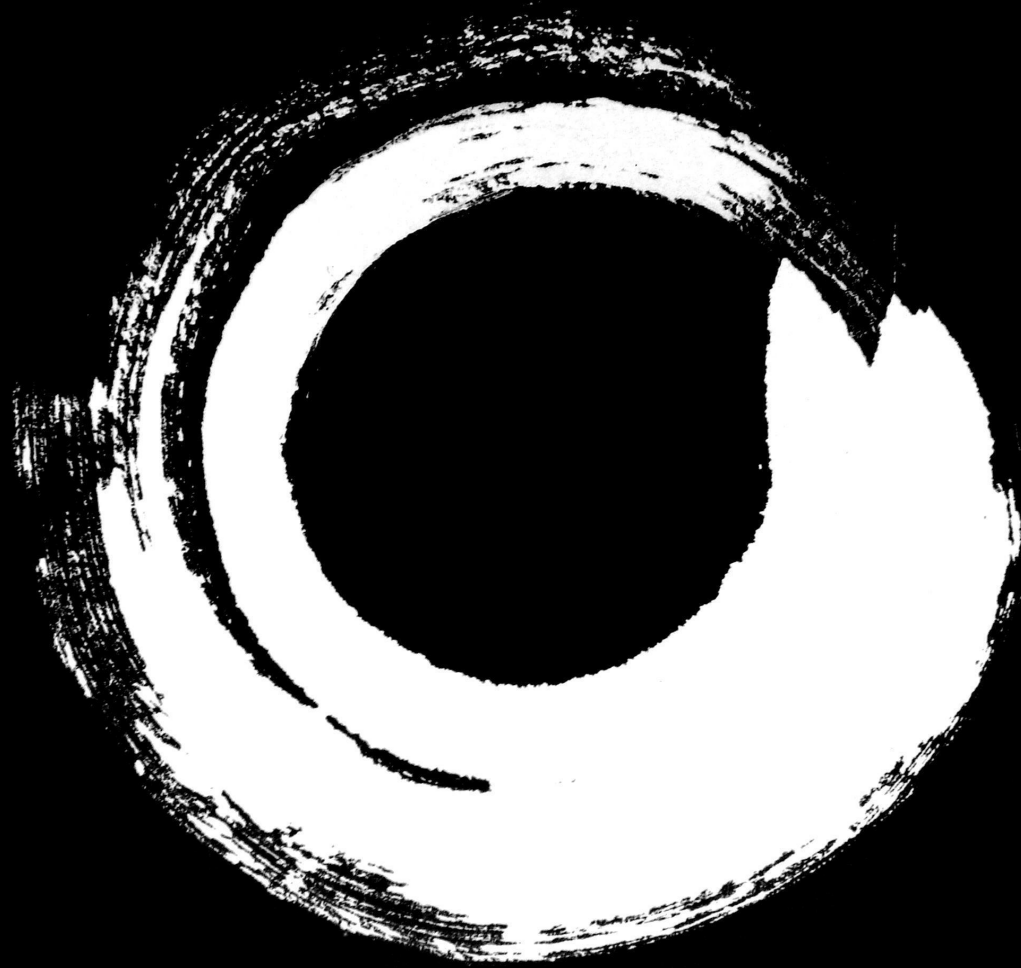
/ə¹səm(p)ʃHən/

Noun

- A thing that is *accepted as true* or as certain to happen, without proof: "they made certain assumptions about the market".
- The action of taking power or responsibility: "the assumption of an active role in regional settlements".

Synonyms

supposition - presumption - *hypothesis* - surmise



Circular Much ?

Hypotheses

A **proposal** made on the basis of **limited evidence** as a starting point for **further investigation**.

Validation Board

Project Name: _____

Team Leader Name: _____

Track Pivots	Start	1st Pivot	2nd Pivot	3rd Pivot	4th Pivot
Customer Hypothesis	<i>Tip: For two-sided markets, always validate the riskier side first</i>				
Problem Hypothesis		<i>Remember: Limit one sticky-note per box Write in ALL CAPS Do not write more than 5 words on any sticky-note</i>			
Solution Hypothesis	<i>Tip: Do NOT define a solution until you've validated the problem</i>				

Design Experiment

Tip: Clear all post-its from this area after each experiment is completed

Core Assumptions
Assumptions that must be validated for the business to work

Riskiest Assumption

Learn:
Which Core Assumption has the highest level of uncertainty?

Method

Build: Which MVP experiment will effectively test your RA?
Exploration, Pitch, or Concierge

Minimum Success Criterion

Measure:
What is the weakest outcome we will accept as validation?

Results

GET OUT OF THE BLDG



Invalidated		Validated	
<i>Pivot at least one Core Hypothesis</i>		<i>Brainstorm and test the next Riskiest Assumption</i>	
1	2	1	2
3	4	3	4
5	6	5	6

Only put the Riskiest Assumption from an experiment in these boxes
Record data & learnings separately

Build > Measure > Learn

Validation Board

Untitled

Want to share this board?
[Sign In](#) or [Create Account](#) [Save](#)

Track Pivots	1st Pivot	2nd Pivot	3rd Pivot	4th Pivot
Customer Hypothesis	WHO IS THE CUSTOMER?			
Problem Hypothesis				
Solution Hypothesis				

Experiment

Riskiest Assumption

Method

Minimum Success Criterion

Results

Invalidated

Validated

1 2 1 2

3 4 3 4

5 6 5 6

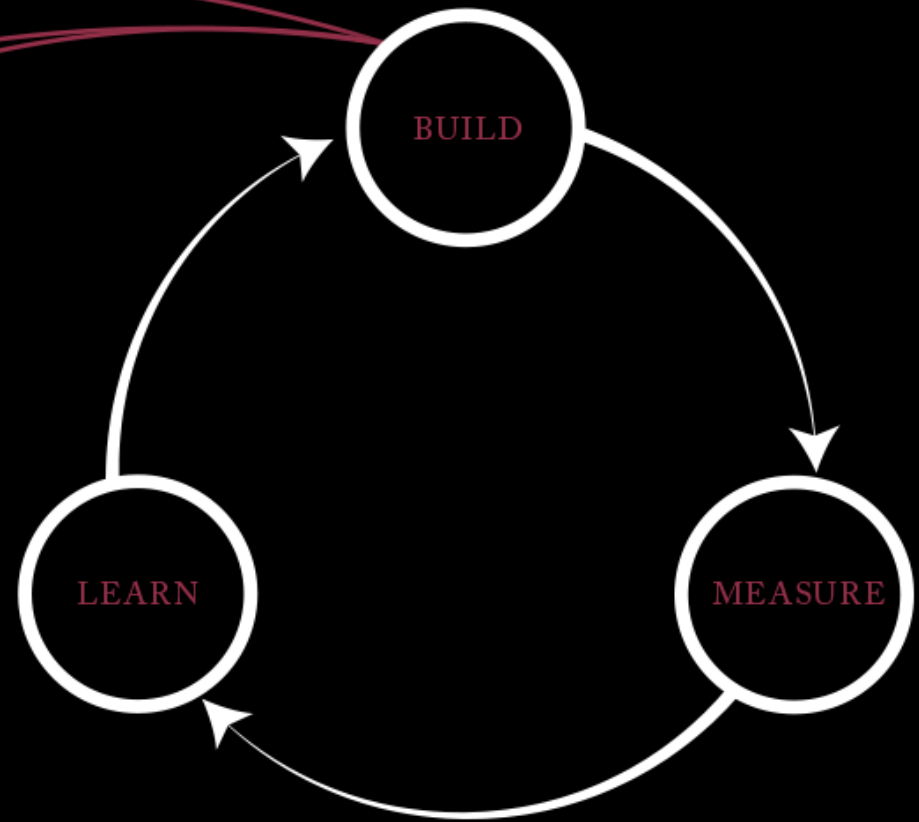

Core Assumptions

Any assumption that, if validated, will break the business.

You'll still need to add a new entry.

GET OUT OF THE BLDG


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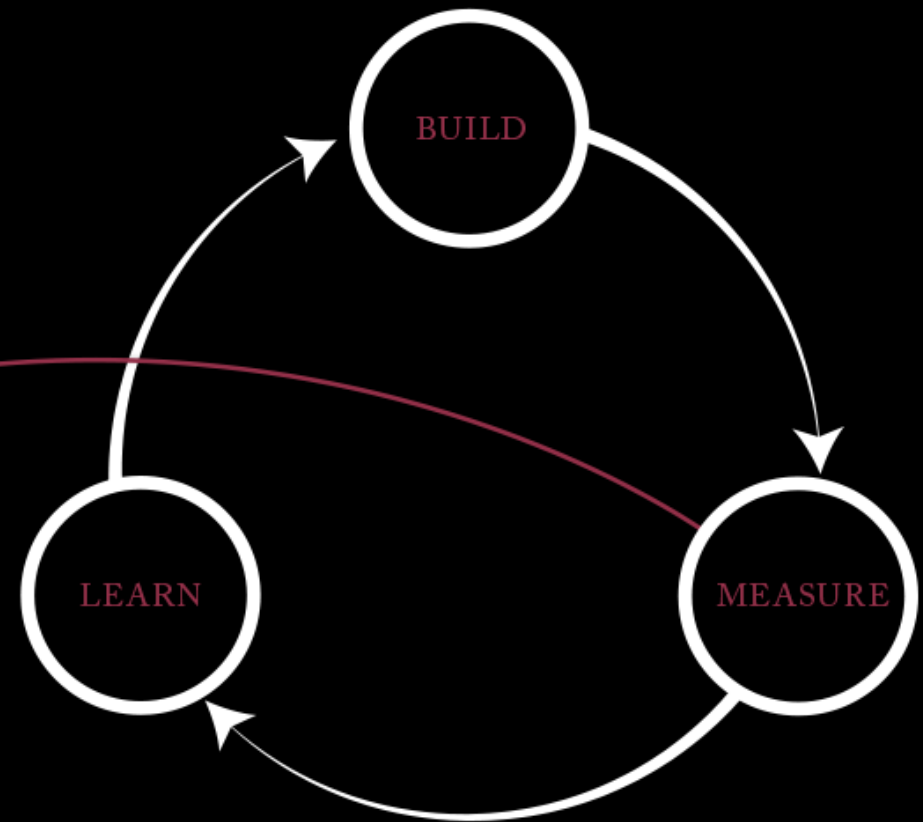
Build > Measure > Learn

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Experiment	Riskiest Assumption	Results	Invalidated		Validated	
			1	2	1	2
Core Assumptions <small>Any assumption that, if validated, will break the business. Double click to add a new entry.</small>	Method	GET OUT OF THE BLDG 	3	4	3	4
	Minimum Success Criterion		5	6	5	6


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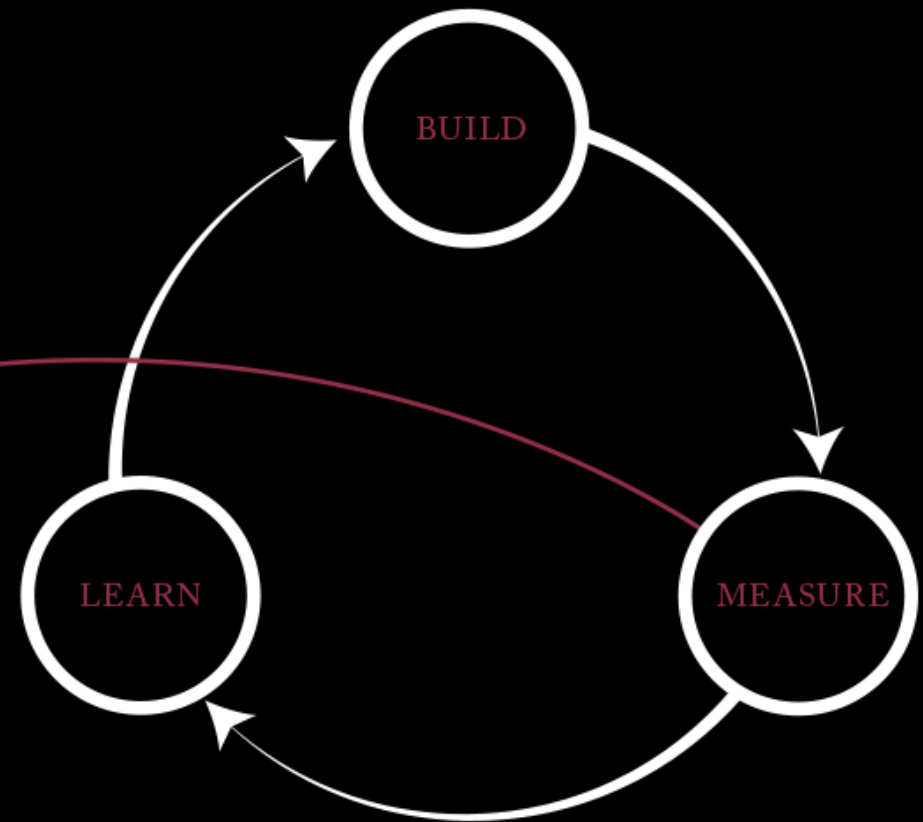
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Customer Hypothesis

Based on what you know now (*which is frightfully little*), who do you believe you should investigate as a possible customer?

Customer Hypotheses

Define For Your Earlyvangelist

NOT

Your Mass Market Customer

5. Has or can acquire a budget

4. Has put together a solution out of piece parts

3. Has been actively looking for a solution

2. Is aware of having a problem

1. Has a problem

Customer Hypothesis

2 Sided Market ?

Work To Validate Your Riskiest
Customer First

Problem Hypothesis

What problem does your
customer have?





Problem Hypothesis

The Problem Hypothesis **must relate directly** to the Customer Hypothesis.

Solution Hypothesis

You cannot **DEFINE**
your solution
until you **VALIDATE**
the problem exists, and that it is
ACUTE.

Assumption

A thing that is **accepted** as true
or as **certain** to happen,
without proof.

*“Entrepreneurs have the unique skill of believing
that their assumptions are facts.”*

Classic Assumptions

Assume your customer is known

Assume their problem is real

Assume your customer wants to solve their problem

Assume your solution will solve the problem

Articulate Your Assumptions

Each assumption **MUST BE TRUE**
or one of your Hypothesis will be Falsified

Assumptions that don't have to be true...
can be removed.

Identify CORE Assumptions

IF this Assumption is Invalidated You Will
Need to change your business model

IF this Assumption is Invalidated You Will
Need to Pivot

Identify Riskiest Assumption

The CORE Assumption...
with the *MOST Uncertainty*

Your Hypotheses and
Assumptions should tell a
*Coherent Story

I believe I can find
(Customer Hypothesis)
and they will say they have
(Problem Hypothesis)
and when I show them
(Solution Hypothesis)
they will try it and give me feedback.

Early Assumptions Can Include:

1. *Who is our customer?*
2. *What pain points do they have?*
3. *How will we solve their pain points?*
4. *What is the most important thing they need?*
5. *What is our differentiation?*

Which you turn into testable hypotheses!

Showing Assumptions

Validation Board

Project Name: _____ Team Leader Name: _____

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Customer Hypothesis	<p>Tip: For two-sided market, write the customer side first</p> <p>VPs OF PRODUCT IN ENTERPRISES</p>				
Problem Hypothesis	<p>BEING DISRUPTED BY NEW STARTUPS</p>	<p>Remember: Limit one sticky-note per box Write in ALL CAPS Do not write more than 6 words on any sticky-note</p>			
Solution Hypothesis	<p>Tip: Do NOT define a solution until you've validated the problem</p>				

Design Experiment

Tip: Clear all post-its from this area after each experiment is completed

NEED HELP INNOVATING

HAVE MANDATE FOR NEW PRODUCT INNOVATION

KNOW THEY ARE BEING DISRUPTED

Core Assumption
Assumptions that must be validated for the business to work

Riskiest Assumption

Learn: Which Core Assumption has the highest level of uncertainty?

Method

Build: Which MVP experiment will effectively test your RA? Exploration, Pitch, or Concierge

Minimum Success Criterion

Measure: What is the weakest outcome we will accept as validation?

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3	4	3	4	3	4	3	4
5	6	5	6	5	6	5	6

Only put the Riskiest Assumption from an experiment in these boxes
Record data & learnings separately

Method

- Exploration *(this is what you are doing right now!)*
- Pitch
- Concierge

Identifying Method

Validation Board

Project Name:

Team Leader Name:

Track Pivots	Start	1st Pivot	2nd Pivot	3rd Pivot	4th Pivot
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NEED HELP INNOVATING

HAVE MANDATE FOR NEW PRODUCT INNOVATION

KNOW THEY ARE BEING DISRUPTED

Core Assumption
Assumptions that must be validated for the business to work

Riskiest Assumption

KNOW THEY ARE BEING DISRUPTED

Learn:
Which outcome is most likely?
Highest level of uncertainty?

Method

EXPLORATION


Build:
will of
Exploit

Minimum Success Criterion

Measure:
What is the weakest outcome we will accept as validation?

Results →

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Only put the Riskiest Assumption from an experiment in these boxes
Record data & learnings separately

Minimum Success Criteria

- Interview X people?
- What % of people will validate?
- What is the minimum “signal” for you to continue with this?

Exercise! 10 minutes.

- As a team, to write out all the assumptions that your customer and problem hypothesis are based on.
- 1 Idea Per Post-it
- ALL CAPS



Please Validate Me!

CUSTOMER RESEARCH

Henry Ford never said,
“If I’d asked customers what they wanted,
they would have said, “a faster horse.”



It's a lie. A myth. An urban legend.

“Expertise ... breeds an
inability to accept new views.”

-Laski

“Whenever we propose a solution to a problem, we ought to try as hard as we can to overthrow our solution, rather than defend it.”

- Karl Popper

UX Mantra

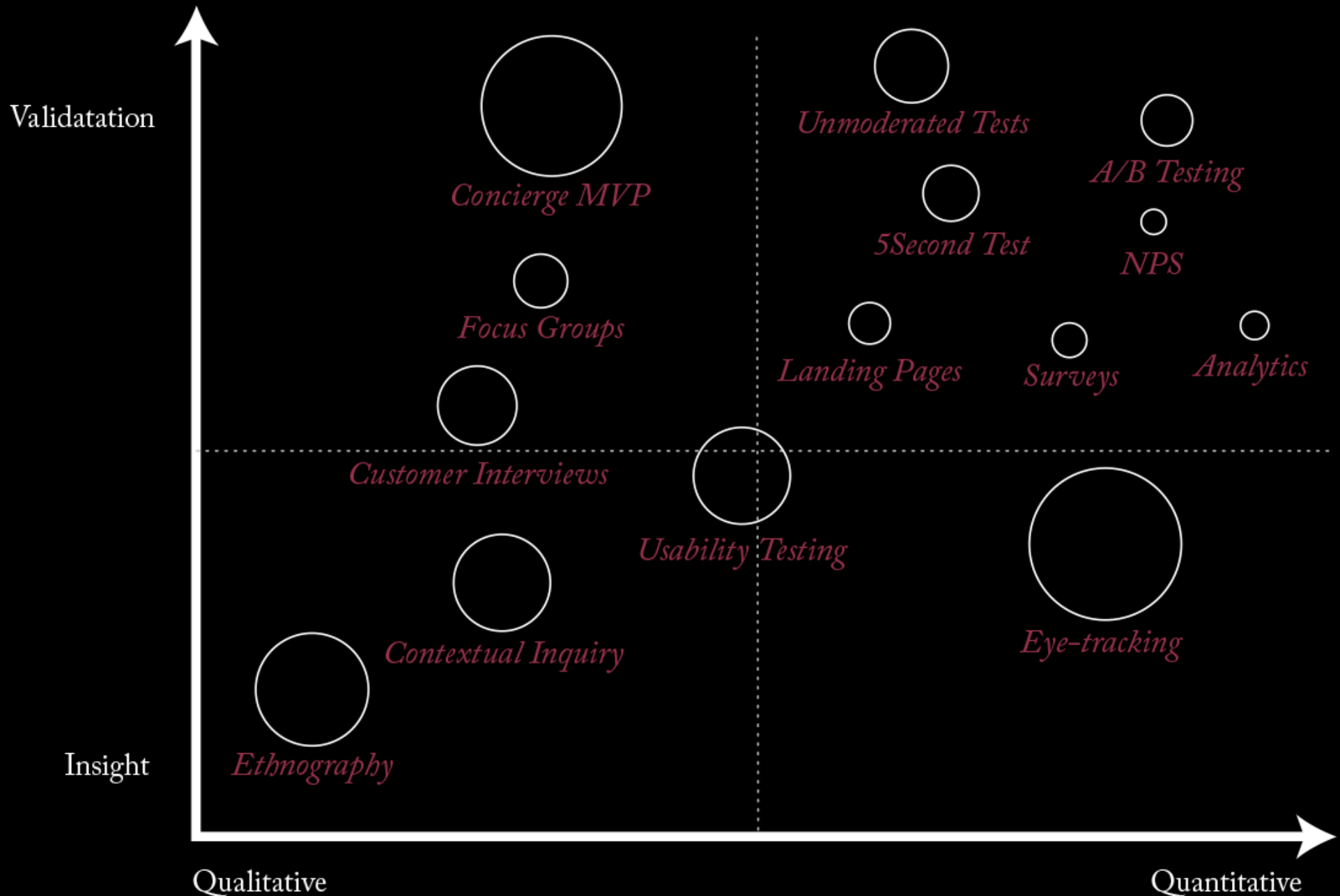
Mantra: You are not the customer.

*Only through research can we
uncover people's pains, needs, and
goals, in their context.*

Lean UX Principles

- *Context first*
- *Hypotheses, not Requirements*
- *Opinions = guesses*
- *Visualize your work*
- *Reduce cycle times*
- *Last responsible moment*

Types of Research



ETHNOGRAGHY



Ethnography
Allows Us To



1. Discover the semantics of living



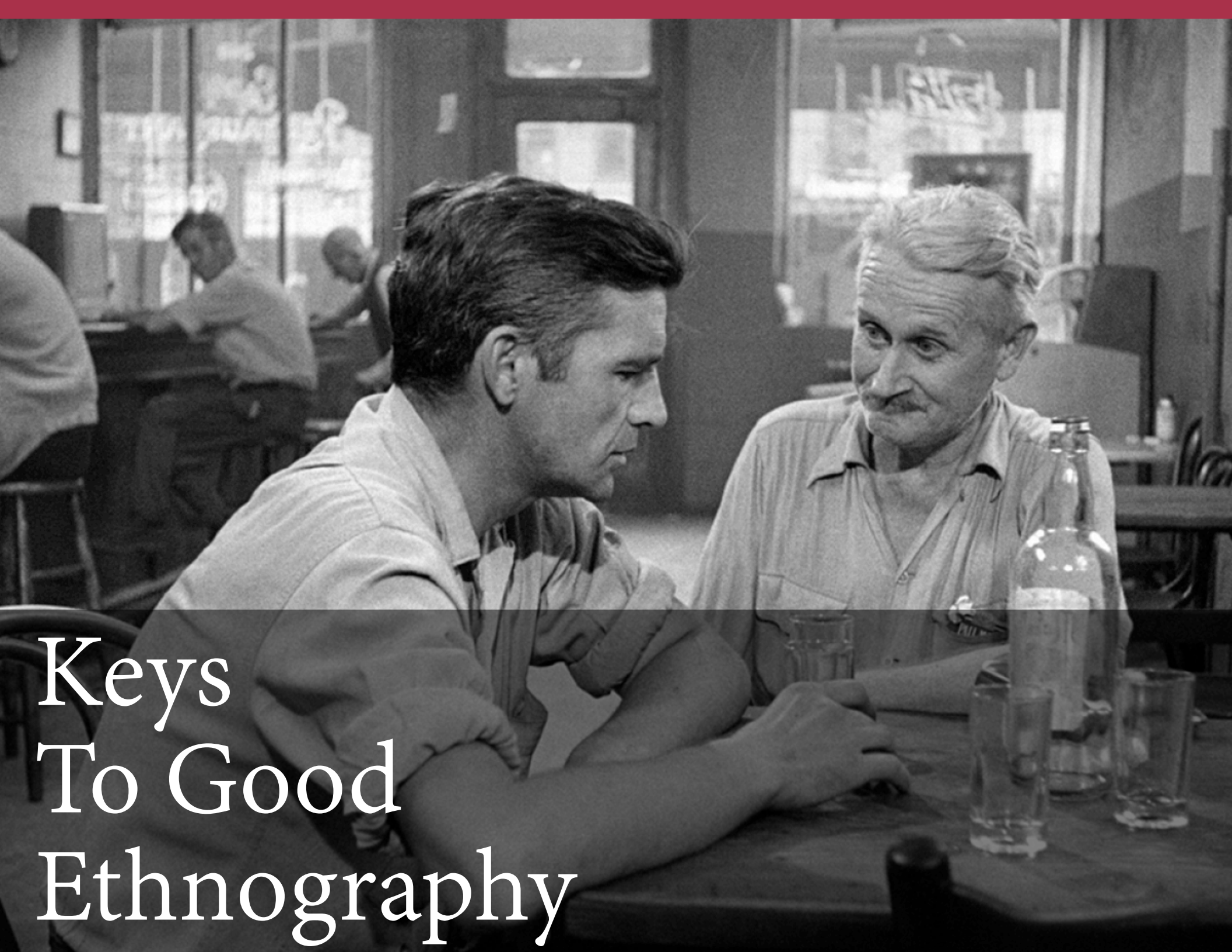
2. Decode signifiers of cultural practice



3. Understand the language people use.



#ShoeUpBitches

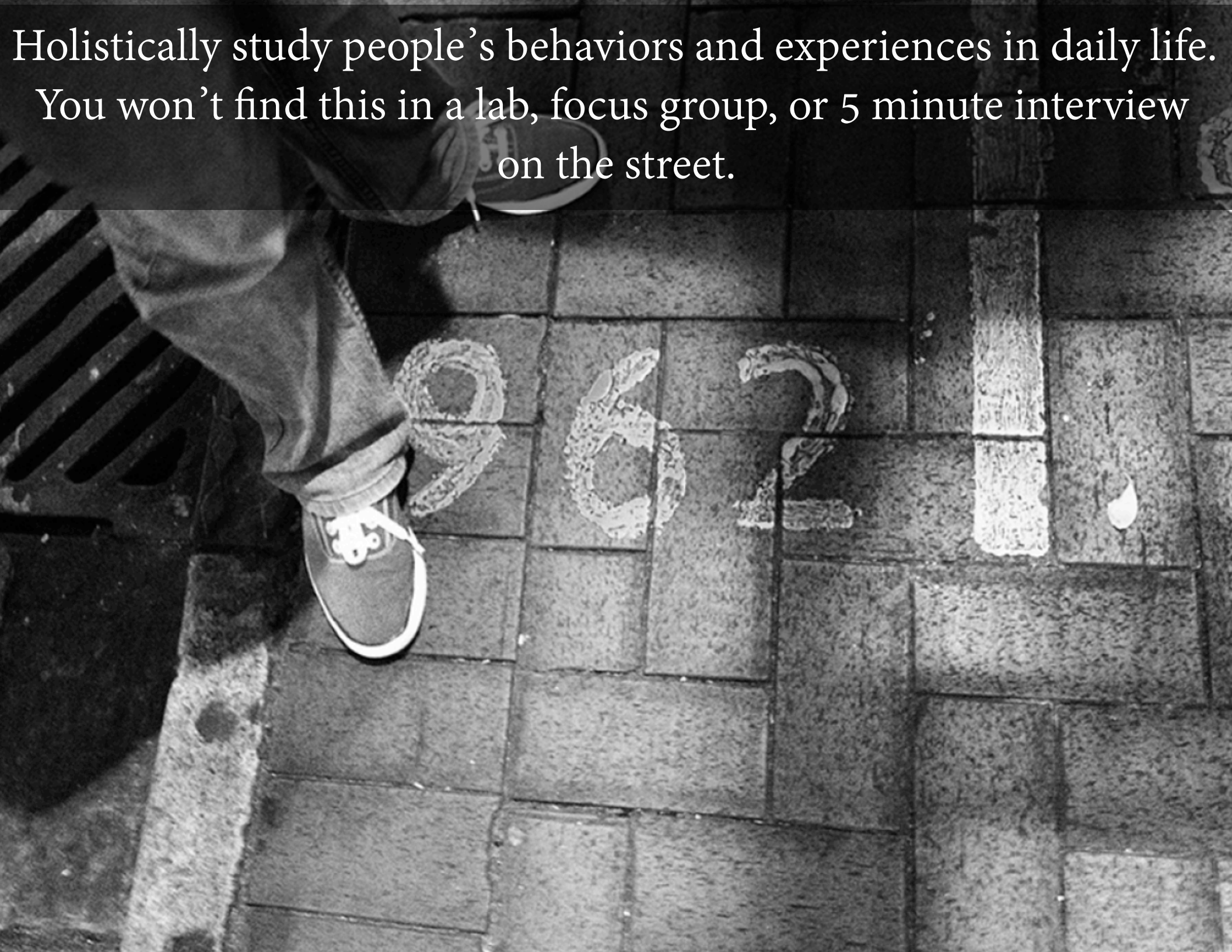


Keys
To Good
Ethnography

Delve deeply into the context, lives, cultures, and rituals of a few people rather than study a large number of people superficially. This isn't about booty calls, this is about relationships.



Holistically study people's behaviors and experiences in daily life.
You won't find this in a lab, focus group, or 5 minute interview
on the street.



Learn to ask probing, open questions, gathering as much data as possible to inform your understanding.

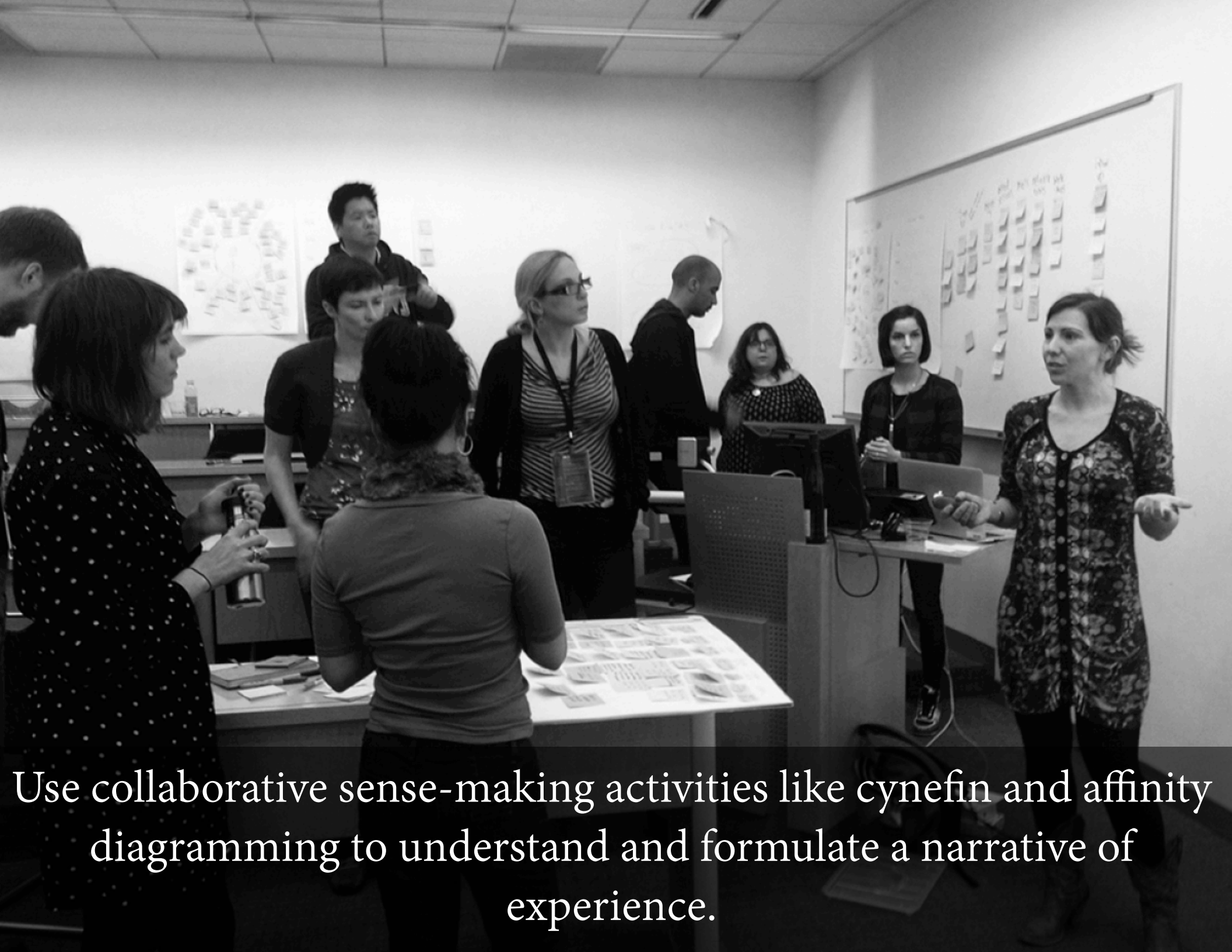




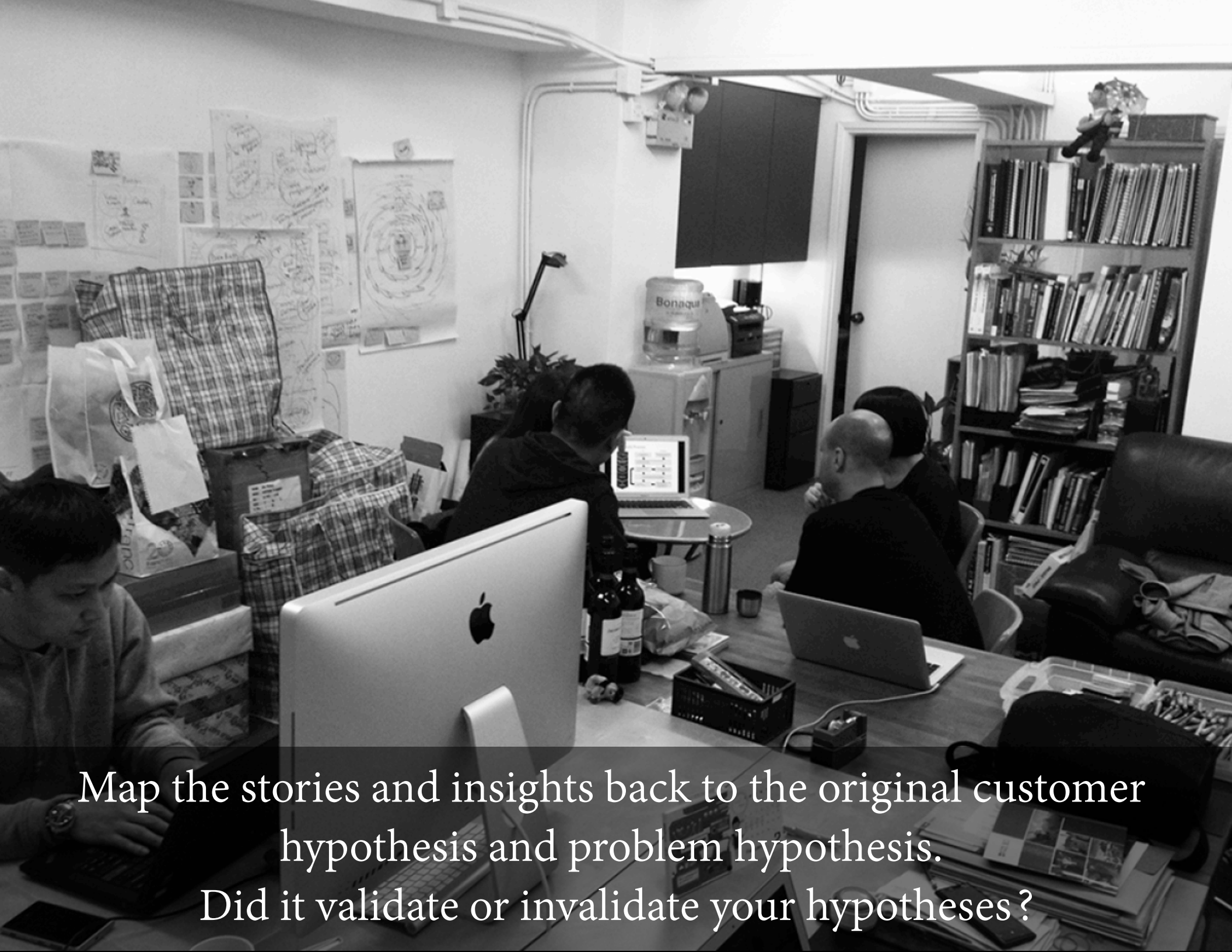
Practice “active seeing,” and “active listening.” Record every minutiae of daily existence, and encode on post-its.



Use digital tools for asynchronous data collection: Tumblr, Facebook, Twitter, Instagram, and Flickr.



Use collaborative sense-making activities like cynefin and affinity diagramming to understand and formulate a narrative of experience.



Map the stories and insights back to the original customer hypothesis and problem hypothesis.
Did it validate or invalidate your hypotheses?

AKA “Get out of the building.”

CUSTOMER INTERVIEWS

Before Interviews

- Identify who you are interviewing
- Articulate customer hypotheses
- Craft a topic map for your interviews
- Write down your prompts

9 Keys to Customer Research

1. *One interview at a time*
2. *Always pair interview (if you can)*
3. *Introduce yourself*
4. *Record the conversation*
5. *Ask general, open-ended questions to get people talking*
6. *Ask questions around the problem “Do you ever experience a problem like X”*
7. *Then ask, “Tell me about the last time...”*
8. *Listen more than you talk*
9. *Separate behavior from narrative*

Guidelines

1. *It's about empathizing.*
2. *Listen, even when people go off topic*
3. *Context is king – document it, and make sure the context of research maps to the problem being explored*
4. *Start from the assumption that everything you know is wrong*

You need to gather:

1. *Factual information*
2. *Behavior*
3. *Pain*
4. *Goals*

You can document this on the persona board as well as

Photos, video, audio, journals.... Document everything

A simple 3-Point Interview

- Has [insert specific problem] been a problem for you? (context)
- Tell me about the last time you dealt with this problem? (story)
- What's your ideal solution for this problem? (solution)

Open Ended Questions Start With...

- *Tell me about...*
- *How so...*
- *What are your thoughts on...*
- *Could you elaborate on...*
- *Give some examples of*
- *Tell me about the last time you...*

During the interview

DO

- *Take notes*
- *Smile*
- *Ask open-ended questions*
- *Get their story*
- *Shut up and listen*

DON'T

- *Talk about your product*
- *Ask about future behavior*
- *Sell*
- *Ask leading questions*
- *Talk much*

DESIGNING SURVEYS



Let's say you are studying...

How often teenagers use your website

You might ask teenagers...

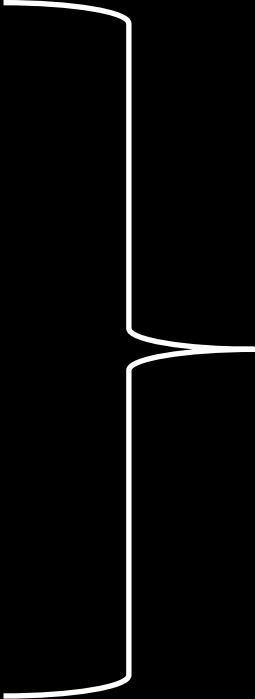
“How often do you visit my website?”

- a. Very Rarely*
- b. Rarely*
- c. Occasionally*
- d. Frequently*
- e. Very Frequently*

You might ask teenagers...

“How often do you visit my website?”

- a. Very Rarely*
- b. Rarely*
- c. Occasionally*
- d. Frequently*
- e. Very Frequently*



And what's wrong
with these????

You might ask teenagers...

“How often do you visit my website?”

- a. Very Rarely*
- b. Rarely*
- c. Occasionally*
- d. Frequently*
- e. Very Frequently*

SUBJECTIVITY!!!

And what's wrong with these????

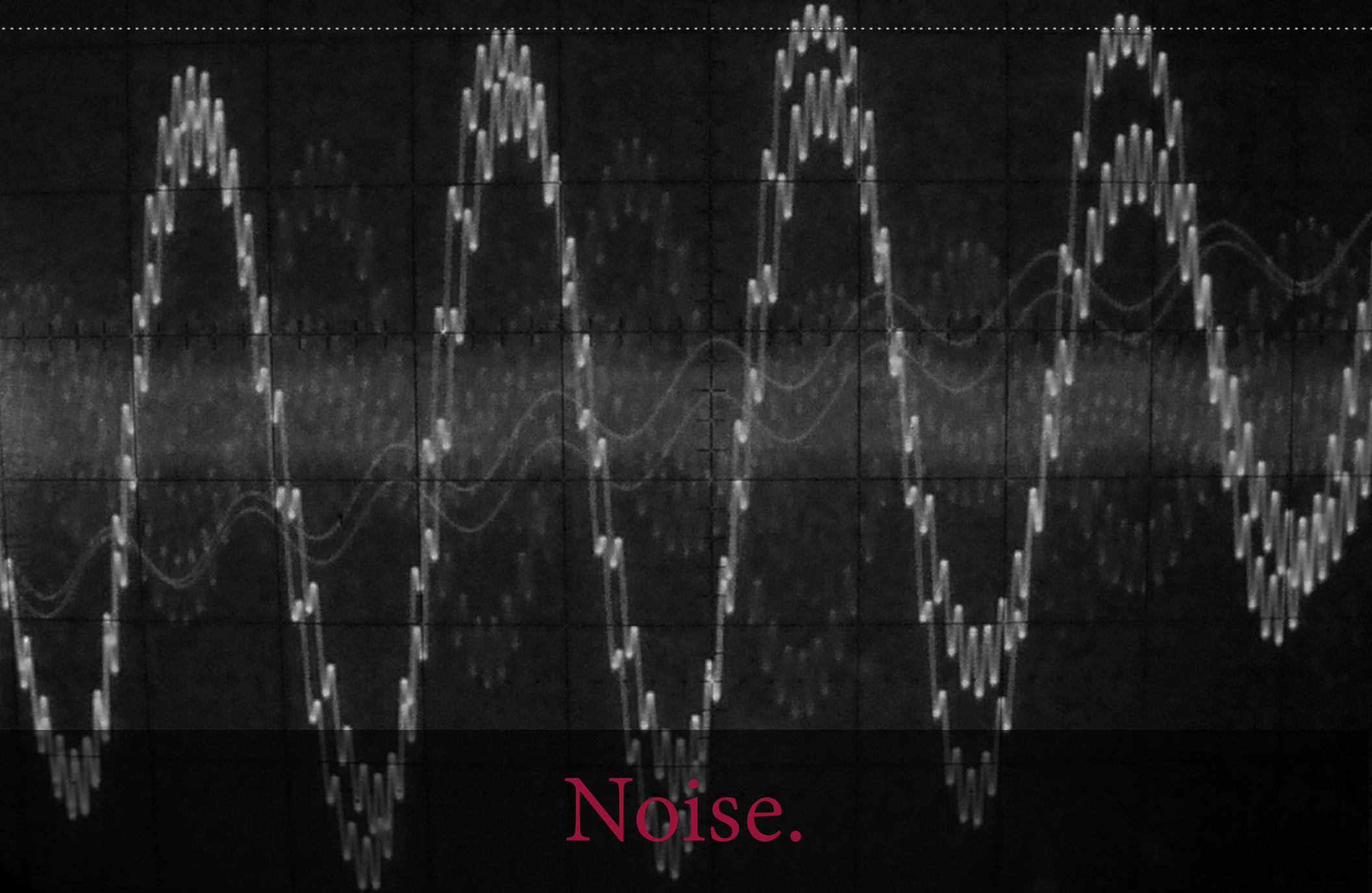
“Hmmm, for me “frequently” really means...”



A few times a week.

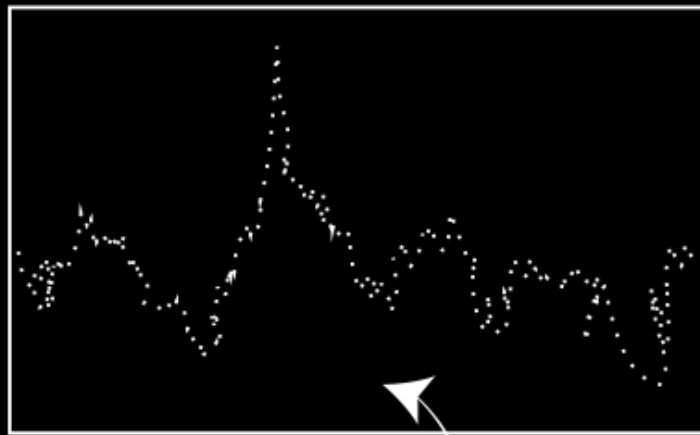
A few times a month.

So what are we really measuring?

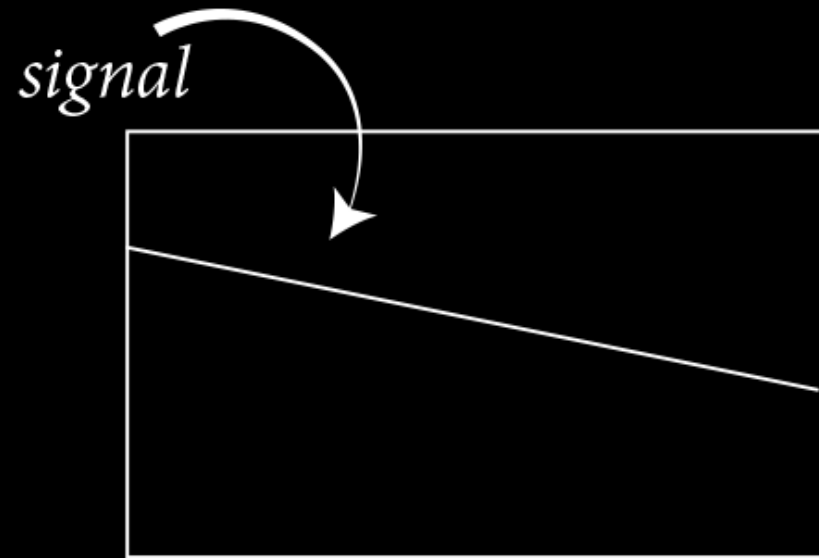


Noise.

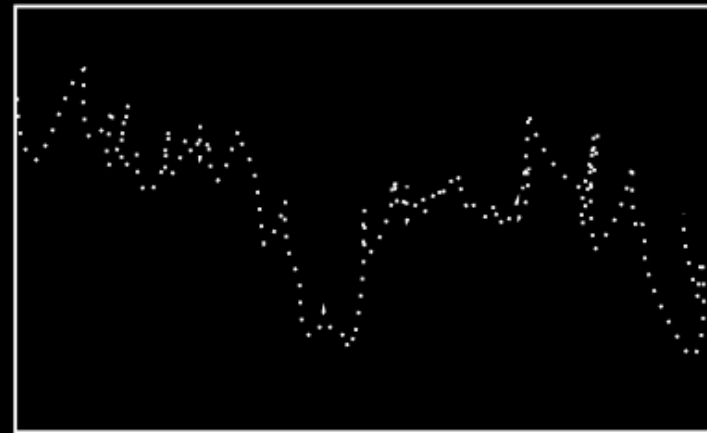
What is noise?



What we observe



signal



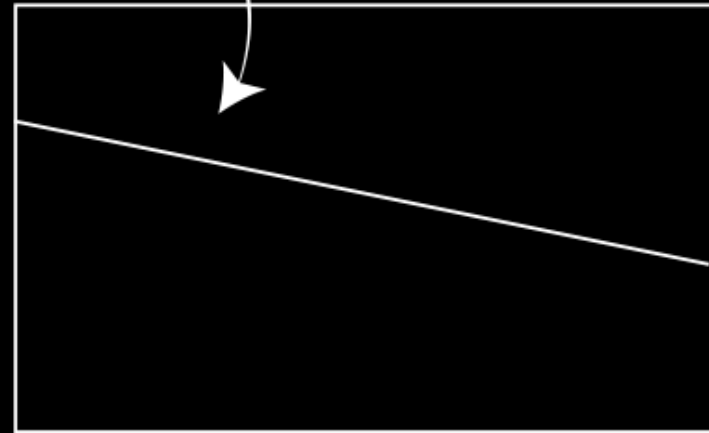
noise

What is noise?

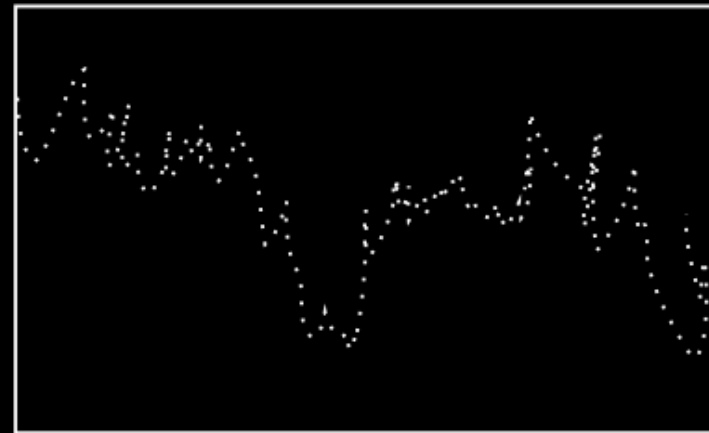
We Want This



signal



*We Don't Want
This*



noise



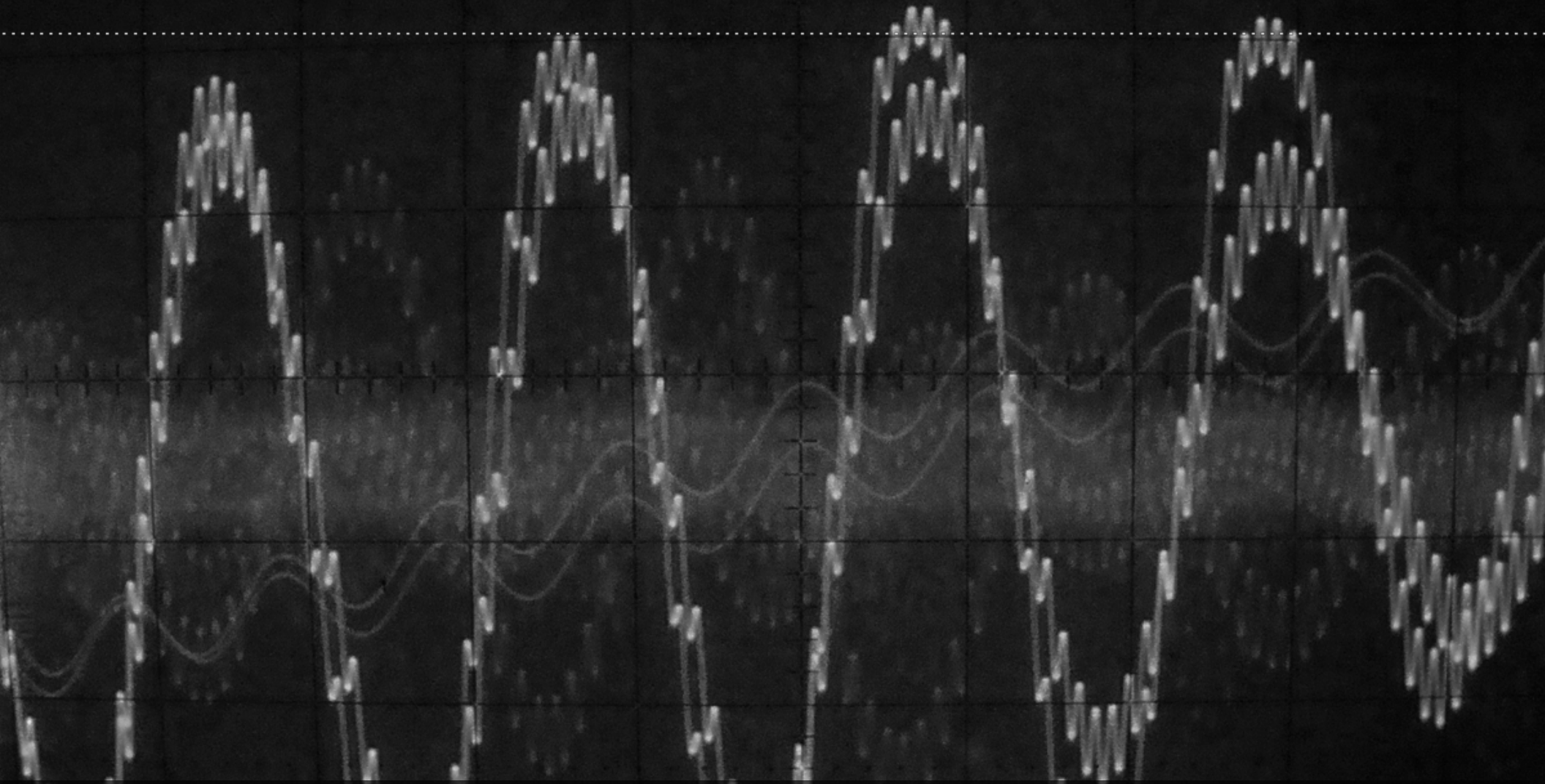
Imaginary Scenario

Let's *really* stretch our thinking a bit here to provide a more concrete understanding of “noise” in your data.

Imagine you have AT&T phone service and you're trying to make a call. The signal isn't clearly going through and you end up hearing everything but the other person's voice.

Frustrating, right? Thank God this is only a pretend scenario.

How is AT&T related to “Noise”?



When you develop bad questions, **you don't “hear”**
the message of your data clearly.

So... why is “noise” bad?

*Badly structured and poorly worded questions that obfuscate meaning for test subjects provide **lousy data**.*

Lousy data:

- *Doesn't answer your research question*
- *Makes it difficult to interpret results*
- *Is pretty much useless*

More bad examples

- a. *Completely*
- b. *Very*
- c. *Fairly satisfied*
- d. *Somewhat dissatisfied*
- e. *Very dissatisfied*



What's the difference between "fairly" and "somewhat"?

- a. *Totally like*
- b. *Very much like*
- c. *Moderately like*
- d. *Somewhat like*
- e. *Not like*



What's the difference between "moderately" and "somewhat"?

More bad examples

- a. *Completely*
- b. *Very*
- c. *Fairly satisfied*
- d. *Somewhat dissatisfied*
- e. *Very dissatisfied*

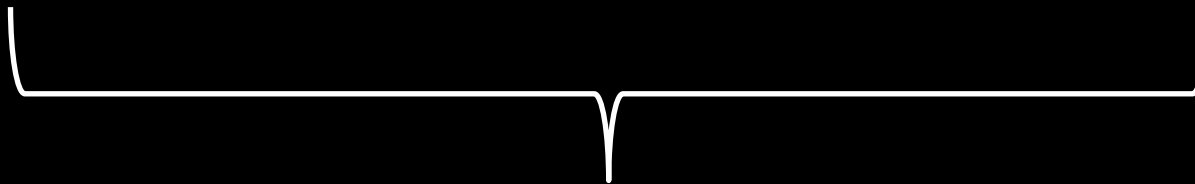


*What's the difference between
"fairly" and "somewhat"?*

- a. *Totally like*
- b. *Very much like*
- c. *Moderately like*
- d. *Somewhat like*
- e. *Not like*



*What's the difference between
"moderately" and "somewhat"?*



Semantics!

Words like...

Sometimes

Often

Moderately

Fairly

Somewhat

Are completely subjective!

They mean different things to different people.



A better alternative?

Actually asking people specifically how often they do certain activities

In order to gather objective data

Your questions must mean the same thing to everyone...

How often do you use my website?

- a. Never (**never is never**)*
- b. A few times this year*
- c. Once a month*
- d. Once a week*
- e. Few times a week*
- f. Every day*

Anchors & Anchoring



Response options serve as “**anchors**” for each question, determining the “location” of each responses as qualitatively distinct from the other.

Importance of Anchors

Response options serve as “anchors” for each question, determining the “location” of each response as qualitatively distinct from the other.

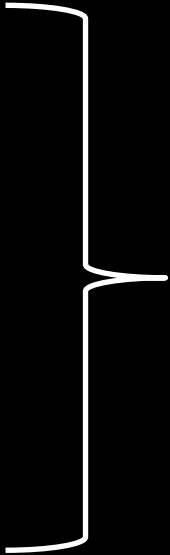


(Ideal) Response Symmetry

Good questions aim to have symmetrical quantitative / qualitative distance between anchors.

How often do you use my website?

- a. *Never (never is never)*
- b. *A few times this year*
- c. *Once a month*
- d. *Once a week*
- e. *Few times a week*
- f. *Every day*



The distance between “never” and “a few times a year” is proportionate to “every day” and “Few times a week”

Intuitive Anchors

Never



Always

Disagree



Agree

Very Poor



Very Good

*Not Very
Important*



*Very
Important*

On the value of clarity



If questions are clear and concise, participants would spend less time analyzing the questions themselves and more time on answering them.

PERSONAS

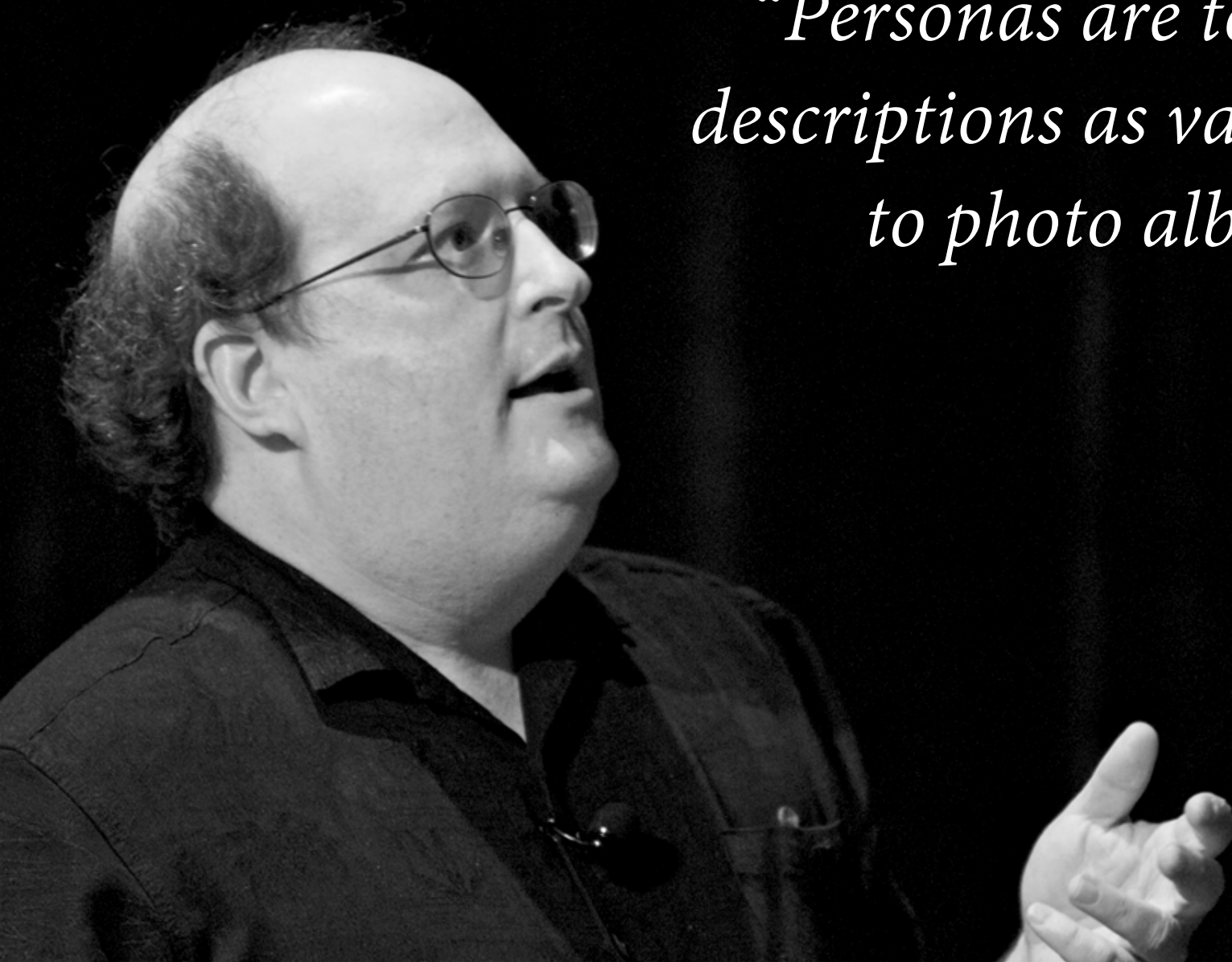
Lean Personas

- *Personas are an archetype of your actual, validated customers based on research.*
- *Personas are not a sheet of paper*
- *(Just) making up personas is useless*
- *BUT – creating persona hypotheses gets the ball moving... to do research*

Lean Personas

*“Personas are to persona
descriptions as vacations are
to photo albums”*

- Jared Spool



Your person requires....

1. *Factual information*
2. *Behavior*
3. *Pain*
4. *Goals*

You can document this on the persona board as well as

Photos, video, audio, journals.... Document everything

Persona Board

Project Name:

Team Leader Name:

Facts

Factual information about your target customer.



Pain Points

State the problem you believe your target customers have, that your solution solves for.

Behavior

Existing behavior they exhibit now, because they don't have your solution.

Goals

What goals are they trying to accomplish through the behavior, that your solution will do better?

Homework

- *Every team **must talk** to at least 10 human beings.*
- *You need **to validate** (or invalidate) your customer hypothesis*
- *You need **to gather evidence** (through interviews or surveys) that validates (or invalidates) your problem hypothesis.*
- *Every team must present a finished “Persona Board” next week.*

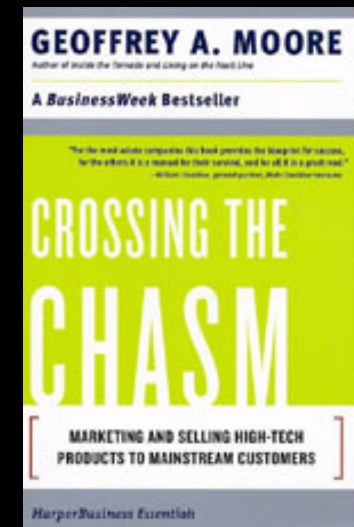
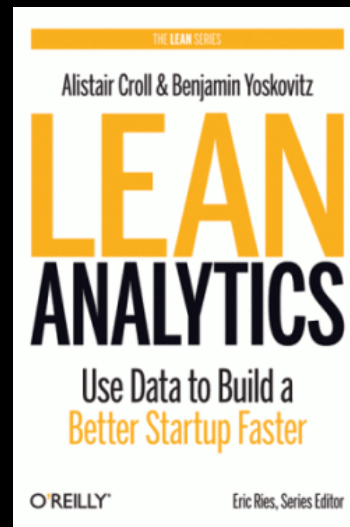
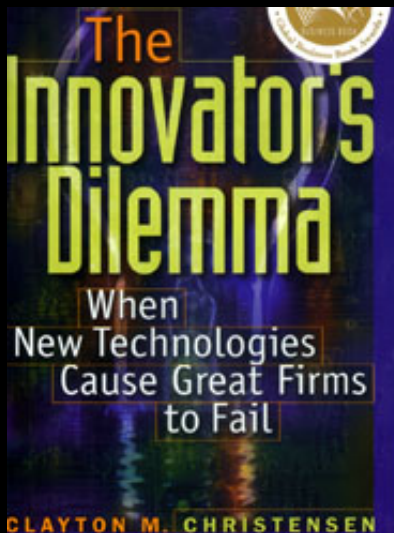
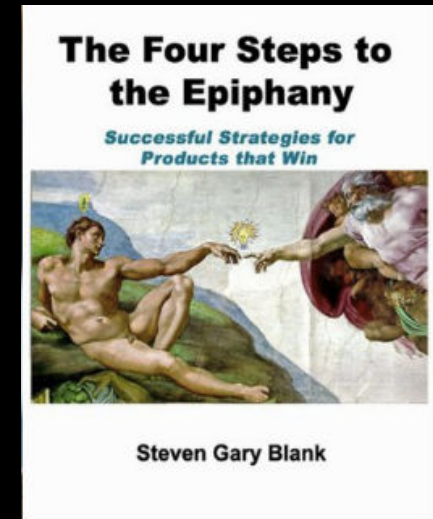
Next Week!



Guest Speaker: *Jabe Bloom*

- *Sensemaking Framework*
- *Abductive Thinking*
- *Collaborative Ideation*
- *Optionality*
- *Multi-hypothesis testing*

Reading Recommendations



THANKS!

WILL EVANS

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