

DESIGN THINKING + RAPID PROTOTYPING

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HELLO!



RJ OWEN

Director of User
Experience



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User Experience
Designer

WHO ARE YOU?

PLEASE SHARE:

- Your name
- Your job title
- Your favorite travel accessory
- *Example: “I can’t live without my noise canceling headphones.”*

We are Universal Mind

14 + Years of Experience

150+ Employees

75% Return Customer Base

In a world of expanding technologies and expectations, we built a company that provides the ability to not only design, but to execute.

We are independently owned, allowing us to attract the top people who fuel a flexible process designed to produce the highest quality results regardless of project size.

 **17th Annual Webby Awards Winner**
Best Experiment and Innovation

 **16th Annual Webby Awards for Music**
Official Honoree

 **4 Of Our Own Apps Launched**
Including Spatial Key

Our Services



Experience
Design



Experience
Strategy



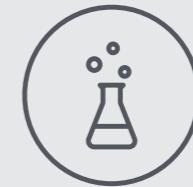
Technology



Delivery



Agile Services



Lab

LET'S GET STARTED

TODAY'S SCENARIO

- You work for a major commercial airline.
- Your customer: executives traveling internationally.
- Your assignment: design the ideal plane seat.

Activity: Design.

Time: 5 minutes.

SKETCH YOUR IDEA. 5 MINUTES.



LET'S GET STARTED

HOW DID THAT FEEL?

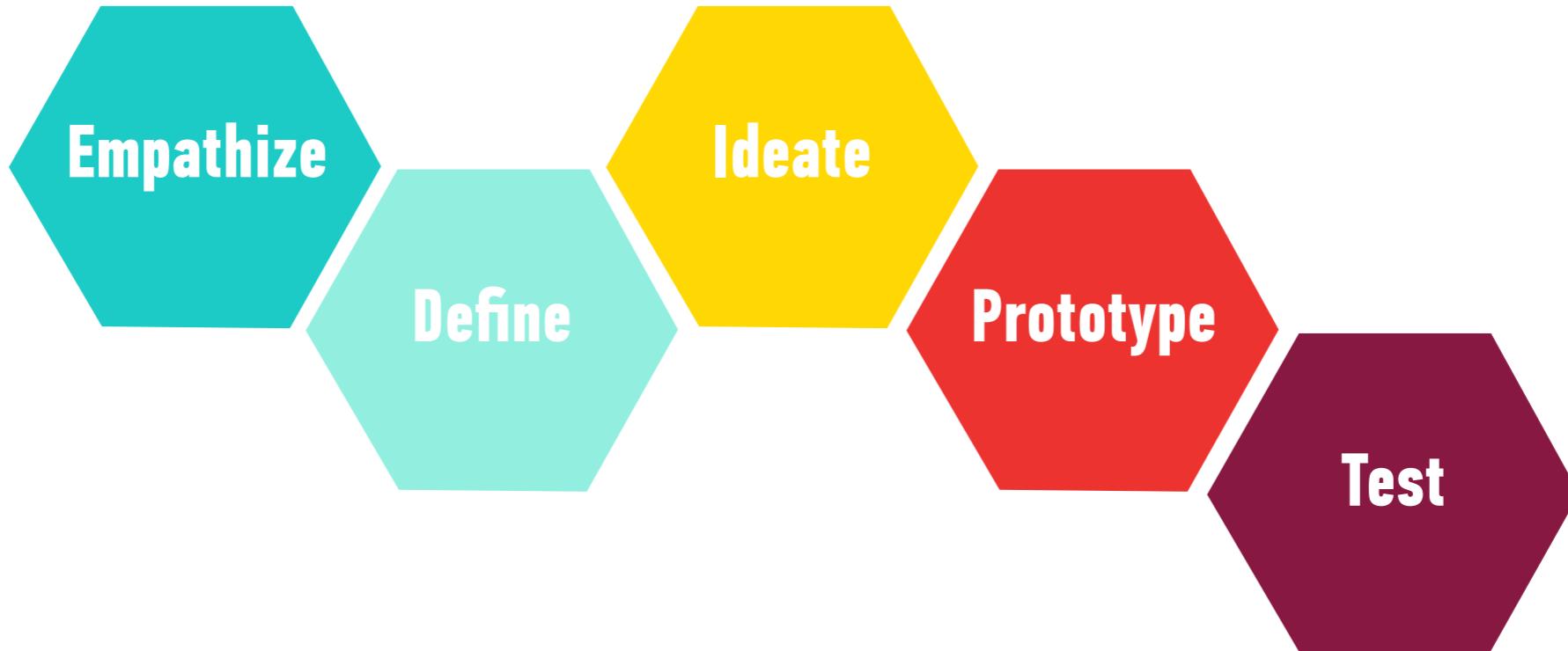


WHY DOESN'T THIS WORK WELL?

PROBLEMS WITH “EXPERT DESIGN”

- Taking a given problem and using your opinions and your experience.
- Are there better problems to solve?
- Are there better solutions to the problem?

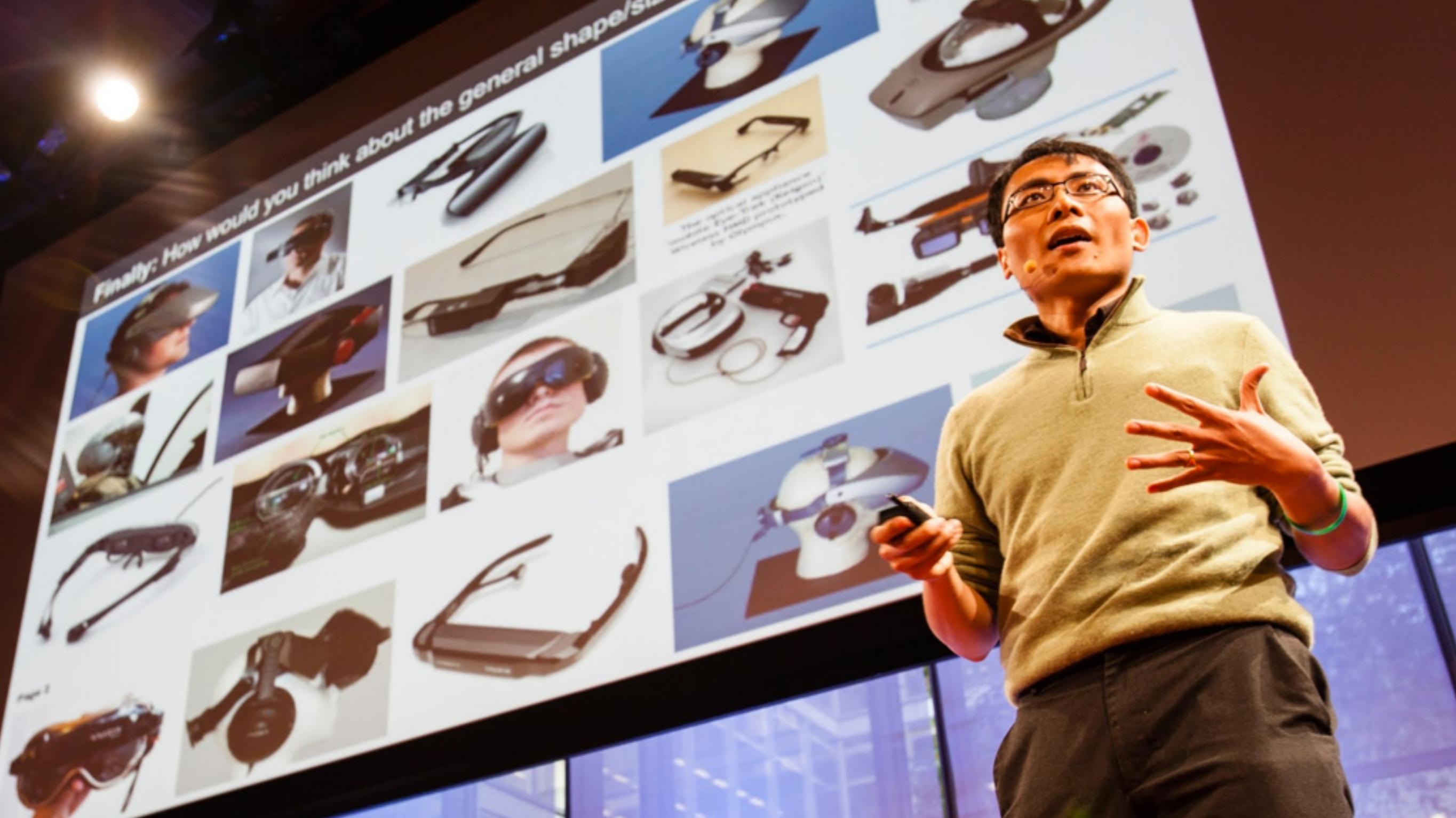
DESIGN THINKING



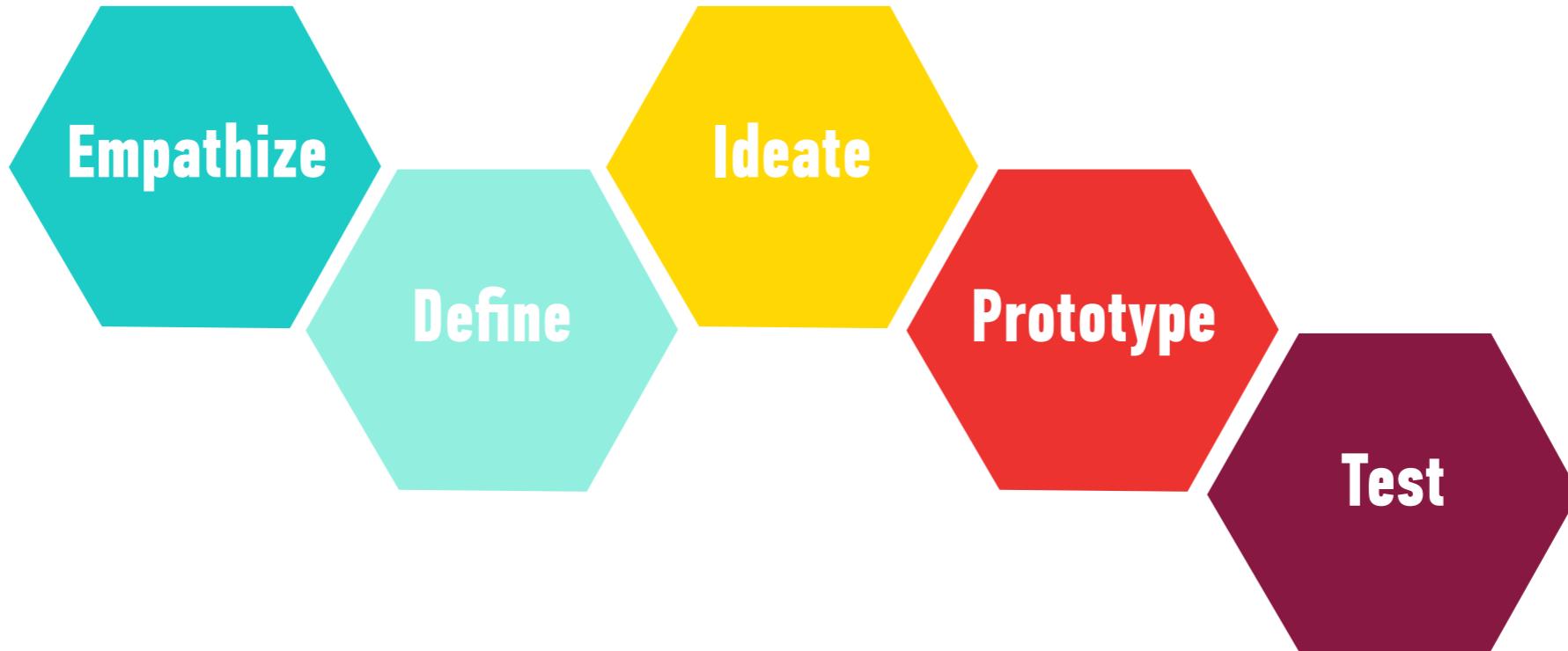
DESIGN THINKING

- Empathize: understand real people to design for.
- Define: choose a real problem to solve.
- Ideate: generate many potential solutions.
- Prototype: bring a single solution to life.
- Test: get immediate feedback on your solution.

Finally: How would you think about the general shape/size?



DESIGN THINKING



DESIGN THINKING

GROUND RULES

- You only get out what you put in.
- Creativity is not about genius; it's about resilience and iteration.
- In general, whoever tries the most wins.

START WITH PEOPLE

EMPATHIZE

EMPATHIZE: REORIENT AROUND PEOPLE

TODAY'S PROBLEM: REDESIGN THE INTERNATIONAL AIR TRAVEL EXPERIENCE

- Rather than assuming the seat is the best place to focus, let's back up and consider the experience from someone else's perspective.
- Now imagine that you still work for that major airline, but instead of assuming the seat is the problem and relying on your own intuition, we'll start with people and find problems to solve.

EMPATHIZE

RESEARCH METHOD: INTERVIEWS

- To quickly get out of our own perspective, we'll conduct short interviews with partners.
- The goal: get beyond your perspective and consider the experience from another angle.
- The prompt: “Tell me about your experience traveling to Denver.”
- Take notes on the specific activities, motivations, and pain-points that your partner mentions.

Activity: partner interviews.

Time: 4 minutes each; 8 minutes total.

INTERVIEWS. 4 MINUTES EACH.

List major activities, behaviors, and pain-points in your partner's experience.

EMPATHIZE

DIG DEEPER

- Now that both partners have had a chance to speak, conduct a second interview to “go deeper.”
- Ask why.
- Go for “story” - get your partner to tell you a story with feeling and emotion.
- The goal is to find out what’s really important to your partner - the underlying motivation that drives their behavior.
- Examples: Why does he get to the airport so early? Why does he keep his travel papers so organized? Why doesn’t he drive himself? Etc.

Activity: partner interviews.

Time: 3 minutes each; 6 minutes total.

DIG DEEPER. 3 MINUTES EACH.

Ask “why.” Go for story. Understand your partner’s underlying motivations.

EMPATHY IN PRACTICE

- In our field, UX Designers use a number of research techniques to build empathy and uncover the “right problem” to solve including:
 - Contextual inquiry & observation
 - Guerilla interviews
 - Diary studies
 - Buddy groups (modified focus groups)
 - Informance & role playing



REFRAME THE PROBLEM AROUND PEOPLE

DEFINE

DEFINE: REORIENT AROUND PEOPLE

POINT-OF-VIEW STATEMENTS

- Now that you've got a good grasp of your partner's experience, take a stand on what they need to make it better.
- We're going to generate point of view statements that take the following form:
 - My partner <partner's name>
 - Needs <partner's need>
 - Because <surprising insight, motivation, or deep desire>
 - Example: "Beth needs a way to sleep better because jet lag leaves her feeling depressed and like she can't perform well for her employer. "
- Make this statement as emotional and motivational as possible.
- Generate as many as possible.

Activity: POV statements.

Time: 3 minutes.

GENERATE POINT-OF-VIEW STATEMENTS. 3 MINUTES.

As many as you can.

partner:

needs a way to:

because (or “but” or “surprisingly”):

DEFINE: REORIENT AROUND PEOPLE

REVIEW WITH YOUR PARTNER

- Now that you have a number of POV statements, review them with your partner to make sure they agree with your assessment of their experience.

Activity: Review with your partner.

Time: 3 minutes each, 6 minutes total.



Persona Design Example



Sarah Kohler

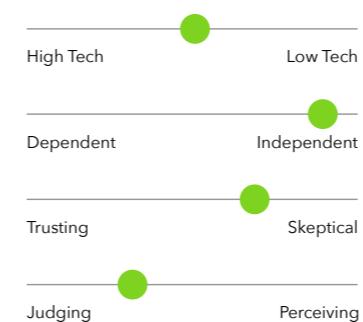
Age: 28
Air National Guard
Mother

Sue is a 25 year old, National Guard Supply Sergeant who is returning from a 4-month, overseas deployment. Sue and her husband Bob have 2 young boys ranging in ages from 2 years to 9 months old. Sue is a self-reliant individual who is organized and methodical in both her decision making and direction following capabilities. Sue is the primary caregiver in their family, typically making all arrangements for health-related concerns. Sue is unaccustomed to transitory military living, having spent the majority of her life with her extended family in the West Michigan area. She is resourceful but inexperienced in sourcing new medical care in new geographic areas.

Motivations:



Personality:



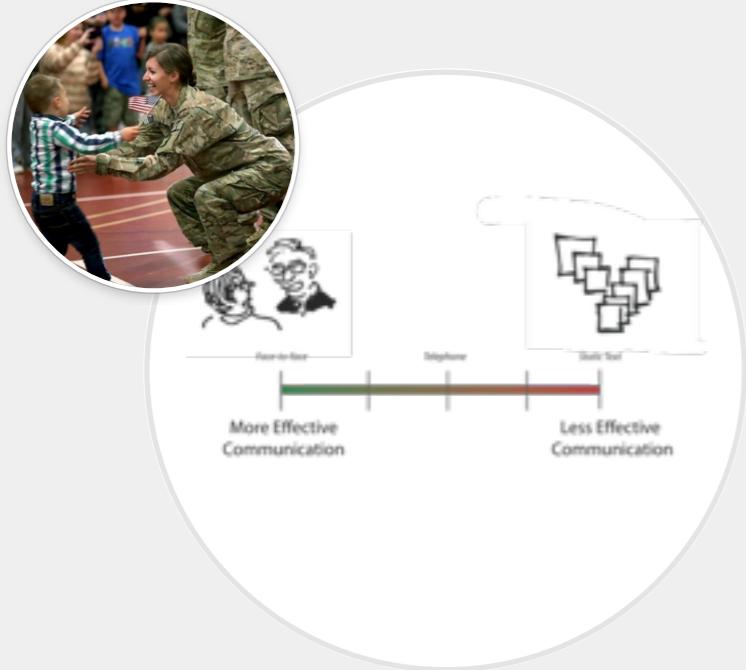
Goals:

- Being able to make clear decisions for her family

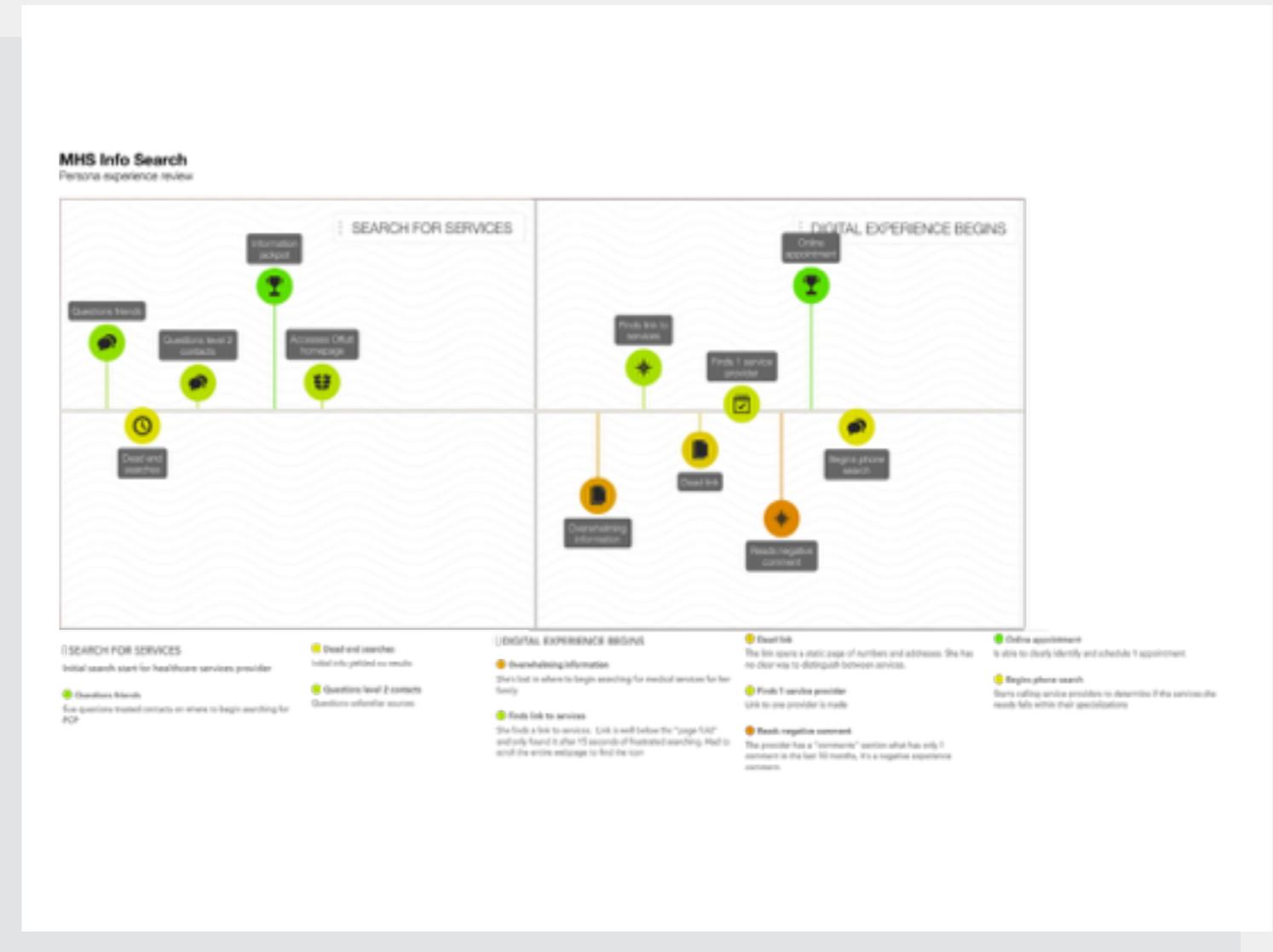
Frustrations:

- Moving often and not knowing what the healthcare options are

Journey Map: Applied Example



Sue Begins search with familiar contacts
 Later, moves to unfamiliar contacts
 She follows a suggested web path
 Overwhelmed with information
 Experiences dead-end links
 Finds one service provider online
 Schedules appointment
 Makes phone calls for balance of care



GENERATE ALTERNATIVES TO TEST

IDEATE

IDEATE: GENERATE IDEAS TO SKETCH

CHOOSE A POV AND SKETCH TO IDEATE

- Now that we've got a good set of POV statements, it's time to pick one to serve as the “problem statement” for the rest of the design challenge.
- Then we'll sketch AS MANY RADICAL IDEAS as possible on how to solve the problem.
- Go for volume!
- Radical means radical!
- Be visual - use words when necessary.
- Just enough detail to get your idea down.

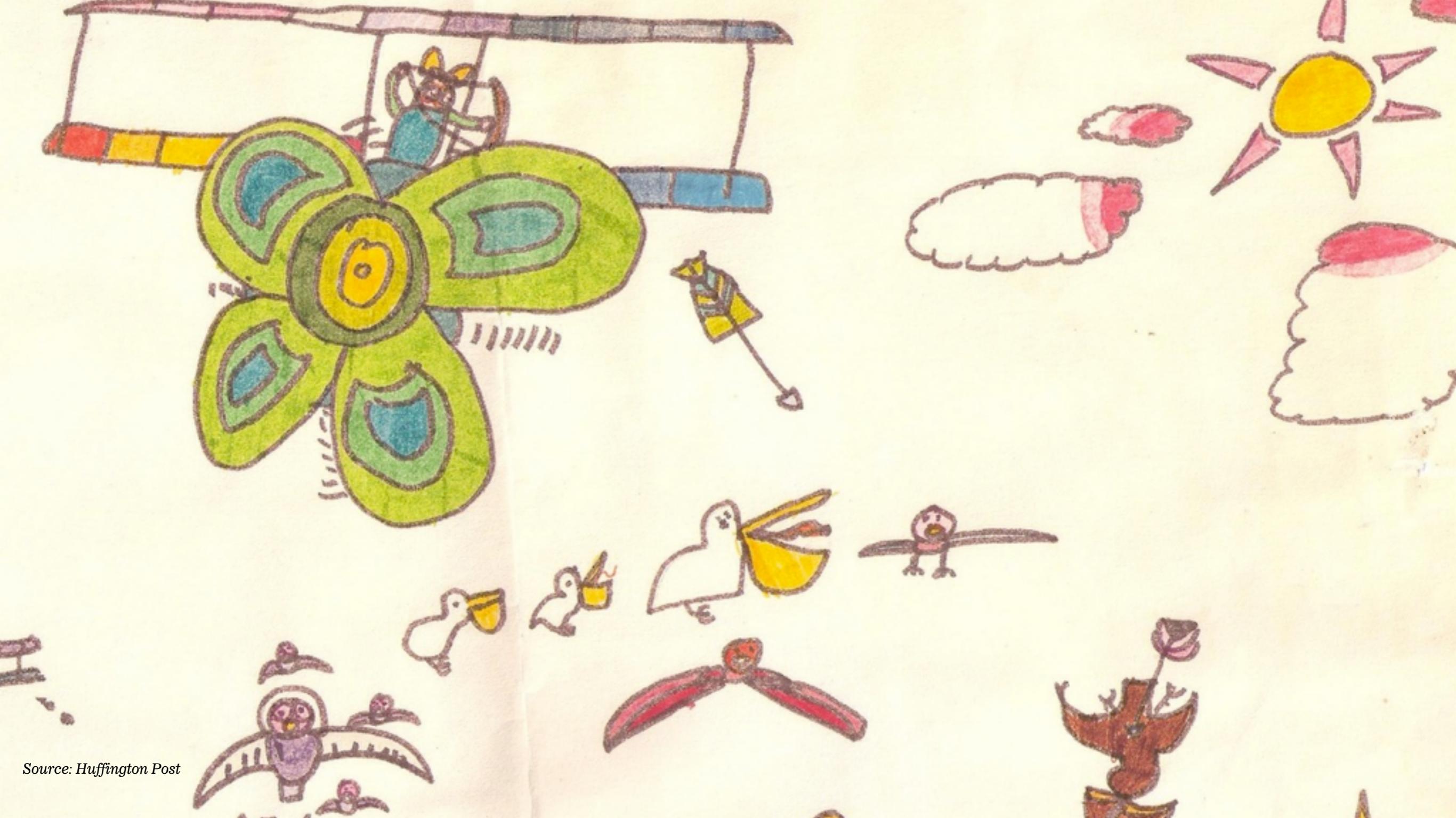
Activity: Sketch to ideate.

Time: 5 minutes.

SKETCHING

BUT I CAN'T DRAW!

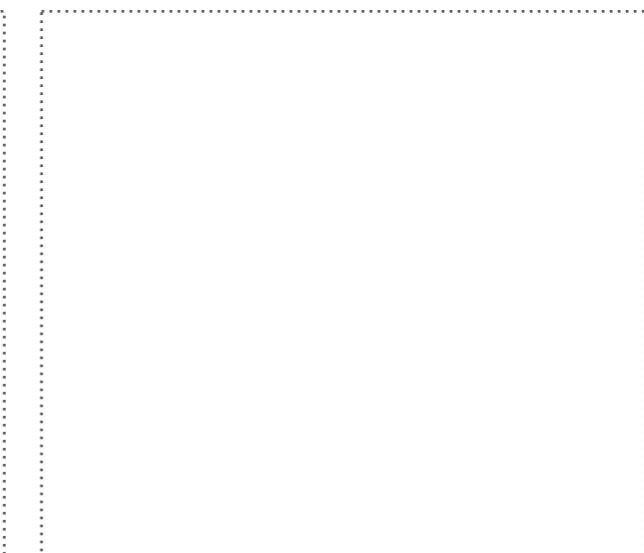
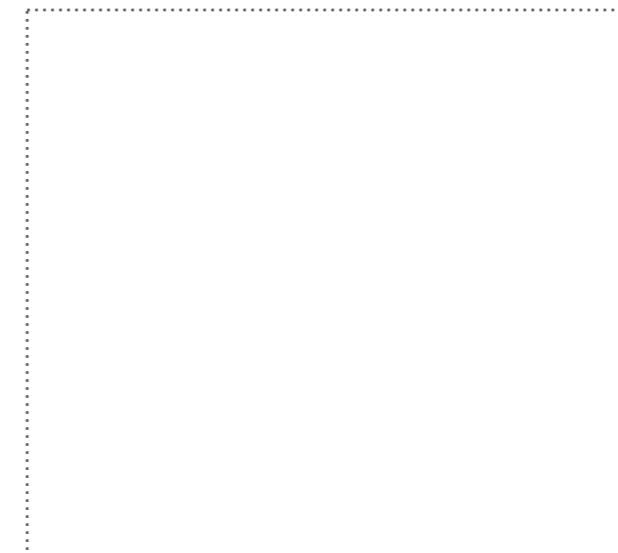




SKETCH AT LEAST FIVE RADICAL WAYS TO MEET YOUR PARTNER'S NEED. 5 MINUTES.

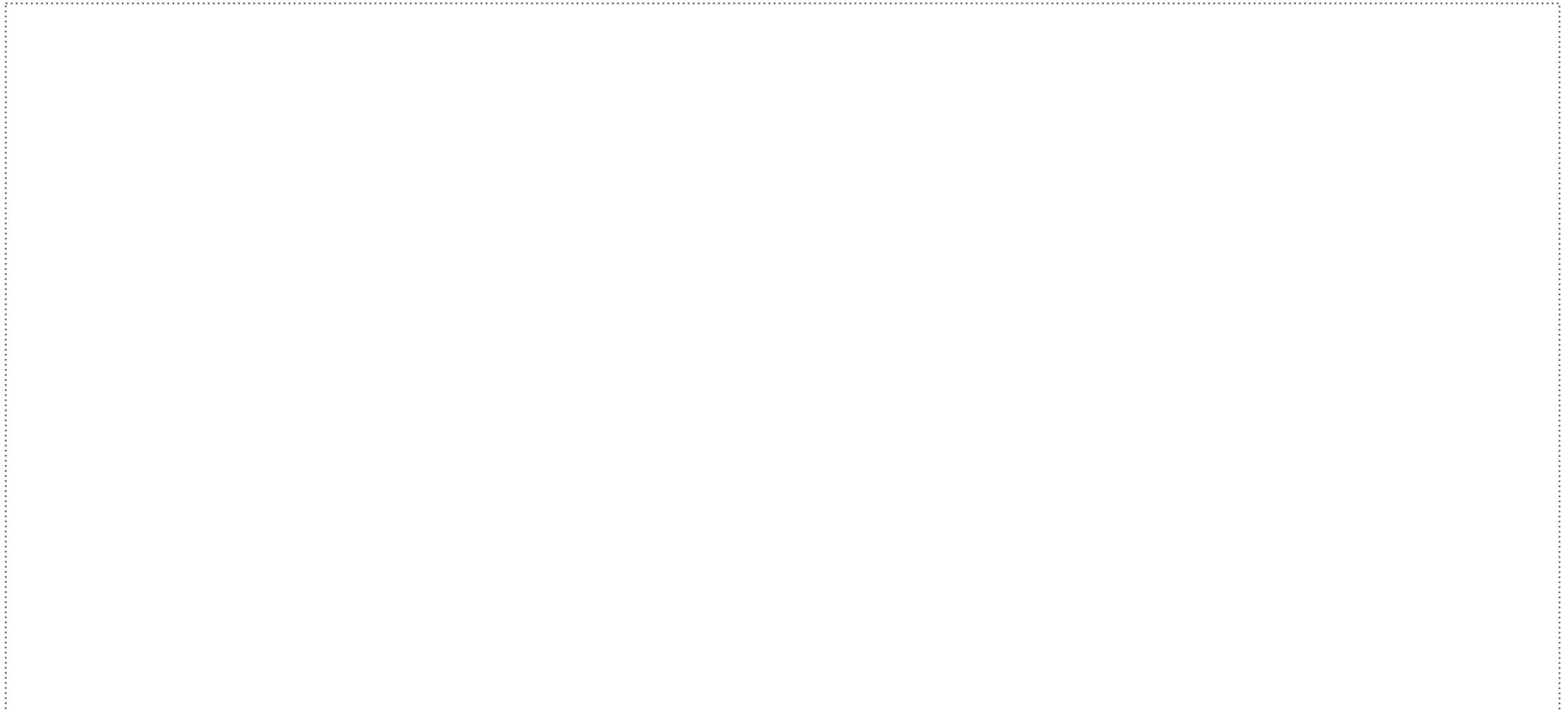
Your problem statement:

Radical solutions:



GET FEEDBACK. 3 MINUTES EACH.

Get feedback from your partner on your sketched out design ideas.





MAKE IT PHYSICAL

PROTOTYPE

PROTOTYPE: BUILD

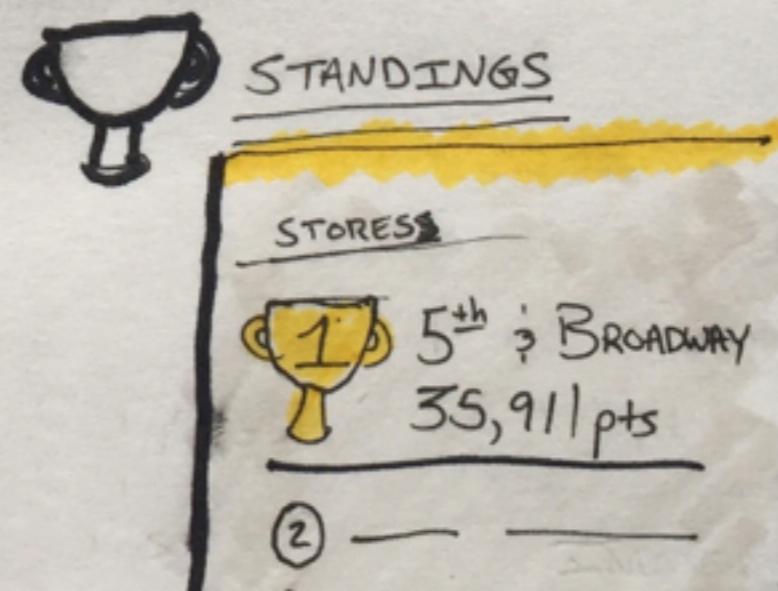
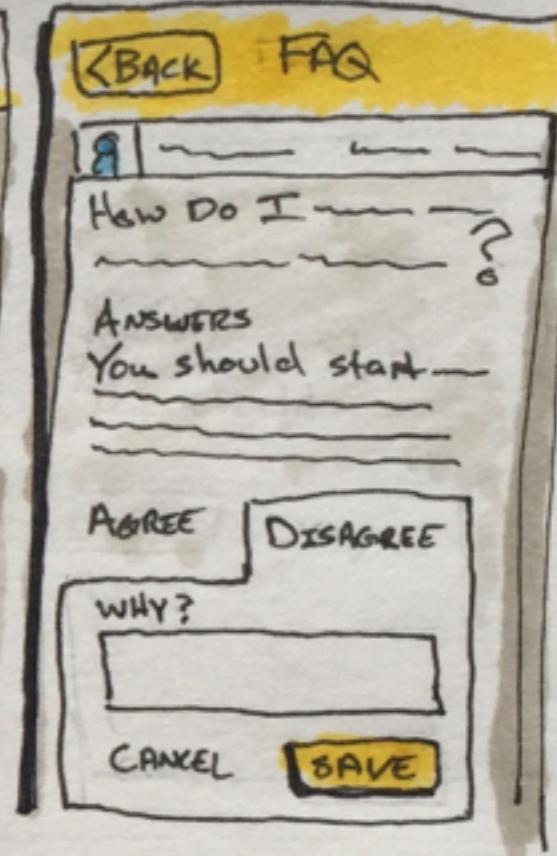
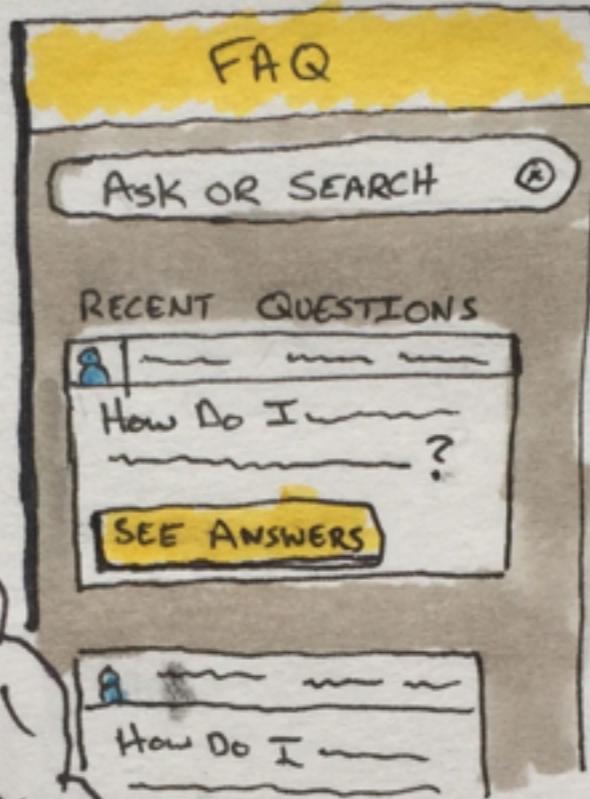
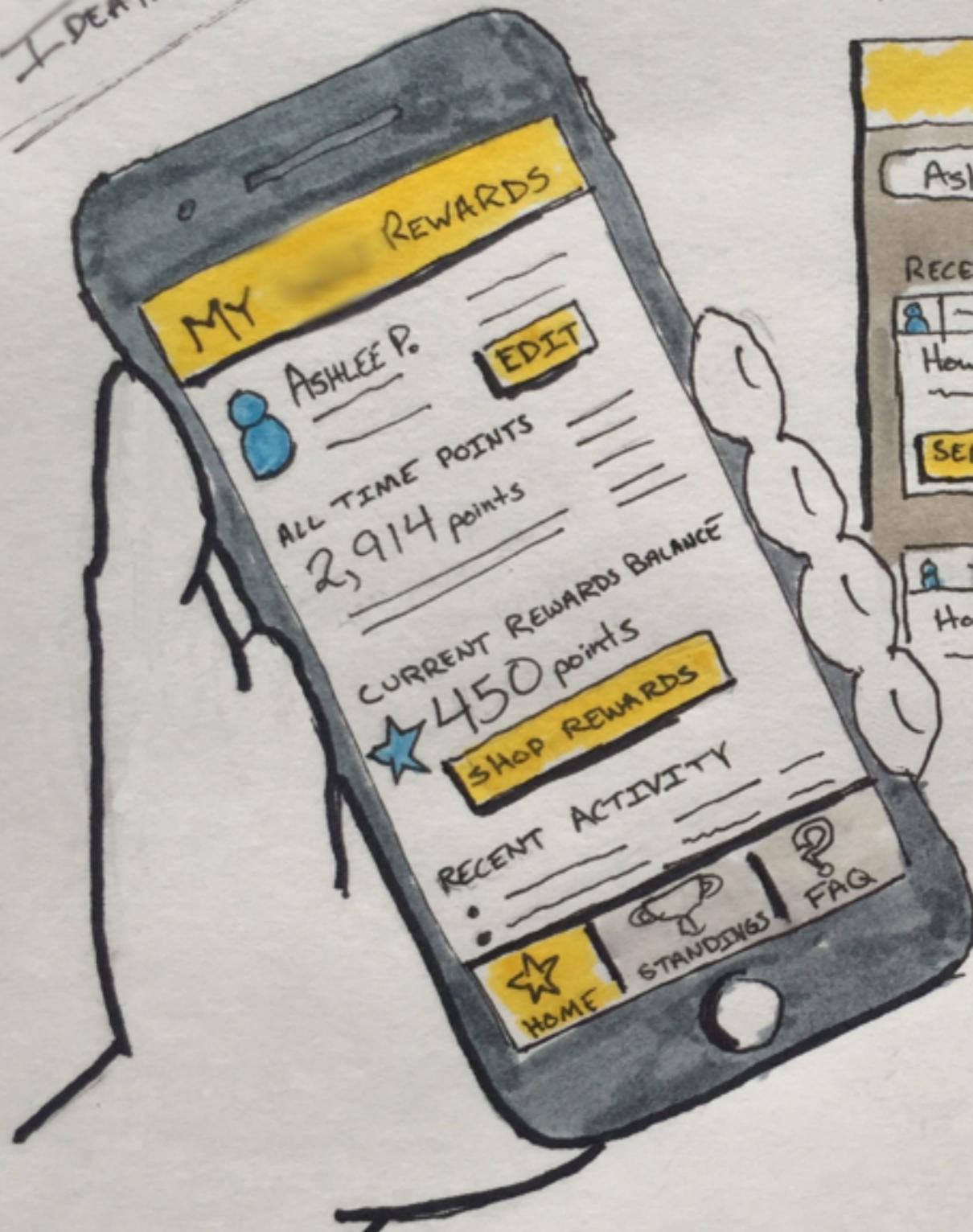
BUILD SOMETHING YOU CAN TEST

- You've gotten feedback on a number of ideas - now it's time to model it in the real world.
- Build a physical prototype
- -or- Build a representation of the service - tell the story of how your service works.
- The goal: create something with your hands that can be tested.
- “Doing is the best kind of thinking” - Tom Chi, Google

Activity: Prototype.

Time: 15 minutes.

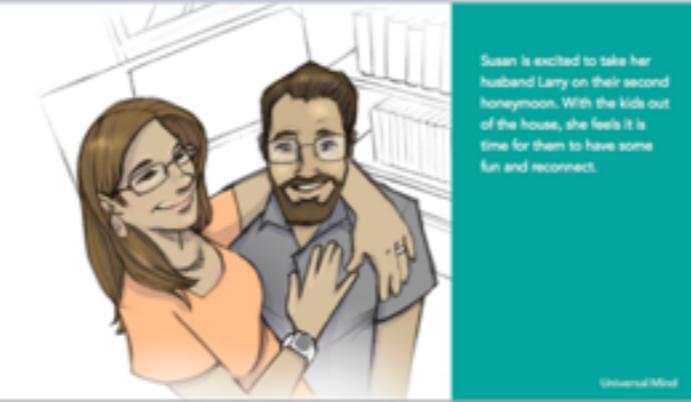
I-DEA



A Travel Story

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Susan is excited to take her husband Larry on their second honeymoon. With the kids out of the house, she feels it is time for them to have some fun and reconnect.

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Susan and Larry map the route directly to the long term parking spot, which they have reserved for their trip.

"Looks like security isn't too bad right now," Larry says as he checks the latest wait times for TSA.

After stopping, Susan sees that a reminder of the car's location has been saved for their return day.

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Larry places the baggage in one of the many self-service baggage portals. He checks the screen to see that it matches their final destination, and heads over to Susan.

"Glad to be rid of those!" he states with glee.

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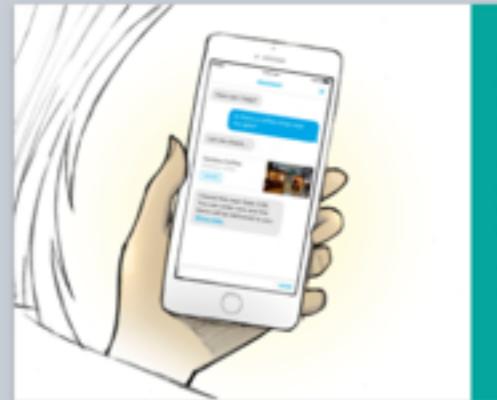
"We'd better get to security," Susan says. "You never know how long that will take!"

Susan holds her smartwatch close to a sensor post and their IDs and tickets and pre-cleared status show up for the TSA agent.

The agent asks a few questions and then waves them through, wishing them good luck on their trip.

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Susan realizes they have some time before their flight. She checks to see what is available.

"Hey Larry, there is a new coffee place that delivers to the gate. Do you want to try it?"

"Need caffeine," he playfully replies, zombie-like.

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"Coffee will meet us at the gate in 20 minutes," Susan exclaims. "We have more time than I thought!"

Larry goes to look for nearby things to do, when Susan receives a notification of a discount in a nearby bookstore.

"Oh, Larry, let's grab some books for the plane!"

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While browsing, Susan receives a notification boarding is in 30 minutes. She is immediately put at ease, knowing she still has enough time to get to the gate.

The turn-by-turn directions with estimated walking time from the bookstore are available with a quick swipe from the notification.

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Susan can't believe how smooth her experience from the car to the gate has been. Suddenly, she receives a notification their flight has been delayed.

Frustration eases when she receives a notification for a discount on their next gate food order and an explanation for the delay.

A few minutes later, a young man arrives with hot coffees. They relax and wait for the boarding notification.

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GET REAL FEEDBACK

TEST

TEST: GET REAL FEEDBACK

SHOW, NOT TELL.

- Share your idea with your partner. Let them play with it if possible.
- Get feedback and take notes:
 - What worked?
 - What could be improved?
 - What new questions do you have?
 - What new ideas could you act on?

Activity: Get feedback.

Time: 4 minutes each, 8 minutes total.

GET FEEDBACK. FOUR MINUTES EACH.

What's working?

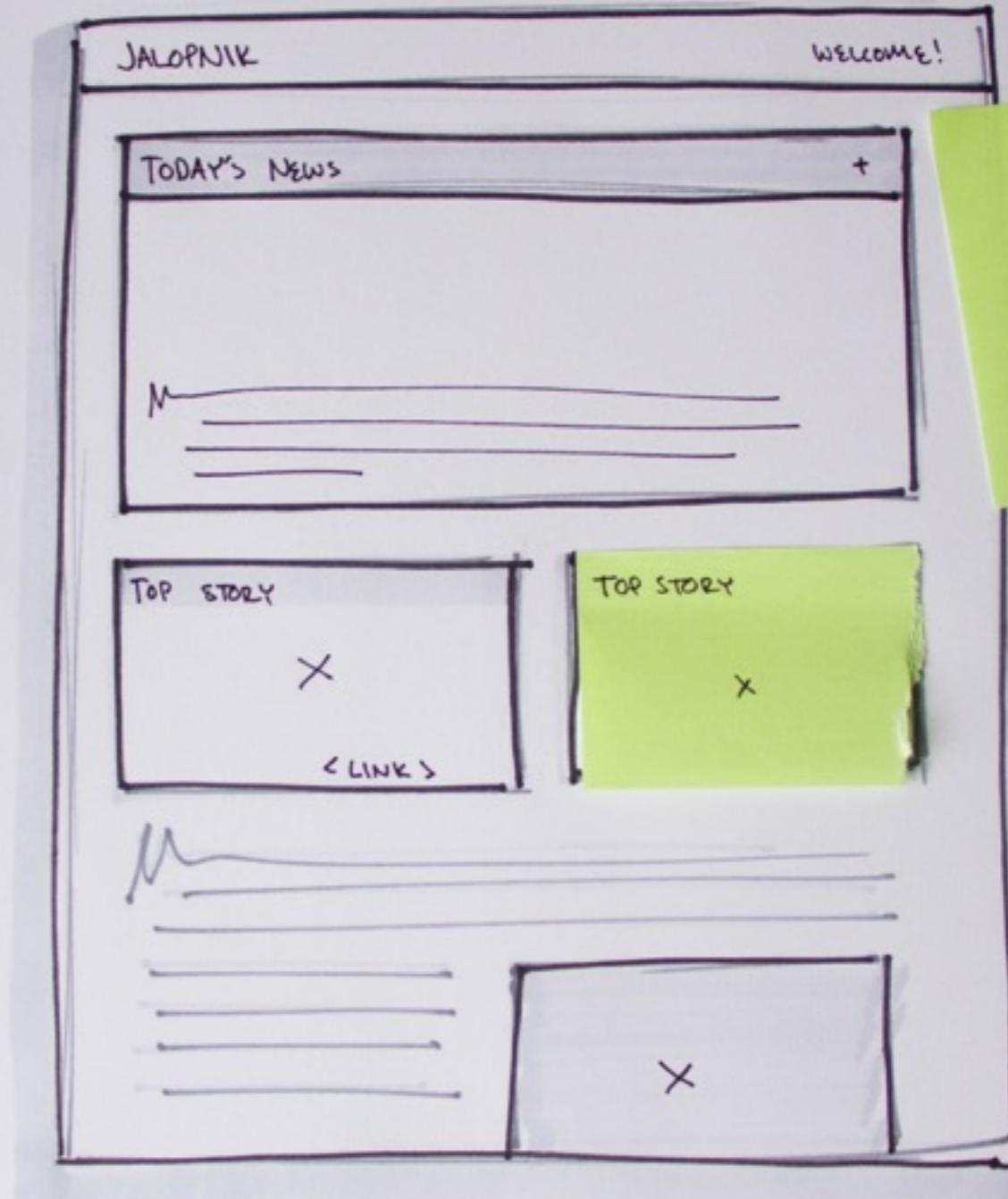
What could be improved?

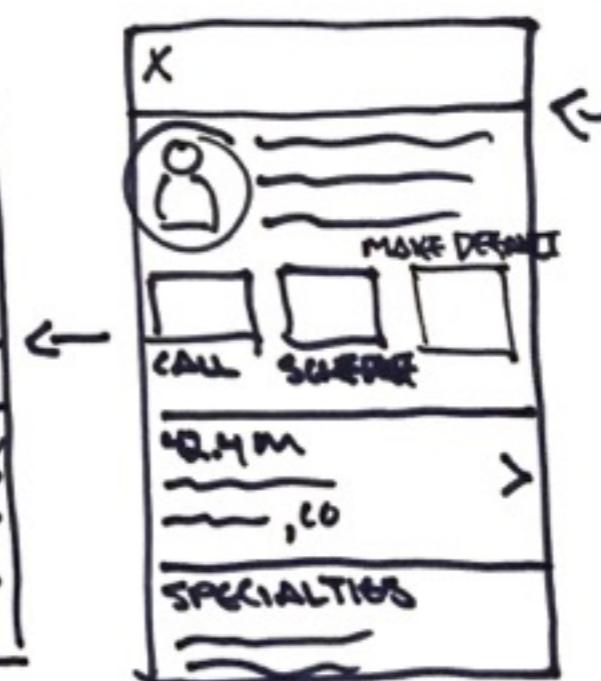
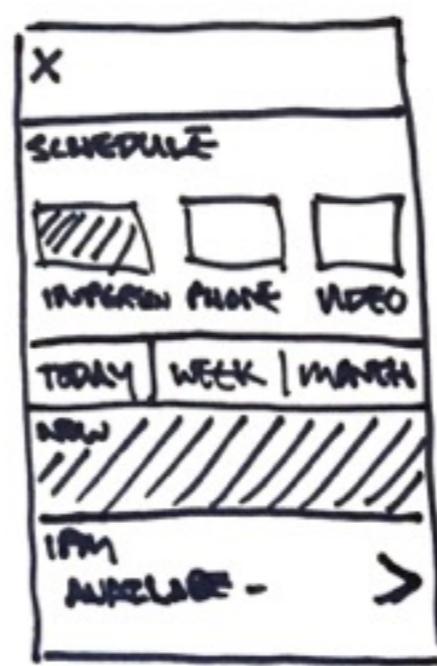
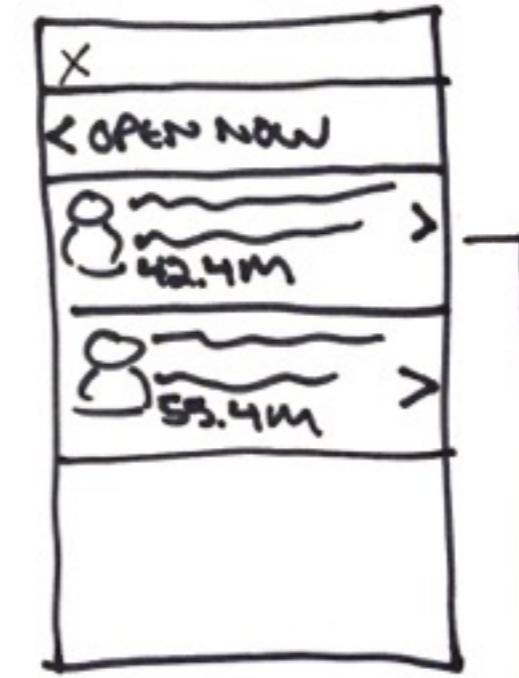
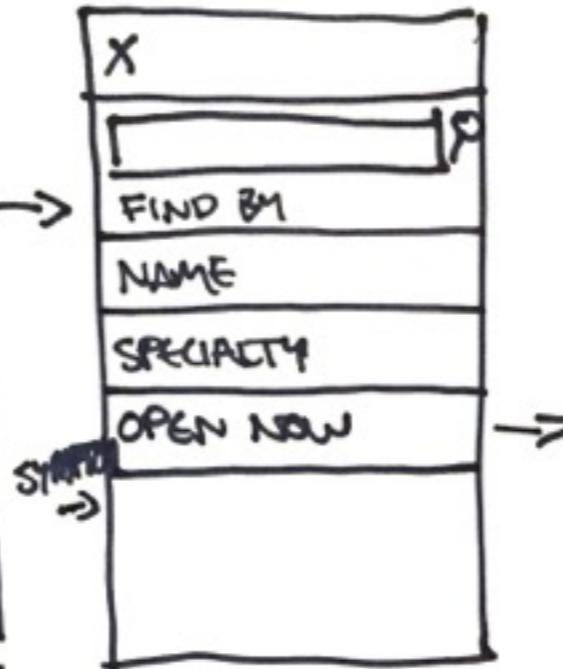
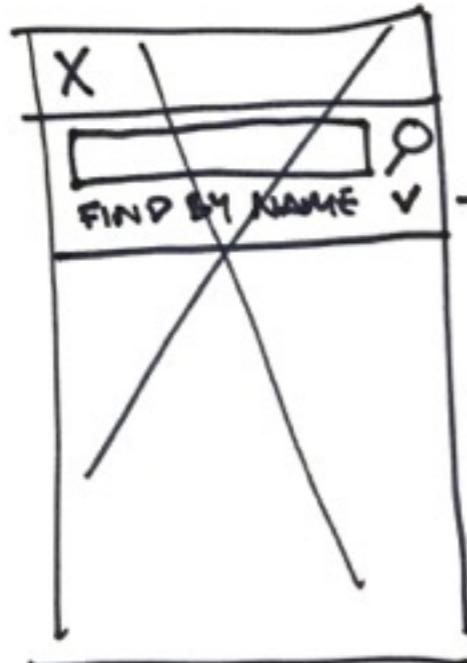
New questions:

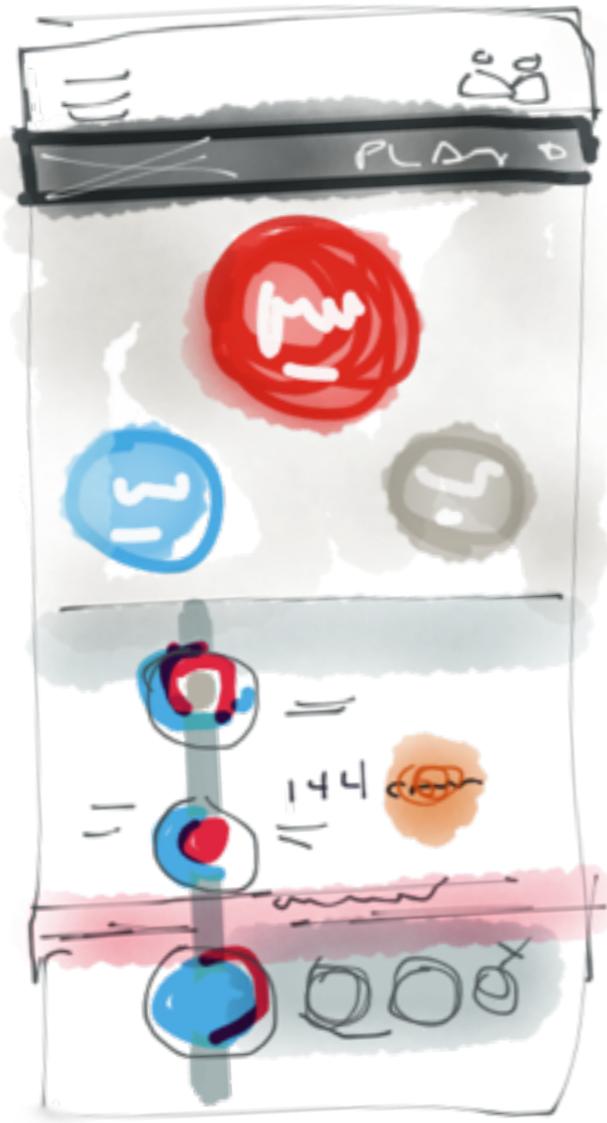
New ideas to explore:













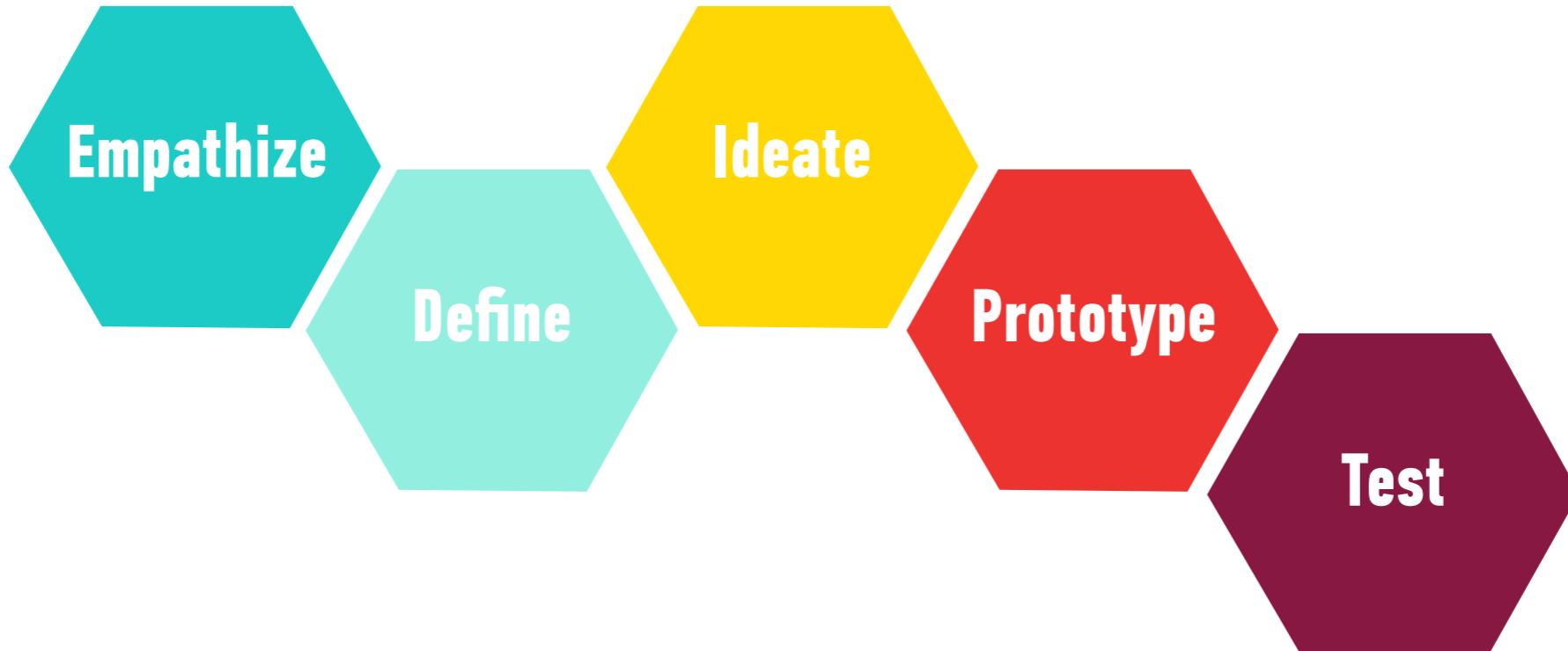
REFLECT ON WHAT WE'VE DONE TODAY

CONCLUSION

CONCLUSION

- Every stage of this is a form of rapid prototyping:
 - Prototyping who the customer is.
 - Prototyping the problem to solve.
 - Prototyping solutions to the problem.
- Prototyping inherently increases agility, optimizes costs, eliminates waste by doing the least amount of work required to get market feedback.
- The real skill is now knowing how much is the “least amount” and what real “market feedback” is required to move to the next step.

DESIGN THINKING





**2 - 6 weeks
Fixed cost**

hello@universalmind.com

BRAINSTORM WAYS TO IMPLEMENT DESIGN THINKING IN THE NEXT 2 MONTHS.

If I had a billion dollar budget I would...

Who else should be involved?

For very little budget I could....

What should I do to get started?

DESIGN THINKING + RAPID PROTOTYPING

Q&A

THANKS!

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