Design Thinking: Simplified

An online, design thinking handbook for any UX student made by a UX student

Proposal written by

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## Executive Summary

### Introduction

Very often in the development of projects, UX design is overlooked. After all, everyone wants to get to the end, the actual product. Noone wants to ask the user what they want, much less build something, just for them to find a problem.

Design Thinking is a problem-solving approach which is often applied to UX design, and since it is a user-centred approach, it helps to ensure that user’s needs are met. The process also fosters creative thinking and innovation that leads to innovative ideas. Very often, real-world problems are messy, seem unsolvable and have no clear definition, but the very first stage of the Design Thinking process, ‘Empathize’ focuses on the user and helps designers to better define the actual problem that needs to be solved.

People with little or no UX design experience can find UX design (with its numerous graphics and tools, research, and iterations) quite daunting. As a student, I felt that way myself and those sentiments were echoed by my peers as well.

The goal of this handbook is to provide clear guidelines on how to apply the Design Thinking process to the development of digital products such as, websites and apps. While other tutorials, blogs and courses exist, this handbook will be presented in a clear, concise manner that provides learners with a complete set of steps to carry out all stages of the design thinking process.

The content will be collated from research and successful real-life projects, then presented via a website built using HTML, CSS and JavaScript.

## Project Background

Many software projects fail because developers build based on what their perspective of the problem, defining requirements and implementing wonderful features. However, projects are built for users and without user input from early on, developers solve the wrong problem.

### The Problem

The problem can be decomposed in the following way:

* Aspects of the design thinking process are ambiguous. What comes next? Which tools or techniques do I use and when?
* Development of some graphics like user flows can be challenging
* Process is time consuming, research to find information on best practice or how to create a type of graphic takes time, it would be better if everything is in one place
* Problems coming up with ideas
* Other tutorials
  + have large volumes of material, that students have to wade through
  + Have information/ cards on techniques such as wireframing but it is not clear to a student which stage wireframing would be used in the design thinking process
  + require considerable time, some courses span a long time period and/ or require hours of reading
  + require monetary investment
  + require sign up

## Solution

### Vision Statement

To help UX designers to work efficiently and create engaging and user-centred digital products.

To realise this, we will develop an easy-to-use online handbook that will

* Walk the user through the design thinking stages, describing tools and techniques at each stage
* Provide this online handbook at no cost, eventually generate funds through ads, user donations

### Product Overview – what features will the website have?

* Clear and simple language
* Clean and minimalist design since there will be diagrams etc
* Responsiveness and accessibility
* List/ show the five (5) stages of the design thinking process.

***Empathize, Define, Ideate, Prototype, Test***

Provide links to each stage in navigation, as well as links to each stage from a circular graphic. Circular graphic is to emphasise that it is an iterative process

* For each of the five (5) design thinking stages provide
  + Concise one-line description of what the stage accomplishes

*Example: In the* ***Empathize*** *stage you try to understand the user and their needs.*

* + Brief description explaining the role in the overall process, activities undertaken, techniques used and any deliverables produced.

*Example: During the empathize stage you try to get to know the user and the problem/s they are facing. This will involve observation, immersion, interviews, surveys…*

* + Requirements for each stage: actual material, equipment, information

*Example: Notepaper, pencils, voice-recorders, cameras*

* + List techniques used and provided collapsible section or link on how to use the technique.

Example: *This will involve observation, immersion, interviews, surveys…*

*Interviews may be one-on-one or group. Before the interview, prepare a list of questions…*

* + Provide examples of software tools that can be used to create graphics required in the stage.
  + Provide examples of deliverables, some of which are from successfully completed school projects that would have been vetted by a lecturer.
* Explain step-by-step, how graphics and other deliverables of the design thinking process (affinity diagrams, user stories, POV (point of view statement), low-fidelity wireframe, high-fidelity wireframe, test plan and tests) should be developed
* Provide simple navigation to the five (5) design thinking stages as well as side panel navigation directly to techniques and tools
* Provide a form for users who wish to contribute, request information on a particular topic or provide general feedback

### Tech Stack

* Web Development – HTML, CSS, JavaScript
* Version Control – GitHub

### The Designer

A recent student of UX design, HTML, CSS and JavaScript herself, Janelle had wanted a one-stop shop for her UX design information and clear guidelines on how to bring it all together. Having navigated several projects and years of teaching experience, she is well equipped to create engaging and useful content.

### Market Research

#### Target Market

Anyone interested in learning about UX design or doing UX design for a project, particularly:

* UX design students
* Novice UX designers
* Developers with little experience in UX design
* UX designers looking for a different perspective

#### Competitors

According to a Moz survey of people searching using Google, 75% of them click on the first one or two results on the first results page and only 7% bother to go past that first results page.

When conducting research on competitors, search phrases included:

* design thinking process for beginners
* design thinking blog tutorial
* design thinking blog tutorial

The following table compares some of the results

|  |  |  |
| --- | --- | --- |
| Website | Pros | Cons |
| [Design Thinking Blog - IDEO U Articles](https://www.ideou.com/blogs/inspiration/tagged/design-thinking) |  | Contained links to different articles about design, including design thinking, user would need to go through list of articles to determine which were relevant |
| [What is Design Thinking? The Ultimate Beginners Guide (workshopper.com)](https://www.workshopper.com/post/guide-to-design-thinking) | Great content, very descriptive | Apart from a few videos, scattered throughout, all text-based without images |
| [The Design Thinking Process: 5 Steps Complete Guide (careerfoundry.com)](https://careerfoundry.com/en/blog/ux-design/design-thinking-process/) | Great content, very descriptive | Text-based, no images or examples based on scenarios |

Other competitors

|  |  |
| --- | --- |
| [HECMontrealX: UX Design | edX](https://www.edx.org/learn/ux-design/hec-montreal-ux-design?index=product&queryID=9c27b0e67059cda7d457e0b17af0166c&position=1&results_level=first-level-results&term=ux+design&objectID=course-cefc890d-8fba-4b33-8e51-421806c7ad47&campaign=UX+Design&source=edX&product_category=course&placement_url=https%3A%2F%2Fwww.edx.org%2Fsearch) | |
| Self-paced  Well established program by recognised institute  Accredited program option | Long duration  Large volume of material some of which may be inapplicable to user  Considerable time investment |

|  |  |
| --- | --- |
| [Digital Skills: User Experience - Online Course - FutureLearn](https://www.futurelearn.com/courses/digital-skills-user-experience) | |
| Low time investment  Free | Less material  Lots of videos, which may not work for all learners |

|  |  |
| --- | --- |
| [Google UX Design Professional Certificate | Coursera](https://www.coursera.org/google-certificates/ux-design-certificate?utm_source=google&utm_medium=institutions&utm_campaign=sou--bing__med--organic-search__cam--gwgsite__con--null__ter--null) | |
| Well established program by recognised institute  Accredited program option  Free 7 day trial | Large volume of material some of which may be inapplicable to user  Considerable time investment  Pay for time taken, so speed determines cost |
| [A complete guide to the design thinking process | Mural](https://www.mural.co/blog/design-thinking)  A screenshot of a white page  Description automatically generated  *Figure 1 Screenshot from Mural: Ideate Stage* | |
| Good written content about the design thinking process  Links to application of design thinking in large projects with some images | No reference to use of user stories, affinity diagrams, POV or how to generate them  Not really a case study approach that a student can follow  Ideate stage lacks description of techniques that students can use |
| [The UX Cookbook](https://theuxcookbook.com/) | |
| Great content when each card is opened  Clear language | A novice ux designer may not which of the cards applies to the stage of design thinking without looking at the card, quite time-consuming  No direct reference to stages of design thinking  Largely text based content, photographs provided, very few actual diagrams |

|  |  |
| --- | --- |
| [UX Tutorial 1: What Exactly Is UX Design? (Free Course) (careerfoundry.com)](https://careerfoundry.com/en/tutorials/ux-design-for-beginners/what-is-ux-design/)  A close-up of a person's face  Description automatically generated  *Figure 2: Screenshots from Career Foundry UX tutorial*  A screenshot of a web page  Description automatically generated | |
| Has career suggestions, skillset required, as well as detailed explanations linked to main page  Construction of some UX diagrams are described in detail | To learn more, user has to go to separate page  In some instances, there is a lot of text where a diagram or example would be more helpful, too much detail for user to sort through |

### Plan of Action/ Project Schedule

This project will be completed within approximately 9 weeks.

|  |  |  |
| --- | --- | --- |
| **Stage** | **Time** | **Activities and deliverables** |
| Empathize | Week 1 | Try to understand the user, why do they have challenges with UX design, conduct research, come up with user stories etc |
| Define | Week 1 | Combine research to create a Point of View |
| Ideate | Week 2 | Use different ideation techniques, including brainstorming, to come up with multiple ideas or approaches to solving the problem. How can content be best presented? What types of media, navigation etc |
| Prototype | Week 3 | Use low-fidelity and eventually high fidelity wireframes or prototypes |
| Test | Week 3 | Carry out usability testing. Is language concise and easy to understand, can users navigate easily to find what they need? |
| Implement | Weeks 4-9 | Research to further enhance content. After iterations of prototyping and testing implement using HTML, CSS and JavaScript. These iterations will include a Minimum Viable Product, to which features will be added to produce final website. |

### Minimal Viable Product

The first version of the online handbook will be:

A website that will have:

* Clear and simple language
* Clean and minimalist design since there will be diagrams etc
* Responsiveness and accessibility
* List/ show the first stage of the design thinking process: Empathize
  + Concise one-line description of what the stage accomplishes

*Example: In the* ***Empathize*** *stage you try to understand the user and their needs.*

* + Brief description explaining the role in the overall process, activities undertaken, techniques used and any deliverables produced.

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* Provide simple navigation to the five (5) design thinking stages as well as side panel navigation directly to techniques and tools

### Deliverables and Goals

1. User stories, POV
2. Site Map
3. Wireframes/ Prototypes
4. Minimum Viable Product
5. Test Plan
6. Completed website
7. Project Timeline

### Key Milestones

Jan 25th, 2024 Project Proposal Presentation

Feb 13th, 2024 MVP

Mar 25th, 2024 Complete Site

Apr 8th, 2024 Final Presentation - Site with revisions and documentation

## Conclusion

Good UX design can elevate a product or service but bad UX design can result in loss of customer base, profits and business reputation. Developing solutions for the right problems is essential for a business’ growth. Following the design thinking process enables that. Not everyone wants to spend a lot of time sifting through and researching online content or going through an hour-long video to learn about the design thinking process. Although UX design learning experiences abound on the web, the proposed tutorial will be simple and to the point, using visual aids and examples to support the learner. After all this is a UX design tutorial created for any designer by a designer.

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