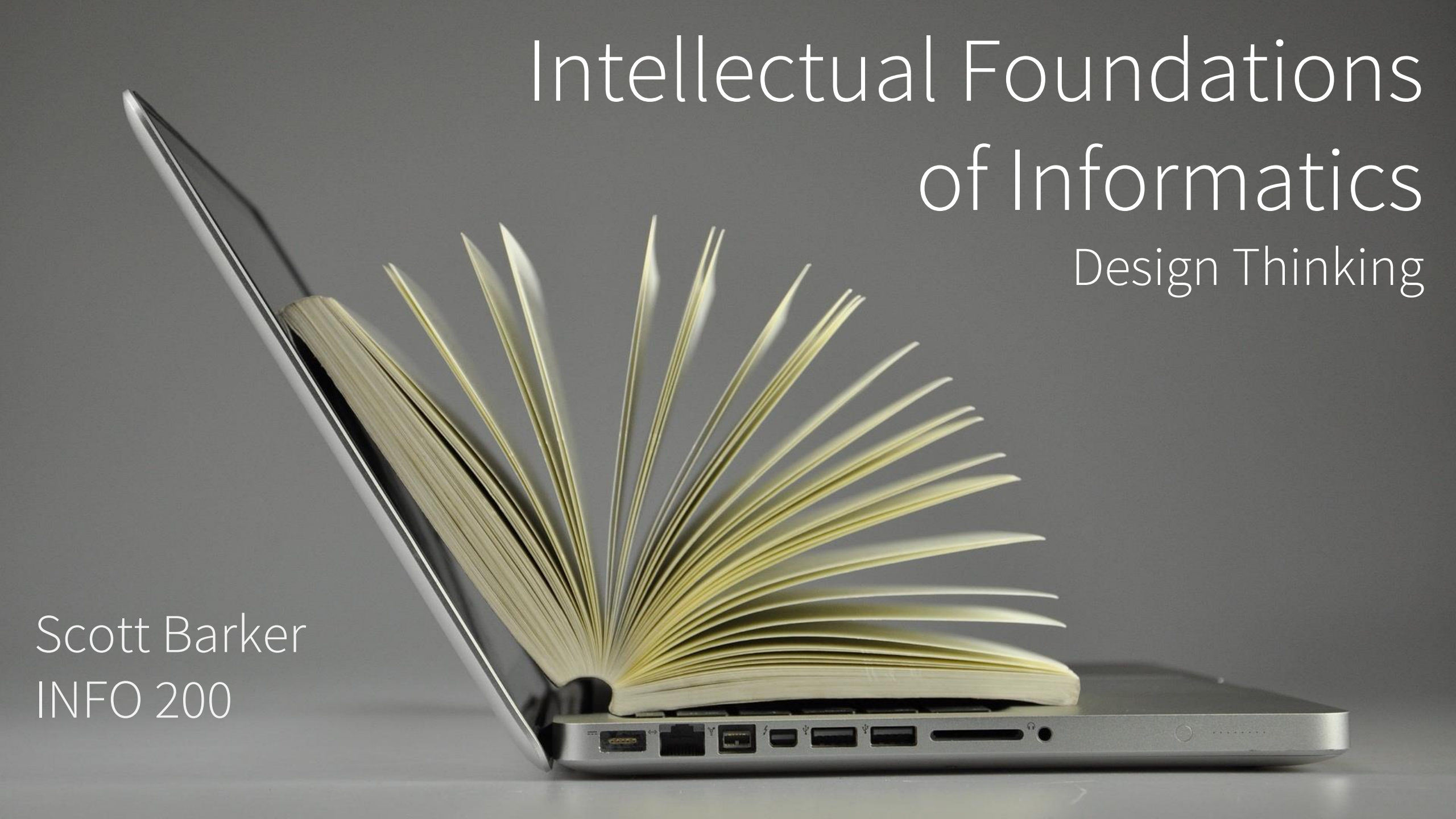


Intellectual Foundations of Informatics

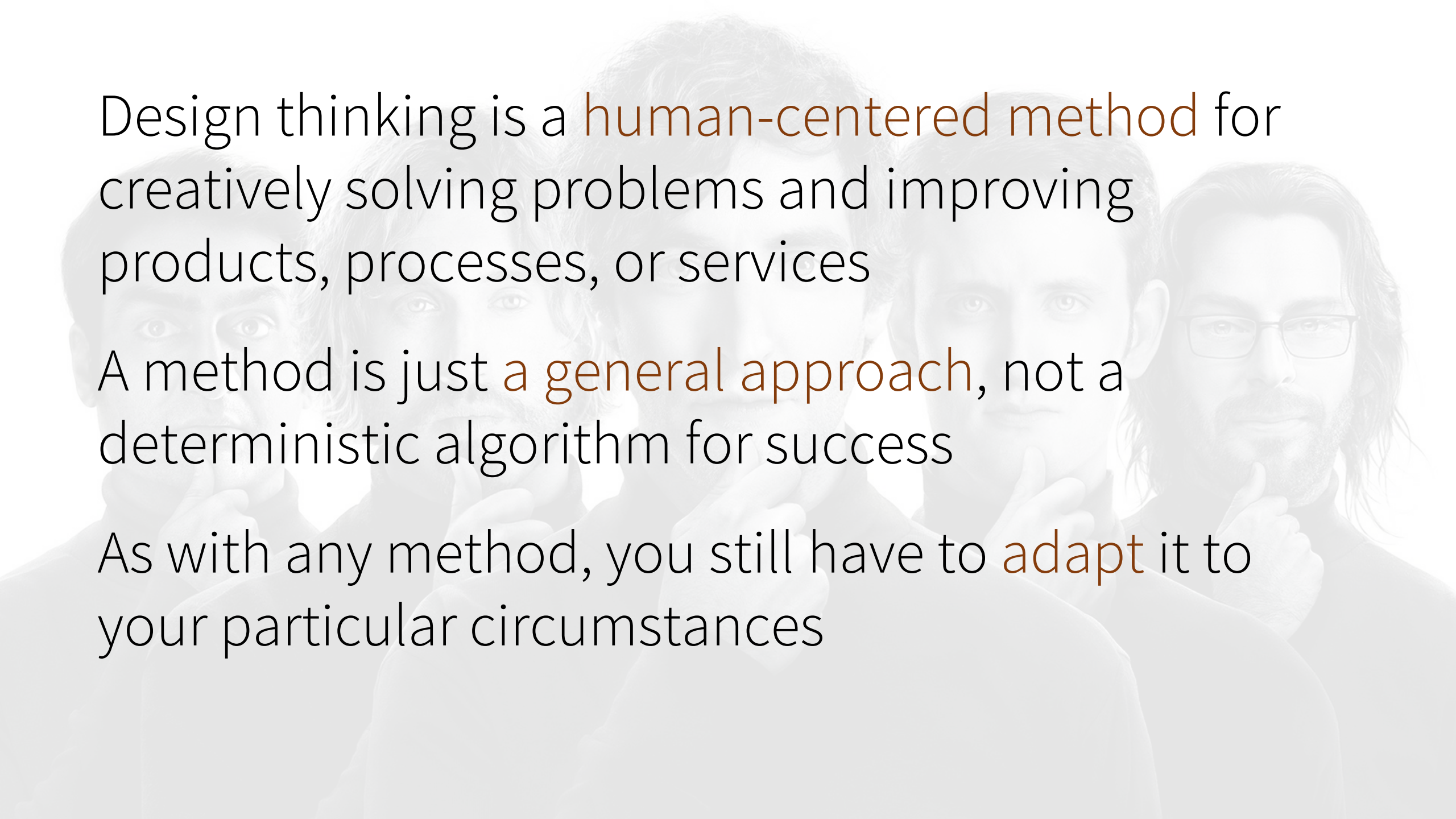
Design Thinking

Scott Barker
INFO 200

Design Thinking

How did IDEO go about redesigning the shopping cart?

What was their “recipe for innovation?”



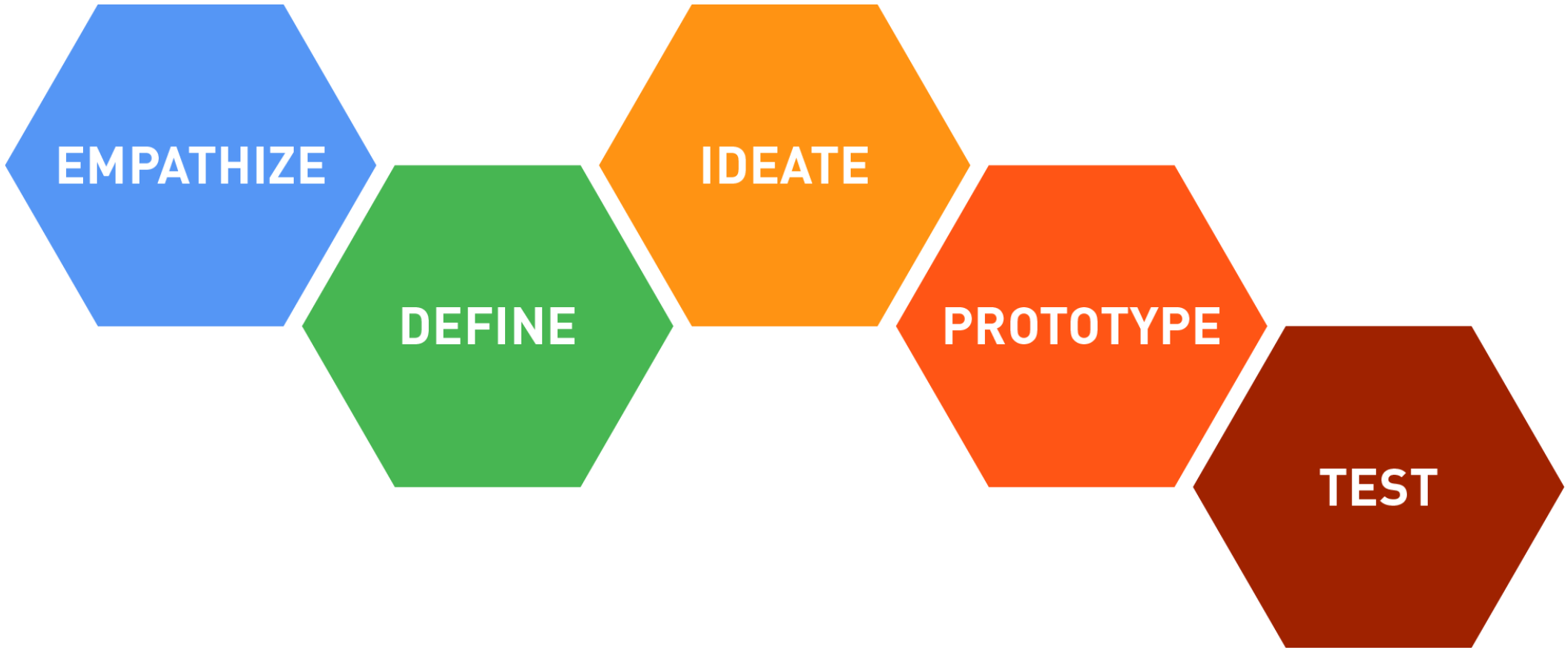
Design thinking is a human-centered method for creatively solving problems and improving products, processes, or services

A method is just a general approach, not a deterministic algorithm for success

As with any method, you still have to adapt it to your particular circumstances

The Design Thinking Process

Stanford d.school



Empathize

Empathy is the foundation of a human-centered design process.
To empathize, you:

- Observe. View users and their behavior in the context of their lives.
- Engage. Interact with and interview users
- Immerse. Experience what your user experiences.

Why?

- The problems you are trying to solve are rarely your own—they are those of other users/people/humans

- In order to design for your users, you must build empathy for who they are and what is important to them - put yourself in their shoes, see their perspective.

Define

- Unpack and synthesize your empathy findings into compelling needs and insights
- Scope a specific and meaningful challenge/problem.

It is a mode of “focus” rather than “flaring.”

Goal:

- Come up with an actionable problem statement: your point of view.

Your point of view should be a guiding problem statement that focuses on specific users, and insights and needs that you uncovered during the empathize mode.

Ideate

Goal:

- To explore a wide solution space – both a large quantity of ideas and a diversity among those ideas. Brainstorming.

Mentally it represents a process of “going wide” in terms of concepts and outcomes—it is a mode of “flaring” rather than “focus.”

The fundamental principle of ideation is to be cognizant of when you are generating ideas and when you are evaluating ideas – typically keeping these two tasks separate.

During ideation you are generating ideas, not evaluating and criticizing them!

Prototype

Goal:

Get ideas and explorations out of your head and into the physical world.

A prototype can be anything that takes a physical form

> Post-it notes, drawings, an object, a storyboard, a simulated “app” created by a prototyping tool (such as Figma, Adobe XD, Invision, Sketch)

In early explorations prototypes should be rough and rapid to allow yourself to learn quickly and investigate a lot of different possibilities.

Test

Goal:

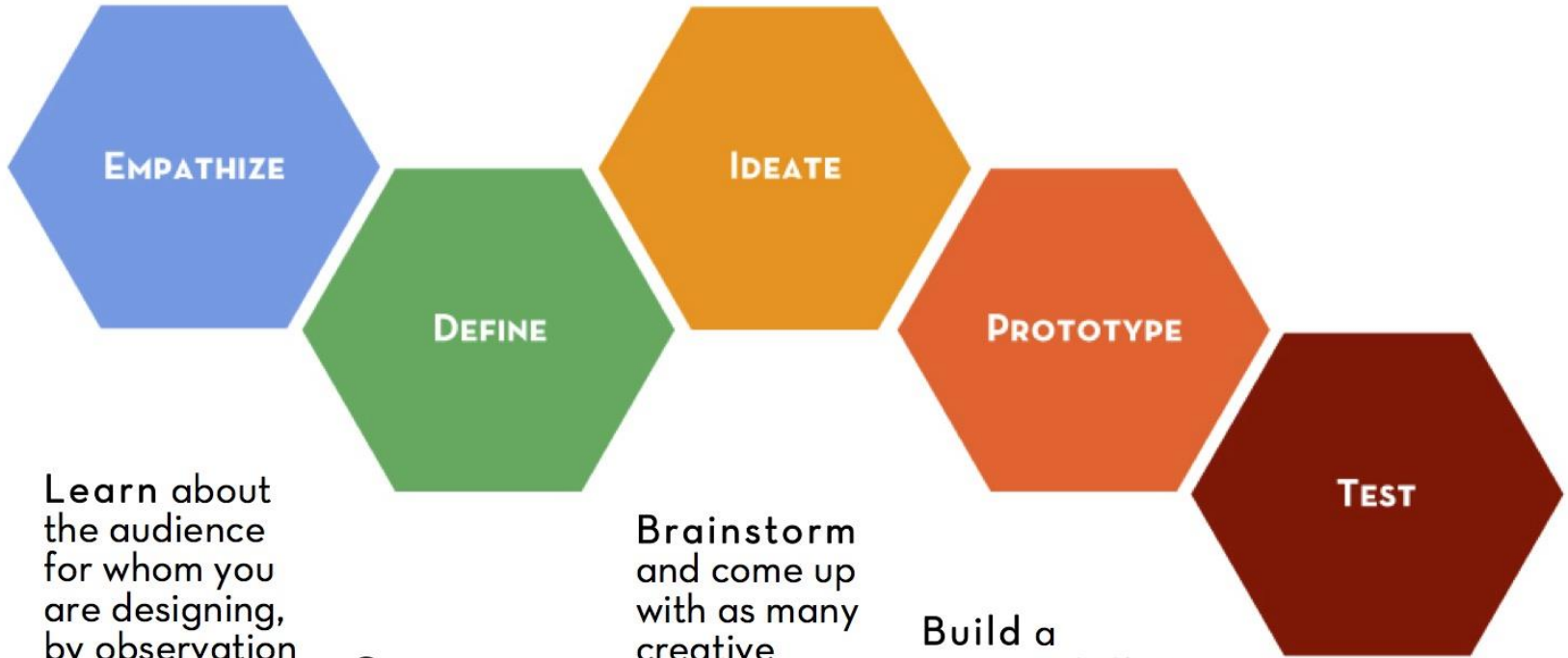
- Get feedback on your solutions so you can refine them to make them better

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 test and refine your POV.

Sometimes testing reveals that not only did you not get the solution right, but also that you have failed to frame the problem correctly.

We are all DESIGNERS!



Learn about the audience for whom you are designing, by observation and inteview. *Who is my user? What matters to this person?*

Create a point of view that is based on user needs and insights. *What are their needs?*

Brainstorm and come up with as many creative solutions as possible. *Wild ideas encouraged!*

Build a representation of one or more of your ideas to show to others. *How can I show my idea? Remember: A prototype is just a rough draft!*

Share your prototyped idea with your original user for feedback. *What worked? What didn't?*

End Lecture

Note: No “Part B”
Instead spend that time working with a partner on handout/activity