

AJ&Smart

Design Thinking

**An Approach To
Creative Problem Solving**

House Keeping

No Devices, please!

We will have a break, don't worry :)

Trust the process!

Learning Objectives

- Gain knowledge on the key concepts of Design Thinking
- Apply your learnings to re-frame any design challenge and innovate effectively in your work

Icebreaker

My First Job

1. Name
2. Your first job
3. What you learned

Creativity???

**We tend to equate
creative ability with
artistic ability.**

We believe **everyone**
can be creative.

For this, you need to foster
Creative Confidence.

Creative Confidence is the
ability to take on problems
that don't have a clear
answer.

**Creative Confidence is the
ability to show unfinished
work.**

Creative Confidence is the
ability to participate in
something you might not be
good at.

**Creative Confidence is the
willingness to try something
and fail.**

**Why does creativity require being
comfortable with uncertainty?**

**Because innovative ideas are by
their very nature not yet or not
fully defined.**

**So, much more important
than your ability to draw is
your willingness to try
new things!**

Time to try
something new!

**Take 45 seconds and draw a
portrait of your neighbour!**

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portrait of your neighbour!**

**All you need for this is circles,
dots, lines.**

what is Design Thinking?

**“Design Thinking is a
human-centered, collaborative
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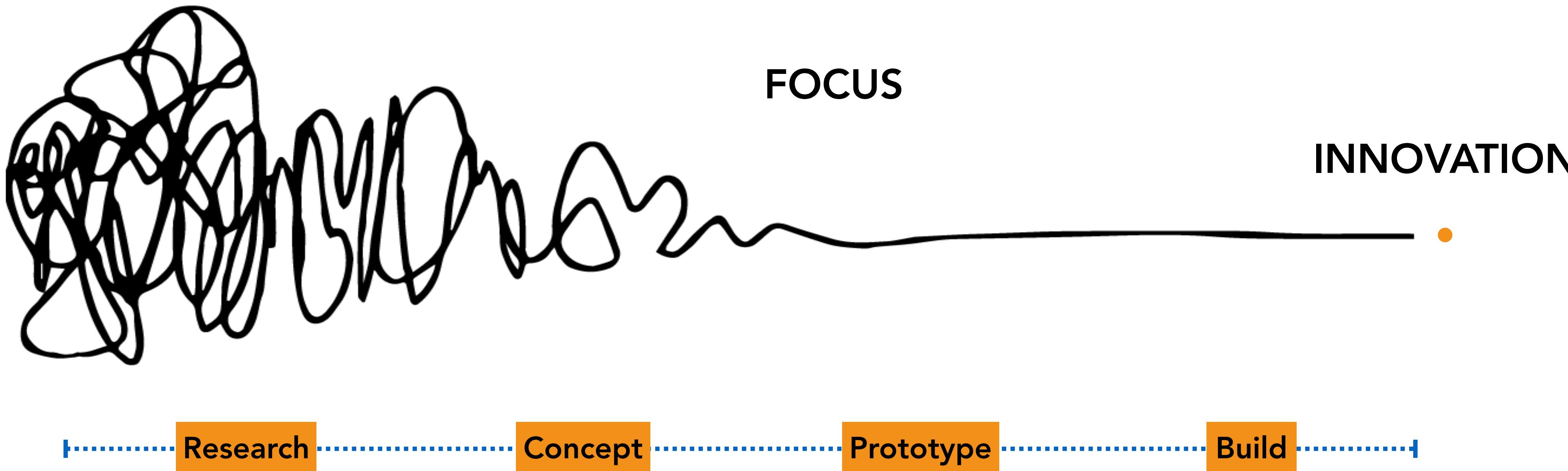
?????????

**Design Thinking starts with
thinking about people. What
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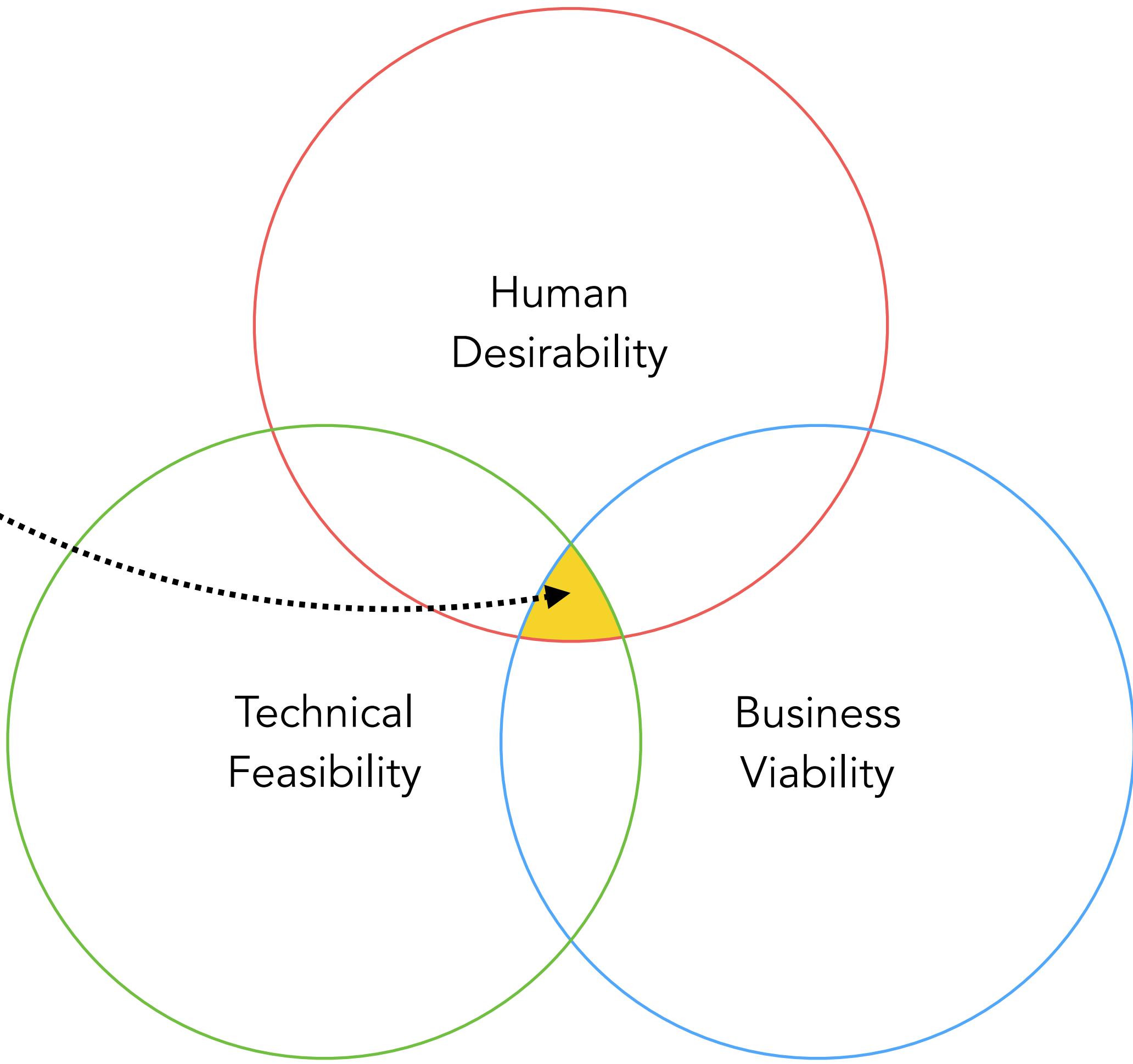
**It's about exploring possibilities and
then narrowing them down.**

UNCERTAINTY



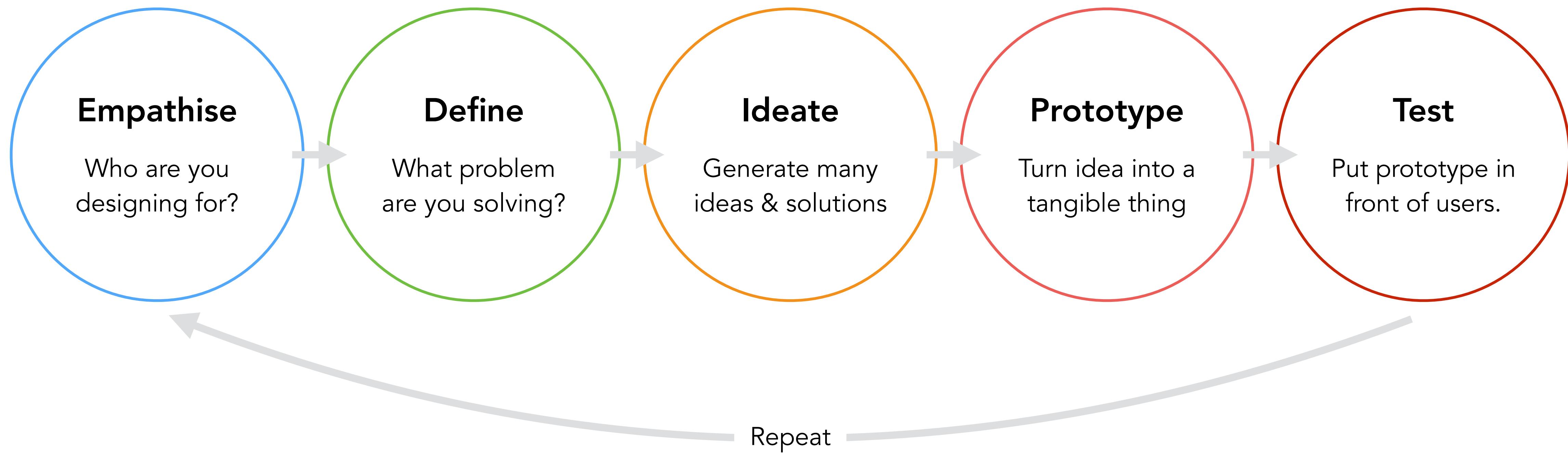
It's about hitting the sweet spot

Where innovation
happens!



The Design Thinking Process

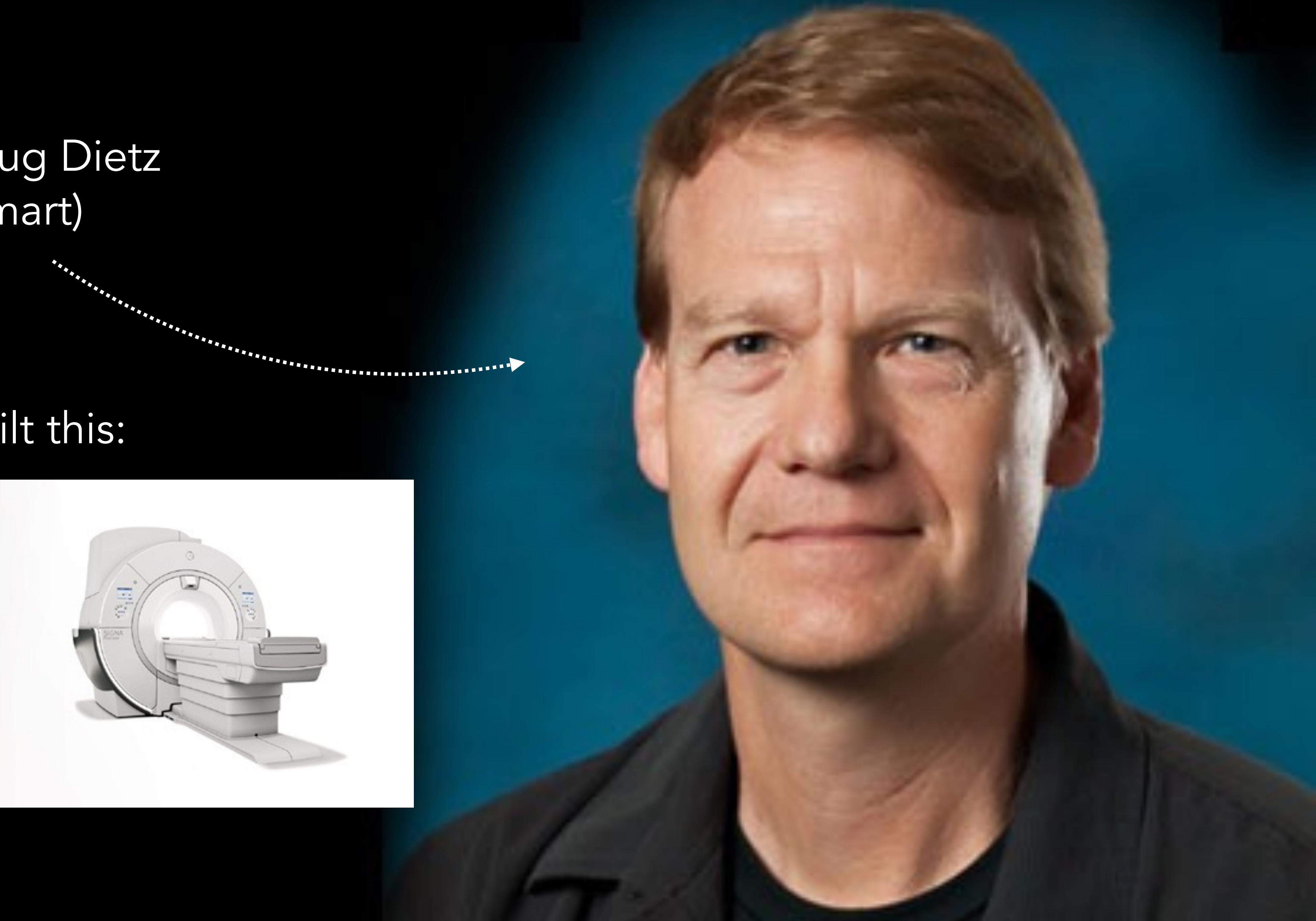
The 5 Stages of the Design Thinking Process



Why use
Design Thinking?

This guy, Doug Dietz
(super smart)

Built this:



Doug Dietz worked at G.E. on a new MRI scanner with great new technology - best in class, in fact. Sharper images, better diagnostics, faster results.

A real life-saver!

But for it to work, patients need to lie perfectly still.

The problem:

**Children were terrified of the MRI
and needed sedation to use it.
This made the process slower,
more expensive and risky, while
giving them a terrible experience.**

**Thousands of MRIs had already
been built
and installed at hospitals.**

What now?

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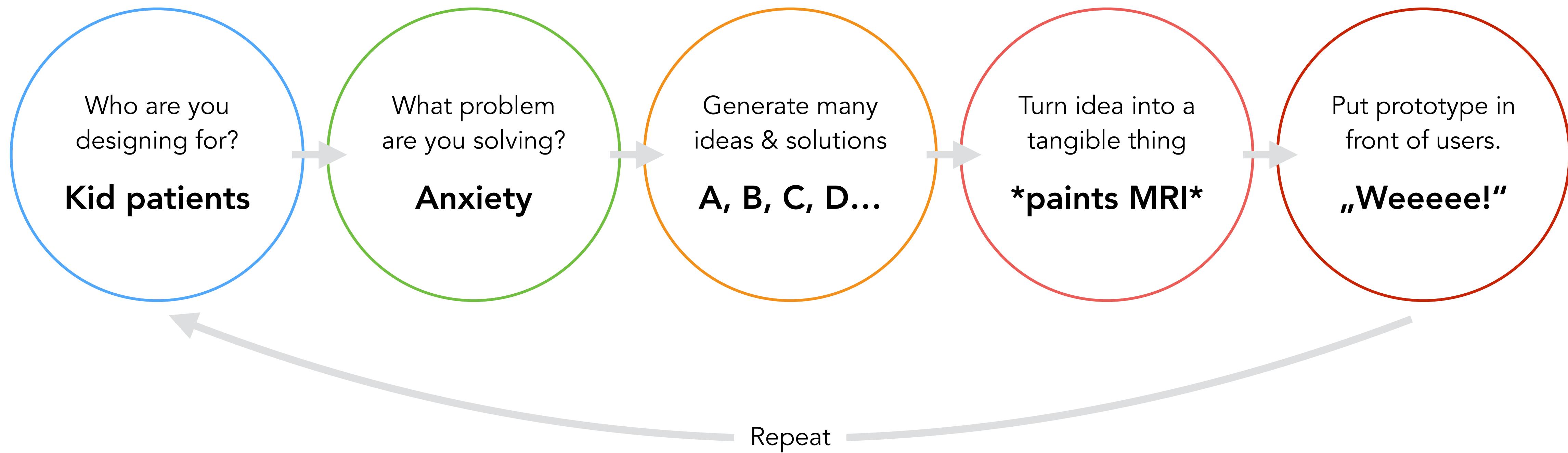
But for it to work, patients need to lie perfectly still.



Doug's solution was viable, because it didn't impact production and logistics of the MRI, and saved the hospitals resources.

It was feasible, because it didn't have to change the way the MRI worked. And it was desirable, because it turned a scary machine into an adventure for kids.

This is Design Thinking in action!



**Now for another example of
Design Thinking in action...**

The Embrace Warmer



The Embrace Warmer keeps preterm babies warm at the fraction of the cost of a normal warmer. \$300 vs \$20K. And it doesn't need electricity!

The team working on the problem could have shaved off a couple of thousand dollars by reducing the parts or buying second-hand incubators, but after travelling around india for a month they realised that it wouldn't be close to enough and came up with something completely new and innovative.

Step 1: Empathise

When you feel what the other person is feeling and can mirror their expression, opinions and their hopes.

Why?

To discover people's explicit and implicit needs so that you can meet them through your design solutions.

Who are we designing for?

People are diverse. One thing commonplace in Europe is a completely foreign and weird concept in Asia. It's important to go out and talk to people, listen and learn from them.



Step 1: Empathise

The User Persona

Name: Cathy

Age: 67

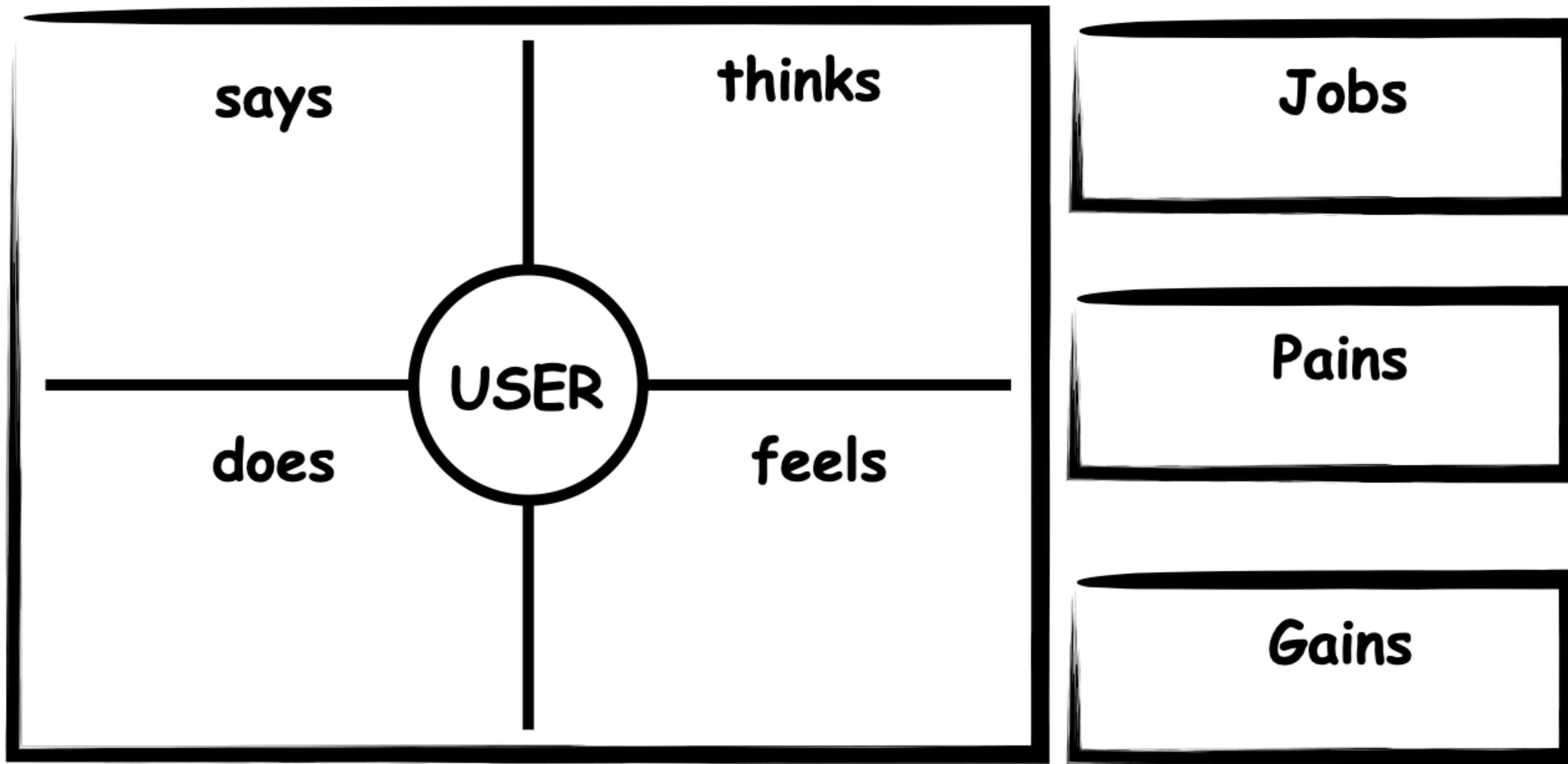
Pains: Has Arthritis in hands

Hobbies: Knitting, cooking

Needs: Ways to get through day without pain

Step 1: Empathise

Empathy Map



Empathise with your user so you can make better decisions.

1. Write the goal of the user in the middle. 'Cathy needs an easy-to-use tool to help her with some delicate tasks'.
2. Spend 10 minutes writing your assumptions on sticky notes for each section.
3. Stick them up and talk through these assumptions with your team.

Step 2: Define

Defining the problem using a unique, concise reframing of the problem that is grounded in the user needs and insights.

Why?

To expose new opportunities by looking at things differently; guide innovation efforts; make sure we've identified something worth working on.

Step 2: Define

Point of View Statement

You draw insights from the empathy map about what the user needs.

For the purpose of this workshop, I want to give you the point of view statement.

POV: User needs an easy to use tool to help with some delicate tasks. In particular, the user is looking for something that will help her pick up pins which she can then use to pin documents.

Step 2: Define

How Might We

Transform a problem or in this case, point of view statement, into a solvable question.

How Might We create a tool that will help Cathy complete delicate tasks (like pinning documents to a board) in a pain free way?

Step 2: Define

Voting

Now, you'd **vote on the solutions
you want to work on.**

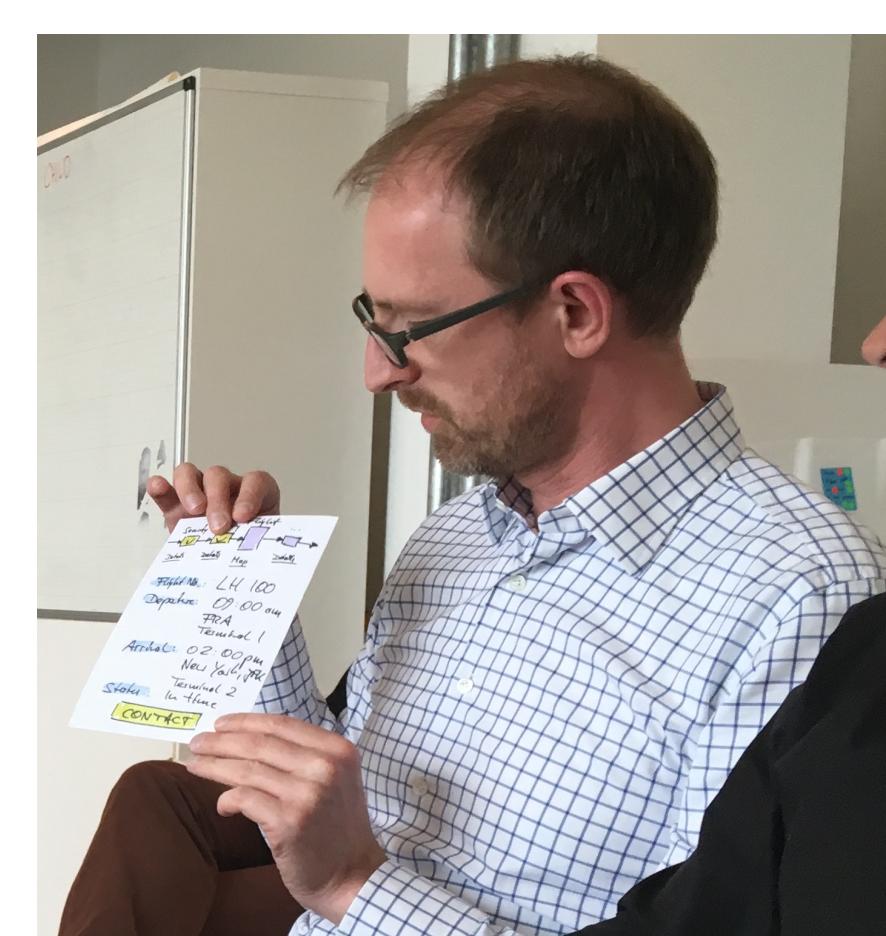
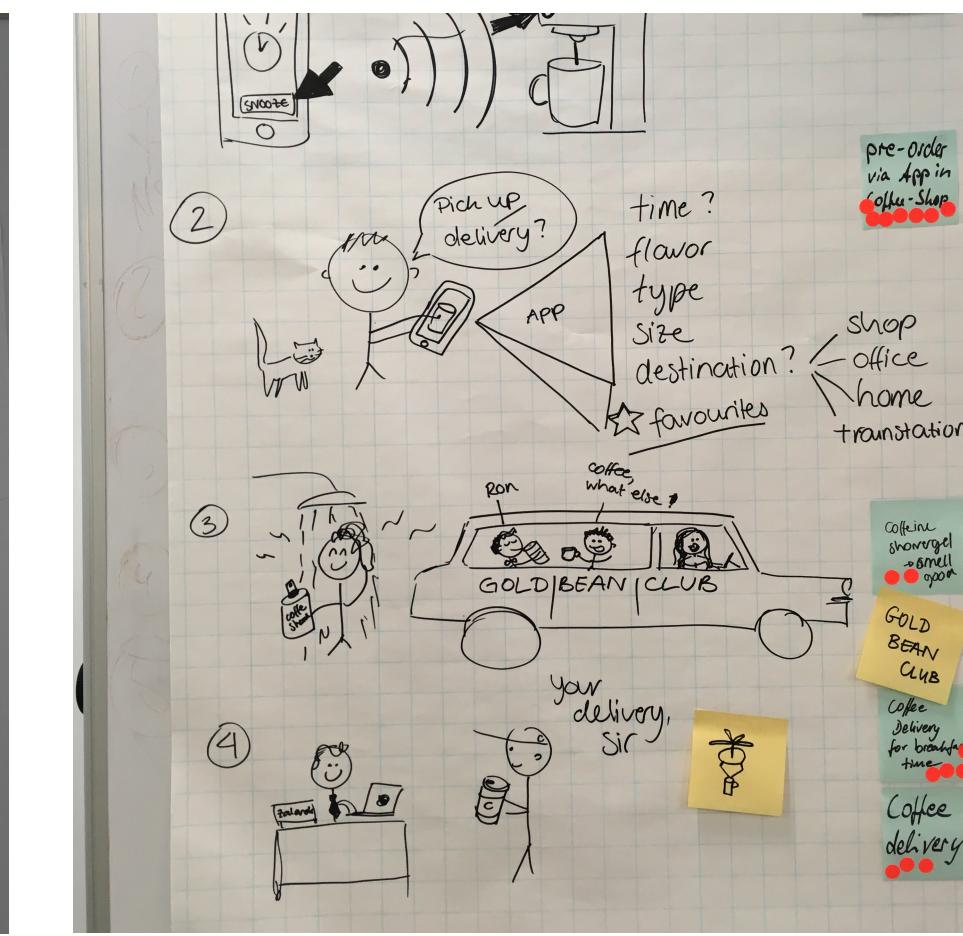
(We're skipping this for the
purpose of today's workshop)

Step 3: Ideate

Based on the knowledge gathered, we come up with a large quantity of ideas.

Not worrying about perfection from the start.

We want to try 100s of cheap experiments in a week, not 1 expensive bet in a month.



**Generate many possible solutions
to a problem!**

**Why? To generate maximum innovation
potential in a short amount of time;
incorporate different perspectives, build
excitement.**

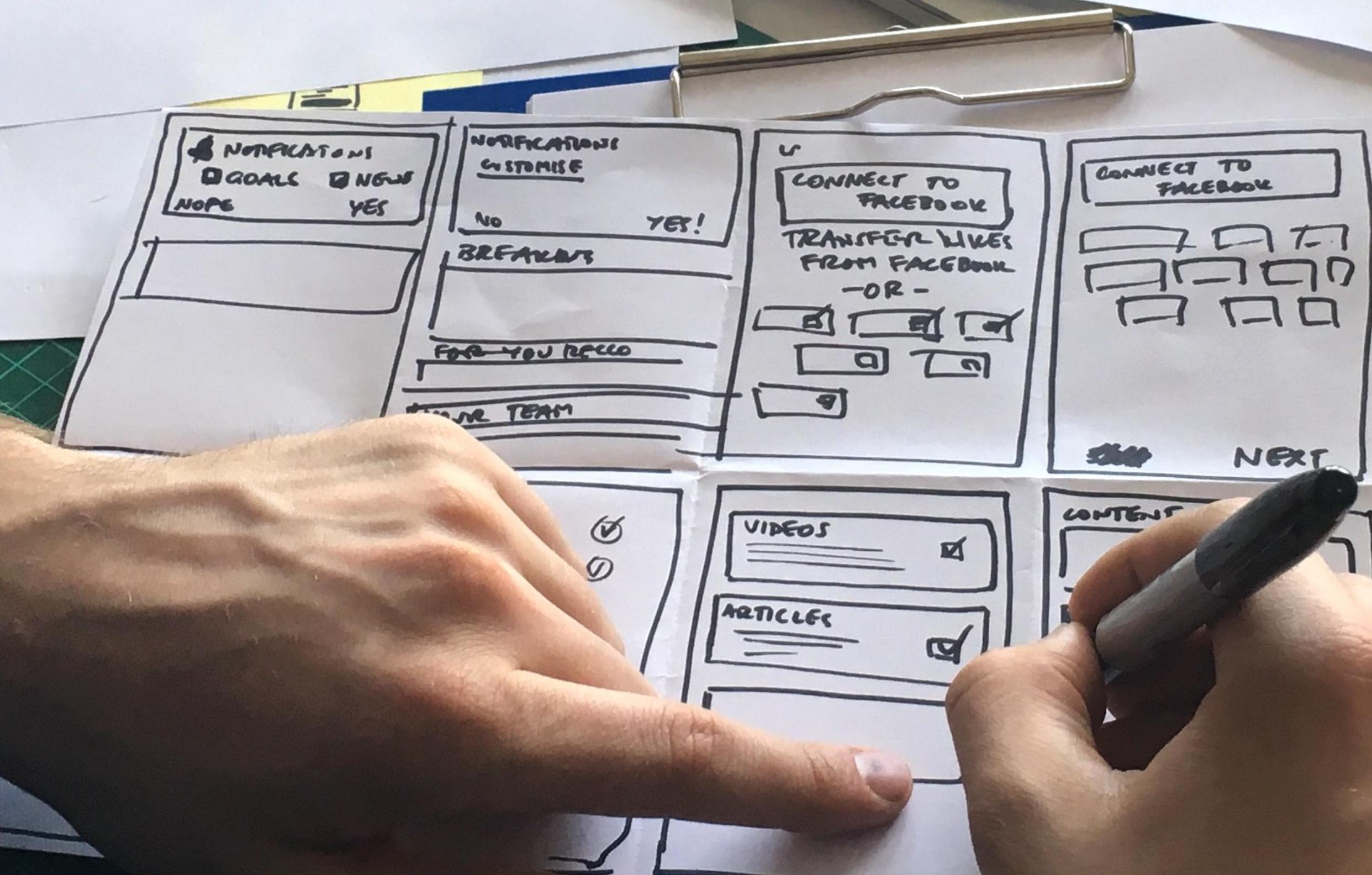
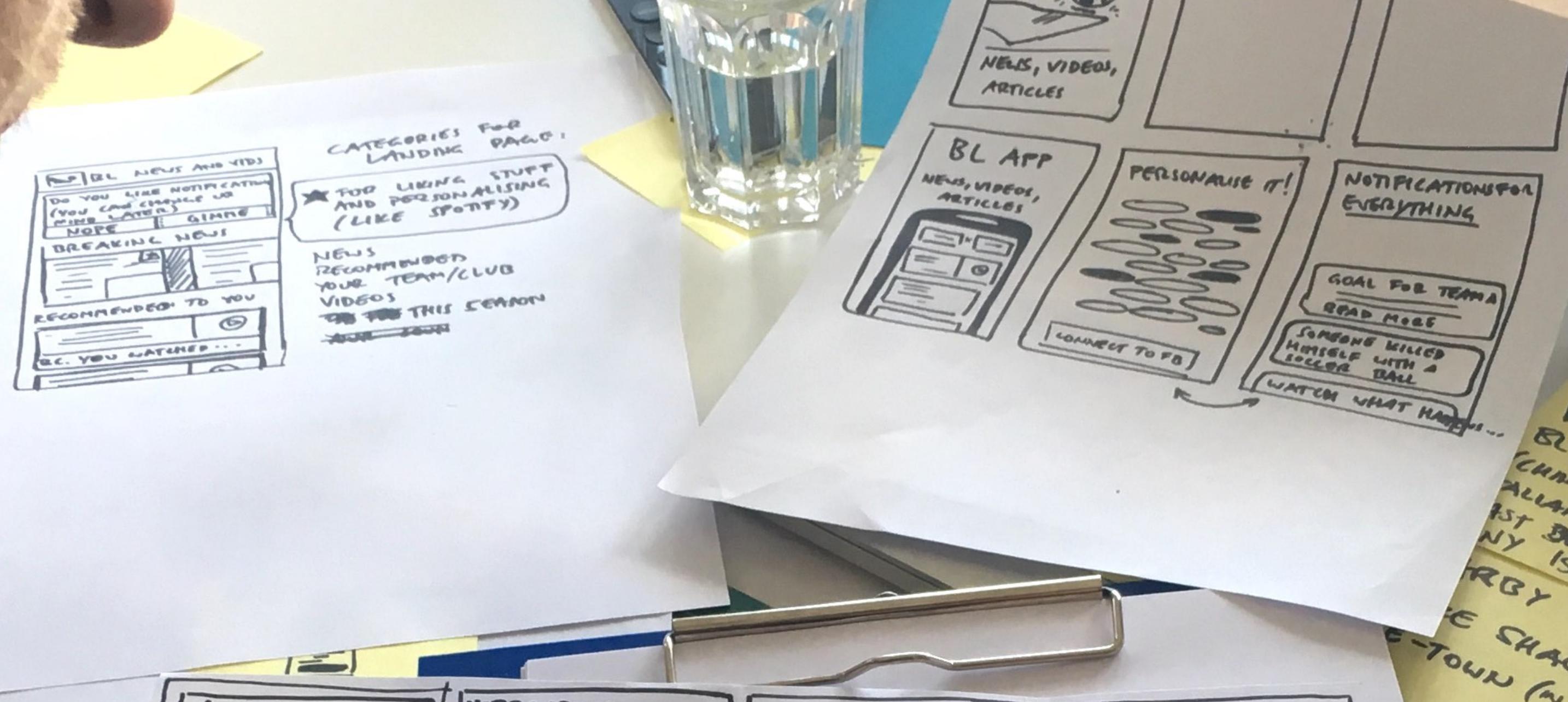
Quick Sketch Time

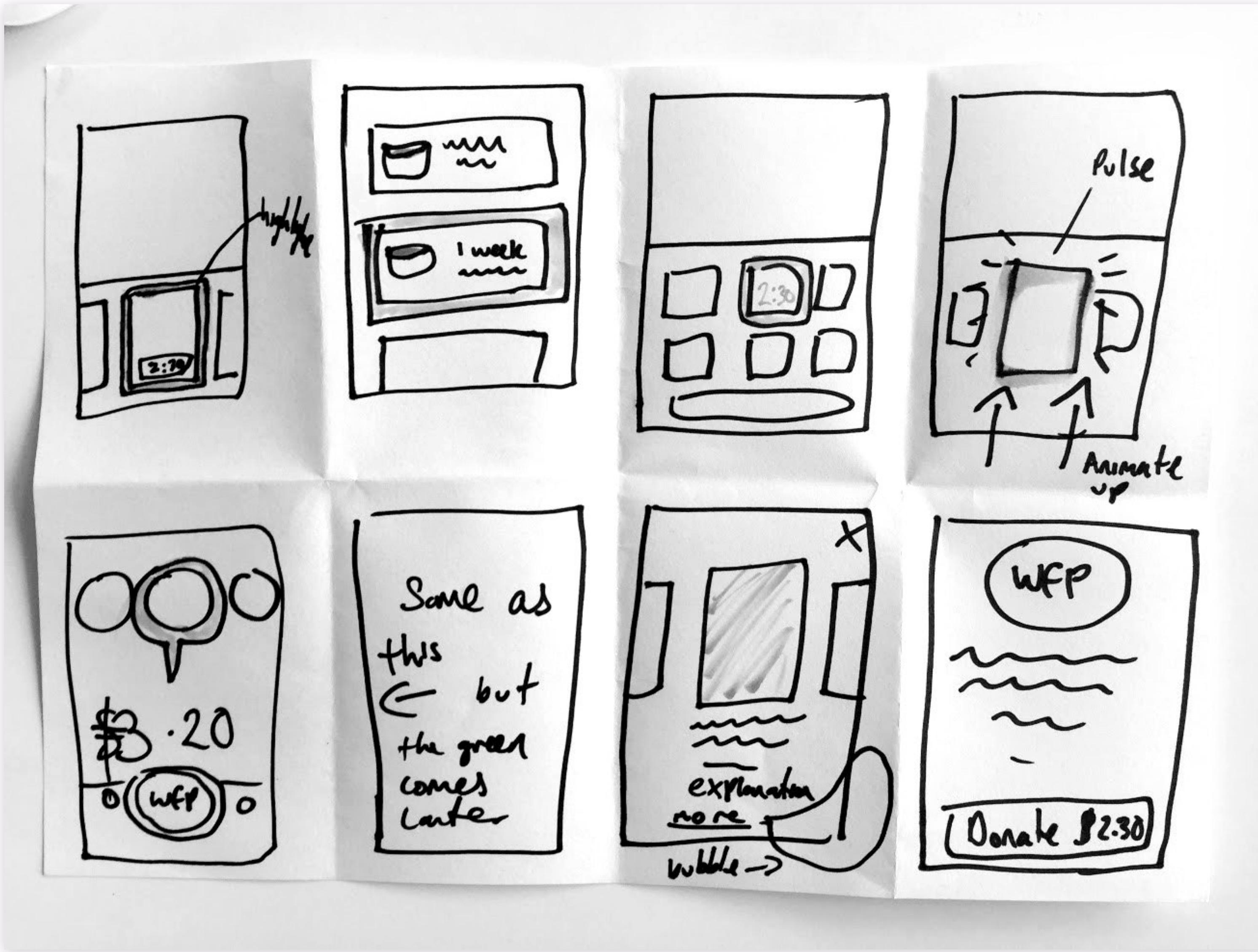
Step 3: Ideate

Crazy Eights

WiFi:
SeriousBusiness
Pass:
internetismagic
AJ&Smart
The UX Design Agency.

MONA
BLUE-BOTTLE COFFEE
CHINESE RESTAURANT - ASK KYLE
ITALIAN FOOD MARKET
1ST BROTHERS
NY ISLAND
CRBY PARKER
ICE SHACK
T-TOWN (in MANHATTAN)





Sketching solutions to the challenge you've already decided on.

Generate a lot of ideas, quickly. Eight crazy ideas in eight minutes!

Sometimes to be truly creative, our brains need structure and rules. By restricting space and time, but letting everyone know that anything goes-this tactic forces ideas out, fast! It's far less painful than it sounds.

Quantity, not Quality.

Right now, your job is only to produce as many ideas as possible. After you produce, you can curate.

**Each person should present
1 of their favourite sketches to
their group.**

**On a new page, build on this
sketch, add text explaining what
each part does.**

**Vote on the sketch that you think
will work the best.**

**Time for a 15
minute break!**

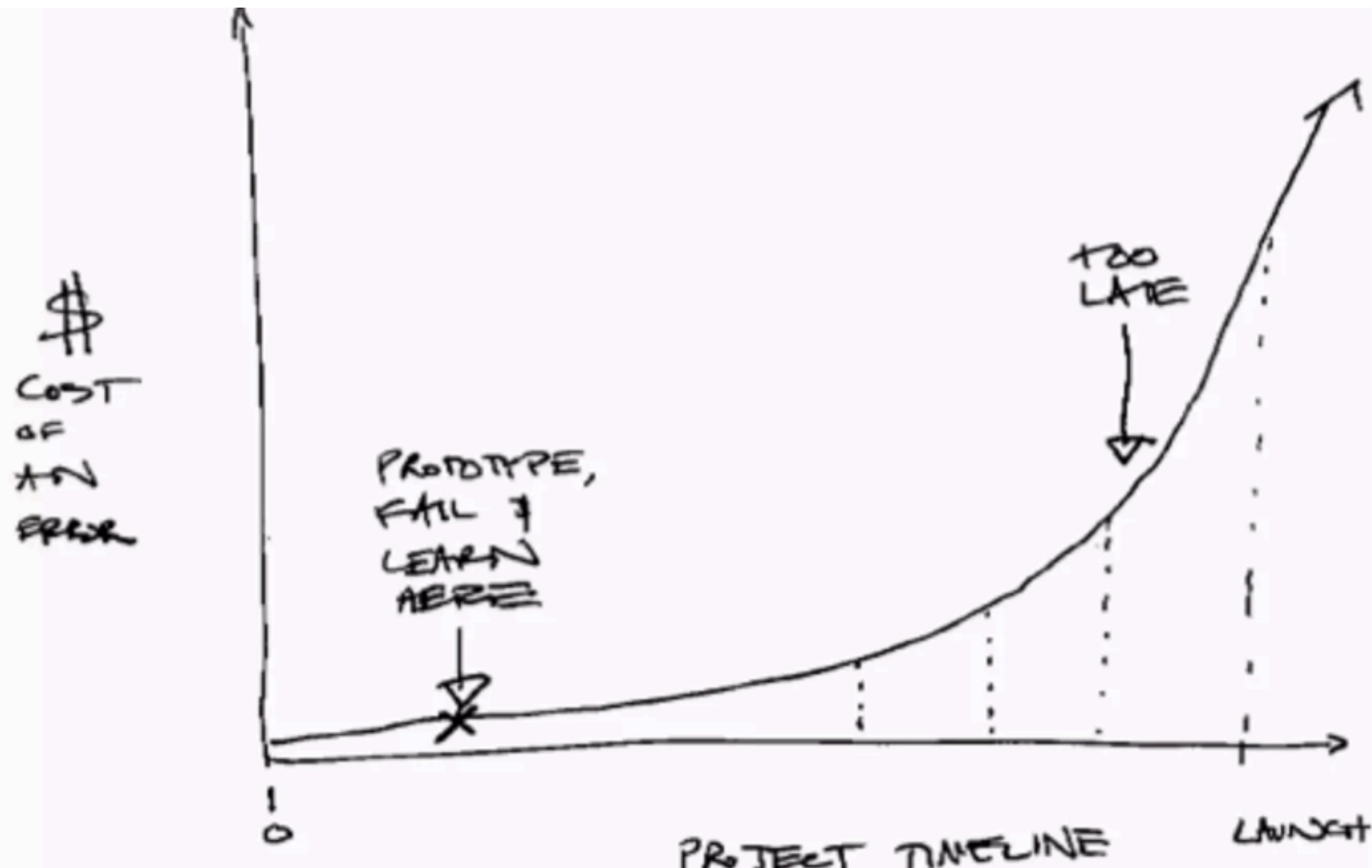
Step 4: Prototype



**Turn your concept into something
concrete, tangible - something
you can test.**

**Why? To gain empathy; to explore; to test;
to inspire. To test your hypotheses, to get
you closer to your final solution.**

Prototyping: Fail early, fail often!



**IT'S TIME FOR
THE FUN STUFF!!!**

1. Build a the tool using the materials provided.

2. Test it with people in your group.

Step 5: Test



Test your concept with users using your prototypes.

Why?

To understand how users understand and use the concept. It is a way of continuing to gain empathy for your users and evaluate your solution.

Test what you built!

**One person from a different group
must now test picking up the pin
with the oven glove and pin the
pin to the board. Pin!!!!**

Capture Questions

Get the person testing your tool to
ask questions about it.

Capture ideas

Write people's feedback down on post-its so you can improve your product.

Feedback Session (5 mins)

In your group, discuss and answer these 3 questions:

1. What worked well?
2. What didn't work well?
3. What could be improved upon?

**In real life, Design Thinking is
not a linear process.**

**You're constantly iterating,
changing things, until you're
happy with what you've created.**

Key Highlights

**Write down allllll your key
highlights, key learnings or key
moments from todays session.**

**Each person should present one key
highlight to the whole group!**

**That's it for today
my lovely humans!**

If you want to learn more about:

- *Creative Confidence* go to: <https://www.creativeconfidence.com/>
- *The MRI scanner case study* go to: <https://www.ideo.com/blogs/inspiration/from-design-thinking-to-creative-confidence>
- *The Embrace Infant Warmer case study* go to <https://slate.com/human-interest/2013/11/brace-infant-warmer-creative-confidence-by-tom-and-david-kelley.html>
- The Design Thinking process in general go to: <https://www.workshopper.com/category/design-thinking>
- Workshops and Facilitation go to: <https://youtube.com/playlist?list=PLxk9zj3EDi0VInCBYzRfcy12Faele8cew&si=qJmeZKwh9BWAG9EH>