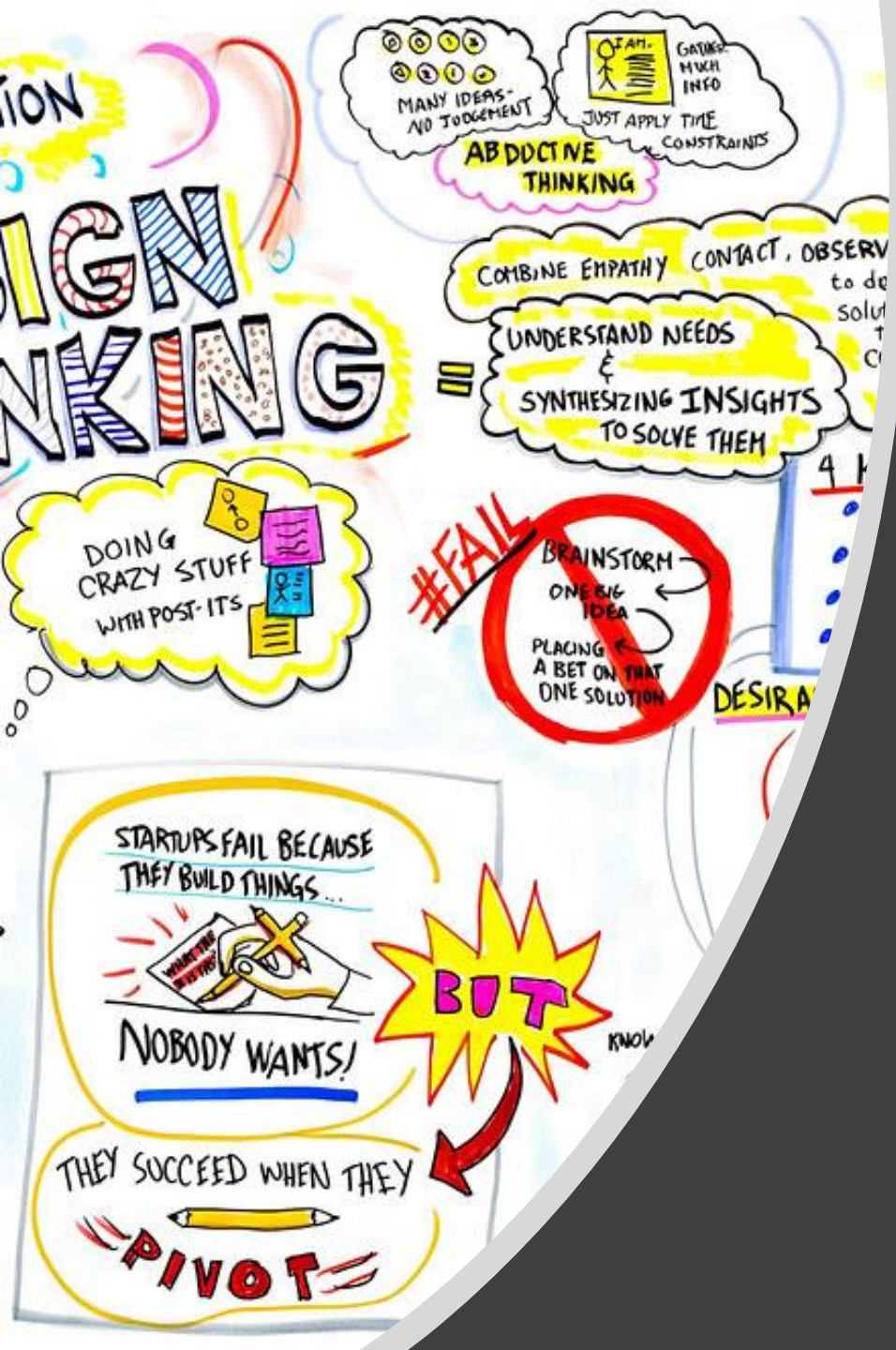
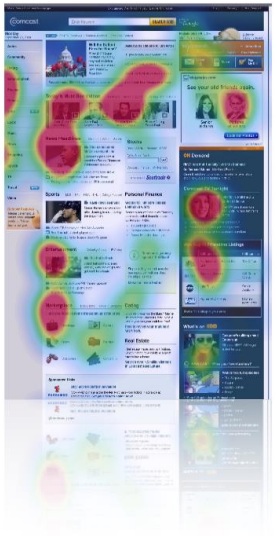


Design Thinking

MIS3506 * Lavin * Fall 2024

The goal of design “process”

User Insights



Insert Magical Process Here

Great Experience, Successful Product

Source: Whalen

Design thinking is not solely for designers.

IT'S A PROCESS EVEN THE MOST TRADITIONAL THINKERS CAN ADOPT.

Design thinking is not solely for designers.

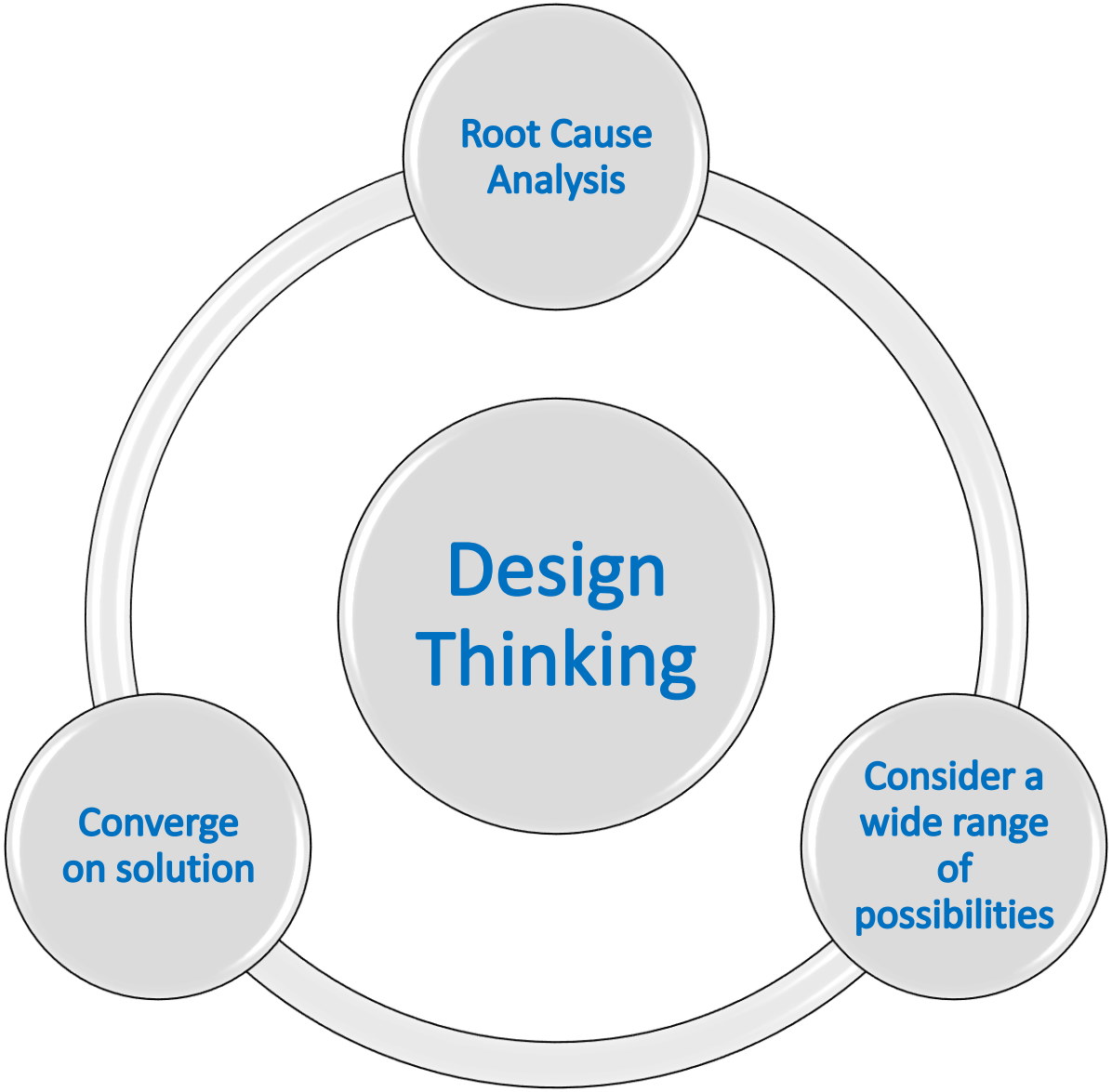
As of December 2021, the most common occupations requiring design thinking skills were:

- Marketing managers
- Executives
- Industrial engineers
- Graphic designers
- Software developers
- General and operations managers
- Management analysts
- Personal service managers
- Architectural and engineering managers
- Computer and information systems managers

In addition, jobs that require design thinking statistically have higher salaries.

From January 2021 to January 2022, there were 55,118 positions that advertised “design thinking” as a requested skill—a 350 percent increase from 2018.

https://online.hbs.edu/blog/post/what-is-design-thinking


Root Cause Analysis
Design Thinking
Converge on solution
Consider a wide range of possibilities

What Drives Design?

It is amazing how often people solve the problem before them without bothering to question it. (Norman p. 217)

Good designers first understand the real issue

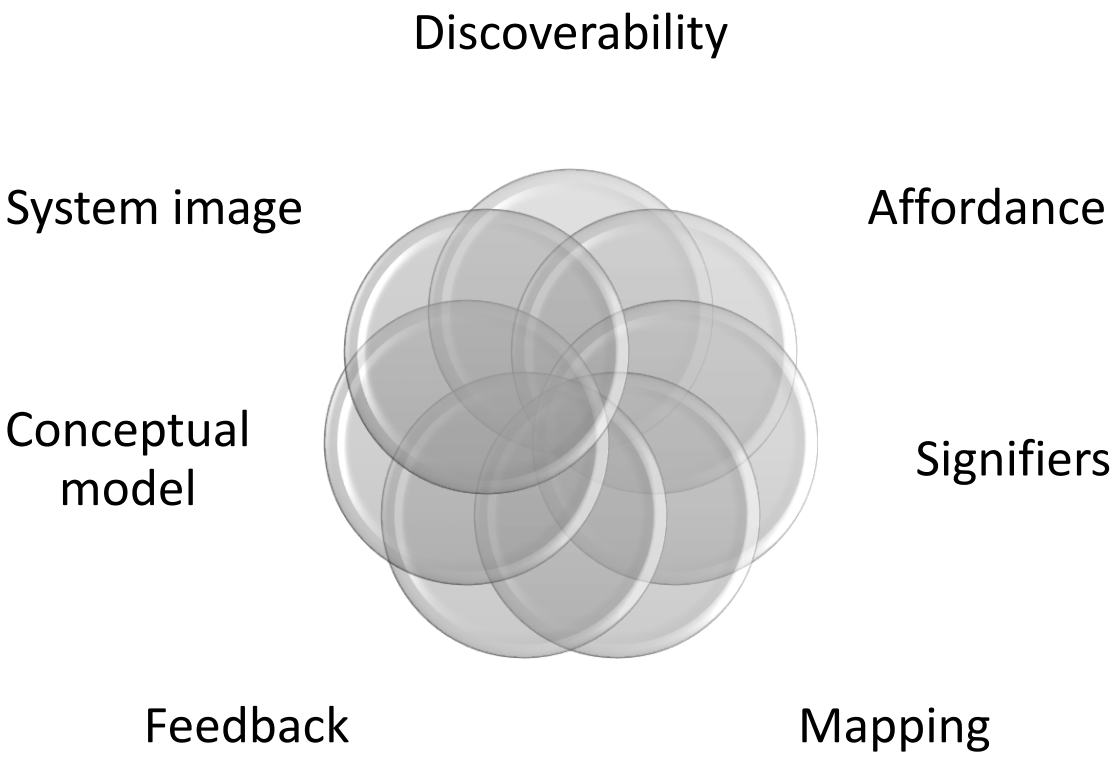
Driven by many things

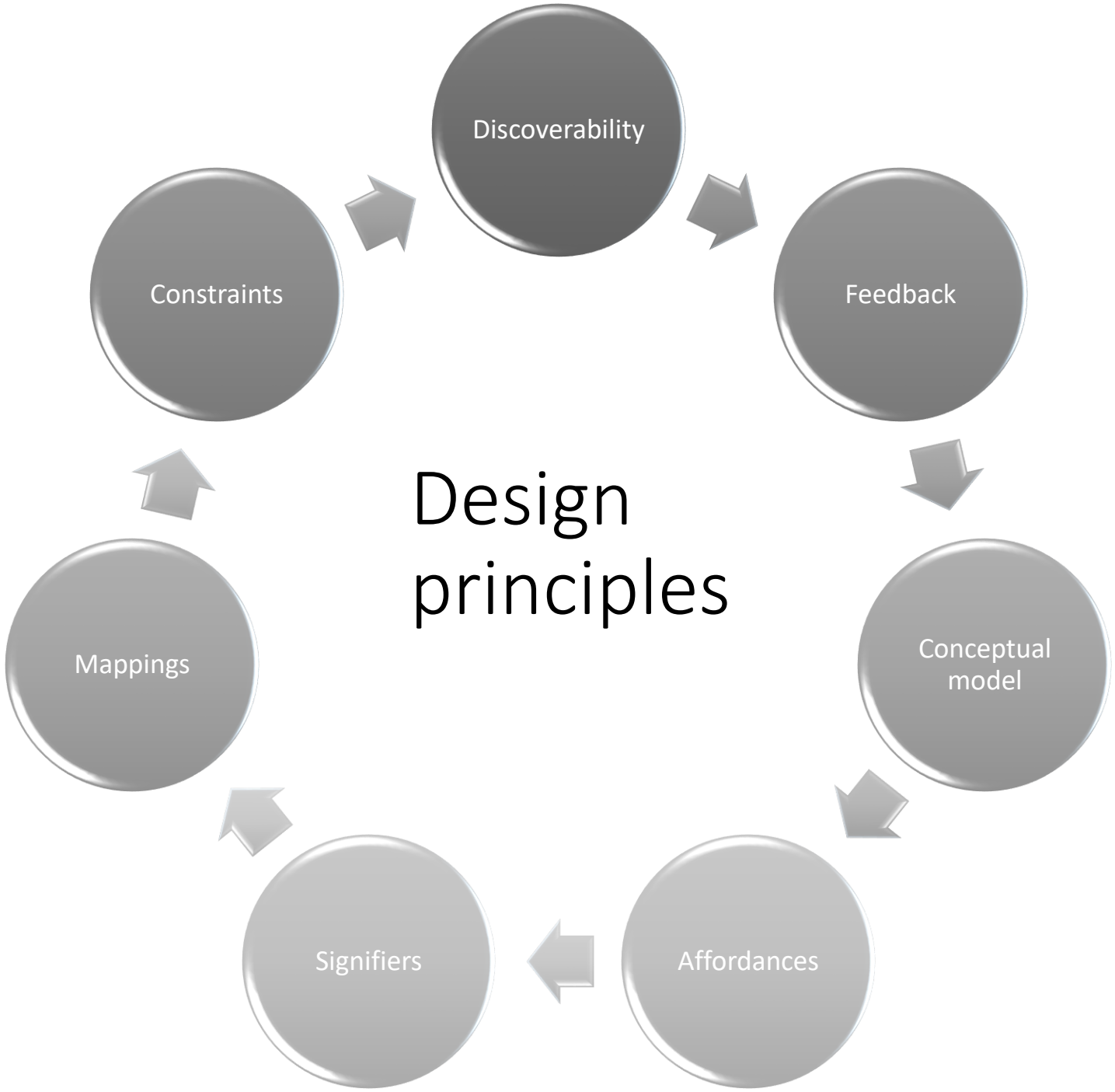
Why do we make products?

Human Centered Design

- Focus on human needs, desires, capabilities
- Ensure that people's needs are met
- Usable and understandable products
- Accomplishes desired tasks
- Experience is positive & enjoyable

The world according to Norman




Discoverability
Feedback
Conceptual model
Affordances
Signifiers
Mappings
Constraints
Design principles

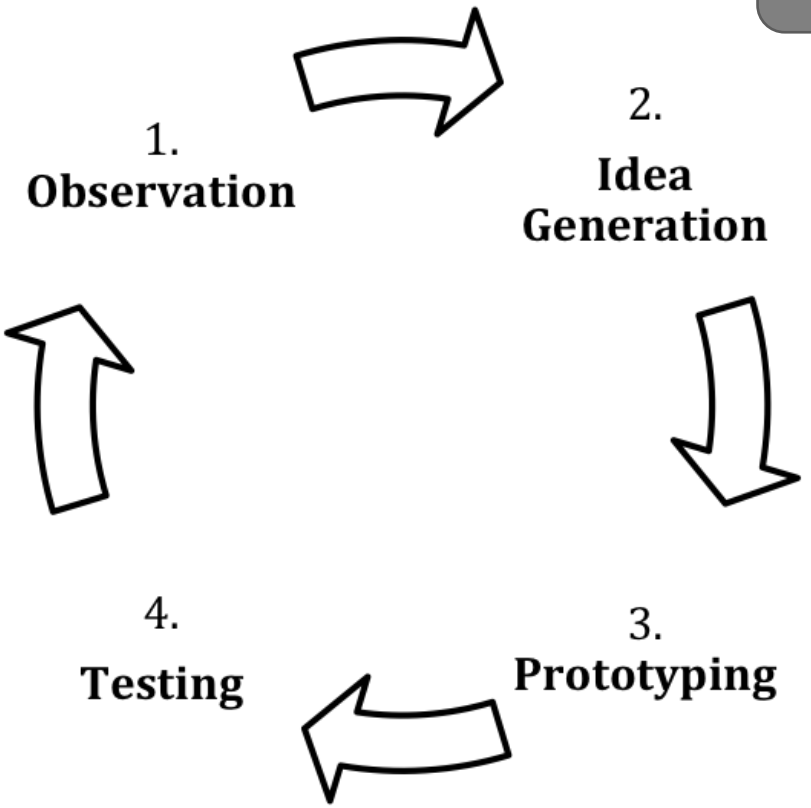
COMPANIES USING DESIGN THINKING APPROACH

82%

Design thinking is a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. It is most useful to tackle ill-defined or unknown problems and involves five phases: Empathize, Define, Ideate, Prototype and Test.

Norman's Human Centered Design

Why is this even a thing? Isn't it obvious?



Design thinking is different from other innovation and ideation processes in that it's solution-based and user-centric rather than problem-based.

DESIGN THINKING

A FRAMEWORK FOR INNOVATION

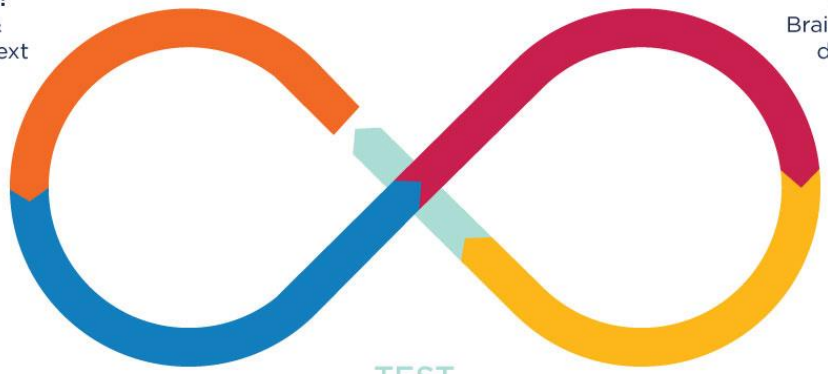
EMPHATHISE

What is the problem?
Define the challenge &
explore the human context

IDEATE

Why is it important?
Brainstorm ideas good & bad,
dont stop at the obvious

CONTEXT



FORM

DEFINE

Why is it important?
Research, observe, understand
& create a point of view

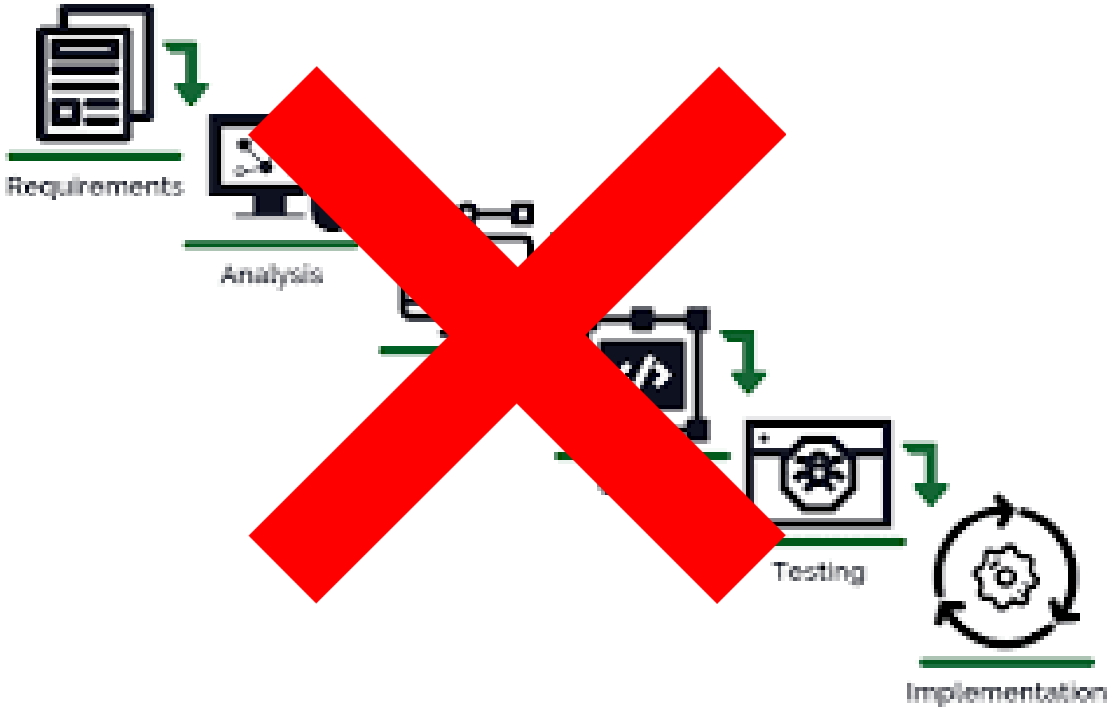
TEST

Does it work?
implrement the product, show, &
dont tell, start to refine the product

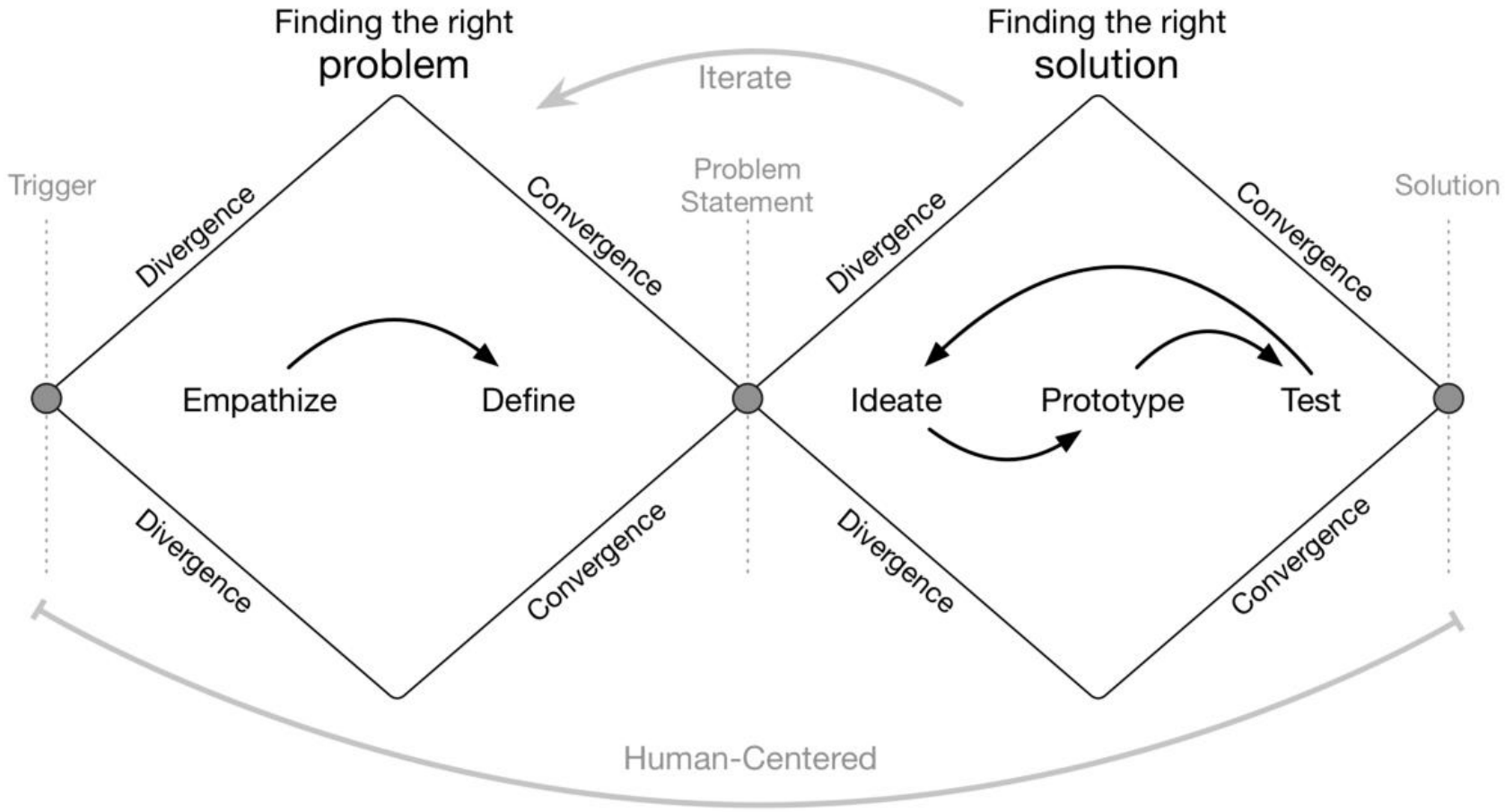
PROTOTYPE

How do we create it?
Start creating, experiment,
fall cheap, & fast

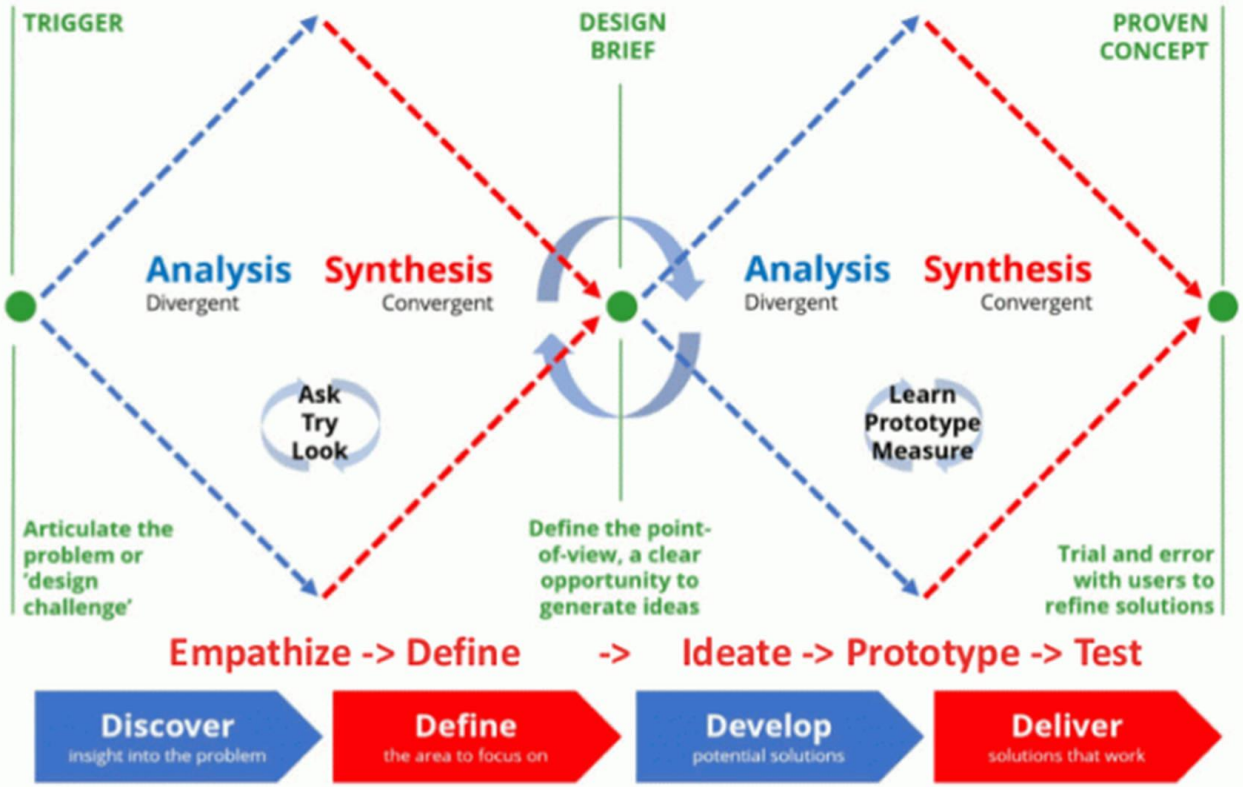
Waterfall



The New Double Diamond Model of Design Thinking



Double Diamond



Effective design satisfies

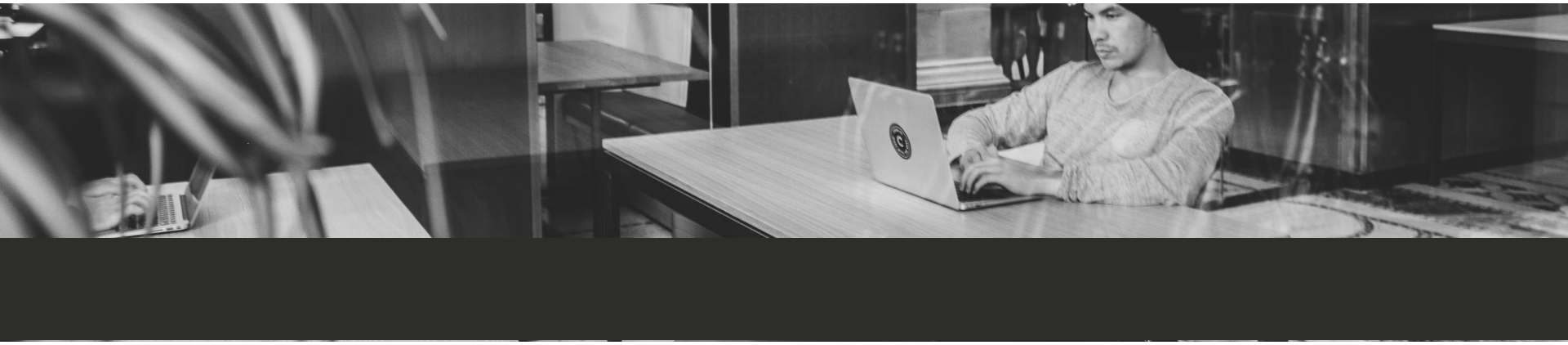
- Shape and form
- Cost and efficiency
- Reliability
- Effectiveness
- Understandability & usability
- Please of appearance
- Joy of Actual Use
- Pride of Ownership

Start with questions.

WHO ARE YOU DESIGNING FOR?

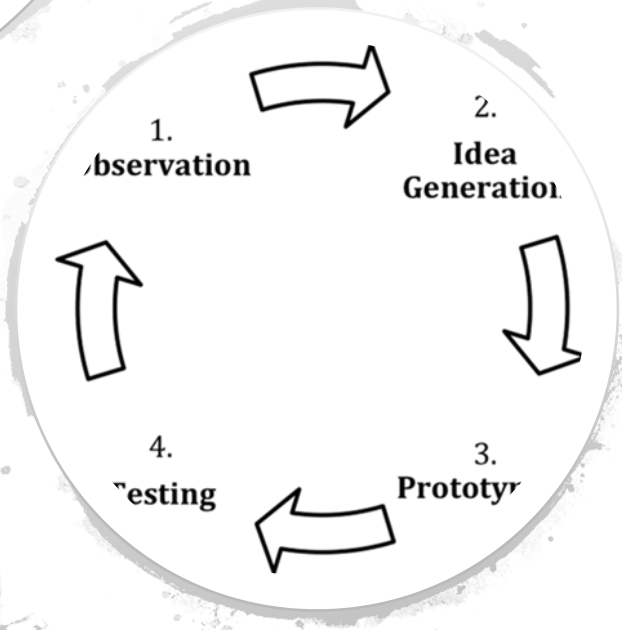
WHAT IS THE DESIGN PROBLEM?

WHAT RESOURCES DO YOU HAVE?

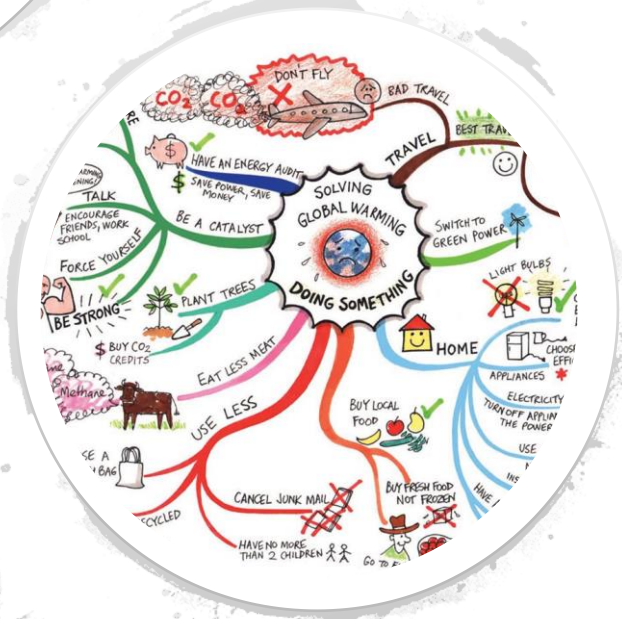


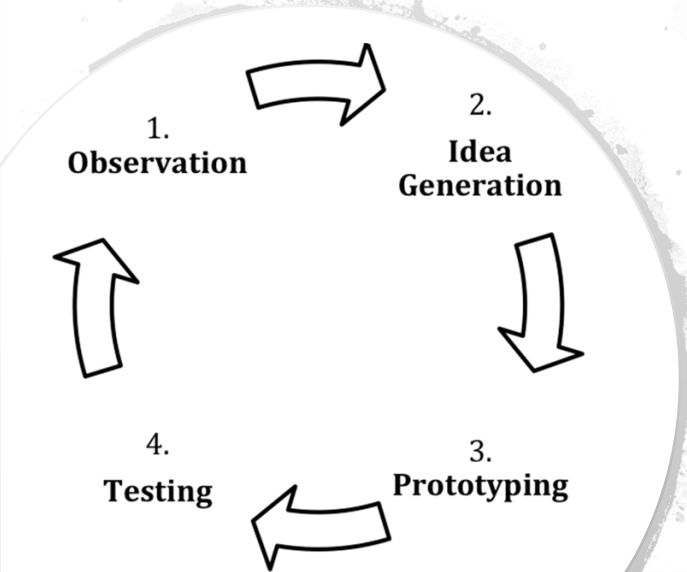
Observation

- Research the people and how they use the system
- Understand interests, true needs, motivations
- Natural environment



Ideation/Idea Generation

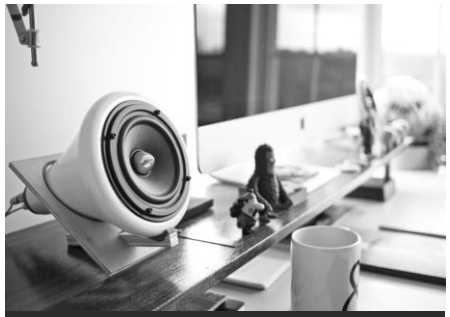




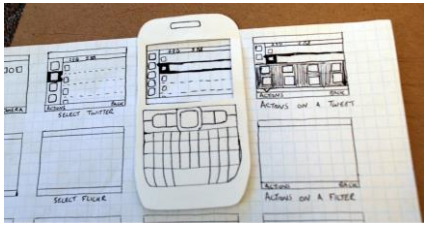
IDEATION PHASE

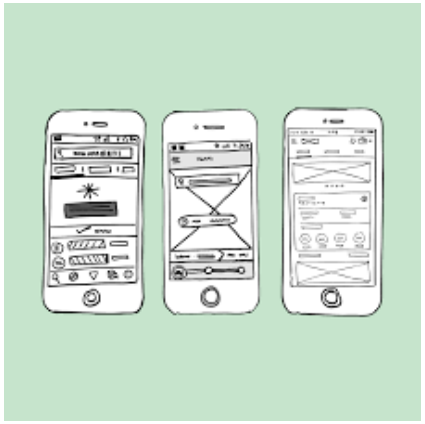
AVOID JUDGMENTS

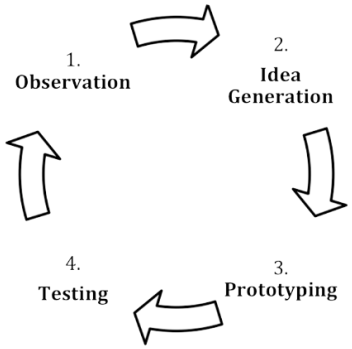
AIM FOR QUALITY, NOT QUANTITY



ENCOURAGE WILD IDEAS







Prototyping

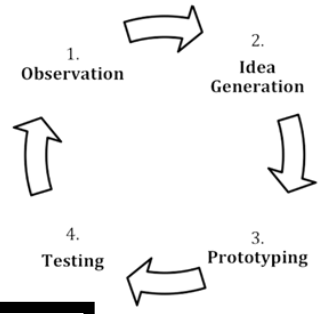
Rapid Prototyping

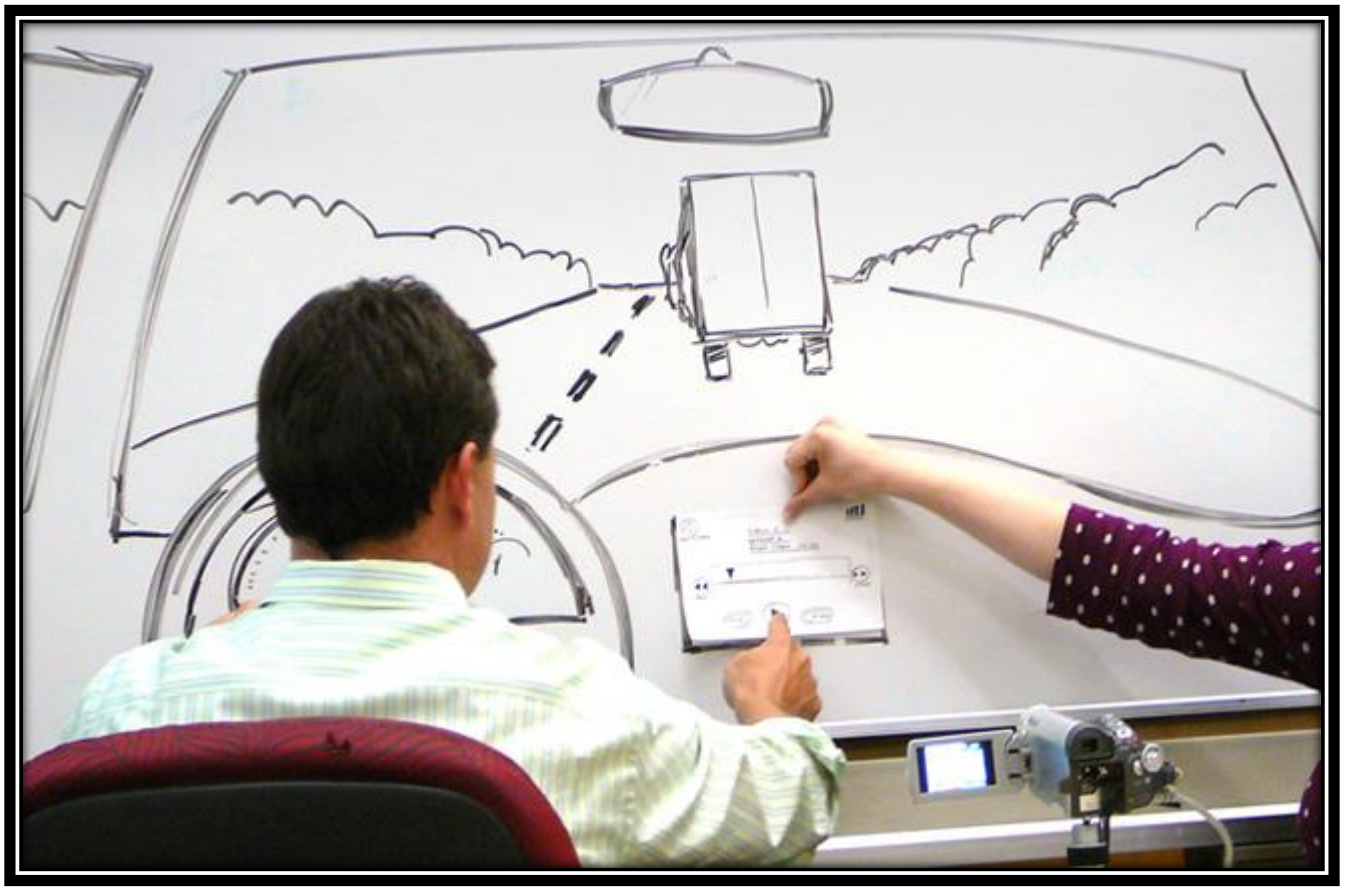
SHORTEST TIME

LEAST COST

SIMPLEST MODEL

Testing



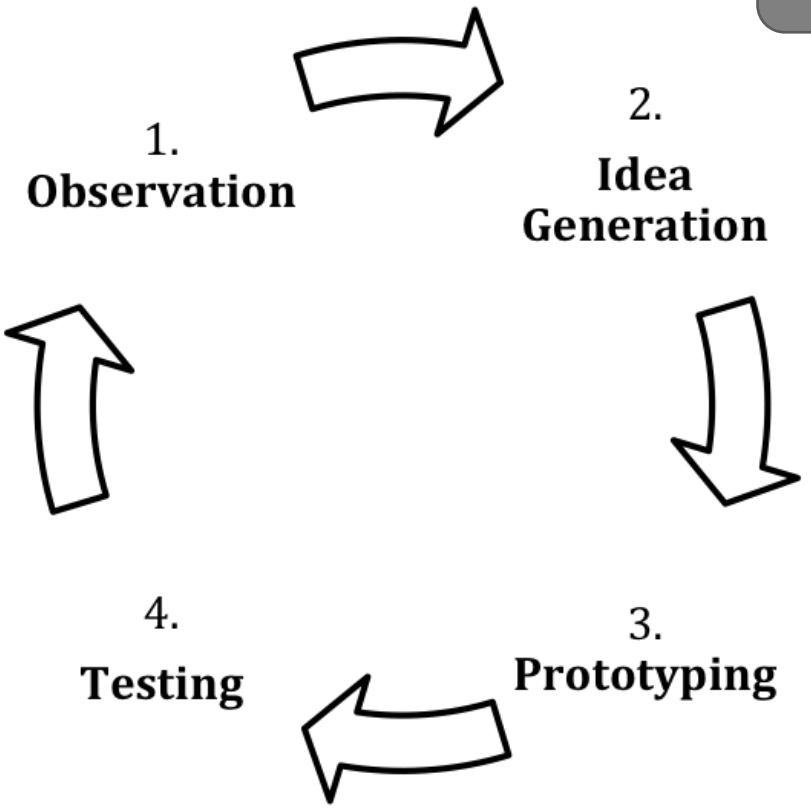


Iteration

- Requirements are determined by watching people in their natural environments
  - People can’t always voice their needs
  - Repeated study and testing!
  - Each cycle removes the fog, gain more clarity
  - When does it end? It depends!

Norman's Human Centered Design

Why is this even a thing? Isn't it obvious?



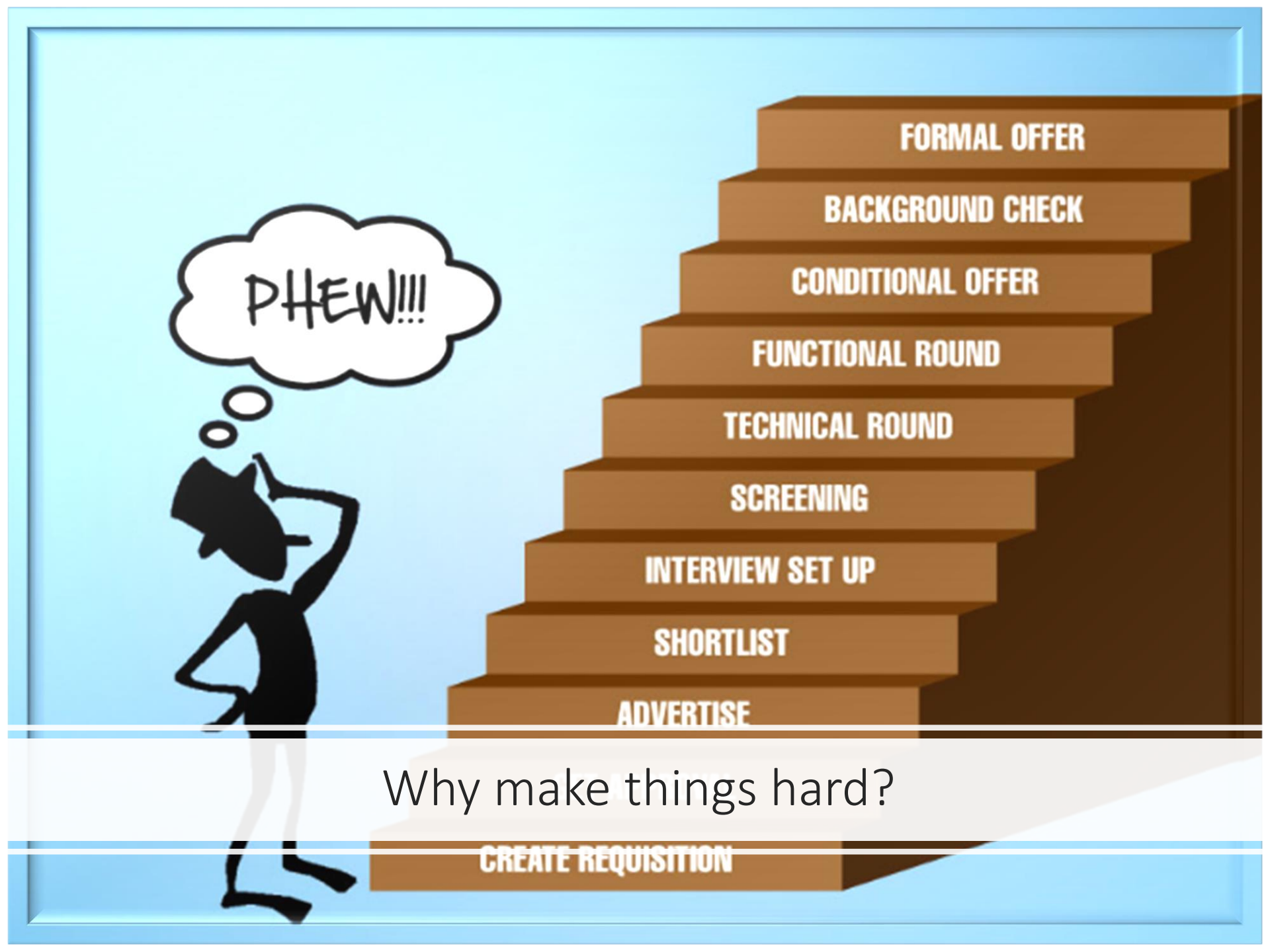
Design thinking is different from other innovation and ideation processes in that it's solution-based and user-centric rather than problem-based.

ACD & Tasks vs. Activities

- Design for the Activity – the task is the support!
- Focusing on specific tasks is too limiting – what do you want

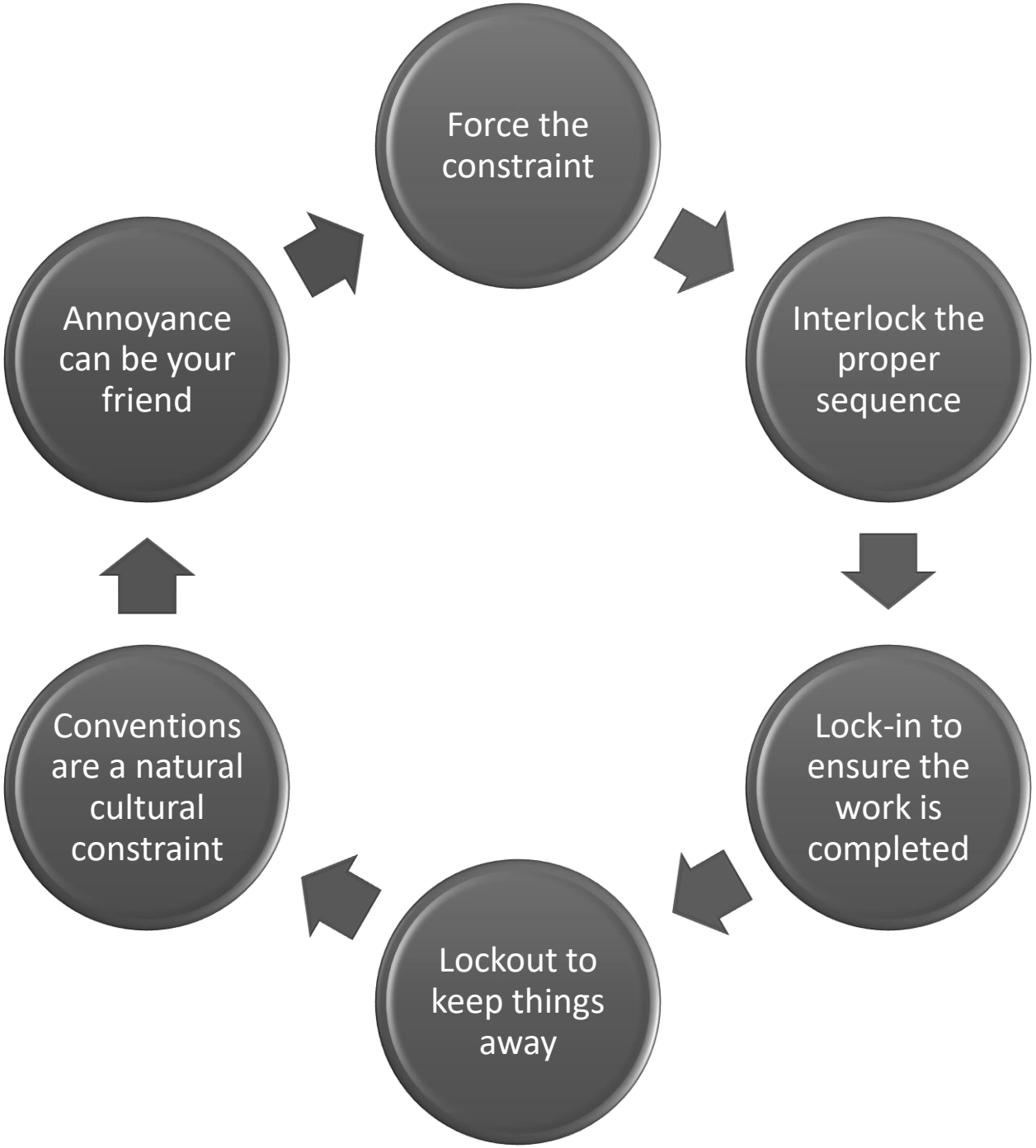
A very old saw to grind – design vs. marketing

Need vs. want



Why make things hard?

Tools


Force the constraint
Interlock the proper sequence
Lock-in to ensure the work is completed
Lockout to keep things away
Conventions are a natural cultural constraint
Annoyance can be your friend

Do you love or hate standards?

“Human Interface Guidelines”

Modal Sheets

A custom modal sheet is a full-screen view that slides over your app’s current screen. Use this type of sheet when you want to present a custom interface modally. The top-left corner of the modal sheet is reserved for the Close button, which dismisses the interface. The Close button is always white.

Retitle the Close button if doing so makes sense. Apple Watch supplies a default title for the Close button, but you can change it to convey a different meaning. The most common alternate titles for this button are Done and Dismiss.

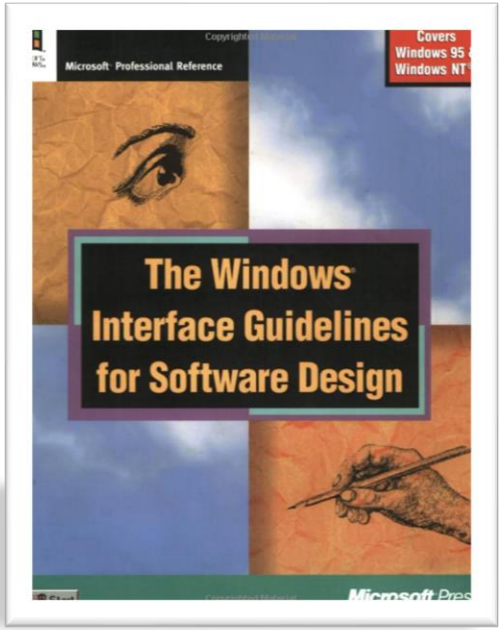
Don’t use “Back” or “<” in the Close button title. You don’t want your custom Close button title to mislead users into thinking that the sheet is part of a hierarchical navigation interface.

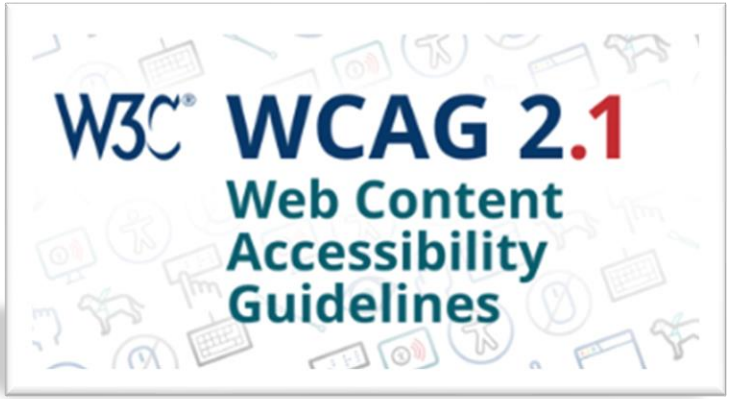
Don’t use the Close button to title the page. If the Close button looks like a page or an app title, or if its title is empty, users won’t know how to dismiss the modal sheet.

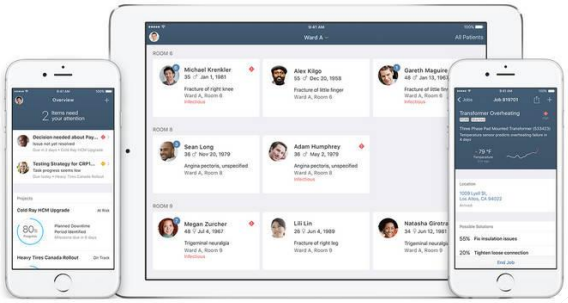
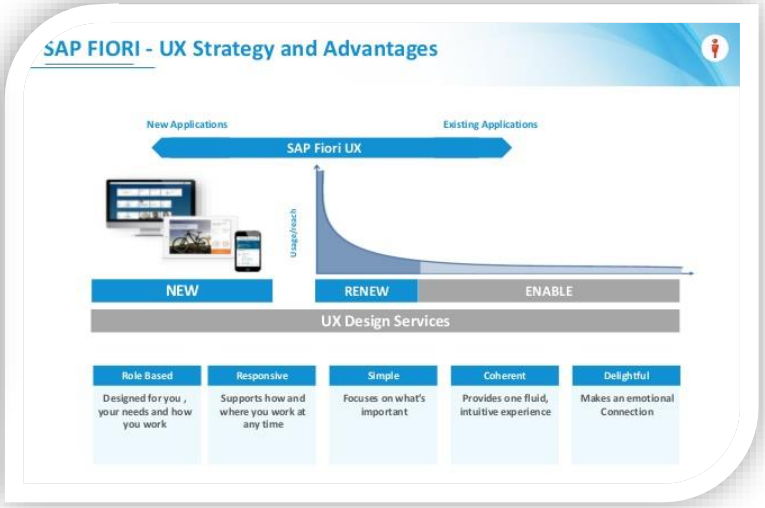
Play

Avoid displaying a second modal sheet from an existing modal sheet. When users close a modal sheet, they expect to return to the main app interface.

And more…





SAP Fiori for iOS

The iOS platform is one of the most advanced mobile platforms with the best native experience. It is only natural to unify the familiar experience of iOS with the best enterprise user experience of SAP Fiori.