



# Design Thinking

MIS3506 \* Lavin \* Spring 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.**

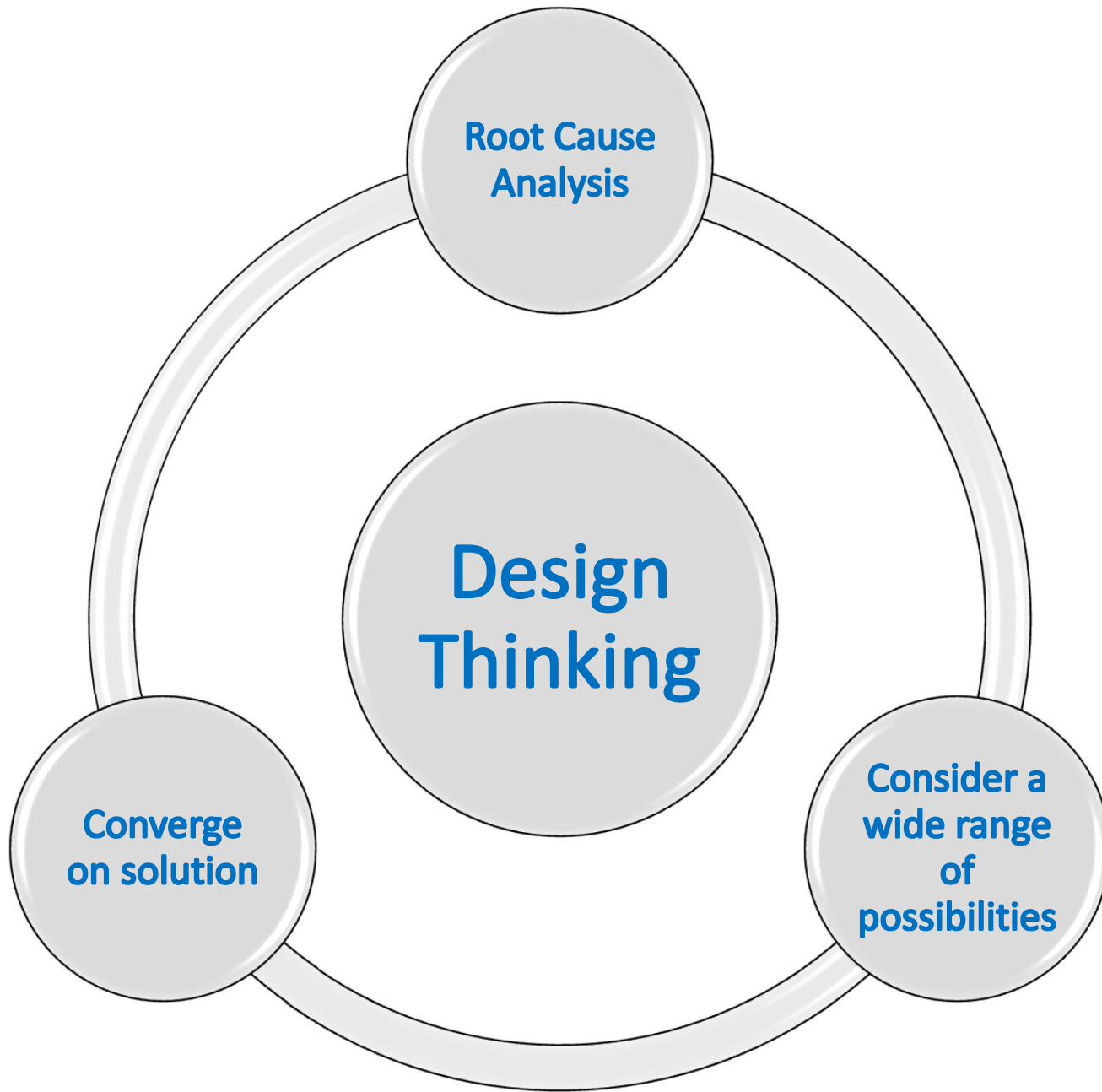
# Design thinking is not solely for designers.



**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.**



# 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



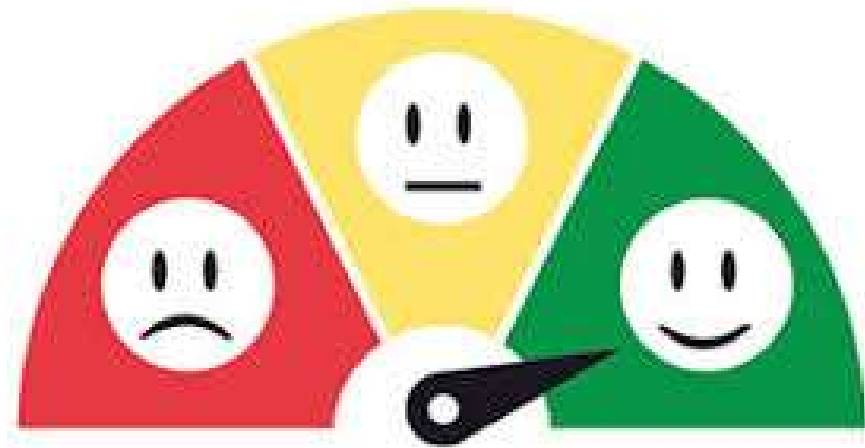
Driven by many things



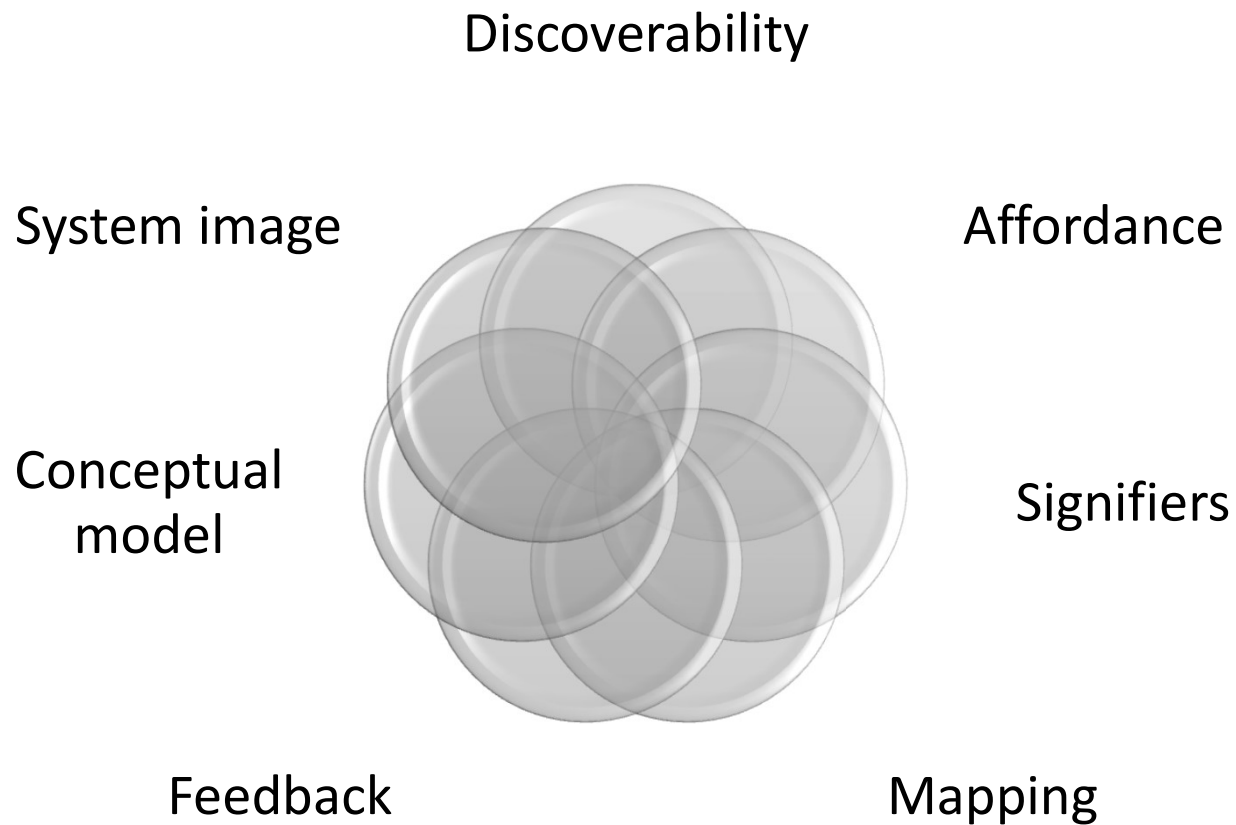
Why do we make products?

# Human Centered Design

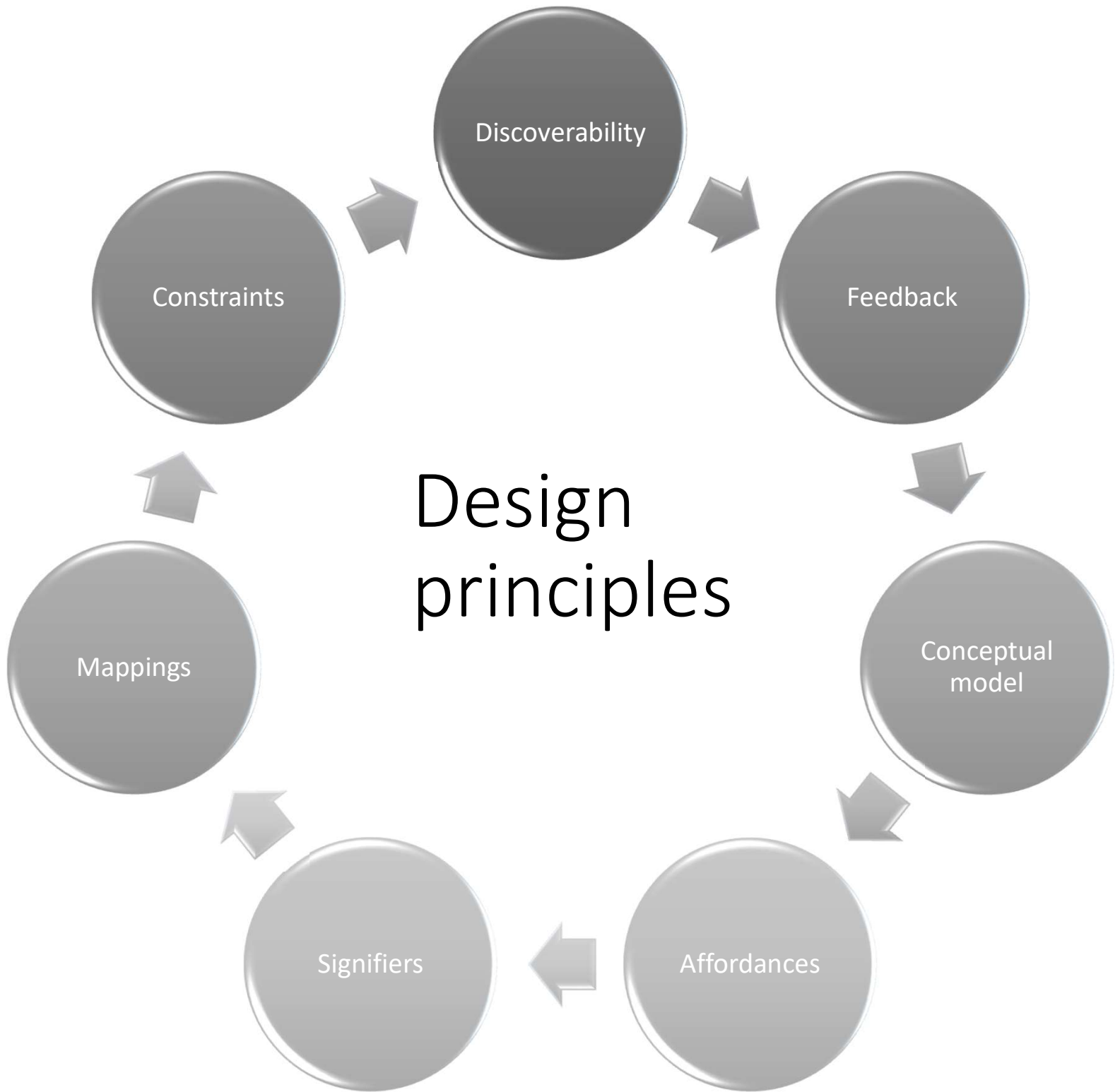
- Focus on human needs, desires, capabilities
- Ensure that people's needs are met
- Usable and understandable products
- Accomplishes desired tasks
- Experience is positive & enjoyable



# The world according to Norman







## COMPANIES USING DESIGN THINKING APPROACH

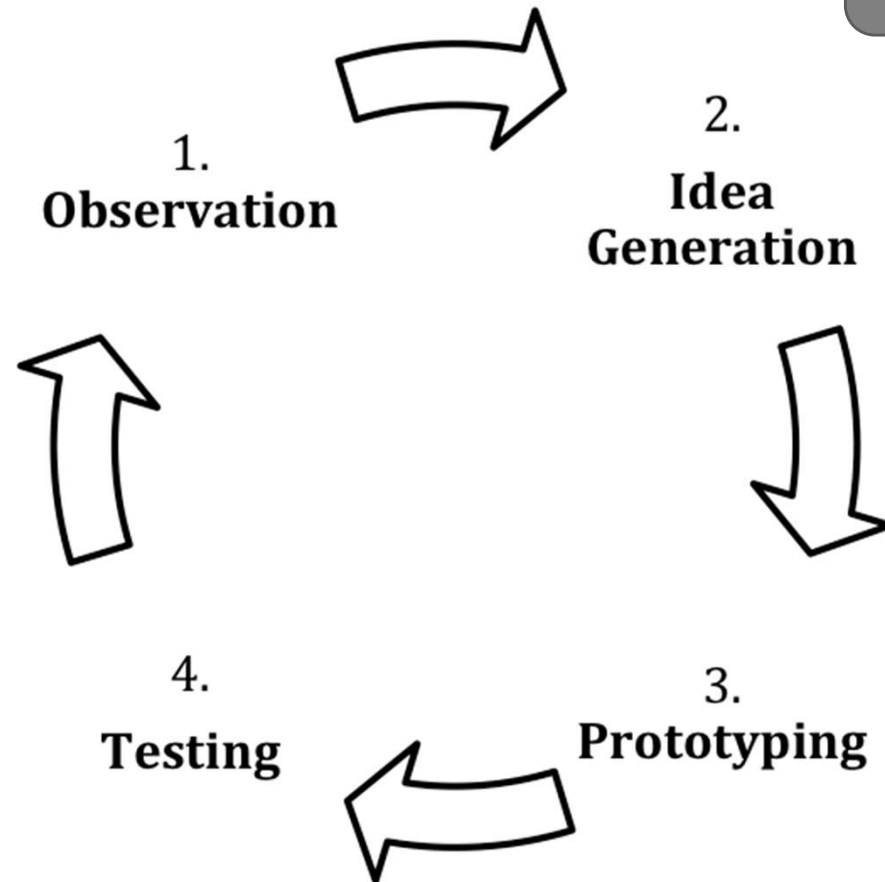
82%

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

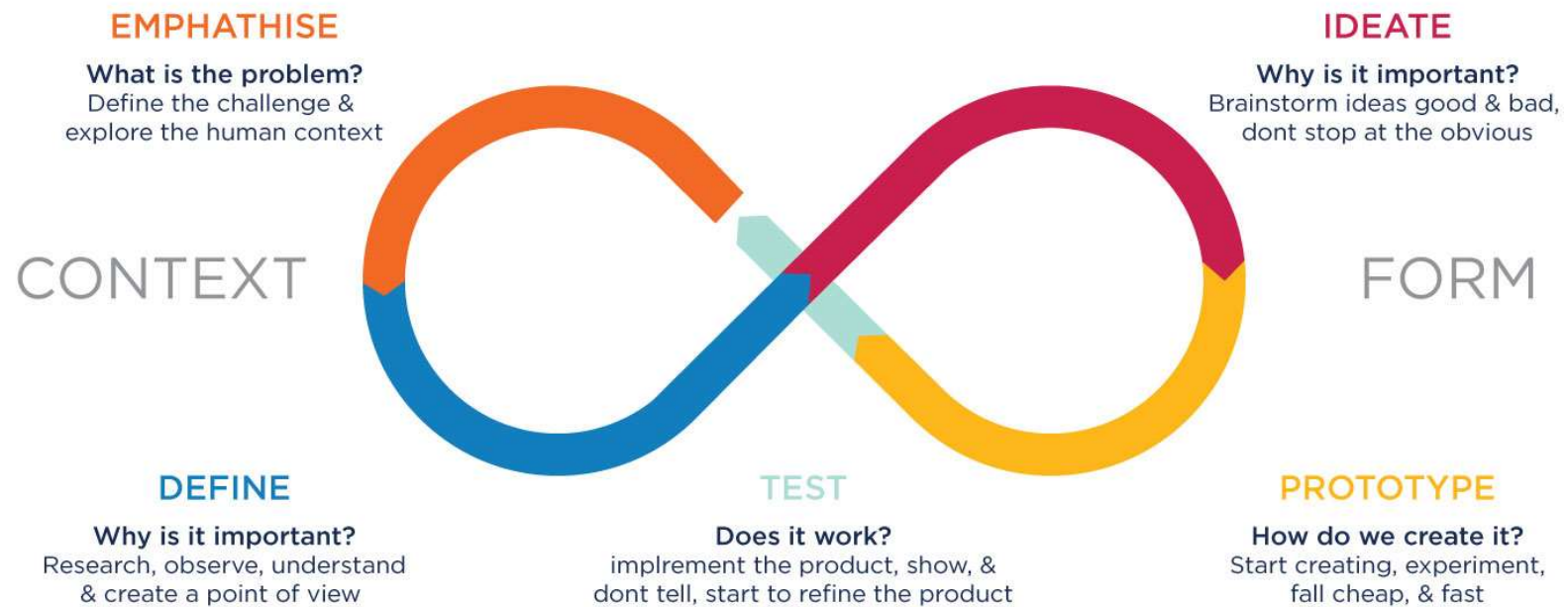
Why is this even a thing?  
Isn't it obvious?



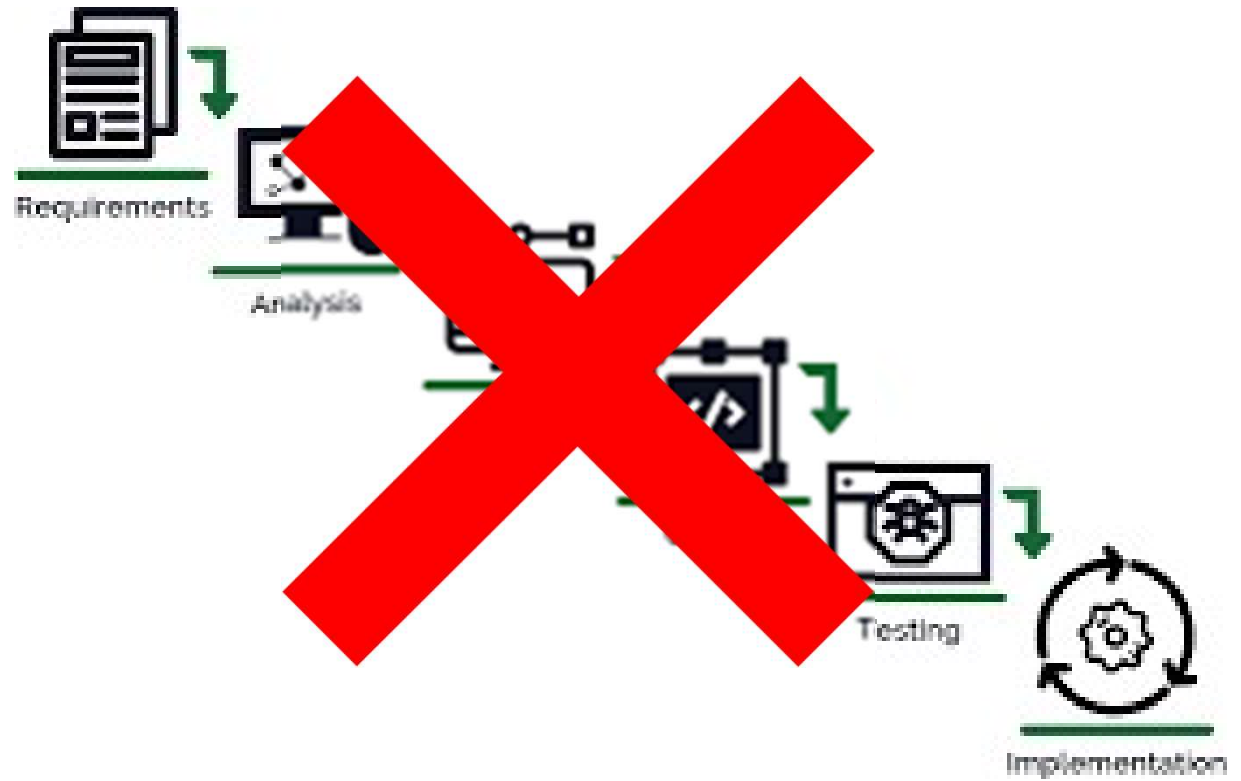
Design thinking is different from other innovation and ideation processes in that it's solution-based and user-centric rather than problem-based.

# DESIGN THINKING

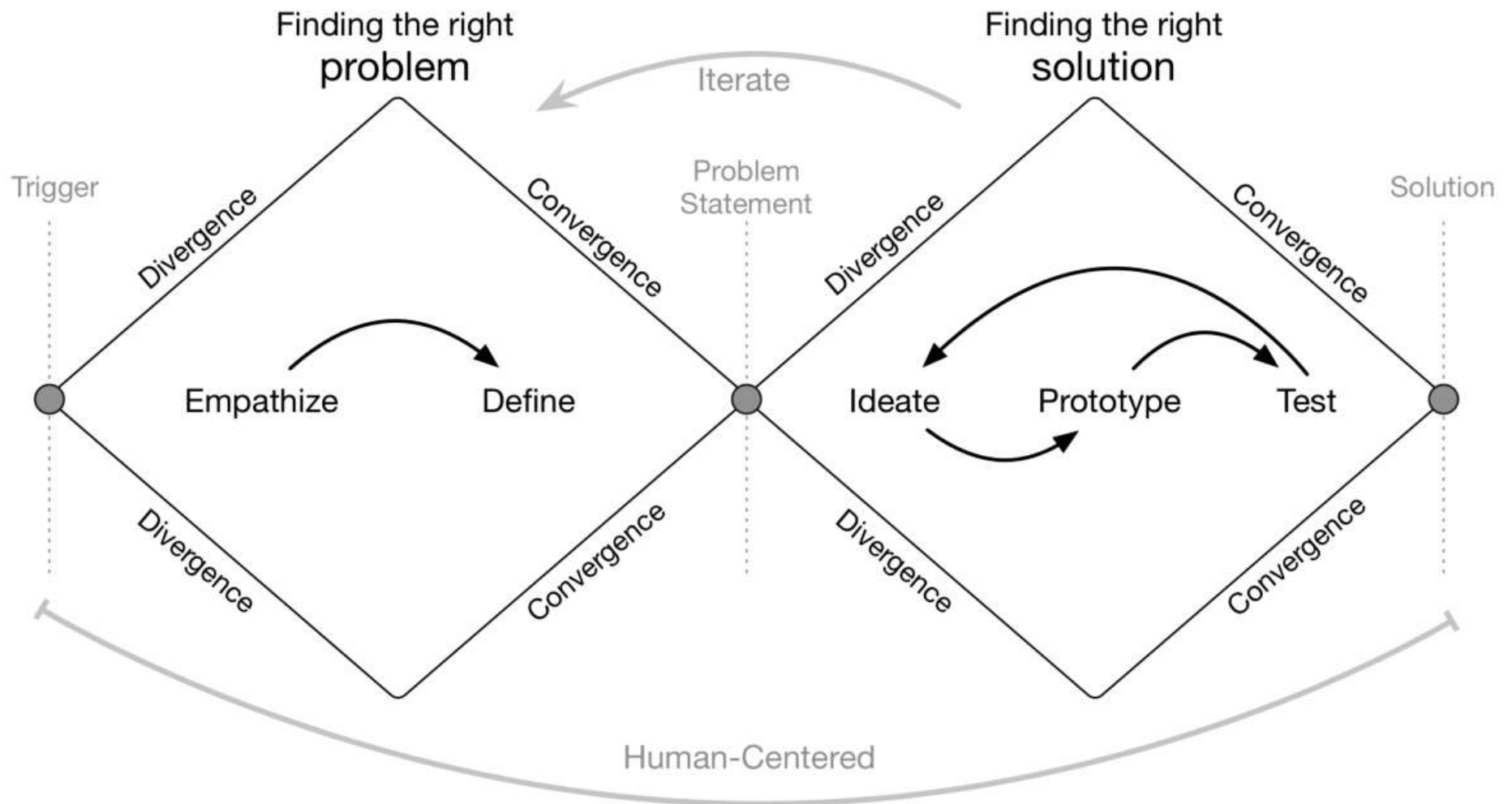
## A FRAMEWORK FOR INNOVATION



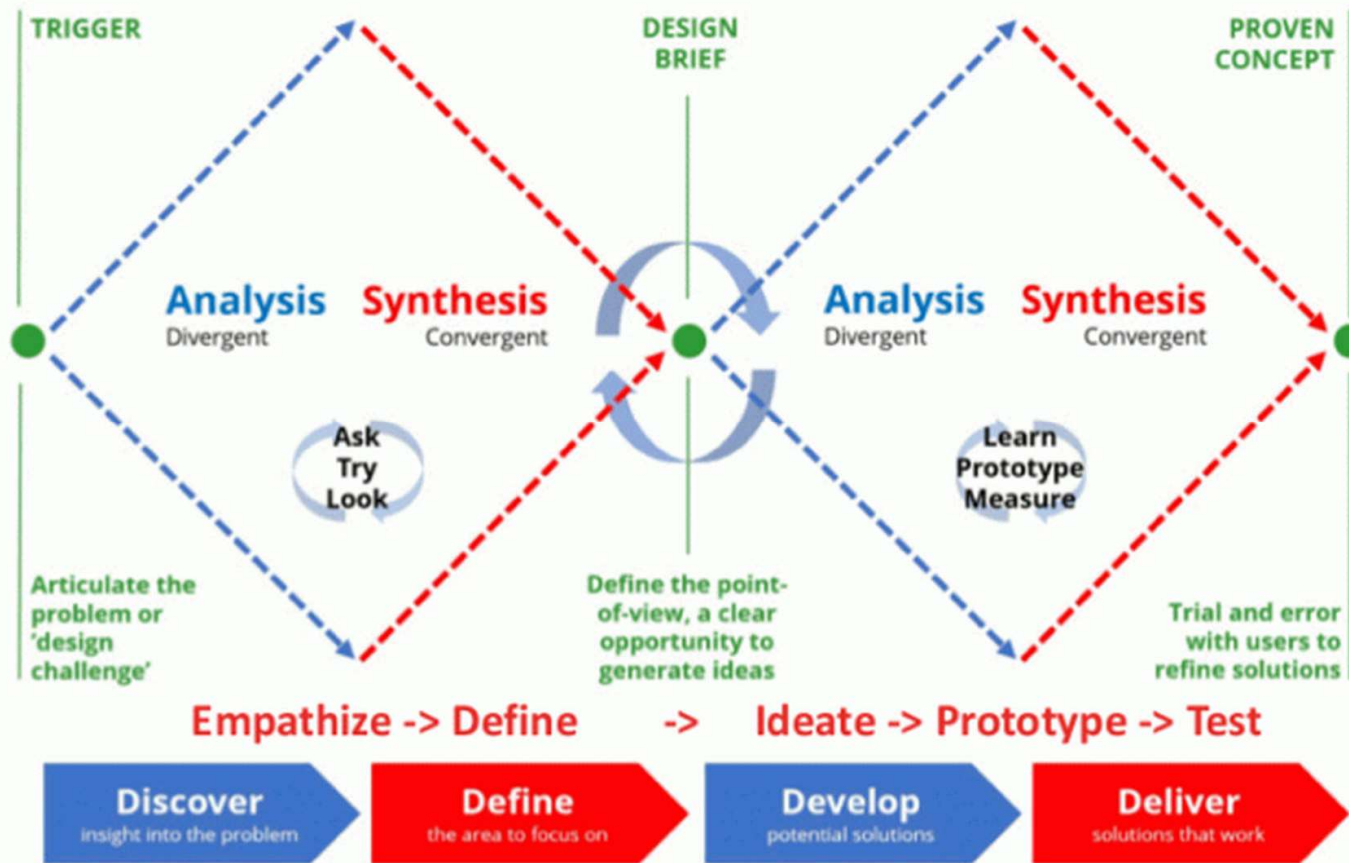
Waterfall



# The New Double Diamond Model of Design Thinking



# Double Diamond



# Effective design satisfies

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





# Start with questions.

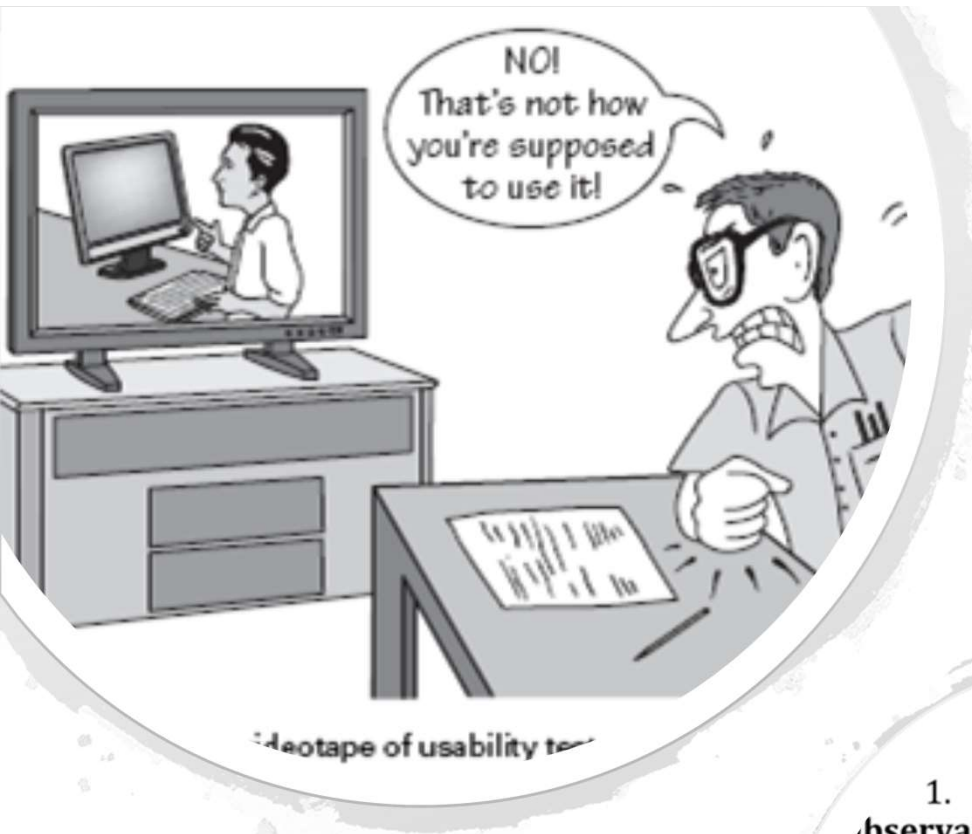
**WHO ARE YOU DESIGNING FOR?**

**WHAT IS THE DESIGN PROBLEM?**

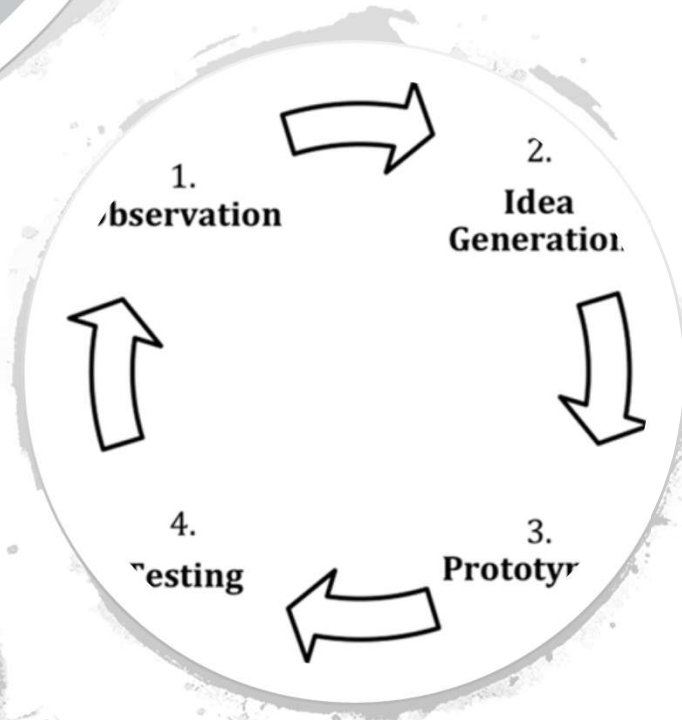
**WHAT RESOURCES DO YOU HAVE?**



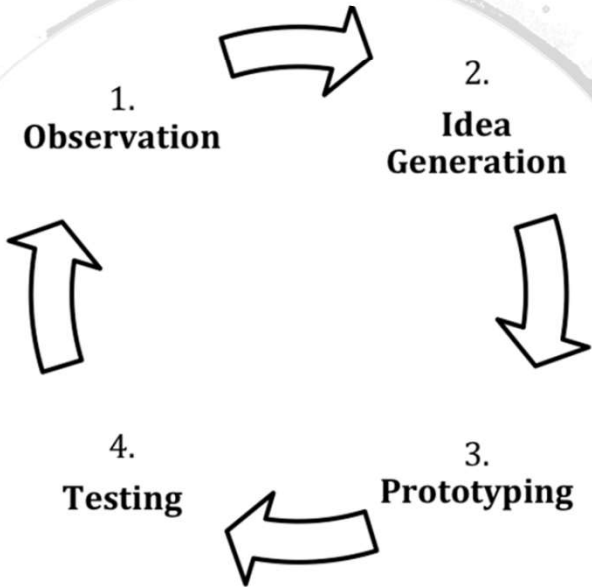
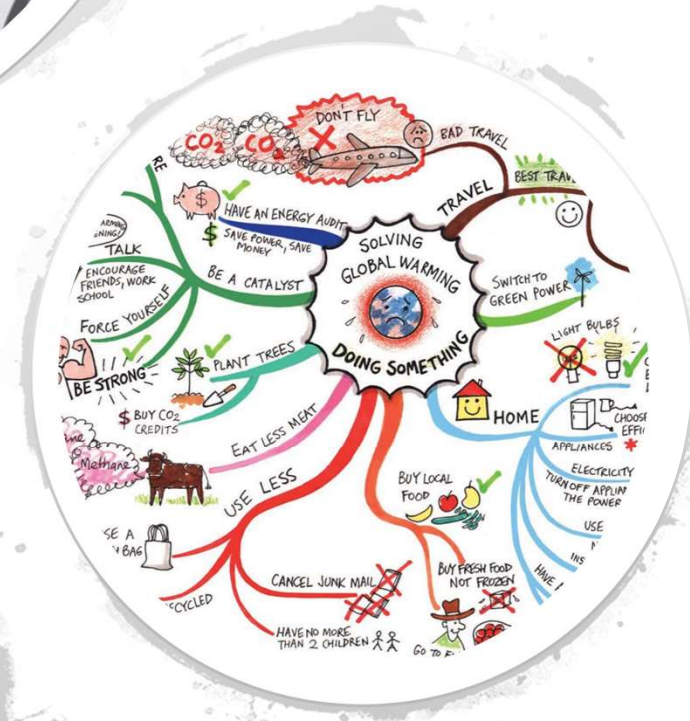
# Observation



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



# Ideation/Idea Generation





# IDEATION PHASE



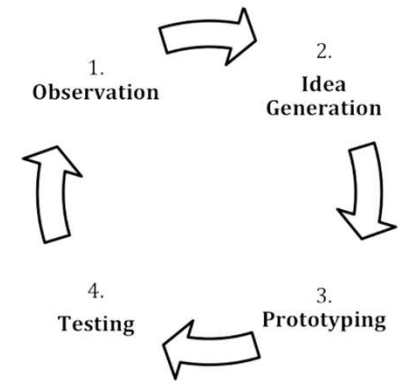
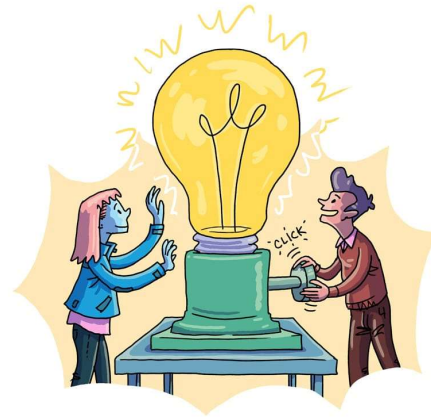
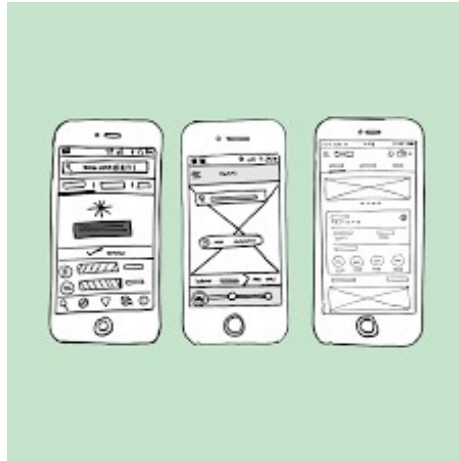
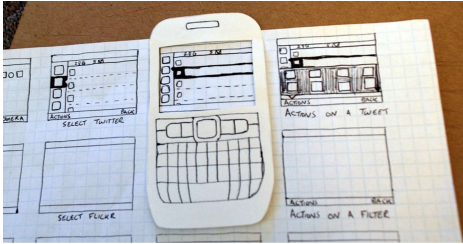
**AVOID  
JUDGMENTS**



**AIM FOR  
QUALITY, NOT  
QUANTITY**



**ENCOURAGE  
WILD IDEAS**



# Prototyping

# Rapid Prototyping



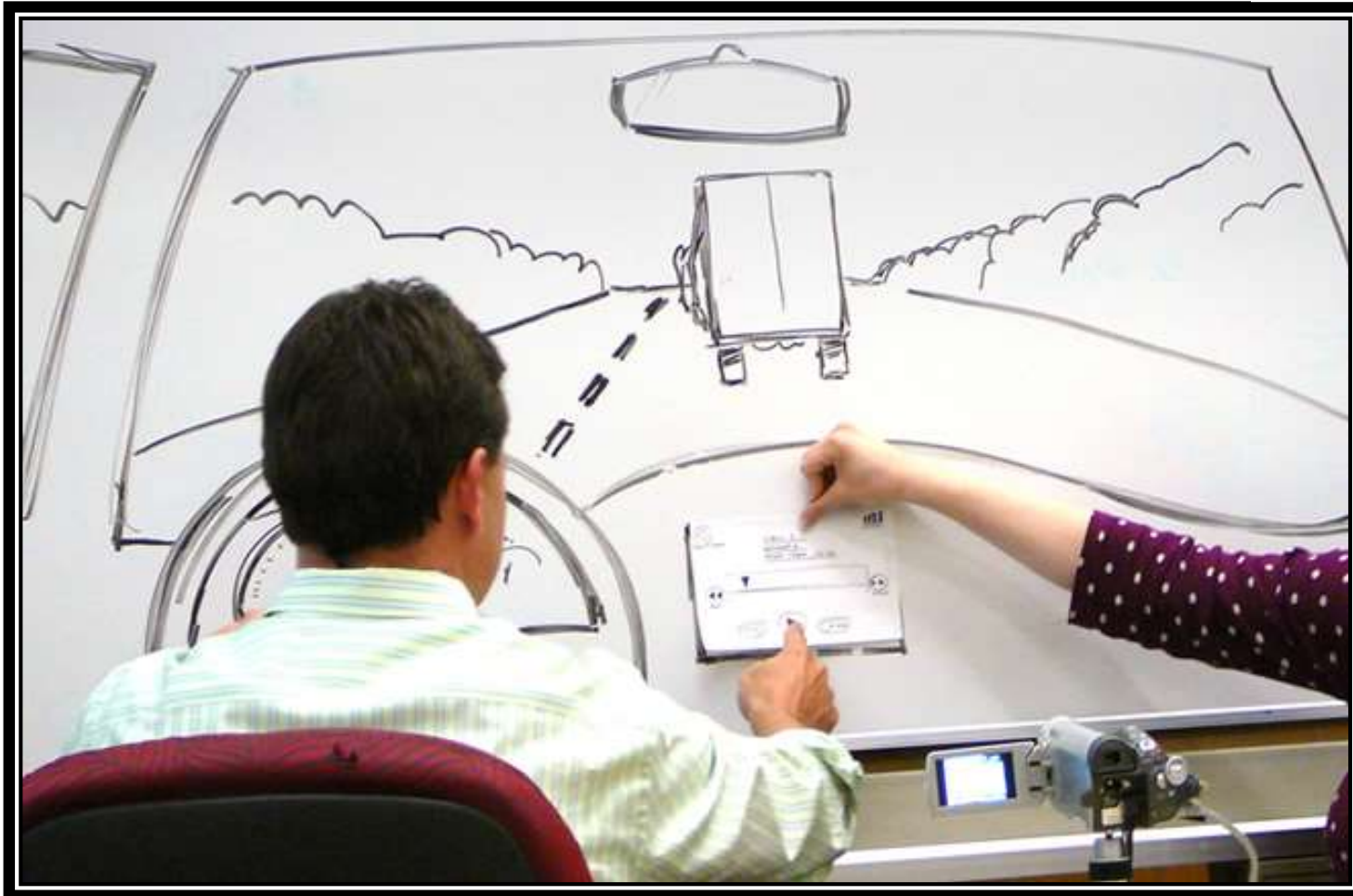
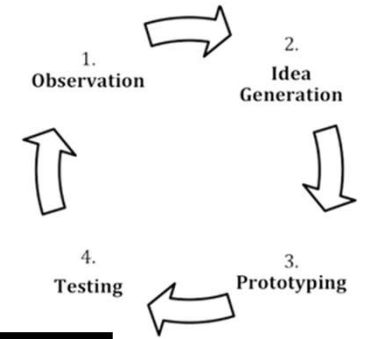
**SHORTEST TIME**

**LEAST COST**

**SIMPLEST MODEL**



# Testing



# Iteration

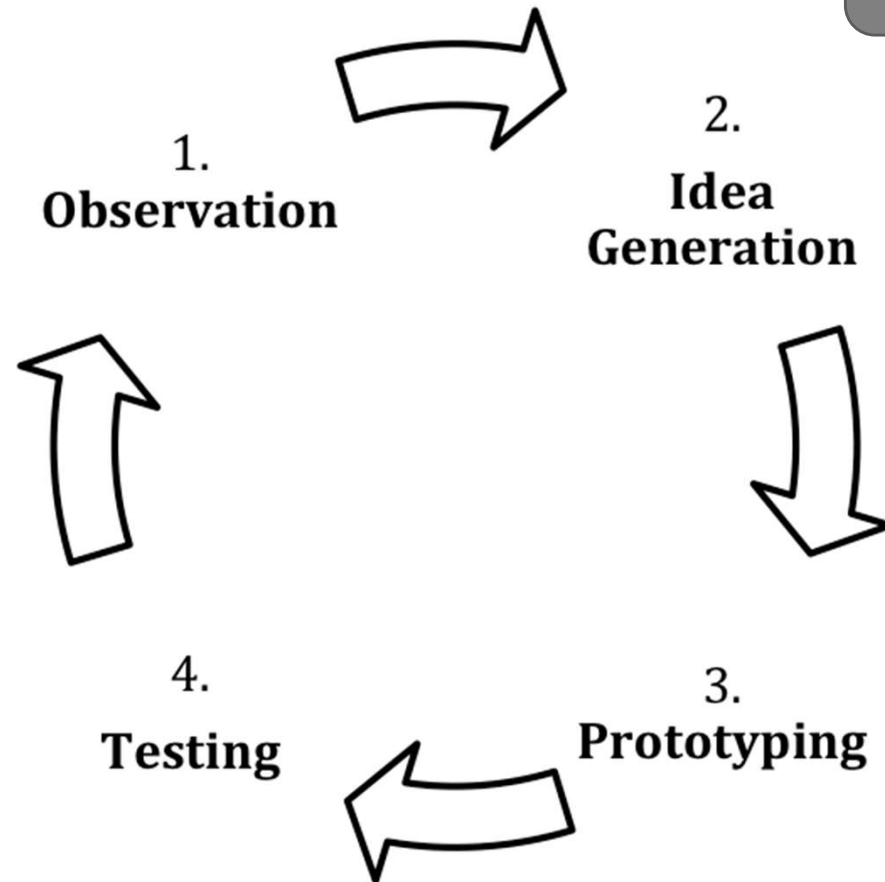
- Requirements are determined by watching people in their natural environments
  - People can't always voice their needs
  - Repeated study and testing!
  - Each cycle removes the fog, gain more clarity
- When does it end? It depends!





# 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





## Design research

- Need
- Use

## Market research

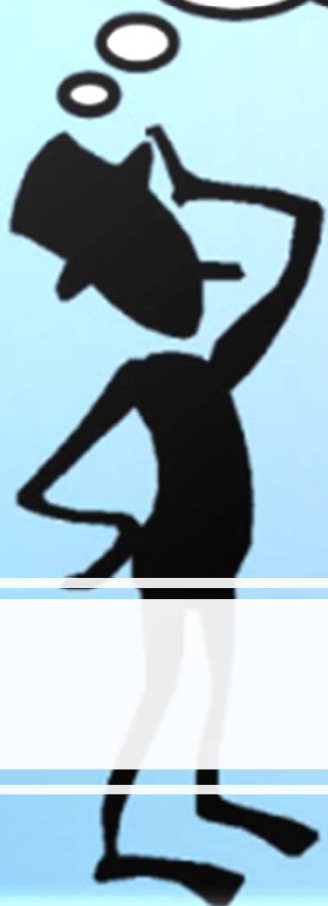
- Want
- Buy

A very old saw to grind – design  
vs. marketing



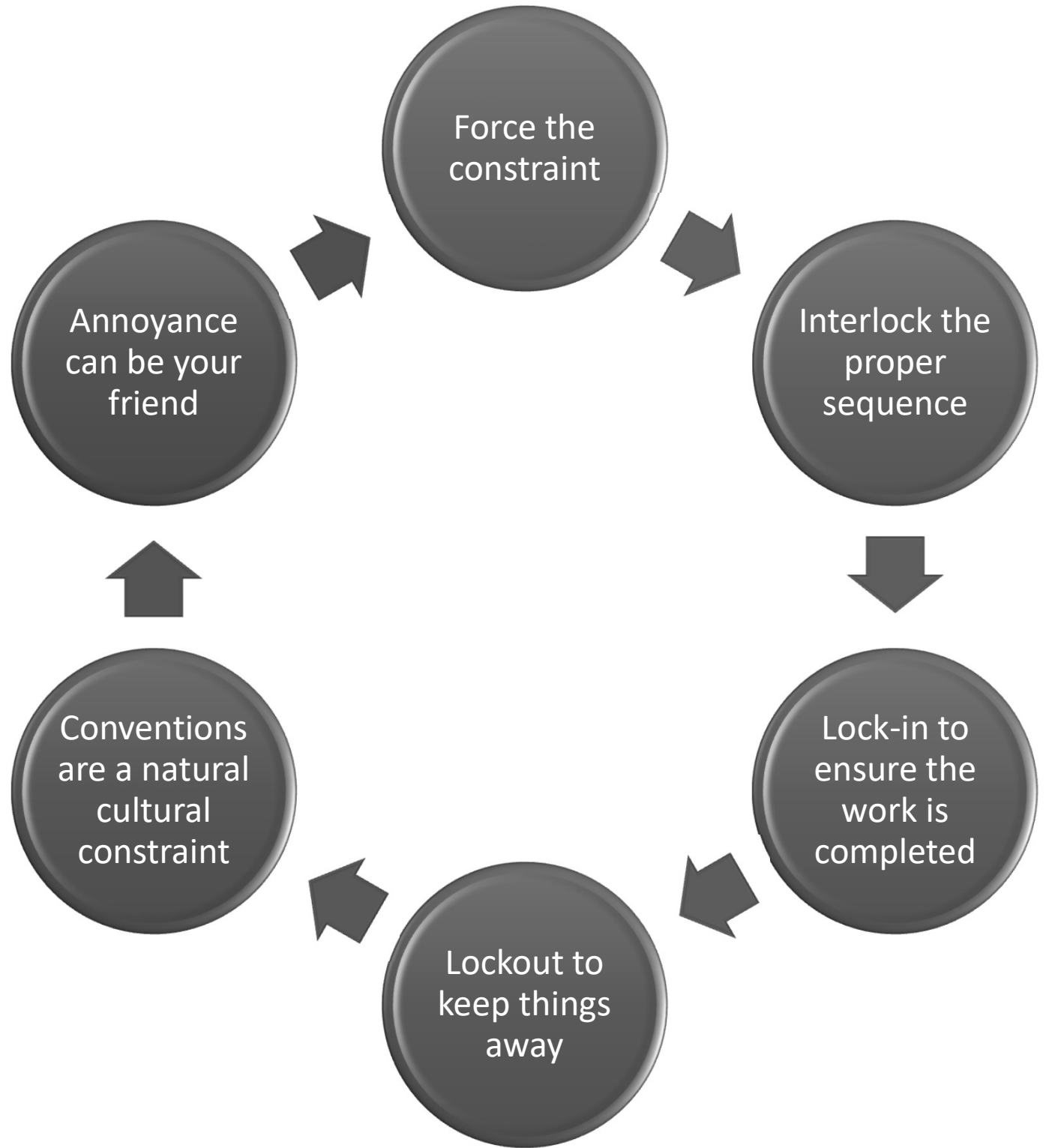
Need vs. want

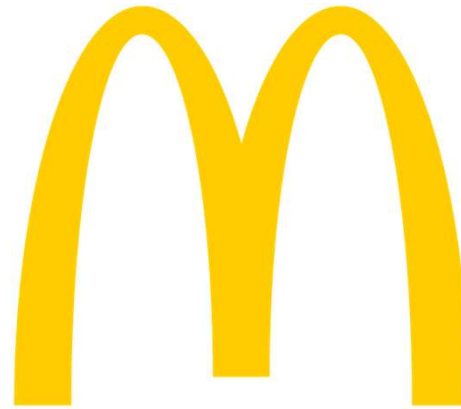
PHEW!!!



Why make things hard?

# Tools





Do you love or hate standards?

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# “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.



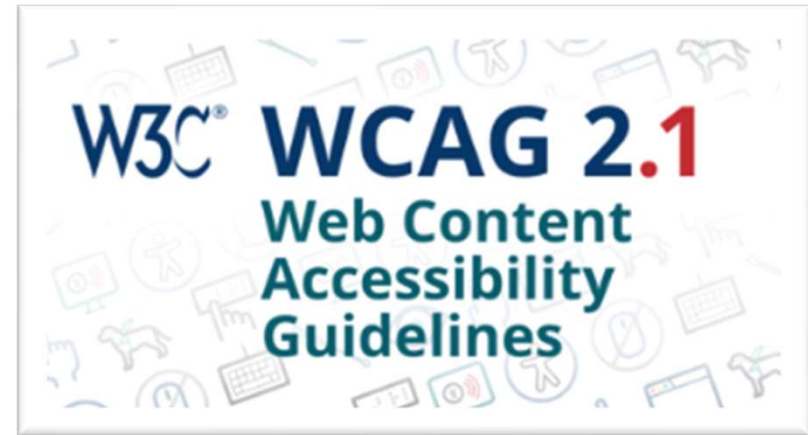
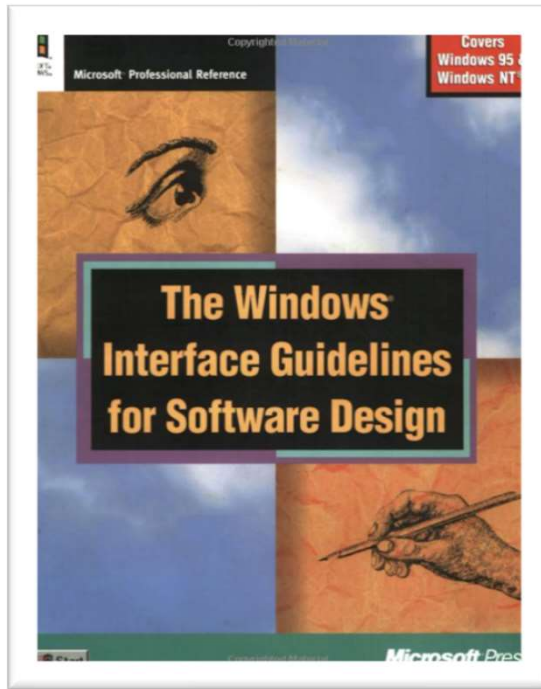
**Don't use the Close button to title the page.** If the Close button looks like a page or an app title, or if its title is empty, users won't know how to dismiss the modal sheet.



**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.

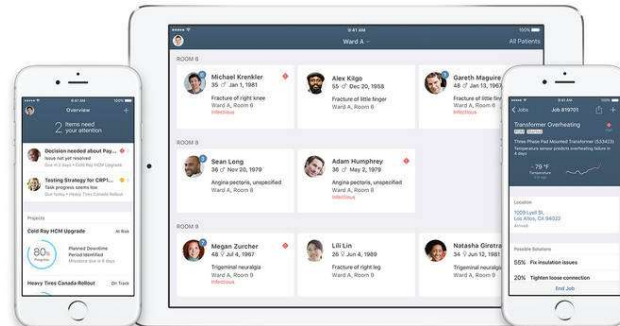


# And more...



## 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.



## SAP FIORI - UX Strategy and Advantages

