Lesson 5: Design Thinking

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Objective

- Understanding UX
- Design Thinking
- Case Study 1
- Case Study 2

User Experience (UX)

UX

It's all about USER

- Basics
- Elements

Basics Of UX

It is important to know your user

UX

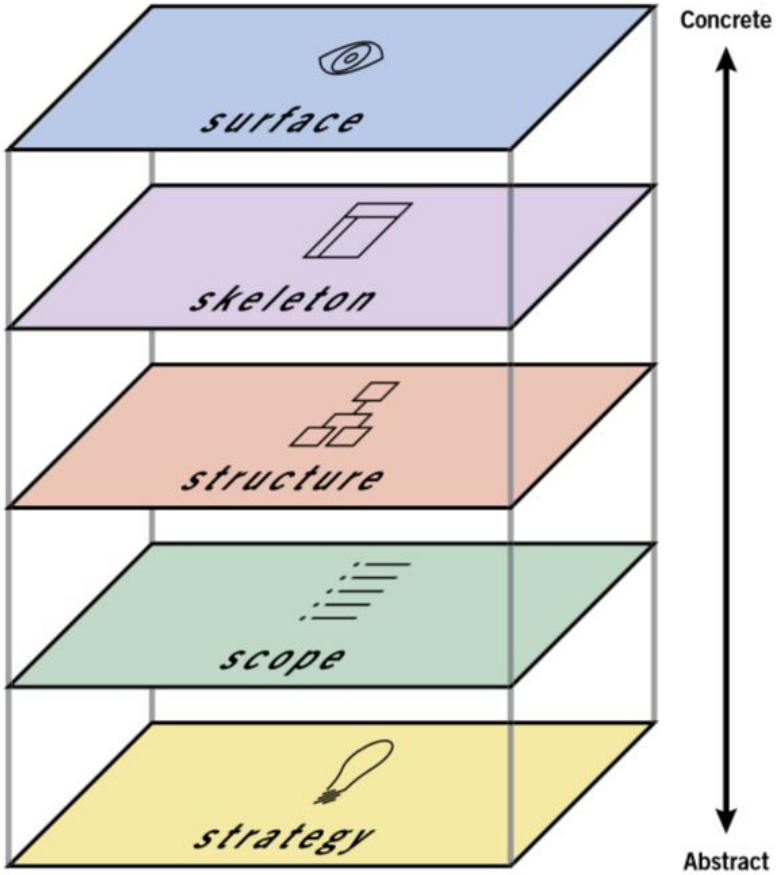
is how a user interacts with and experiences a product, system or service. It includes a person's perceptions of utility, ease of use, and efficiency. User experience is subjective. However, the attributes that make up the user experience are objective.

Elements

It is layered architecture

Elements

The 5 elements of UX design is a framework of steps that UX designers take to turn an idea into a working product. The five elements are, from bottom to top: strategy, scope, structure, skeleton, and surface. Think of these as a set of five layers, where each layer is dependent on the one below it.


surface
skeleton
structure
scope
strategy
Concrete
Abstract

The Elements of User Experience

Jesse James Garrett
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30 March 2000

A basic duality: The Web was originally conceived as a hypertextual information space; but the development of increasingly sophisticated front- and back-end technologies has fostered its use as a remote software interface. This dual nature has led to much confusion, as user experience practitioners have attempted to adapt their terminology to cases beyond the scope of its original application. The goal of this document is to define some of these terms within their appropriate contexts, and to clarify the underlying relationships among these various elements.

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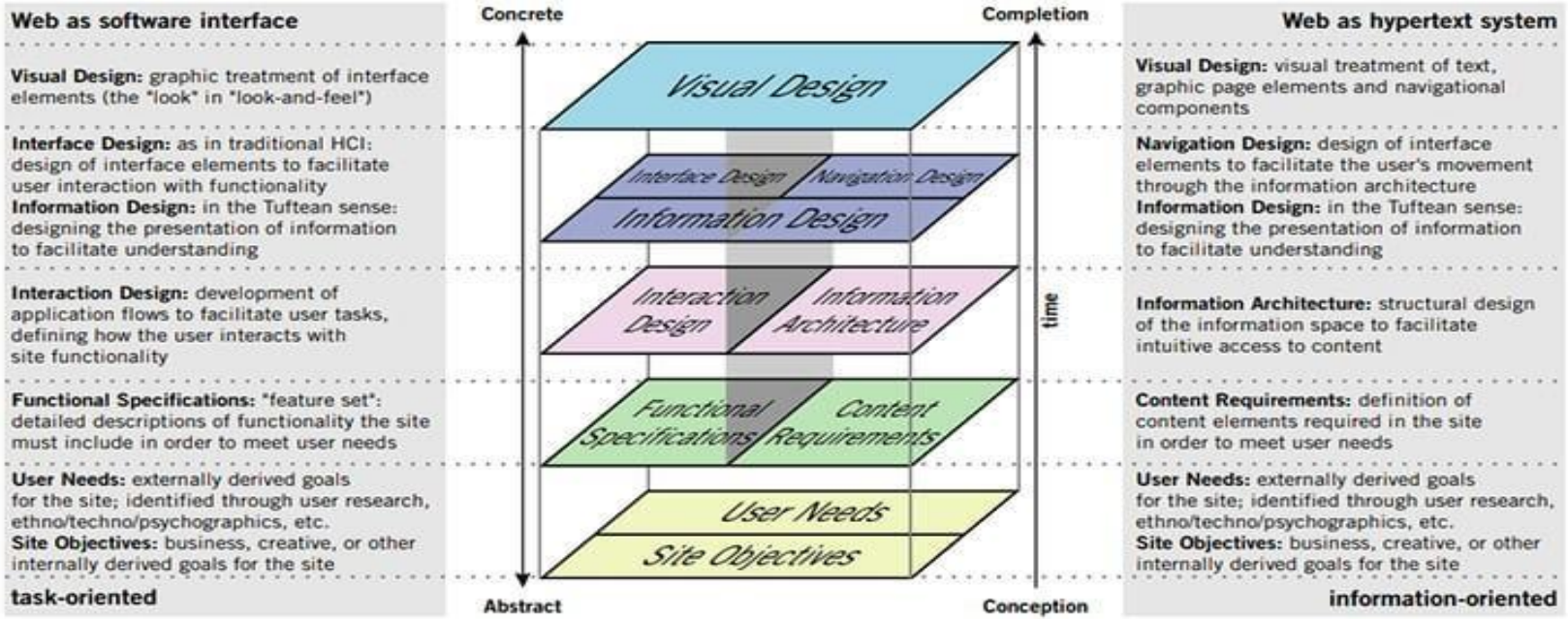


This picture is incomplete: The model outlined here does not account for secondary considerations (such as those arising during technical or content development) that may influence decisions during user experience development. Also, this model does not describe a development process, nor does it define roles within a user experience development team. Rather, it seeks to define the key considerations that go into the development of user experience on the Web today.

Strategy

reason for the product, application or the site, why we create it, who are we doing this for, why people are willing to use it, why they need it. The goal here is to define the user needs and business objectives.

Scope

Defines the functional and content requirements. What are the features, and content contained in the application or product. The requirements should fulfill and be aligned with the strategic goals.

Structure

Defines how user interact with the product, how system behave when user interact, how it’s organized, prioritized, and how much of it. Structure is split into two components, Interaction Design & Information Architecture.

Skeleton

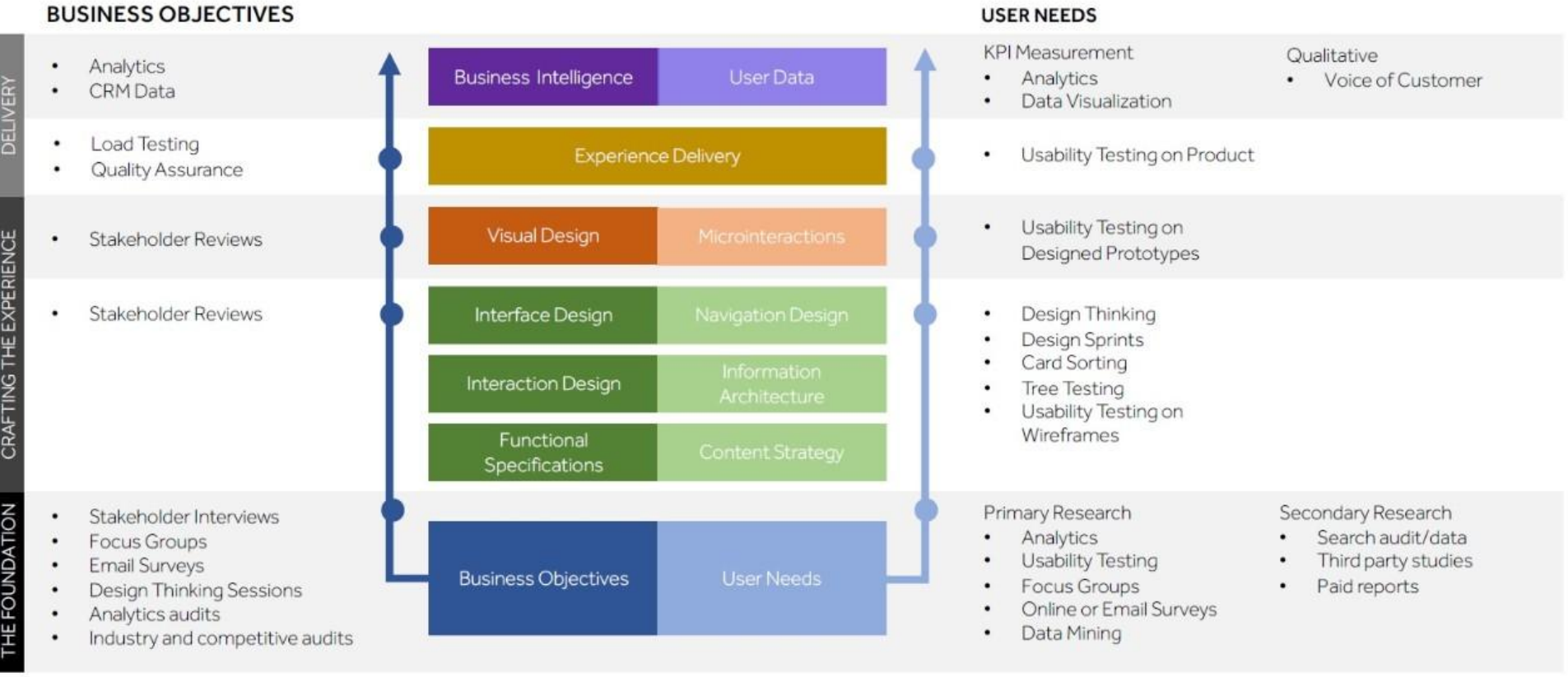
Skeleton determines the visual form on the screen, presentation and arrangement of all elements that makes us interact with the functionality of the system that exist on the interface. Also how the user moves through the information, and how information is presented to make it effective, clear, obvious.

Surface

It’s the sum total of all the work and decisions we have made. It determines how does the product will look like, and choosing the right layout, typography, colors, …etc.

USER EXPERIENCE MAP

There have been many different evolutions in User Experience since Jesse James Garrett first crafted a model in 2000. Based on technology evolutions, the model has extended beyond



Design Thinking

Design Thinking

solution-based approach

- Understanding Methodology
- Stages Involved

Methodology

Understanding human needs involved

Definition

It is a Design methodology that provides a solution-based approach for solving problems. It’s extremely useful in tackling complex problems that are ill-defined or unknown. For ill-defined problems, both the problem and the solution are unknown.

Design Thinking Approach

For ill-defined problems, solutions are provided by understanding the human needs involved, by re-framing the problem in human-centric ways, by creating many ideas in brainstorming sessions, and by adopting a hands-on approach in prototyping and testing.

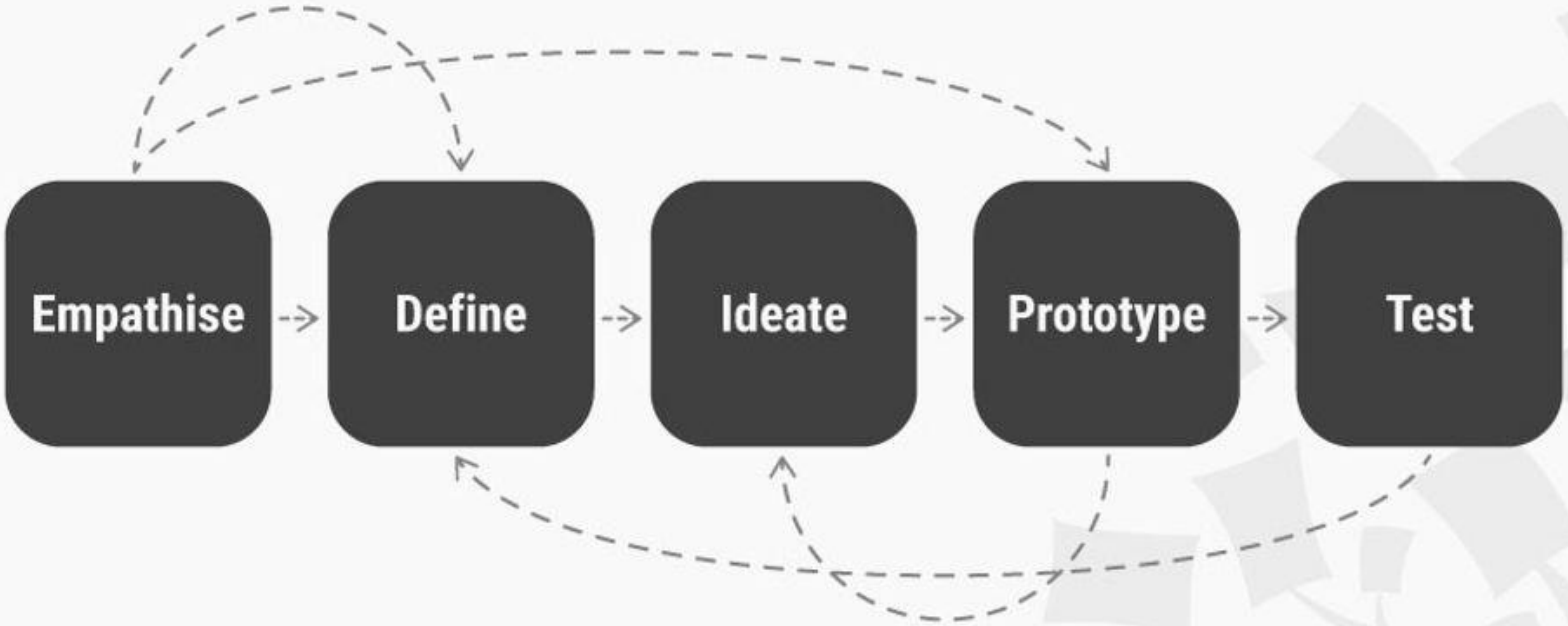
Stages Involved

Stage represents approach of problem solving

Stages

The five stages of Design Thinking, according to experts, are as follows: Empathise, Define (the problem), Ideate, Prototype, and Test.

Design Thinking: A 5 Stage Process



Empathize

This involves consulting experts to find out more about the area of concern through observing, engaging and empathizing with people to understand their experiences and motivations, as well as immersing yourself in the physical environment so you can gain a deeper personal understanding of the issues involved.

Define

you put together the information you have created and gathered during the Empathise stage. This is where you will analyse your observations and synthesise them in order to define the core problems that you and your team have identified up to this point. You should seek to define the problem as a problem statement in a human-centred manner.

Ideate

With this solid background, you and your team members can start to "think outside the box" to identify new solutions to the problem statement you've created, and you can start to look for alternative ways of viewing the problem. There are hundreds of Ideation techniques such as Brainstorm.

Prototype

Designers will now produce a number of inexpensive, scaled down versions of the product or specific features found within the product, so they can investigate the problem solutions generated in the previous stage. Prototypes may be shared and tested within the team itself, in other departments, or on a small group of people outside the design team.

Test

Designers or Evaluators rigorously test the complete product using the best solutions identified during the prototyping phase. It is an iterative process, the results generated during the testing phase are often used to redefine one or more problems and inform the understanding of the users, the conditions of use, how people think, behave, and feel, and to empathise.

Take Away

In essence, the Design Thinking process is iterative, flexible and focused on collaboration between designers and users, with an emphasis on bringing ideas to life based on how real users think, feel and behave.

Case Studies

Implementation

- User Registration
- Basic Shopping Cart
- Very Basic Expense Manager

User Registration

- Show Menu
- Register User
- Login
- All Users
- Delete User

Small Digital Wallet

- Top Up
- Check Balance
- Friend List
- Send Money
- Receive Money

Basic Shopping Cart

- Display Menu
- Item details
- Display Cart
- Add to cart
- Remove From Cart
- Total Bill

Thanks,

LEARN, CODE, EARN

Credits

- https://en.wikipedia.org/
- https://docs.oracle.com/
- https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process
- https://web.archive.org/web/20210122071823/https://experience.sap.com/skillup/introduction-to-design-thinking/