

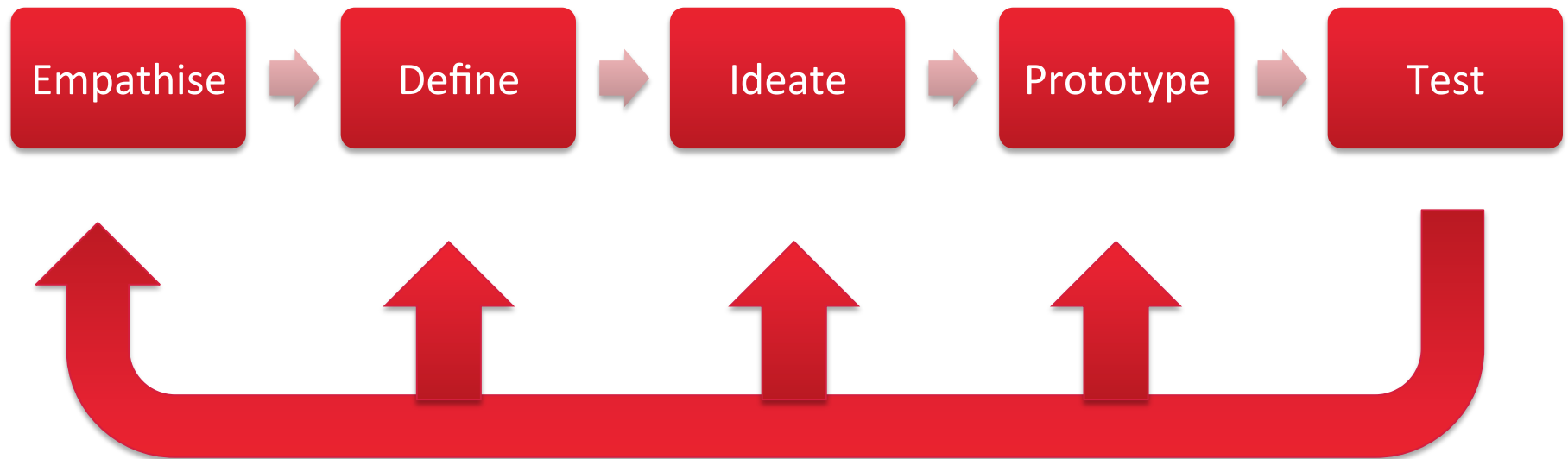
Design Thinking

Practical Session

George Bulman & Wesley Connolly Tong

Saturday 19th of March 2016

Design Thinking Process



Human Centered Design Approach – Why?

- To understand what is important to the customer
- The best solutions come from the best insight into human behaviour
- Observe:
 - How they interact with their environment
 - What is important to them
- Understand how the customer thinks and their values
- Good designs are built on a solid understanding of these beliefs and values

Human Centered Design Approach – How?

- Observe
 - View behaviours of their lives
 - Observe in relevant contexts
 - Notice disconnections
- Engage
 - Interview – create dialogue
 - Prepare questions but let the conversation deviate
 - Ask why
- Watch and Listen
 - Combine observations and engagement
 - Ask them to show you how they would complete the task
 - Have them physically go through the steps necessary

Human Centered Design Approach

Apply these points to your business idea

Make points that you will need to address

Framing the right problem is the only way to create the right solutions

- Define the challenge you are taking on, based on what you have learned about your user and about the context
- The goal of the define mode is to craft a meaningful and actionable problem statement
- Your POV defines the RIGHT challenge to address, based on your new understanding of people and the problem space

- Consider what stood out to you when talking and observing people
- A good point-of-view is one that:
 - Provides focus and frames the problem
 - Inspires your team
 - Informs criteria for evaluating competing ideas
 - Empowers your team to make decisions independently in parallel
 - Captures the hearts and minds of people you meet
 - Saves you from the impossible task of developing concepts that are all things to all people (i.e. your problem statement should be discrete, not broad.)
- Articulate a point-of-view by combining these three elements – user, need, and insight

Based on your assumptions from the Empathise Phase

Apply these points to your business idea

Make points that you will need to address

It's not about coming up with the 'right' idea, it's about generating the broadest range of possibilities

- You ideate in order to transition from identifying problems to creating solutions for your users
- Ideation is about pushing for a widest possible range of ideas from which you can select, not simply finding a single, best solution
- Various forms of ideation are leveraged to:
 - Step beyond obvious solutions and thus increase the innovation potential of your solution set - Harness the collective perspectives and strengths of your teams
 - Uncover unexpected areas of exploration
 - Create fluency (volume) and flexibility (variety) in your innovation options
 - Get obvious solutions out of your heads, and drive your team beyond them

How?

- Use Idea Generation Techniques (Brainstorming, Method 635, etc.)
- Add constraints – inspiring related material
- Give your imagination and creativity a voice

EVALUATE, PRIORITISE, SCREEN!

Based on your assumptions from the Define Phase

Apply these points to your business idea

Make points that you will need to address

Build to think and test to learn

- The iterative generation of artifacts intended to answer questions that get you closer to your final solution
- Use low resolution prototypes at the early stages
- In later stages both your prototype and question may get a little more refined
- A prototype can be anything that a user can interact with
 - be it a wall of post-it notes,
 - a gadget you put together,
 - a role-playing activity,
 - or even a storyboard

Why?

- **To ideate and problem solve.** Build to think.
- **To communicate.** If a picture is worth a thousand words, a prototype is worth a thousand pictures.
- **To start a conversation.** Your interactions with users are often richer when centered around a conversation piece. A prototype is an opportunity to have another, directed conversation with a user.
- **To fail quickly and cheaply.** Committing as few resources as possible to each idea means less time and money invested up front.
- **To test possibilities.** Staying low-res allows you to pursue many different ideas without committing to a direction too early on.
- **To manage the solution - building process.** Identifying a variable also encourages you to break a large problem down into smaller, testable chunks.

How?

- **Start building.** Even if you aren't sure what you're doing, the act of picking up some materials (post-its, tape, and found objects are a good way to start!) will be enough to get you going.
- **Don't spend too long on one prototype.** Let go before you find yourself getting too emotionally attached to any one prototype.
- **ID a variable.** Identify what's being tested with each prototype. A prototype should answer a particular question when tested. That said, don't be blind to the other tangential understanding you can gain as someone responds to a prototype.
- **Build with the user in mind.** What do you hope to test with the user? What sorts of behavior do you expect? Answering these questions will help focus your prototyping and help you receive meaningful feedback in the testing phase.

Based on your assumptions from the Ideate Phase

Apply these points to your business idea

Make points that you will need to address

Testing is an opportunity to learn about your solution and your user

- Where you solicit feedback, about the prototypes you have created, from your users and have another opportunity to gain empathy for the people you are designing for
- Don't reduce your "testing" work to asking whether or not people like your solution. Instead, continue to ask "Why?"
- For a physical object, ask people to take it with them and use it within their normal routines
- For an experience, try to create a scenario in a location that would capture the real situation

**Always prototype as if you know you're right,
but test as if you know you're wrong**

Why?

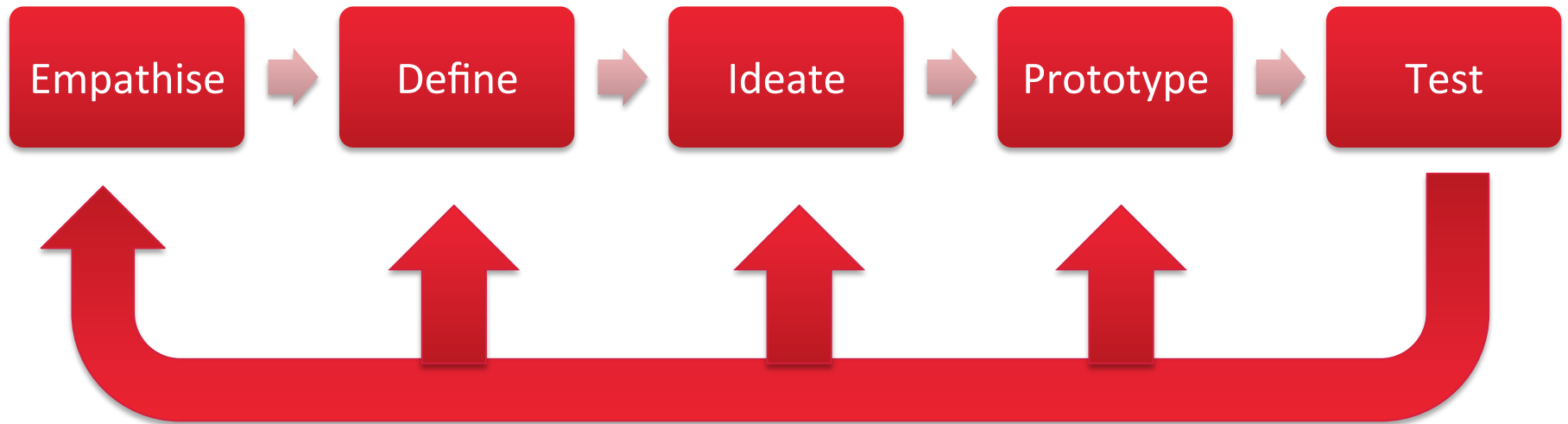
- **To refine prototypes and solutions.** Testing informs the next iterations of prototypes. Sometimes this means going back to the drawing board.
- **To learn more about your user.** Testing is another opportunity to build empathy through observation and engagement - it often yields unexpected insights.
- **To refine your POV.** Sometimes testing reveals that not only did you not get the solution right, but also that you failed to frame the problem correctly.

How?

- **Show don't tell.** Put your prototype in the user's hands – or your user within an experience. And don't explain everything (yet). Let your tester interpret the prototype. Watch how they use (and misuse!) what you have given them, and how they handle and interact with it; then listen to what they say about it, and the questions they have.
- **Create Experiences.** Create your prototypes and test them in a way that feels like an experience that your user is reacting to, rather than an explanation that your user is evaluating.
- **Ask users to compare.** Bringing multiple prototypes to the field to test gives users a basis for comparison, and comparisons often reveal latent needs.

- Iterate both by cycling through the process multiple times, and also by iterating within a step - for example by creating multiple prototypes or trying variations of a brainstorming topics with multiple groups

Take multiple cycles



FAIL FAST, FAIL OFTEN!

Thank you

- An Introduction to Design Thinking – Process Guide, Hasso Plattner – Institute of Design at Stanford