Collaborative Problem Solving Through Design Thinking

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Agenda

- Welcome & Introductions
- Overview of Design Thinking
- Why is there so much talk about Design Thinking?
- The Design Thinking Methodology
- Idea Dashboard
- Q & A
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**Introductions**
What does Design Thinking mean to you....and why is there so much talk about it?
Design Thinking… An ideology or mindset that involves approaching every problem in a human-centered/user-centered way

A system of tools/processes/steps to help you practice the human-centered problem-solving methodology.
Pssst: the design thinking mindset isn’t really just about design
Helping businesses, teams & individuals think differently about strategic options….

and system impact
Why Design Thinking Works

by Jeanne Liedtka

INNOVATION

FROM THE SEPTEMBER-OCTOBER 2018 ISSUE
Brands that employ design thinking

- 1. Capital One
- 2. Airbnb
- 3. Dyson
- 4. Ikea
- 5. Netflix
- 6. Virgin Atlantic
- 7. Tesla
- 8. IBM
- 9. Barclays
- 10. PepsiCo

April 2019
Distinctions Between Design and Design Thinking or the big D and the little d of design

- “Design thinking can be described as a discipline that uses the designer’s sensibility and methods to match people’s needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity.”

- Tim Brown, CEO & President of IDEO, the design company that popularized the term design thinking

- (stepping down as CEO in August 2019)
 Stanford d.school Design Thinking Process

**Empathize**
- Interviews
- Shadowing
- Seek to understand
- Non-judgmental

**Define**
- Personas
- Role objectives
- Decisions
- Challenges
- Pain Points

**Ideate**
- Share ideas
- All ideas worthy
- Diverge/Converge
- "Yes and" thinking
- Prioritize

**Prototype**
- Mockups
- Storyboards
- Keep it simple
- Fail fast
- Iterate quickly

**Test**
- Understand impediments
- What works?
- Role play
- Iterate quickly

[https://dschool.stanford.edu](https://dschool.stanford.edu)
Immerse yourself in a four-day hands-on design thinking workshop, working in the field and with the Stanford d.school.

Empathy and experimentation. Inspiration and ideation. Design Thinking Bootcamp is a dynamic mix of short instructional lectures, demonstrations, and guided, hands-on teamwork.


**Format**
- In-person | Stanford University
- Full-time

**Program Fee**
- US $12,600
- The program fee includes tuition, course materials, and breakfast, lunch, and light dinner each day. Lodging is not included in the course fee.
FRAME A QUESTION
Identify a driving question that inspires others to search for creative solutions.

GATHER INSPIRATION
Inspire new thinking by discovering what people really need.

GENERATE IDEAS
Push past obvious solutions to get to breakthrough ideas.

MAKE IDEAS TANGIBLE
Build rough prototypes to learn how to make ideas better.

TEST TO LEARN
Refine ideas by gathering feedback and experimenting forward.

SHARE THE STORY
Craft a human story to inspire others toward action.
FRAMING
Defining questions to answer and people to engage

RESEARCH
Learning from people about their needs and values

SYNTHESIS
Finding patterns of behavior and areas of opportunity

CONCEPTING
Creating a high volume of new ideas

PROTOTYPING
Making tangible mock-ups and gathering feedback

PILOTING
Testing solutions in real time with real people
Definitions vary. Similarities exist.

- Creative, collaborative problem solving methodology
- Tools and processes that rely on diverse collaborative efforts while addressing complex issues, problems & challenges
- Design Thinking has not generated entirely new processes; rather it has pulled methodologies from different genres to apply them in new ways
- Gives you a tangible way to ensure that you are keeping the user at the center of your solution
- A design thinking/human-centered design framework invites you to develop a mindset in which to approach problem solving and collaboration
- Transferable. Not exclusive to any field
1. Take a Post-It

2. Draw a Vase. Imagine you are a florist and you want to provide your customers with a really nice vase for your flower arrangements

3. Put it aside
1. Take a Post-It

2. Design a way for people to enjoy flowers in their homes and draw it

3. Put it next to your first vase

Learning how to reframe brainstorming can trigger thinking outside the box
Empathy is the foundation of design thinking/human-centered design (HCD). The problems you are trying to solve are rarely your own; they are those of particular users/beneficiaries. Build empathy for your users by learning what is important to them:
- Observe
- Engage
- Immerse
The define mode explicitly expresses the problem you strive to address. In order to be truly generative, you must reframe your challenge based on new insights gained through your empathy fieldwork. Your reframed problem statement can then be used as a solution-generating springboard.
The goal of ideation is to explore a wide solution space – both a large quantity and a broad diversity of ideas. You ideate to transition from identifying problems to exploring solutions for your users. From this vast repository of ideas, you can build prototypes to test with users.
Prototyping gets ideas out of your head and into the world. A prototype can be anything that takes a physical form: a wall of Post-its, a role-play, an object, etc. Low resolution keep prototypes inexpensive to learn quickly, iterate and explore possibilities.
The test mode is an iterative process in which you place your low-resolution prototypes into the context of your user’s life. Testing is another opportunity to build empathy through observation and engagement and often yields unexpected insights. You learn what you got right, what missed the mark and if the problem is actually framed correctly.
“the very origin of empathy may lie in the need to understand other individuals.”
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<th>Be curious and observe</th>
<th>Create and harbor empathy by keeping humans at the center of the process</th>
<th>Suspend judgement of yourself and others</th>
<th>Navigate ambiguity</th>
<th>Show unfinished work</th>
<th>Make ideas visible</th>
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**Personal Design Behaviors and Attitudes**
The structure of design thinking creates a natural flow from research to rollout. Immersion in the customer experience produces data, which is transformed into insights, which help teams agree on design criteria they use to brainstorm solutions. Assumptions about what’s critical to the success of those solutions are examined, then tested with rough prototypes that help teams further develop innovations and prepare them for real-world experiments.
Fail forward…

https://youtu.be/8y-1h_C8ad8?fbclid=IwAR0u5DMZ7S0CVA2iGi8su8jMtwb2zdPU1L4Zcy2z4fFu781M6alHfwysB0
Thermodynamics

A nifty way to clarify tools is to use a square (source: example)

Collecting & capturing user & customer insight

Analysis & synthesis

Ideating concepts

Prototyping & evaluation

Problem space

Solution space

Aim: Discover and define problem(s) to be solved

Aim: Develop solution(s) to problem(s)
“If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.”

– Albert Einstein
The best way to learn design thinking….is to do it!
IDEA DASHBOARD
FLESH OUT YOUR INTERVENTION

WHAT...
What is the intervention/product?

WHY...
What changes does it create for you?
What is a change it would be easier to manage?

WHO/HOW...
Who can also benefit from the system?

DRAW IT
Questions??
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