

Pocket Reference Book for User Center Design



This pocket reference book will arm you with methodologies and tools that have been discussed during the 2 day workshop on User Centered Design. It contains most important web-links for further reference and case study references for Urban Development.

This document has been written for the CITIIS
(City Investments To Innovate, Integrate and Sustain)
Program as a tool for User Centered Design.

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Design

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USER CENTER DESIGN WORKSHOP

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About user centered design

Human-centered design is a creative approach to problem solving. It's a process that starts with the people you're designing for and ends with new solutions that are purpose-built to suit their needs. Human-centered design is about cultivating deep empathy with the people you're designing for; generating ideas; building a bunch of prototypes; sharing what you've made with the people you're designing for; and eventually, putting your innovative new solution out in the world.

Design thinking, as IDEO's Tim Brown explains, is a human-centered approach to innovation. It draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success. Successful innovations rely on some element of human-centered design research while balancing other elements. Design thinking helps achieve that balance. It lets people find the sweet spot of feasibility, viability and desirability while considering the real needs and desires of people.*

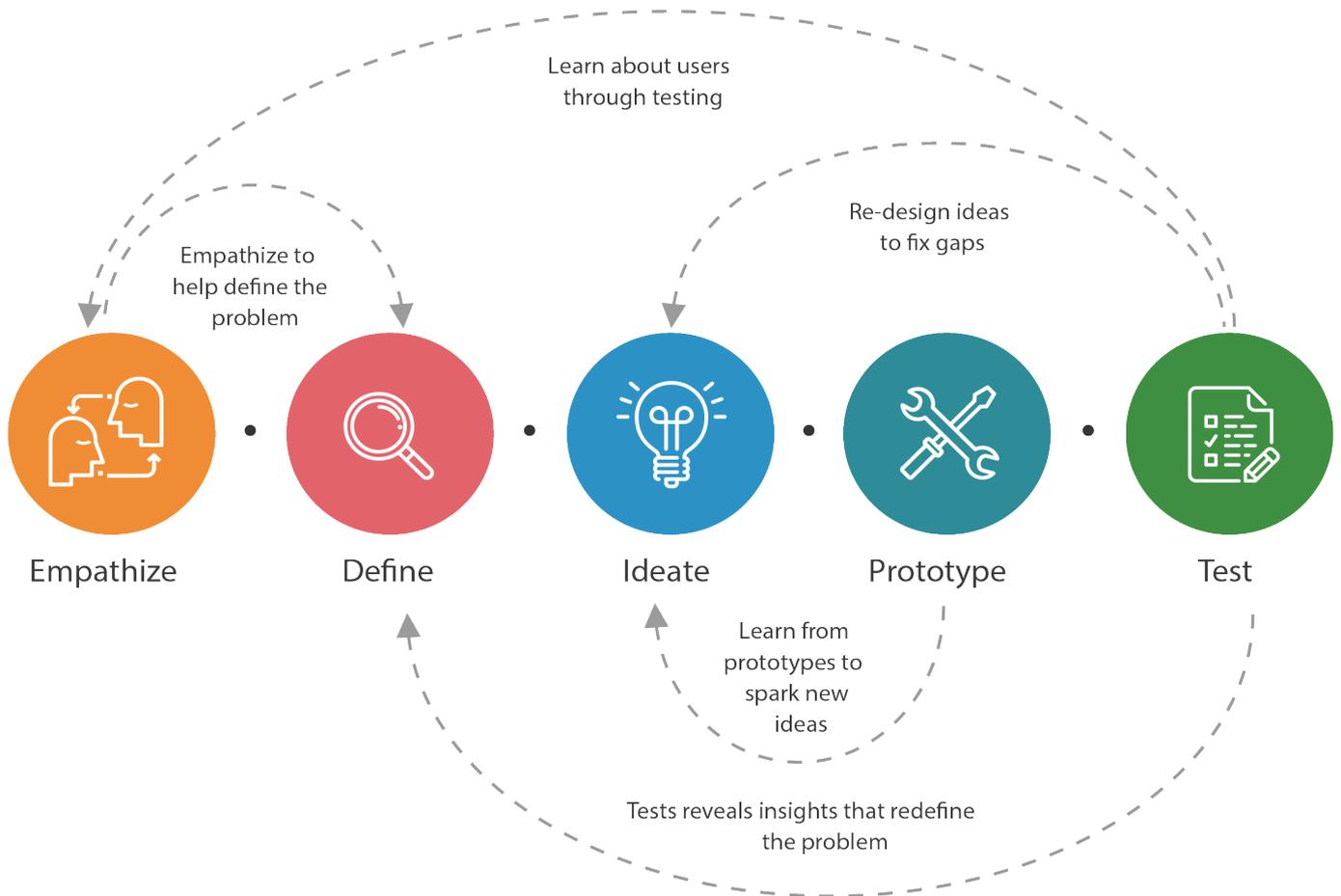
* <https://designthinking.ideo.com/faq/whats-the-difference-between-human-centered-design-and-design-thinking>



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Design process



* <https://www.interaction-design.org/literature/topics/design-thinking>



The Hasso Plattner Institute of Design at Stanford, commonly known as the d.school, describes design thinking as a five-stage process. It's important to note these stages are not always sequential and designers can often run the stages in parallel, out of order and repeat them in an iterative fashion.

The various stages of design thinking should be understood as different modes which contribute to the entire design project, rather than sequential steps. The ultimate goal throughout is to derive as deep an understanding of the product and its users as possible.

Stage 1: Empathize—Research Your Users' Needs

The first stage of the design thinking process allows you to gain an empathetic understanding of the problem you're trying to solve, typically through user research. Empathy is crucial to a human-centered design process like design thinking because it allows you to set aside your own assumptions about the world and gain real insight into users and their needs.

Stage 2: Define—State Your Users' Needs and Problems

In the Define stage, you accumulate the information you created and gathered during the Empathize stage. You analyze your observations and synthesize them to define the core problems you and your team have identified so far. You should always seek to define the problem statement in a human-centered manner as you do this.

Stage 3: Ideate—Challenge Assumptions and Create Ideas

Designers are ready to generate ideas as they reach the third stage of design thinking. The solid background of knowledge from the first two phases means you can start to “think outside the box”, look for alternative ways to view the problem and identify innovative solutions to the problem statement you've created.

Stage 4: Prototype—Start to Create Solutions

This is an experimental phase, and the aim is to identify the best possible solution for each of the problems identified during the first three stages. Design teams will produce a number of inexpensive, scaled-down versions of the product (or specific features found within the product) to investigate the problem solutions generated in the previous stage.

Stage 5: Test—Try Your Solutions Out

Designers or evaluators rigorously test the complete product using the best solutions identified in the Prototype phase. This is the final phase of the model but, in an iterative process such as design thinking, the results generated are often used to redefine one or more further problems. Designers can then choose to return to previous stages in the process to make further iterations, alterations and refinements to rule out alternative solutions.

* <https://www.interaction-design.org/literature/topics/design-thinking>

Secondary Research

Getting up to speed on your challenge is crucial to success in the field.

Human-centered design is all about talking with people about their challenges, ambitions, and constraints. But as you move through the Inspiration phase, there will be moments where you'll need more context, history, or data than a man-on-the-street style Interview can afford. Social sector challenges can be really thorny, which is why Secondary Research, whether done online, by reading books, or by crunching numbers, can help you ask the right questions. A firm foundation of knowledge is the best place from which to tackle a design challenge. *



* https://bestgraz.org/wp-content/uploads/2015/09/Field-Guide-to-Human-Centered-Design_IDEOorg.pdf



STEP 1

Once you know your design challenge, it's time to start learning about its broader context. You can bone up quickly by exploring the most recent news in the field. Use the Internet, newspapers, magazines, or journals to know what's new.

STEP 2

Try to find recent innovations in your particular area. They could be technological, behavioral, or cultural. Understanding the edge of what's possible will help you ask great questions.

STEP 3

Take a look at other solutions in your area. Which ones worked? Which ones didn't? Are there any that feel similar to what you might design? Any solutions that have inspired you to make one of your own? *

* https://bestgraz.org/wp-content/uploads/2015/09/Field-Guide-to-Human-Centered-Design_IDEOorg.pdf

Primary Research



There's no better way to understand the hopes, desires, and aspirations of those you're designing for than by talking with them directly.

Interviews really are the crux of the Inspiration phase. Human-centered design is about getting to the people you're designing for and hearing from them in their own words. Interviews can be a bit daunting, but by following these steps below you'll unlock all kinds of insights and understanding that you'll never get sitting behind your desk. Whenever possible, conduct your Interviews in the person's space. You can learn so much about a person's mindset, behavior, and lifestyle by talking with them where they live or work.

* https://bestgraz.org/wp-content/uploads/2015/09/Field-Guide-to-Human-Centered-Design_IDEOorg.pdf



STEP 1

No more than three research team members should attend any single Interview so as to not overwhelm the participant or crowd the location. Each team member should have a clear role (i.e. interviewer, note-taker, photographer).

STEP 2

Come prepared with a set of questions you'd like to ask. Start by asking broad questions about the person's life, values, and habits, before asking more specific questions that relate directly to your challenge.

STEP 3

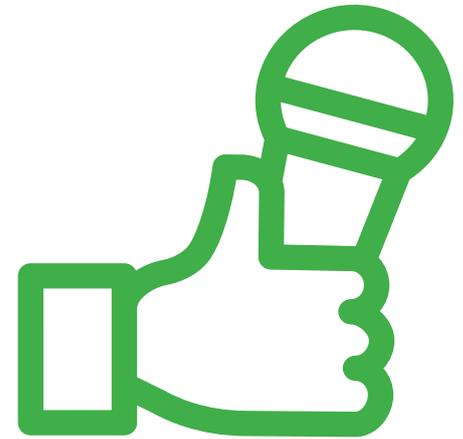
Make sure to write down exactly what the person says, not what you think they might mean. This process is premised on hearing exactly what people are saying. If you're relying on a translator, make sure he or she understands that you want direct quotes, not the gist of what the person says.

STEP 4

What you hear is only one data point. Be sure to observe the person's body language and surroundings and see what you can learn from the context in which you're talking. Take pictures, provided you get permission first.

* https://bestgraz.org/wp-content/uploads/2015/09/Field-Guide-to-Human-Centered-Design_IDEOorg.pdf

Interview Guide*



Secondary research

Open General

What are some broad questions you can ask to open the conversation and warm people up?

What kind of job do you have?

How are you paid?

How do you save for the future?

Then Go Deep

What are some questions that can help you start to understand this person's hopes, fears, and ambitions?

How do you allocate your money now?

Where do you actually keep the money you want to put aside ?

What helps you save money?

If you've visited a bank, tell us about your experience.

* https://bestgraz.org/wp-content/uploads/2015/09/Field-Guide-to-Human-Centered-Design_IDEOorg.pdf



Personas

Identify user types based on habits and goals of real people, acquired through interviews and conversations. *

Why do it ?

Personas give us a person to connect with, someone who has goals for using the product, ensuring human centered design.

When to do it ?

Ideally they are used after interviews and before journey mapping. That said, they are useful tools to refer to at any given point in your creation process.

A persona is a representation of the needs, thoughts and goals of the target user. Think of a persona as your typical or ideal user - who do you see using your urban development? It helps prevent you from generalizing all users into one bucket and thinking that everyone has the same needs and goals. It also prevents you from falling into the pattern of thinking that you are going to experience the new development the same way that other users will. Personas are designed to help you to empathize with individuals who might use the service or urban development that you are part of, so think of them more as a bio that you might see on a social website than a job description. People who you might meet your in daily walks of life.

*<http://opendesignkit.org/methods/personas/>

Draw a sketch of the person

Quote

“

”

Name -----

Age -----

Profession -----

BIO -----

Interest

Powers

Goals

Daily Routine

Likes/Dislikes

Motivation



Case study Using ‘design thinking’ to enhance urban re-development: a case study from India

ABSTRACT

The discourse on urban planning and development has evolved over the last century with top down methods of planning urban spaces giving way to bottoms-up approaches that involve residents and other stakeholders in the design process. While the notion of participation and user involvement is considered critical to the design of appropriate and acceptable urban forms, there is no clear consensus in the literature on the methodology to be used to involve users and stakeholders in the design process. In this paper, we propose that the use of ‘Design-Thinking’ – a methodology for Human-Centred Design that is often used in product design and related industries – may be an effective methodology for engaging stakeholders in the urban design domain. The Design-Thinking approach iteratively encompasses an empathizing phase where deep-dive studies are conducted to understand the users’ needs, a project brief definition phase, an ideation phase and rapid-prototyping and testing phases to arrive at an appropriate design solution. Taking the example of the redevelopment of a slum in the city of Srirangapatna in South India, we describe how we implemented the Design Thinking process over a period of one year to involve slum dwellers in the re-design of their own neighborhood. We then show how designs developed through this process were different from a design developed prior to the use of Design Thinking due to the generation of new insights in the process. Furthermore, the residents of the slum almost unanimously indicated that one

of the designs generated through the Design Thinking process was their preferred choice for the redevelopment of their slum, indicating the ability of the process to generate acceptable and potentially sustainable designs. Finally, residents who went through the Design Thinking process also demonstrated greater ownership towards this design choice and expressed an increased willingness to work with the local political authorities to contribute to the development of the selected design. The key contributions of the paper are to highlight the applicability of Design Thinking as a methodology for user-centric design in urban communities and to propose that Design Thinking can lead to the discovery of solutions that enhance the satisfaction of local communities.

*Refer to full article :

<https://img1.wsimg.com/blobby/go/d0dd54db-2225-42e2-a2f9-e42e4b1f907b/downloads/Vol62Kumar.pdf?ver=1561844398903>

Checklist*



Empathize

Observe.

View users and their behavior in the context of their lives.

Engage.

Interact with and interview users through both scheduled and short ‘intercept’ encounters.

Immerse.

Wear your users’ shoes. Experience what they experience for a mile or two.



Define

A spectacular Point of View...

Preserves emotion and the individual you’re designing for.

Includes strong language.
Uses sensical wording.
Includes a strong insight.

Generates lots of possibilities.

*<https://dschool.stanford.edu/resources/design-thinking-bootleg>



Ideate

- Harness the collective perspectives and strengths of your team.
- Step beyond obvious solutions and drive innovation.
- Uncover unexpected areas of exploration.
- Create fluency (volume) and flexibility (variety) in your innovation options.



Prototype

Empathy gaining.

Prototyping deepens your understanding of users and the design space.

Exploration.

Develop multiple concepts to test in parallel.

Testing.

Create prototypes to test and refine solutions.

Inspiration.

Inspire others by showcasing your vision.



Test

Learn more about your user.

Testing is another opportunity to build empathy through observation and engagement—often yielding unexpected insights.

Refine your prototypes and solutions.

Testing informs the next iterations of prototypes. Sometimes this means going back to the drawing board.

Test and refine your Point of View.

Testing may reveal that, not only did you get the solution wrong, but you also framed the problem incorrectly.



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