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Design Thinking

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Design?

verb (used with object)

to prepare the preliminary sketch or the plans for (a work to be executed), especially to plan the form and structure of: *to design a new bridge*.

to plan and fashion artistically or skillfully.

Source: dictionary.com

A **design** is a **plan or specification** for the construction of an **object or system** or for the **implementation of an activity or process**, or the result of that plan or specification in the form of a **prototype**, **product or process**.

The design usually has to satisfy certain <u>goals</u> and constraints; may take into account <u>aesthetic</u>, <u>functional</u>, <u>economic</u>, <u>or socio-political</u> considerations; and is expected to interact with a certain <u>environment</u>. Typical examples of designs include <u>architectural</u> <u>blueprints</u>, <u>engineering drawings</u>, <u>business</u> <u>processes</u>, <u>circuit diagrams</u>, and <u>sewing patterns</u>.

People who produce designs are called <u>designers</u>.

Source: Wikipedia



Everyone designs who devises courses of action aimed at changing existing situations into preferred ones.

— Herbert Simon —

Design Thinking

Thinking like a designer can transform the way you develop products, services, processes—and even strategy. by Tim Brown

From the Magazine (June 2008)



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"Put simply, [design thinking] is 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 <u>customer value and market opportunity</u>."



IDEO DESIGNTHINKING

DESIGN THINKING

DEFINED

DESIGN THINKING DEFINED

ABOUT THIS SITE

DESIGN THINKING IN CONTEXT

DESIGN THINKING TODAY

DESIGNER'S MINDSET

JOURNEY TO MASTERY

NEW APPLICATIONS

"Design thinking is 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, EXECUTIVE CHAIR OF IDEO

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Innovation | Design Thinking

Design Thinking

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DESIGN THINKING



Source: maqe.com

DESIGN THINKING

Empathize Understanding people

Design thinking should bring your ideas to life by putting users/customers at the center of every process



Define

Figuring out the problem

Test Refining

the product

V/

leate

nerating

ur ideas

Prototype

Creation and experimentation Source: mage.com

Double Diamond Design Framework



ITERATE DESIGN

Design Thinking Double Diamond



Enterprise Design Thinking

The Loop

Understand user's needs and continuously deliver outcomes



Source: IBM

Design Thinking Double Diamond



Data Collection

Empathize Understanding people

DISCOVER

Immersion Questionnaires Interviews Self-Documentation Meetings User Experience Observations

- Interviews
- Observation
- Contextual Inquiry

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Empathize Understanding people

DISCOVER

Immersion Questionnaires Interviews Self-Documentation Meetings User Experience Observations

gain the interviewee trust and create a connection

Interviews

- neutral questions and overall posture
- the participant does most of the talking
- explore the topics, going beneath the surface of ordinary conversation record the interview



Empathize

Understanding people

DISCOVER

Immersion Questionnaires Interviews Self-Documentation Meetings User Experience Observations

Observation

- Direct Observation
- Indirect Observation
- Participant Observation
- Ethnography





User Experience Observations





Contextual Inquiry

- Apprenticeship model: the designer works as an apprentice to the user. The designer inquires about the work in naturalistic conditions (in the workplace).
 Contextual interview: combination of observation, discussion, and reconstruction of past events. The designer observes and questions, but does not participate.
- Importance of watching the observing and interacting with the user while we performs his/her tasks.

Design Thinking Double Diamond





Define

Figuring out the problem



Persona

PERSONA

User/customer stereotypes based on research

Service Design Thinking





Define

Figuring out the problem



Customer Journey



Design Thinking Double Diamond





Generating your ideas



Affinity Diagrams





Ideate

Generating your ideas



Storyboards

Scenario 1 APP for Skin Issues Following Up Usage _v2 Mike – 28 years old; works as a store clerk; lives with his girlfriend. Light toned skin, dark haired, normal amount of moles.



Mike with his girlfriend getting dressed and spotting the mole. It was quite weird shaped, ugly even. As it was quite sensible to the

touch. Mike got concerned and decided to visit a dermatologist.



Dermatologist suggesting installing "My health diary app", shows a QR code.

To help Mike the dermatologist suggests a new smartphone application that helps patients monitor and keep a photo diary of their condition. The dermatologist showed Mike a QR code so that he could download the app.



Mike making an appointment with his dermatologist. Mike tried to remain calm and not stress about the mole issue. He scheduled an appointment for the earliest possible date and refrained himself of thinking too much about the issue. "The dermatologist will know best" he told himself.

Mike installs the app and selects the options/-

Mike installed the app and started to configure it, first selecting its

module "Dermatology".

intended module: the dermatology one.



At the appointment the dermatologist tranquilized Mike.

It was not a serious case, and most probably not a cancer situation. Nevertheless the mole required close monitoring, in the case it started to change.



Setup in the app: Form with skin colour selection, and hair color...

Mike starts the sign up and configuring process. He fills a skin related form, where he selects the colour of his skin, and other relevant details that would help contextualize his mole photos.

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Ideate Generating



Backend System

Service Blueprinting



Ideate

Generating your ideas

Interaction Sketches





Ideate

Generating your ideas



Epics & User Stories



Design Thinking Double Diamond





Prototype

Creation and experimentation



Wireframes





Prototype

Creation and experimentation



Lego Serious Play





Test Refining the product



Surveys

- Quantitative description of trends, attitudes, or opinions of a population, by studying a part of it (sample).
- Form of data collection telephone, mail, Internet personal/group interviews
- Instrumentation: be careful when selecting an instrument (set of questions)!



Test Refining the product

DELIVER

Making + doing Role-Play Prototyping Storytelling Pitch Document Get Feedback Capture Learnings Define Success

Experiments

Systematic manipulation of one or more variables to evaluate an outcome while holding other variables constant to isolate effects.

- True Experiments: Each participant is assigned randomly to either a treatments or control group.
- Quasi-Experiments: Each participant is selected and not randomly assigned.
- Lab Experiments: Offer greater control over variables.
- Field Experiments: Offer greater realism, out in the real world.

Participatory Design / Co-Design



Participatory Design / Co-Design



Design Thinking



Thank You!

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