

Design Thinking

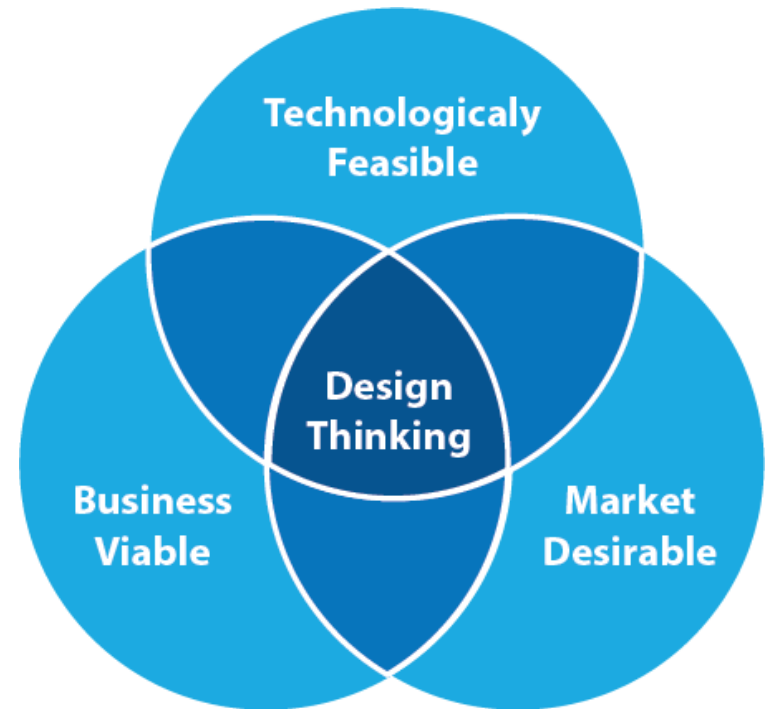
Introduction

- “*Design thinking is a human-centered approach to innovation that integrates the needs of people, the possibilities of technology, and the requirements for business success.*” - Tim Brown, CEO, IDEO
 - Follows a systematic innovation process that serves as a toolbox for stimulating problems.
 - Involves applying concepts of design thinking and hypothesis-driven innovation (popularised by the term, *lean startup*) to design and test.
- **Expectation from You:**
 - Use the design thinking and hypothesis-driven innovation processes to develop viable solutions to user challenges.
 - Gain user empathy through observation and interviewing to develop user insights to identify unmet needs.
 - Use multiple brainstorming techniques to find innovative solutions
 - Develop and test a model or case to support the viability of the solution.
 - Prototype a solution to a user challenge.



Introduction

- It is a methodology for creative problem-solving -- provides a solution-based approach to solve problems.
- Induces a deep human-centric understanding to deliver delightful client experiences through quick iteration of ideas.
- Useful in tackling complex problems by re-framing the problem in human-centric ways.
- Helps to adopt a hands-on approach in prototyping and testing
- Empowers anyone to apply design thinking methods to solve complex problems that occur around us.



➤ Some of world's leading brands who are using design thinking - Netflix, Apple, Google, HBO, Samsung, World Bank, General Electric etc.



The Philosophy of Design Thinking

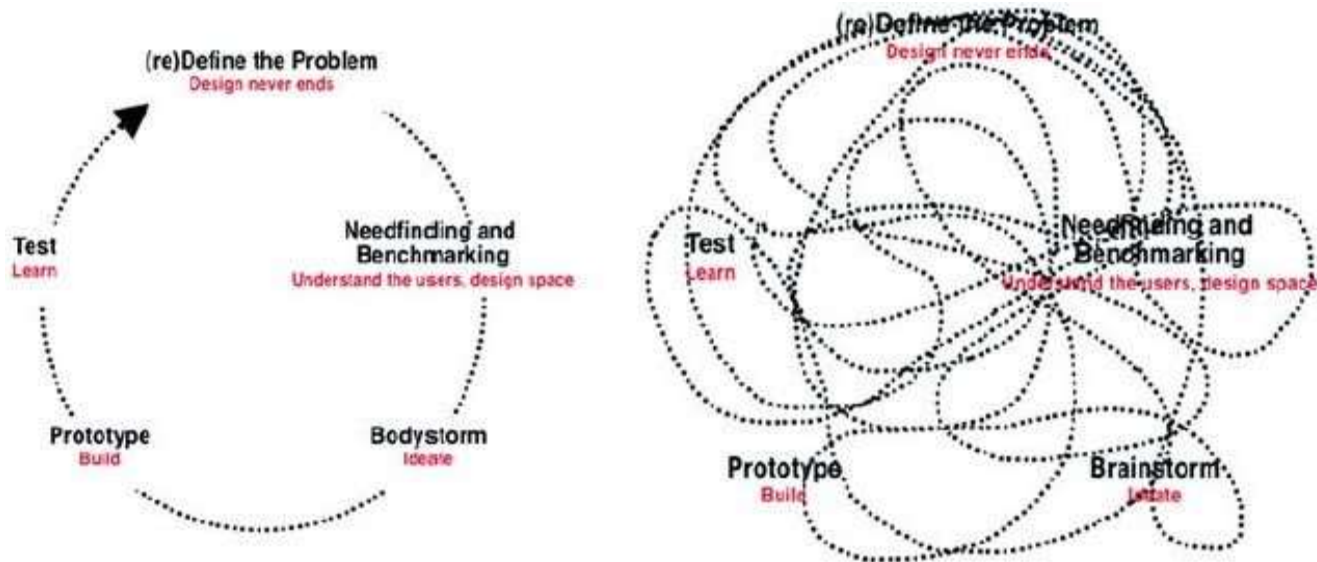


Fig. 1 Design thinking is commonly visualized as an iterative series of five major stages. To the left we see the standard form. To the right we see something closer to reality. While the stages are simple enough, the adaptive expertise required to choose the right inflection points and appropriate next stage is a high order intellectual activity that requires practice and is learnable



Overview Of Design Thinking

- The term *design thinking* is generally referred to as applying a designer's sensibility and methods to any problem solving
- Emphasizes *observation, collaboration, fast learning, visualization of ideas, rapid concept prototyping, and concurrent business analysis* which ultimately influences innovation and business strategy
- Creates a vibrant interactive environment that promotes learning through rapid conceptual prototyping
- It is a tool to imagine future states and to bring products, services, and experiences to market.
- The objective is to involve consumers, designers, and businesspeople in an integrative process, which can be applied to product, service, or even business design.
- It is *a methodology for innovation and enablement*.



Rules of Design Thinking

- The Human Rule: All Design Activity Is Ultimately Social in Nature
 - Solve technical problems in ways that satisfy human needs and acknowledge the human element in all technologies and managers.
- The Ambiguity Rule: Design Thinkers Must Preserve Ambiguity
 - Innovation demands experimentation at the limits of our knowledge and ability to control events, and with freedom to see things differently
- The Re-design Rule: All Design Is Re-design
 - Understand how human needs have been addressed in the past and apply “foresight tools and methods” to better estimate social and technical conditions we will encounter in the future
- The Tangibility Rule: Making Ideas Tangible Facilitates Communication
 - Idea is “prototypes are communication media.”
 - Seen as media, we now have insights regarding their bandwidth, granularity, time constants, and context dependencies to “make it tangible”



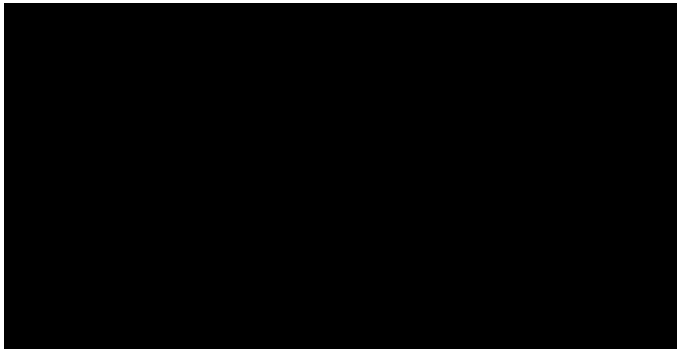
Key Tenets Of Design Thinking

- First: Develop a deep understanding of the consumer based on fieldwork research
 - Using an empathic approach can be both a source of inspiration and an aid to reaching consumer insights and discovering unarticulated user needs.
 - Getting out in the real world with consumers, with open-minded collaboration, even with co-design concepts
 - Includes observational research and ethnographic methods, by watching, listening, discussing, and seeking to understand.
 - The key is to start from a seeking to understand point of view—not in seeking persuasion
- Second: collaboration, both with the users and through forming multidisciplinary teams
 - This helps to move toward radical innovation, rather than incremental improvement, and of course seeks added value



Key Tenets Of Design Thinking

- Third: accelerate learning through visualization, hands-on experimentalism
 - Creating quick prototypes, which are made as simple as possible in order to get usable feedback
 - Help grasp a potential implementation well before many resources are spent in development
 - Goal is to *fail quickly and frequently* so that learning can occur.
- Failing quickly is a stated objective at Pixar Animation Studios because it leads to better work done more quickly
[<https://www.pixar.com/>, <https://www.pixar.com/pixar-in-a-box>]



Key Tenets Of Design Thinking

- Fourth: visualization of concepts to make the intangible become tangible
 - Prototypes can be concept sketches, rough physical mock-ups, or stories or role-playing or story boards – any form of visualization
 - Using visual explanations provides context, which is greatly helpful when the consumer is a partner in concept development
- Fifth: concurrent business analysis integrated during the process
 - Enable integrative thinking by combining the creative ideas with more traditional strategic aspects in order to learn from a more complete and diverse point of view
 - In collaboration, constraints can be removed and great ideas can emerge.
 - Helps in anticipating the business activities required by a conceptual new product, service, or experience offering, as well as the resources it may require and the competitive landscape in which it will appear.



Key Tenets Of Design Thinking

Design Thinking makes us use our observation, empathy and understanding of the audience to design experiences that create opportunities to engage the audience.



Human-centered
Design



Needs
Finding



Interviewing and
Empathy-building
Techniques



Making Sense
of Observations
And Insights



Defining
a Point of
View



Ideation



Developing and
Testing Prototypes



Defining and Testing
Business Models
and Business Cases



An Analogy: Digital photography

- First, look for the big picture as well as the details.
 - Thinking and observing are in zoom mode - both macro and telephoto views
 - By thinking like designers—being able to see the details as well as zoom out to the big picture—we can really add value by challenging the status quo.
 - We collaborate with the subjects and hunt for the best angles to represent the picture of our ideas and observations.
- In the second step, process information.
 - Visualize by quick previews; we sort, trash, re-zoom, rethink, and immediately share the findings and observations with others.
 - Similarly, design thinking moves through process, preview, and share modes.
- Third, demonstrate results by producing final, visualized concepts.
 - Apply business methodology to best prepare the idea, like image-enhancing software.
 - The final image—the result—is a plan for a product, service, experience, or business strategy



What is Design Ability?

“What I mean by design is doing things with intention, trying to decide what’s important to somebody, building a bunch of prototypes and showing them around, developing a point of view and getting it out so that it has impact in the world. So design is really a process of making impact on the world by doing this kind of creation of something new to the world and then getting it out there.”

– David Kelly, Founder IDEO

“Our job is to give the client, on time and on cost, not what he wants, but what he never dreamed he wanted; and when he gets it, he recognises it as something he wanted all the time.”

– Denys Lasdun, architect.

- Design ability is a collective or shared ability: not individualistic.
- Some application areas:
 - In the areas of brand value, for service design, for customer experiences, etc.



Some Related Terms

- **Design thinking** is an innovation process to discover unmet needs and opportunities and to create new solutions.
 - It is part of the “fuzzy front end” and is also being adopted to help reinvent businesses, as in solving “wicked” problems and business transformation.
 - It is about connecting ideas and methods from different areas of thought in order to create new structures, new associations, new combinations.
- **Design management** is the ongoing management and leadership of design organizations, processes, and designed outputs— products, services, communications, environments, and interactions.
- **Design leadership** and **design strategy** are outputs of effective design thinking and design management.
 - Design management and leadership lie in the area of integrating design into business and in continuous development and improvement, whereas design thinking is more interested in front-end



*Thank
you*

