

# Design Thinking

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# In this video you will learn:

- Why people often do not buy the products entrepreneurs develop
- How entrepreneurs can better understand people's needs
- The future of the shopping cart
- The role of empathy in developing new products
- Why context is so important

***“Everyone designs who devises  
a course of action aimed at  
changing existing situations into  
preferred ones.”***


Simon (1988: 68)









An aerial view of a person walking away from the camera on a dirt path. The person is wearing a dark jacket and dark pants, and is carrying a red and white bag. The path is bordered by green grass on both sides. To the right of the path, there is a paved walkway made of light-colored bricks. A young tree stands in the grassy area between the dirt path and the paved walkway. In the background, there is a park bench and a black lamppost. The scene is brightly lit, suggesting a sunny day.

User Experience

Design

# Defining design thinking

***“A human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.”***

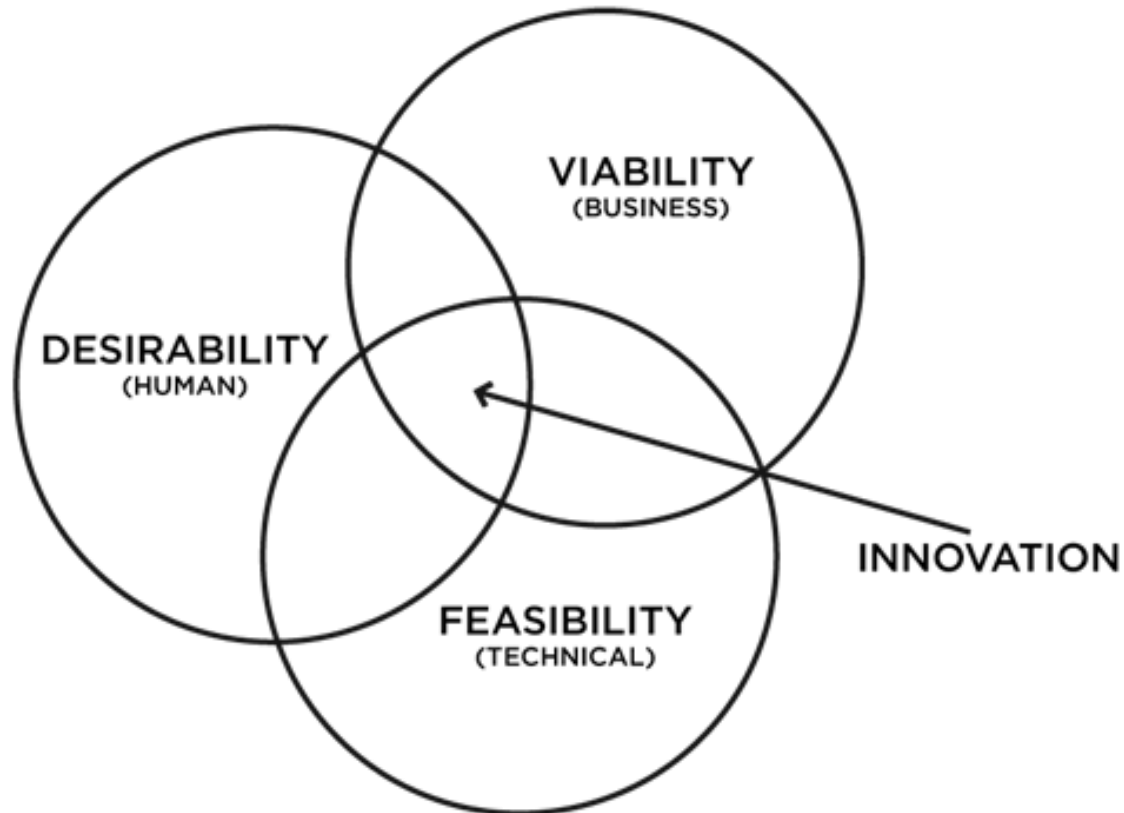
Tim Brown, president and CEO of IDEO

# Design thinking mindset

- Curiosity
- Reframing
- Collaboration
- Mindfulness of process
- Bias towards action



# A human-centered approach



# Redesign of the Shopping Cart



<https://www.youtube.com/watch?v=M66ZU2PClCM>

## Your task (20 minutes)

- Watch the IDEO video (link provided on Moodle)
- Once you done, try to answer the following questions:
  - What are the **stages** of the design process?
  - What can we learn from the process about **team work**?
  - What are **benefits** and **drawbacks** of the new design?

# Shopping cart - Stages of the design process

- Starting point: understand important issues
- Split the group and go outside
- Find out first-hand experience
  - Find out the real experts, so that you can learn quicker. Interviews, no surveys!
  - Try to learn by yourself (learning by doing)
  - „One of the interesting things ...“ (curiosity)
  - Take pictures and share in team
- Demonstrate, communicate, share what they learned
- Work in teams to develop different prototypes
- Combine prototypes
- Present & test



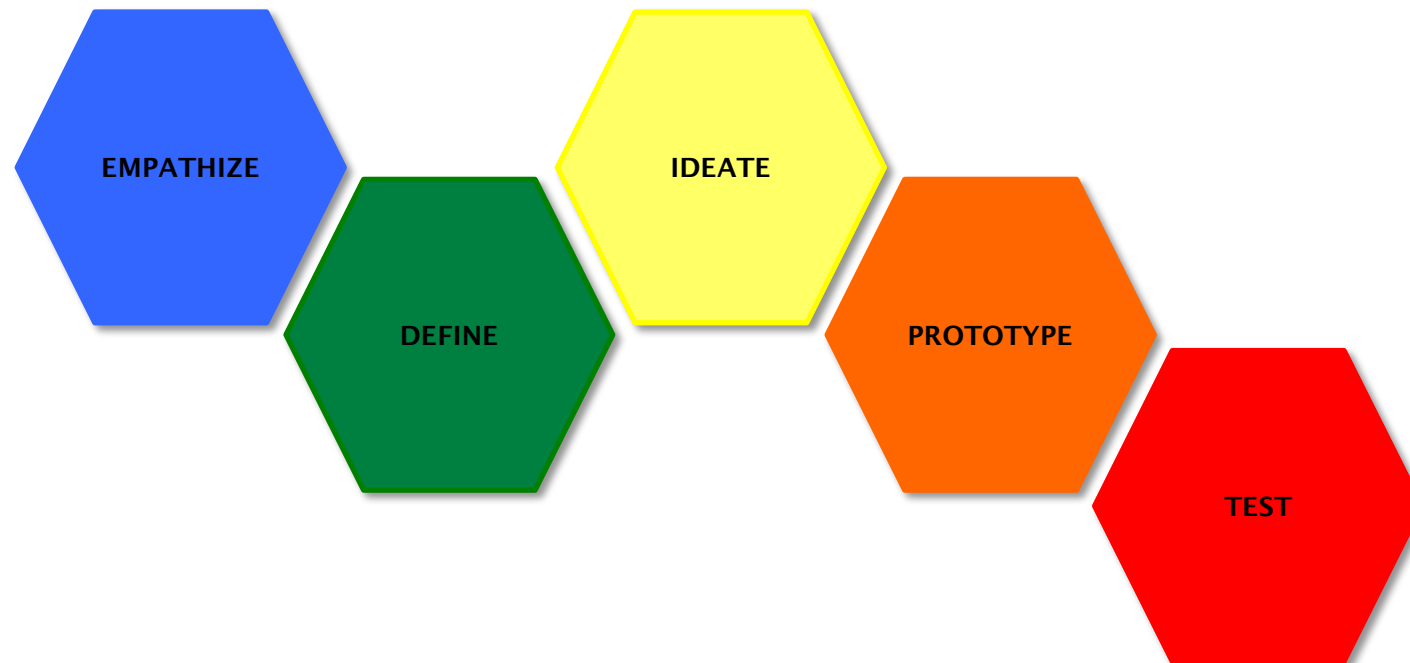
# Shopping cart – Principles of team work

- Deadline to meet (time pressure)
- Experts in process, not domain
- Project leader – one who is good with groups
- Eclectic team members (diversity)
- Sharing ideas with rules:
  - One conversation at a time
  - Encourage wild ideas
  - Stay focused
  - Defer judgement
  - Build on the ideas of others
  - Focused chaos
- Create, visualize what you shared
- Enlightened trial and error succeeds the lone planning of the genius (play). Fail often to succeed sooner
- It's a messy, unplannable process – time constraints help

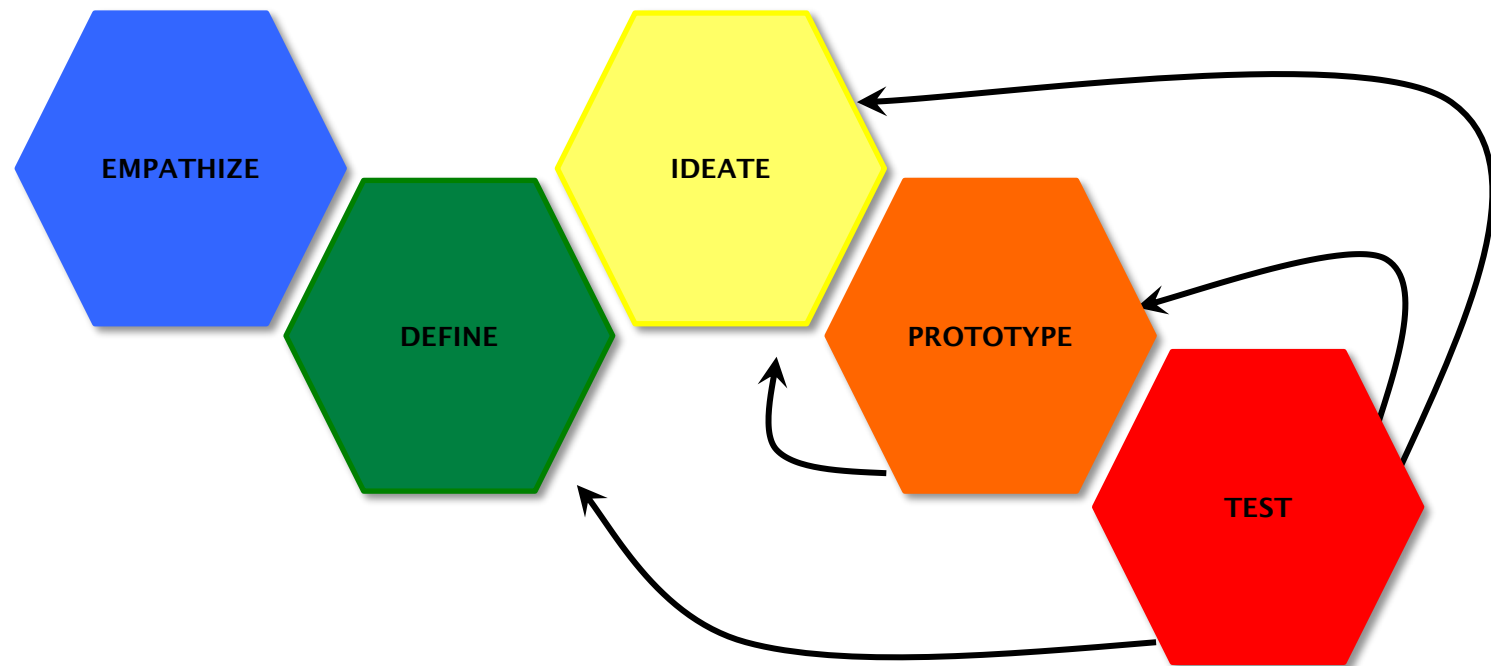
# Shopping cart – Design benefits and drawbacks



# A model of the design thinking process



# Design thinking is iterative





# Design thinking - Empathize

The Empathize mode is the work you do to understand people, within the context of your design challenge.

It is your effort to understand

- the way they do things and why,
- their physical and emotional needs,
- how they think about world,
- and what is meaningful to them.

☐ **Observe**

☐ **Engage**

☐ **Watch & listen!**

# Design thinking - Define

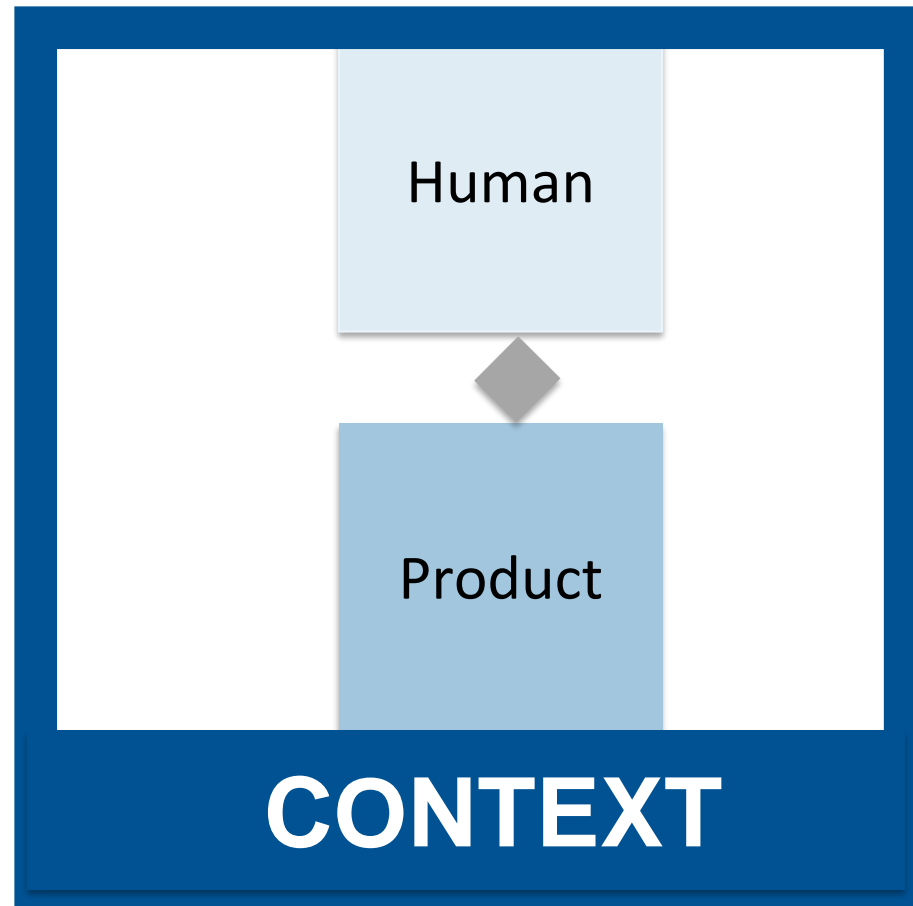
The Define mode is all about **bringing clarity and focus** to the design space.

- making **sense** of the widespread information you have gathered.
- becoming an **expert** on the subject
- gaining invaluable **empathy** for the person you are designing for

## **Goal of the Define mode:**

A meaningful and actionable **problem statement**

# Context is the King



# Exploring a context- contextual interviews



Close connection to target group  
Can happen in the context of a service experience  
Qualitative research to find hidden needs



# Exploring a context- Touchpoints



The different interaction points while using a service  
What are the characteristics of this specific touchpoint?  
What are the specific expectations of the users?

# Design thinking - Ideate

*A mental process of “going wide” in terms of concepts and outcomes, to create fluency (volume) and flexibility (variety) in your innovation options*

*...in order to transition from identifying problems to creating solutions that are both novel and useful....*

*...by using your imagination to understand the problem space and the people you are designing for*

# Creativity techniques

- Brainstorming/Brainwriting
- Conceptual combination
- Checklist method
- Analogical reasoning
- Wouldn't it be nice if...? (WIBNI)
- Mind mapping
- Thinking opposites
- Seeking inspiration
- ...

Often, ideas suddenly emerge when you *stop* thinking about them! The subconscious mind connects the dots.

# Design thinking - Prototyping

*“ideas only become great when they are challenged and tested”*

Ed Catmull, co-founder of PIXAR

A prototype is something that you create with the explicit understanding that it is not the finished product/ service/ experience but instead is intended to be a stepping stone along the way to the finished product/ service/ experience.

—Our definition





# Prototyping – Experienceing dimensions



# Design thinking - Test

Don't assume you can simply put a prototype in front of a user to test it.



The most informative results are achieved if you test in a way that will let users give you the most natural and honest feedback.

# Session summary:

- Human-centered vs. engineering centered product design
- Design thinking as a human centered approach of solving problems
- Design thinking as a five-step iterative process

# References from the class

- Baas, M., De Dreu, C. K. W., & Nijstad, B. A. (2008). A meta-analysis of 25 years of mood-creativity research: Hedonic tone, activation, or regulatory focus? *Psychological Bulletin*, 134(6), 779–806
- Bäcker, T. (2020), visited on 10<sup>th</sup> of October 2020. [timbobaecker.de](http://timbobaecker.de)
- Runco, M. A. (2004). Everyone has creative potential. In R. J. Sternberg, E. L. Grigorenko, & J. L. Singer (Eds.), *Creativity: From potential to realization* (p. 21–30). American Psychological Association.

## Additional material:

Stanford Webinar – Design Thinking: <https://www.youtube.com/watch?v=vSuK2C89yjA>

IBM Think Academy – How it works: Design Thinking: <https://www.youtube.com/watch?v=pXtN4y3O35M>

Design Thinking - Tim Brown, CEO and President of IDEO: <https://www.youtube.com/watch?v=U-hzefHdAMk>

