

A SYSTEM BRING THE FRONT-END DESIGNER WORKS

ONE STEP CLOSER

TO THE FRONT-END DEVELOPER

Project `</glimpse>`



PROCESS JOURNAL

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Degree Project (Dir. Studio)
MDES-6560
2021 Winter

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<!-- In search of creative challenges in the cyber realm -->



CONTENTS

04 | Beginning of the Journey

- Pursue something interesting and meaningful

10 | All the things about thesis structure

- Guideline and framework reference

14 | Generating problem statement

- Gradually narrow it down

16 | Information hierarchy

- Thesis outline and the infographic

18 | Writing Process

- Thesis & general writing -- PLAN

20 | Iteration of the Project

- Focus and Highlights
- Infographic
- Presentation

27 | Project *</glimpse>*

- Website
- Online survey
- Final thesis

34 | Appendices

- Lecture on repair and repairability & Sustainable
- Lecture on Japanese package
- And next...

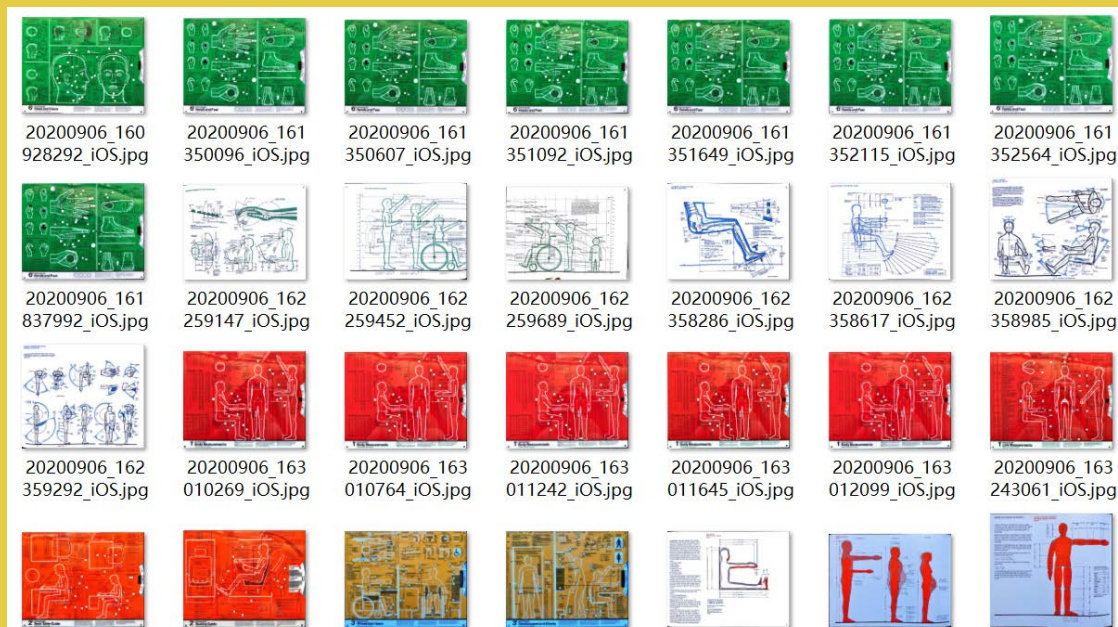
1

BEGINNING OF THE JOURNEY

- Pursue something interesting and meaningful

During the summer break 2020, I have been thinking about possible graduation thesis directions, mainly focusing on sustainable and more accessible design projects. When accumulating reference materials, I learned about *The measure of man and woman: human factors in design*. I hope to prepare reference materials in advance for later design. I also read other master's theses of NSCAD and doctoral theses in related fields.

The measure of man and woman: human factors in design



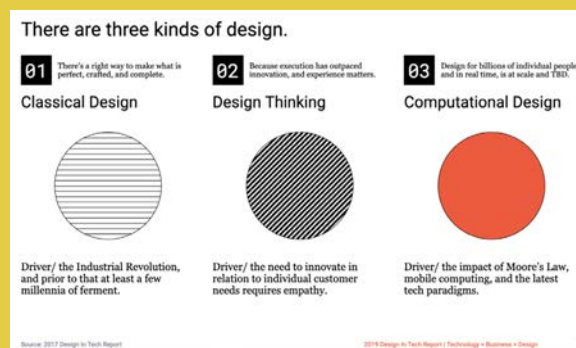
But what really **determines the direction** of the graduation thesis is the initiative of summer and MFA, MAED's postgraduate online works and peer-reviewed papers. This made me think about the different reactions of different art and design industries to the 'same' platform, and also made me aware of the different interactions between different individuals and the Internet.

Partial grad's website proposal

Website	Peer-Reviewed Journal
<ul style="list-style-type: none"> • Will include a directory to portfolios/websites of current graduate students • Will include a calendar section to encourage participation within the NSCAD and external community • Will act as a promotional platform for prospective students to the graduate programs • May include a featured artist section that is updated on a regular schedule (time permitting) 	<ul style="list-style-type: none"> - Will be a place for expression and experimentation, allowing for images, poetry, audio, essays, and more - Will be online, and accessible either by link or directly on the graduate website - Will be peer-reviewed by a group of students, faculty members, and possibly an external community member - Has the potential to become an annual or semi-annual publication that collaborates with graduate classes and projects

I am willing to believe that most young people will understand new technologies to a certain extent - to assist in different artistic creations. Although I am a person who is deeply influenced by the so-called '*tradition*', I also like '*quote the classics*'. However, these are not conflicting, once technology and knowledge become the limits of my exploration, I will have the urge to resolve.

Therefore, the topic I focus on to later came into being, that is, how can interdisciplinary designers use front-end programming knowledge to assist creative work -- build a *bridge* between disciplines.



Three kinds of design (2017 Design in tech report).

sep 8.

MDES 6550.

Fall 20

- ① Thesis problem statement / research question / objective.
- ② Literature review / annotated bibliography.
- ③ Research plan / structure / outline
- ④ Draft
- ⑤ Infographic.

Systemic Territory Framework
Macro
Meso
Micro

Main question / sub question

wide map / brainstorm

week 7 first draft

Macro -

Meso -

Micro -

"design thinking" → base on contents.

interdisciplinary design is outside of the disciplines.

1920s - university system. → germany

Knowledge | information | Data
information that is networked structured data "RAW materials"

Scientific method

- ① Analysis (reduction of complexity) observation, measurement
- ② Development of hypotheses Abduction, induction
- ③ Experimentation (and replication)
- ④ Deduction of results. (rejection of hypothesis)

AGA 12 steps

- ① Defining the problem ④ Innovating ⑦ Generating value
- ② ⑤ ⑧
- ③ ⑥ ⑨
- ⑩ ⑪ ⑫

Modes of persuasion
Ethos
Pathos
Logos

Experiment:

process of observation / experimentation / scientific experiments /

Observer / Experimenter
observed / Object

Tools / Methods

Review original purpose.


investigations are predicated on interference.

Observations are Independent.

paradigm shift. — watch / observation.

Hypothesis

Abduction / Induction

paradigm  observation.

experiment

Hypothesis



Instrument

Process | practice (Praxis)

Nous

Episteme | Nous understanding,

praxis  research,

Research
through
Praxis

Nous understanding

Designing is the research through that you get to understanding.

Experience

.....> ^{contextualize}
Whole
integration
(Define)

contextualization (illuminate)

parts
analysis

<..... Experience

Lemma
Pictura

"As soon as we ^{did} begin, we begin to be undone."

Epigram

How we start determine how we end up.

Greek philosopher

"Everything flows; everything is in a state of flux," Heraclitus
everything is dynamic, changing all the time.

Ontology

Methodology

Deontology

what?

why?

objective

* Idea of truth without value

How?

How to change?

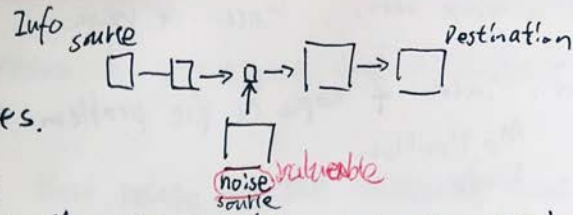
what for?

what should it be?

* choice of values * Idea of the good

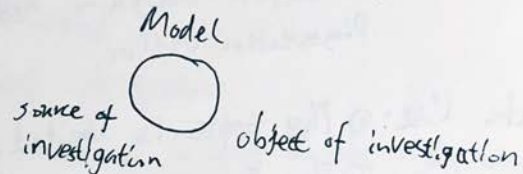
Model

1. Comprises a set of entities.
 2. Has measurable variables
 3. Has rules that ~~govern~~ govern the relationships between variables; this determines input/output
- Model has limitations. Not the whole reality!



Representation: Isomorphic (同构). Same ont to one relationship.

Similar
DATA Models
Model of theory



Step ①. Choose your topic

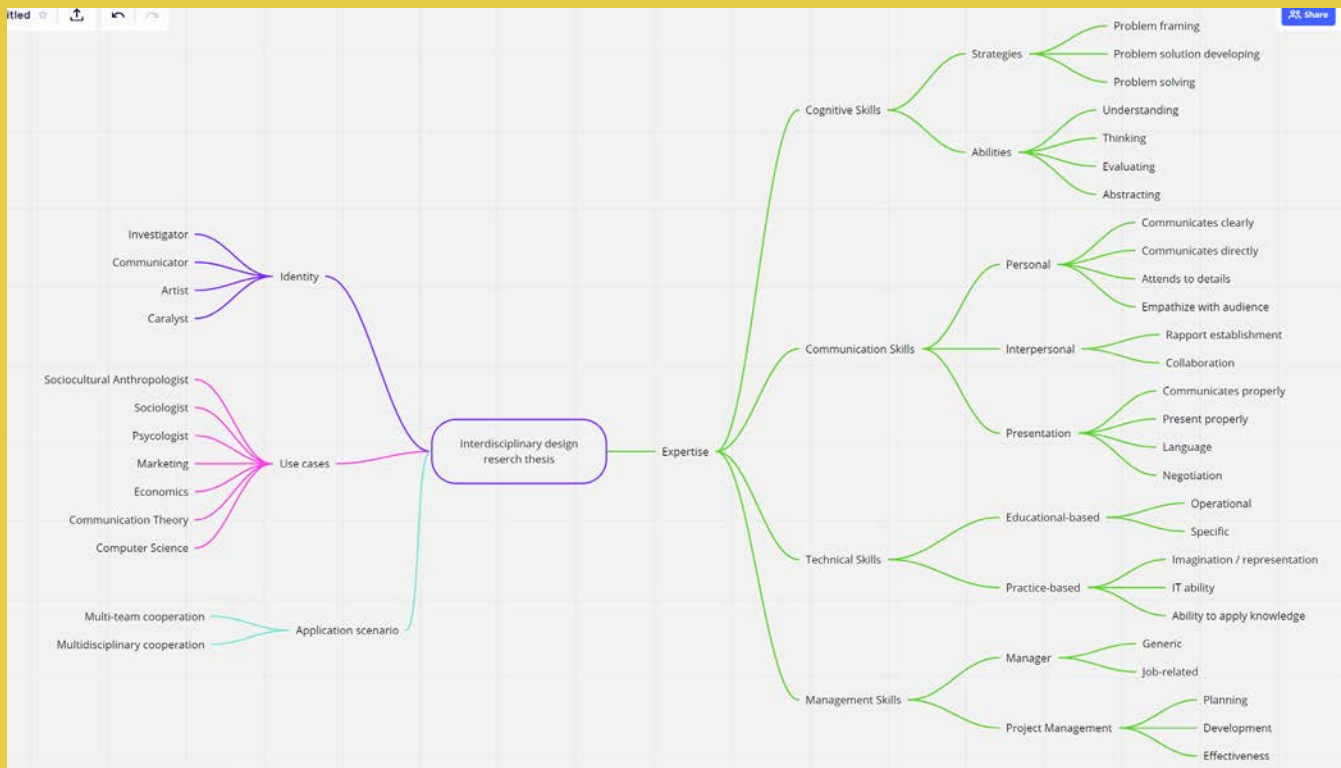
② Identify the problem

problem statement!

① where the problem is ~~occurring~~ occurring & what the problem is.

② Focus on One problem; written explicitly; Be relevant; have an objective

The overall consideration of **academic writing**, how to generate a certain range of discussable questions, and understand the whole thinking process in an orderly manner. After thinking, the next step is to determine the problem statement, while analyzing and simplifying the focus of the overall project, so that the theme can be clear and focused.



The **mind map** is mainly to expand and record the content that I think of, the branches of interest, and my own analysis and understanding. Looking for a more refined entry point, refocus the aim.

Nov 11 Update:

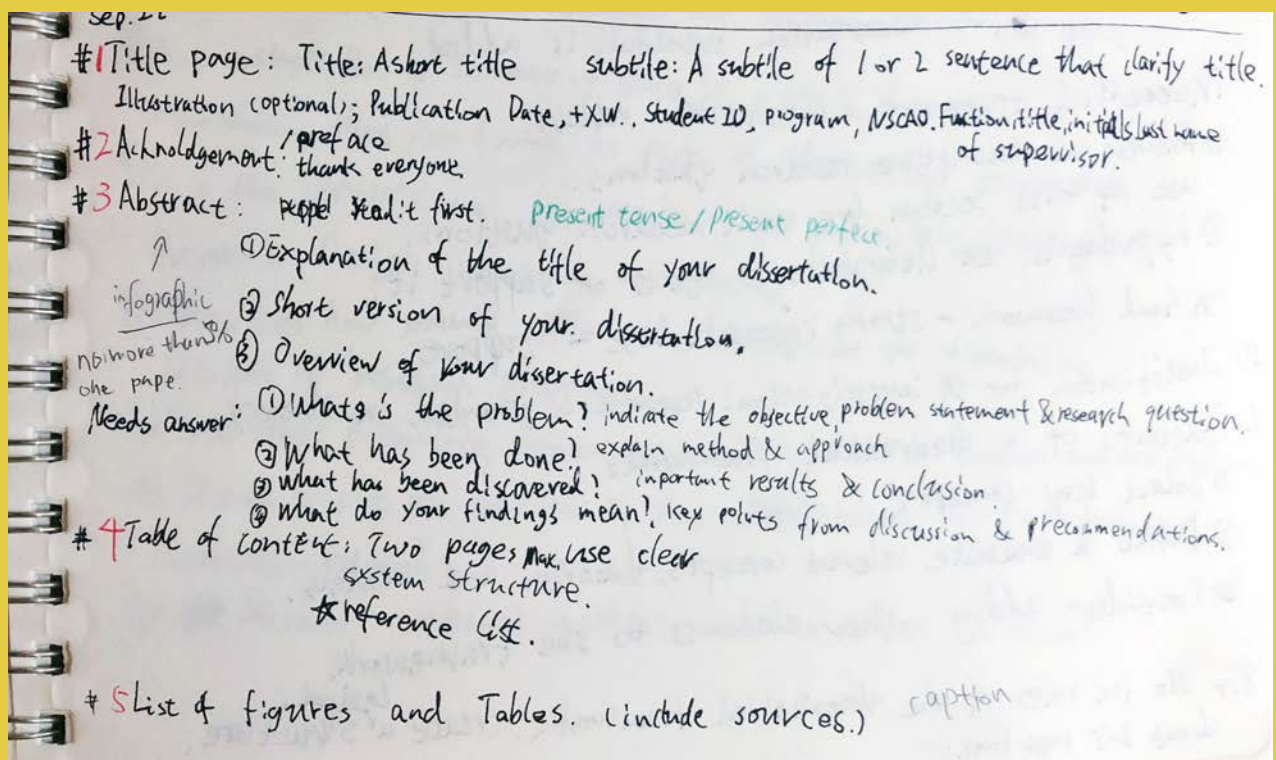
After several revisions of the problem statement, most of them have become the reference for thinking expansion. In the professional expertise, it is more detailed and focused, and the goal is to build a *bridge* between interdisciplinary design and front-end programming knowledge. 🙌

2

ALL THE THINGS ABOUT THESIS STRUCTURE

- Guideline and framework reference

I think the lecture thesis structure is very *important, profound* but **worth pondering**. In addition to learning the common format from you, I think the more important thing is you *provoke* us to think about the *overall conceptual structure* of the thesis and guide the direction underline of the thesis. After considering the problem statement, this is where I can build the foundation and references of the thesis brick by brick.



ind

fall: 10 week thesis Winter: 14 weeks.

- #6 Introduction: intro of topic & the problem statement; How your paper conduct.
- Motivation
 - Scope
 - Theoretical & practical relevance of the research.
 - Current scientific situation.
 - Objective, problem statement & research questions.
 - Research design — Method/How to research. Steps going to take.
 - Dissertation Outline.

- #7 Check List:
- ① The topic is limited.
 - ② The relevance is demonstrated.
 - ③ The practical relevance is demonstrated.
 - ④ The most important articles about the topic are summarized.
 - ⑤ The Object is formulated.
 - ⑥ The problem statement is formulated.
 - ⑦ The research questions or hypotheses are formulated.
 - ⑧ The research design is described briefly.
 - ⑨ The dissertation overview is added.

#8 Theoretical framework / Literature review.

- ① Answer all descriptive research questions.
use separate section for each research questions.
- ② Hypothesis, use literature to reject or support it.
- ③ Good framework — strong research base — support

8.1 Justification for the investigation: research is grounded in theory.

8.2 Content of a theoretical framework:

- ① Select key concepts
- ② Define & evaluate relevant concepts, theories, and models.
- ③ Consider adding other elements to the framework.

8.4 No fix rules of the theoretical framework, create a ^{logical} structure.
about 3-5 page long.

8.6 Key concepts mentioned in research questions and hypotheses or problem statement are define.

- ① The main theories & models that relate to the research have been analyzed.
- ② Theories & models are chosen to answer research question/text hypothesis have been justified.
- ③ Notable relationships between concepts are explained.
- ④ The main articles on the subject have been cited.
- ⑤ All research questions have been answered.
- ⑥ The theoretical framework has a logical structure.
- ⑦ Relevant and recent sources have been consulted & cite in the right way.
- ⑧ Overview of existing knowledge related to the identified problem is provided.
- ⑨ It is made clear how the research is relevant.

8.7 Literature review.

- ① gathering knowledge already exists
- ② Journal articles, books, papers, theses, & archival material.
- ③ Give insight into existing knowledge and theories related to topic.
- ④ Not a simple list or summary of data. It's a critical discussion of ideas & information that you found as part of theoretical framework.
- ⑤ It is the cornerstone for analyzing the problem being investigated.

9. Research Design. (Research strategies)

- ① describes how you will approach the investigation for dissertation.
It is part of 'research proposal'.
- ② First step: Formulate problem statement. A main research question and sub questions.
- ③ Should present an overview of the ~~the~~ means you want to undertake dissertation research.
- ④ ~~the~~ Answer: (1) where? (2) when? (3) who or what? (4) how?

10. Research results.

A description of how the research went and analysis of the results.

10.1 Results of qualitative research:

Step 1: Introduce the relevant research.

2: Report the results in a structured manner.

3: Discuss the results.

4: Double-check; ensure all results relate to topic & questions.

11 Conclusion and discussion.

The research question have been answered.

The main question or problem statement has been answered.

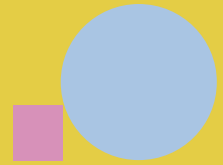
No extraneous information is provided.

12. Afterword / Evaluation / Reflection

Before the end of Fall semester, I need to complete most of the *Theoretical framework* and *Literature review*, and part of the *Research design*. At this stage, I think **Action Research** and my research fit very well. I also really enjoy this state of **learning by doing**, and this state can maintain my continuous topic exploration, rich literature and theoretical support, and a passionate and sustainable process. 🌱

3

GENERATING PROBLEM STATEMENT



- Gradually narrow it down

Finalized research question:

How can an intuitive and accessible indexing system be designed to support front-end designers to access more front-end programming knowledge?

How can we learn front-end programming and development as a method for designers and artists to create works.

Moreover, bridge the communication gap between front-end designers and front-end programmers.

With your *help* and *guidance*, I have organized the problem statement and research question of the thesis 5 times. Every time we discuss this, in addition to the *references* and related extended knowledge you gave me. New inspirations and research directions are increasing with the amount of reading documents, but most of the time I have to exclude the reading documents from my writing scope. Because although the literature is concerned with similar issues, it deviates from the direction I want to proceed.

This process made me very profitable in the later *literature review*. Because a large number of relevant documents have been screened out *early* in the project, so when writing the literature review part, only the most *important* and *relevant* writing can be selected.

Access front-end development as a design approach for Interdisciplinary designers

Problem statement:

The original role of the web front-end (websites and applications) has always been the role of providing visual content, visualizing website data, and act as communities. From the perspective of front-end designers and program developers, the progress of interactive art; GUI¹ and various programming languages, designers and artists of various backgrounds have learned or understood to a certain extent, the innovative approaches that interactive artists influence on virtual space. Due to the inaccessibility of relevant knowledge, people do not fully understand the current possibilities of this platform and ways to better display their works. The potential use of this platform is unappreciated and unrecognized in most cases. Interdisciplinary designers should let technology and knowledge guide and broaden the design process, and should not limit creative potential because of it.

The public and experts in the field of art and design have fundamentally questioned whether it is 'art' or 'design'; and these practices of 'art' and 'design' are not sufficiently appreciated and valued in the variety aesthetic practice of the post-Internet era. Among them, the modern Internet front-end design, which intersects with conceptual art and interactive design, meaning for today's cross-border and interdisciplinary designers -- it does not stop at simply digitizing and uploading works that can be viewed on the Internet, replaces the function of traditional galleries and the museum system; this type of design practice is essentially dependent on the existence of the Internet, usually (but not always) interactive, participatory and multimedia-based, and its taking advantage of injects interactive interfaces and the connectivity of multiple socio-economic cultures and micro-cultures.

In this process of research through design², the author will discuss how to use virtual space as a design tool; a platform for various visual art experiments; personal branding, and shows what could be done. How to make web front-end knowledge more accessible and systematic? How to learn front-end programming and development as a method for designers and artists to create works? Explore its operability and methodology. How do artworks and designs of different media adapt to this front-end medium to meet real display needs instead of just putting photos of works on it? Not only based on the scope of aesthetics and vision, but also on interdisciplinary knowledge and applications.

Research Questions:

How to make web front-end knowledge more accessible and systematic?

How does the knowledge of programming enrich design thinking?

How to learn front-end programming and development as a method for designers and artists to create works?

How to use virtual space as a design tool; an artwork; a platform for various visual art experiments; personal branding or as a portfolio, etc.?

How to allow designers and artists to access the possibilities and diversity that front-end programming can bring, and to understand and solve its limitations in the view of interdisciplinary designer?

How do artworks and designs of different media adapt to this front-end medium to meet real display needs instead of just putting photos of works on it?

¹ Graphical user interface.

² RtD

4

INFORMATION HIERARCHY

- Thesis outline and the infographic

13 Oct.
Index: Data presentation, diagram,
chart of human knowledge.
Library: Dewey decimal system, used to.
→ established at beginning (not adding onto / not insert halfway).
example of knowledge, easily
- tree diagram. →
Rome, Capital
I.I.A. I.A.1 I.1.1.
- Aim → what you want write
and knowing what you didn't write.
outline is very important (do not free write essay)

Key point

20 Oct. Outline: - hierarchy.
Outline is outside the thesis
Roman numeral: looks technical
★ information breakdown / use combination of these.
① chronology
② Spatial orientation
③ General to specific
④ More important to less important
⑤ Comparison and contrast
⑥ classification or partition → think about how if use this.
⑦ problem - methods - solution
⑧ Cause and effect.

compare one the left/spatial on the right.
it makes clear of our 'problem' - infographic.

ways of structure the information.

write 'theoretical framework' / Literature review.

keep filling in under 'theoretical framework'

3. Research design

Literature review - evaluated/reference. - I have included these:

↳ but I think

narrow it down with reasons!

sensitive to cultural sense.

Big / important ~~off~~ goes first.

question own ~~any~~ assumption all the time.

third person. - distance.

first person. -

↓
"the confusion" "the author"

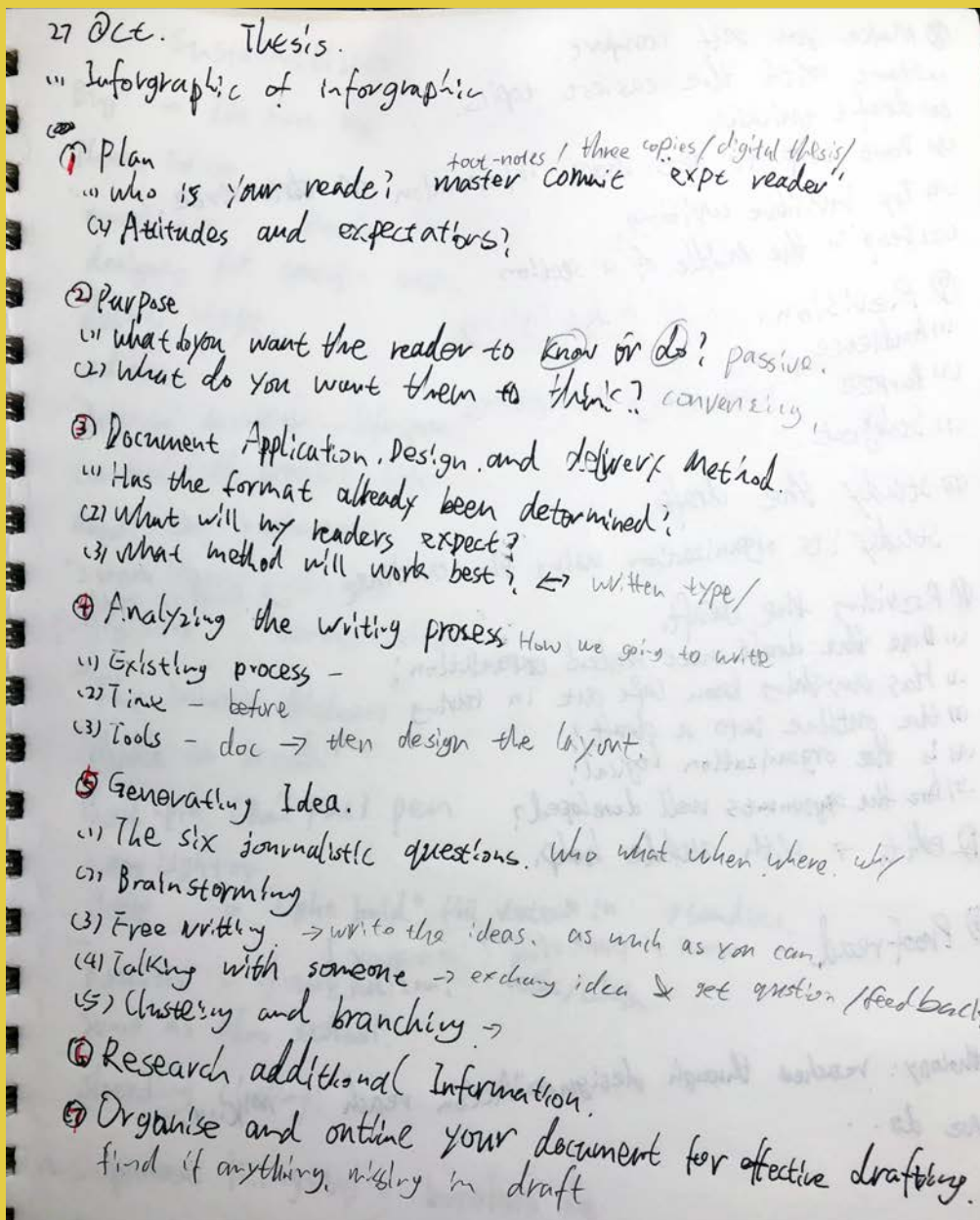
Key point

Whether in thesis or infographic, the *hierarchy* of information needs to be considered. This not only involves the dissemination of information, but mainly in the process of writing the paper, the different levels of information will reflect the **logic** and **structure** of the author's arrangement of the article.

In addition, I think that when designing the chart at the same time, I found a close relationship between the two. By *comparing* the two, we will find that maybe this is something missing in the paper, or there is a problem with the information *hierarchy* of the infographic. The combination of the two can make the writing of the paper more *clear* and *logical*. 🧠

WRITING PROCESS

- Thesis & general writing - PLAN



⑧ Make you self comfort.

(1) Start with the easiest topics.

(2) draft quickly.

(3) Don't stop to get more information or ~~data~~ to revise.

(4) Try invisible writing.

(5) Stop in the middle of a section

⑨ Revision. → go back to beginning.

(1) Audience

(2) Purpose - may change in process.

(3) Subject

⑩ study the draft.

study its organization using the outline change draft or outline

⑪ Revising the draft.

(1) Does the draft meet readers' expectations?

(2) Has anything been left out in turning

(3) the outline into a draft?

(4) Is the organization logical?

(5) Are the arguments well developed?

⑫ edit → with outside help.

⑬ Proofread - spell / punctuation / grammar.

By constantly letting others read my thesis, and using their feedback to test whether my abstract and introduction are consistent with the subject of my article. Whether the structure of each part is compact, the proofreading and edit process is also crucial. Like what you said, only I know what I want to research, and the content covered by thesis and infographics will be different from what others see and understand. 🙏

6

ITERATION OF THE PROJECT

- Focus and Highlights

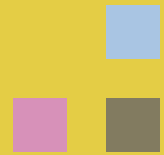


Table of contents:

1. Abstract	3/I
2. Table of contents	4/II
3. List of Figures and Tables	TBD/III
4. List of Abbreviations & Glossary	TBD/IV
5. Introduction	6
6. Theoretical framework and Literature review	8
6.1 Knowledge	8
6.2 Knowledge boundary	9
6.3 Accessibility and usability	9
6.4 Superabundance	10
7. Research design	12
7.1 Action research Mtheodology	12
7.2 Design-Front End-Back End	14
7.3 Cases tudy	16
7.4 Prototyping, prototype test and analysis	18
8. Implementing Design Intervention and Evaluation	20
8.1 Research process	20
8.2 Evaluation methods	21
9. Conclusion and discussion	TBD
10. Afterword/Evalutaion/Reflection	TBD
11. Reference	TBD/24ATM
12. Bibliography	TBD/27ATM
13. Appendices	TBD/28ATM

Thesis Structure ATM



5th Infographic

ONE STEP CLOSER

TO AN INTERDISCIPLINARY DESIGNER

How can an intuitive and accessible indexing system be designed to support front end designers to access more front end programming knowledge?

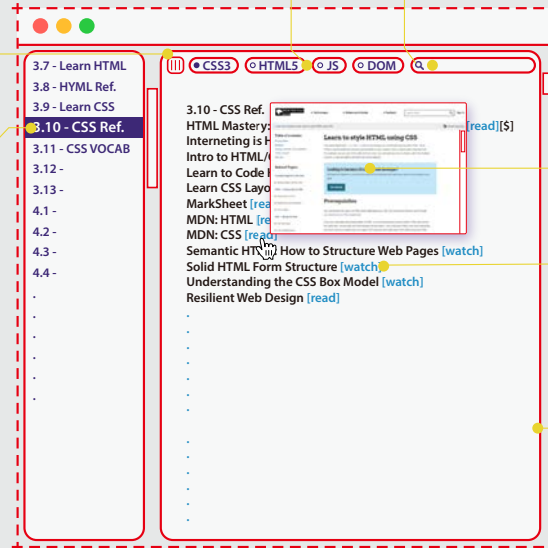
Accessible/Responsive Hamburger

Fold/expand side bar



Accessible Tag/filter

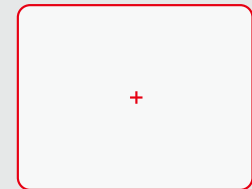
Arrange page based on selected programming language



Intuitive Visible search bar

Intuitive Real time link/page preview

Use real-time preview to locate what you are looking for in a page.



Accessible/Systematic Indexing

The selected item is reversed color and the font is bold;
Group knowledge points according to knowledge system categories



Accessible/Intuitive Highlight link

Highlight all previewable content. And can be switched by tab key.

Intuitive One scroll-based page

The page has only text and a few pictures; fast page loading; full-page search. And with real-time preview to achieve fast and effective information retrieval.

FRONT END KNOWLEDGE INDEXING SYSTEM

6th Infographic

ONE STEP CLOSER

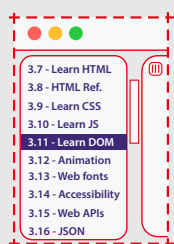
TO AN INTERDISCIPLINARY DESIGNER

How can an intuitive and accessible indexing system be designed to support front-end designers to access more front-end knowledge?

Project </glimpse>



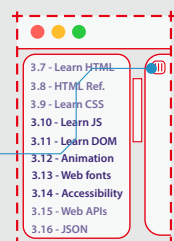
1. Use TOC to navigate Indexing



- 1.1 The selected element is in reversed color;
- 1.2 Group knowledge points according to knowledge system categories;

- 1.3 The viewed content marked as grey color.

- 1.4 Click icon to open or collapse the TOC.



2.1 Use Filter to navigate Tag/filter

Arrange page based on selected function /programming language tag.

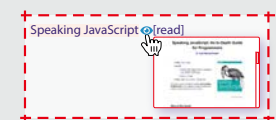


2.2 Fully searchable Tag/filter

You may use Ctrl+F(Win) or Command ⌘+F(Mac) to search all of the page content.

3.1 Link/page preview Preview

Hover over icon to access the real-time preview assist you locate what's you are looking for on a page. And you can interact with the preview.

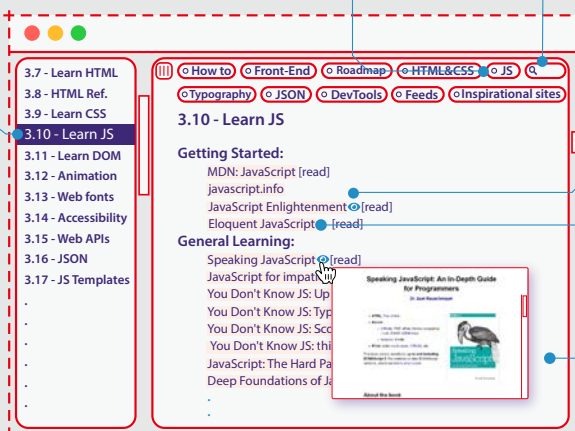


3.2 Highlight Links Preview

All color boxed element is a link. It can be switched by mouse hover/ tab key/touch interaction on desktop and mobile devices.

4. One scroll-based page Content

The page has only links and text with a few pictures; and fully searchable with keywords. It provides a real-time preview to achieve a more effective information retrieval experience.



ONE STEP CLOSER TO AN INTERDISCIPLINARY DESIGNER

Research question:

How can an intuitive and accessible **indexing system** be designed to support **front-end designers** to access more **front-end knowledge**?

Problem scenario

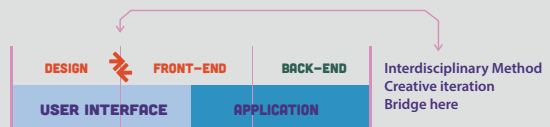
Multidisciplinary front-end project

Front-end development is a knowledge system with a **superabundance** of project practice. However, the current knowledge delivery system is relatively **inaccessible** for a non-computer science user. And the **unintuitive** and **unsystematic** knowledge creates certain **technical barriers**.

Current standard method in front-end project
Based on each discipline



In the current method, the **disciplines** involved in the process are considered. Although this distinction is easy to understand, it also shows its linearity and phase dependence. This very common method in the web industry is that all content is pre-designed, and then the prototype is converted into code for the front end, and then the back end logic is created. Professionals in each stage are in **isolation**, which makes it difficult to foresee as many details and use cases as possible in the early stages.



The author believes that the **collaborative** process should be: interdisciplinary and creative iteration. This process is similar to what designers encounter in practice in different fields, requiring the use of multiple methods and design processes. Interdisciplinary designers are usually the backbone of the team. They integrate knowledge and work in different fields and act as collaborators.

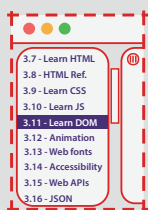
The author proposes a front-end knowledge indexing system -Project </glimpse> delivers front-end knowledge quickly, effectively, intuitively and accessible to users. Through the **efforts** of front-end **designers** and learning front-end programming knowledge, they could better cooperate with front-end developers.

Design intervention

An intuitive systematic front-end knowledge indexing system

Project </glimpse>

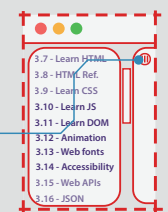
1. Use TOC to navigate Indexing



1.3 The viewed content marked as grey color.

1.4 Click icon to open or collapse the TOC.

1.1 The selected element is in reversed color;
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2.1 Use Filter to navigate Tag/filter

Arrange page based on selected function /programming language tag.



2.2 Fully searchable Tag/filter

You may use Ctrl+F(Win) or Command +F(Mac) to search all of the page content.

3.1 Link/page preview Preview

Hover over icon to access the real-time preview assist you locate what's you are looking for on a page. And you can interact with the preview.



3.2 Highlight Links Preview

All color boxed element is a link. It can be switched by mouse hover / tab key / touch interaction on desktop and mobile devices.

4. One scroll-based page Content

The page has only links and text with a few pictures; and fully searchable with keywords. It provides a real-time preview to achieve a more effective information retrieval experience.

The final infographic

Following the advice of my instructor and classmates, I have carried out many iterations of infographic design.

I eliminated a lot of *unimportant* information, and then *emphasized* the **hierarchy** of different information. And I made many changes to the *title* and *research questions*, constantly *refining* it, and becoming more *explicit*.

A SYSTEM BRING THE FRONT-END DESIGNER WORKS

ONE STEP CLOSER TO THE FRONT-END DEVELOPER

Research question:

How can an intuitive and accessible **indexing system** be designed to support **front-end designers** to access more **front-end knowledge**?

Front-end development is a knowledge system with a **superabundance** of project practice.

However, the current knowledge delivery system is relatively **inaccessible** for non-computer science users.

And the **unintuitive** and **unsystematic** knowledge creates **technical barriers**.

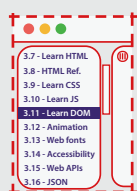
Design intervention

An indexing system with the following features could address the research question

Project </glimpse>

1. Use TOC to navigate

Indexing



1.1 The selected element is in reversed color;

1.2 Group knowledge points according to knowledge system categories;



1.4 Click icon to open or collapse the TOC.

2.1 Use Filter to navigate

Tag/filter

Arrange page based on the selected function/programming language tag.



2.2 Fully searchable

Tag/filter

You may use Ctrl+F(Win) or Command ⌘ +F(Mac) to search all of the page content.

3.1 Link/page preview

Preview

Hover over icon to access the real-time preview assist you locate what's you are looking for on a page. And you can interact with the preview.



3.2 Highlight Links

Preview

All color boxed element is a link. It can be switched by mouse hover/tab key/touch interaction on desktop and mobile devices.

4. One scroll-based page Content

The page has only links and text with a few pictures; and fully searchable with keywords. It provides a real-time preview to achieve a more effective information retrieval experience.

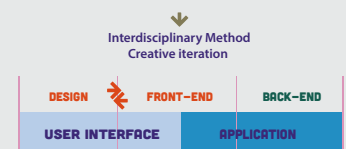
Problem scenario

Multidisciplinary front-end project

Current standard method in front-end project
Based on each discipline

DESIGN	FRONT-END	BACK-END
USER INTERFACE		APPLICATION

In the current method, the **disciplines** involved in the process are considered. Although this distinction is easy to understand, it also shows its linearity and phase dependence. This very common method in the web industry is that all content is pre-designed, and then the prototype is converted into code for the front end, and then the back end logic is created. Professionals in each stage are in **isolation**, which makes it difficult to foresee as many details and use cases as possible in the early stages.

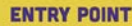


The author believes that the **collaborative** process should be: interdisciplinary and creative iteration. This process is similar to what designers encounter in practice in different fields, requiring the use of multiple methods and design processes. Interdisciplinary designers are usually the backbone of the team. They integrate knowledge and work in different fields and act as collaborators.

The author proposes a front-end knowledge indexing system-Project </glimpse> delivers front-end knowledge quickly, effectively, intuitively and accessible to users. Through the **efforts** of front-end **designers** and learning front-end programming knowledge, they could better cooperate with front-end developers.

Instructors: Michael LeBlanc | Leslie Obol
MDES 2021 | Xavier W. Wang

- The visual presentation (5 Feb.)

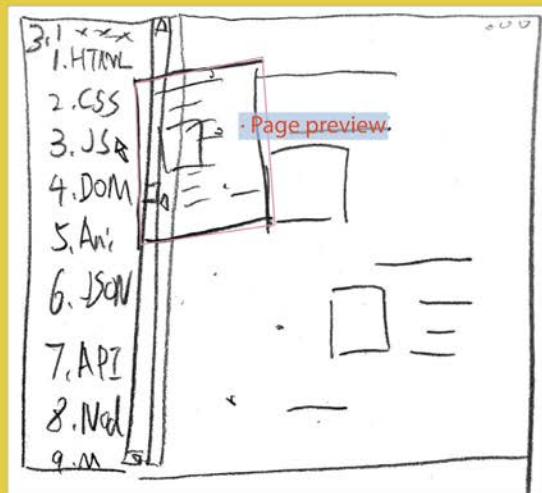


POSSIBLE DESIGN DIRECTION



IDEATION

- [Hover view tutorial/cheatsheet](#)



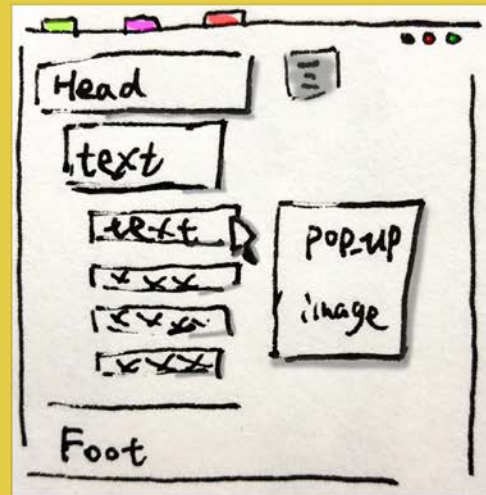
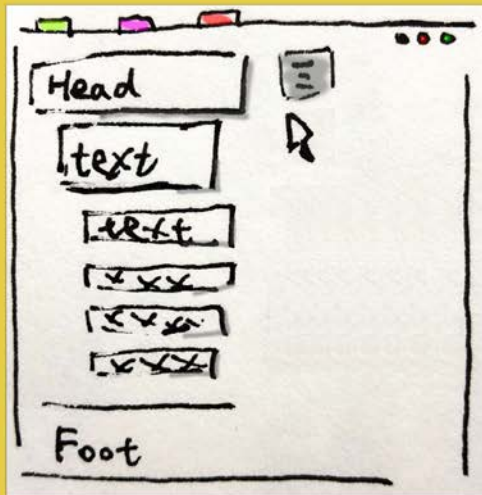
In the presentation, I analyzed the entry point and possible direction of my design project. Then I introduced the features that my project might have, which I think are needed to form an accessible and intuitive indexing system.

· Reference list/example site

Highlight the Distinct/tagged site of certain
tech and category
Link to the site and other online resources
Feeds from professional awarded website



· Indexing system with intuitive interaction



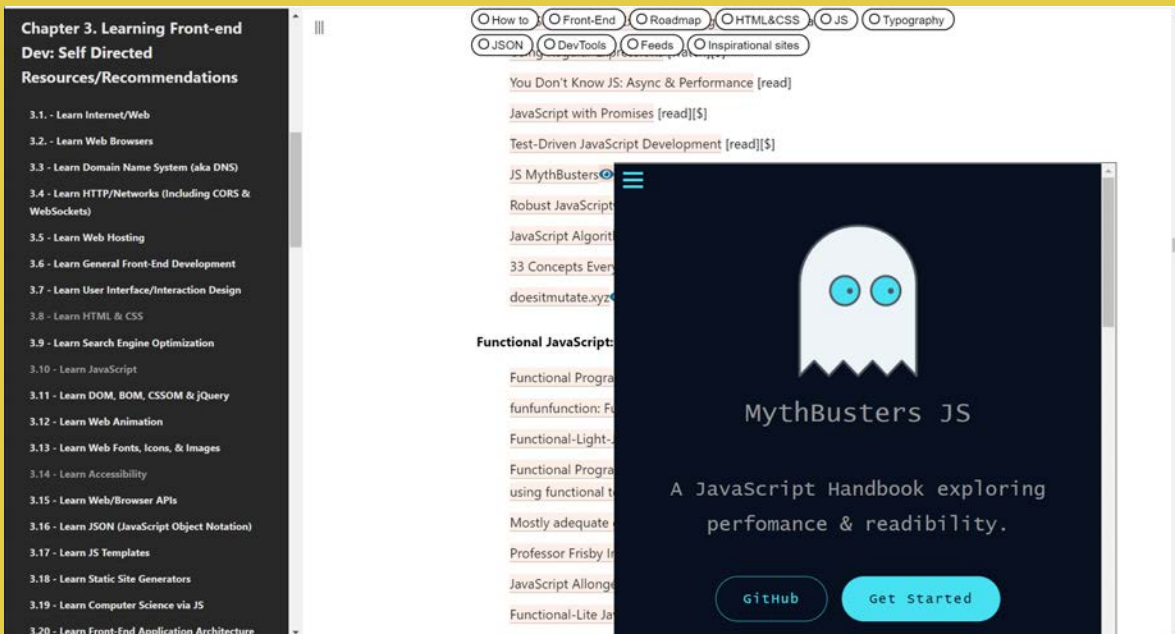
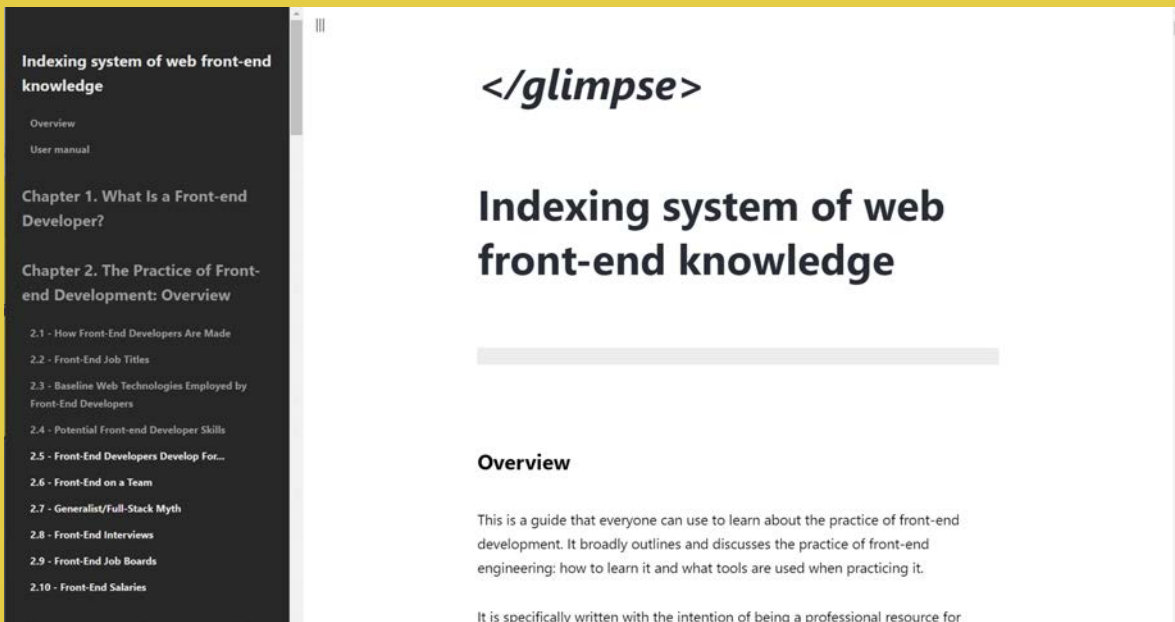
These ideas played a vital role in the establishment of the later project website, and also consumed a lot of practice for technical verification and testing. 🐼

7

PROJECT *</glimpse>*



- Website hosted on Github



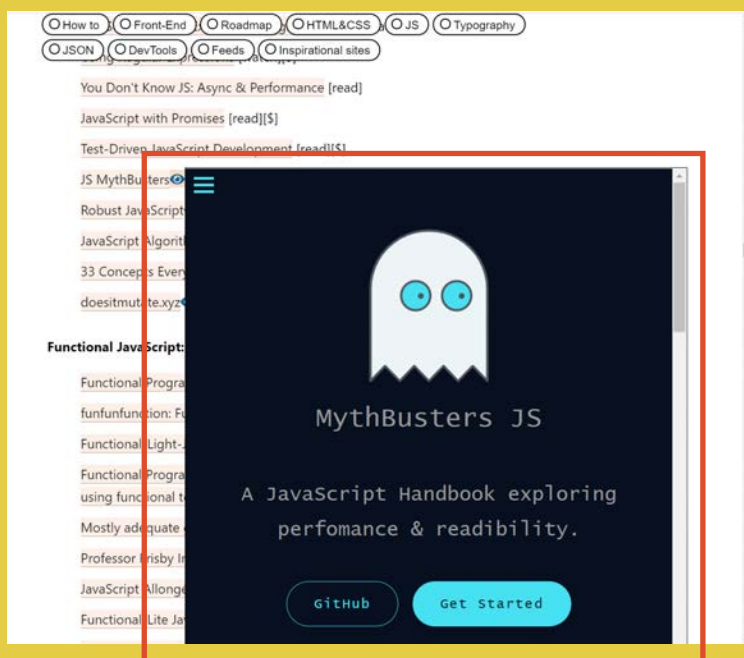
Link: <https://xavier-ww.github.io/Degree-project/>

- Vital code Demo

1. Add the code of the preview function to the interactive content that the mouse cursor hover over.

```
assets > JS prview.js > ...  
1 // Hover Web page Preview  
2 $(".tiptext").mouseover(function() {  
3     $(this).children(".pv").show();  
4  
5 }).mouseout(function() {  
6     $(this).children(".pv").hide();  
7 });  
8
```

This is how it looks like ➡



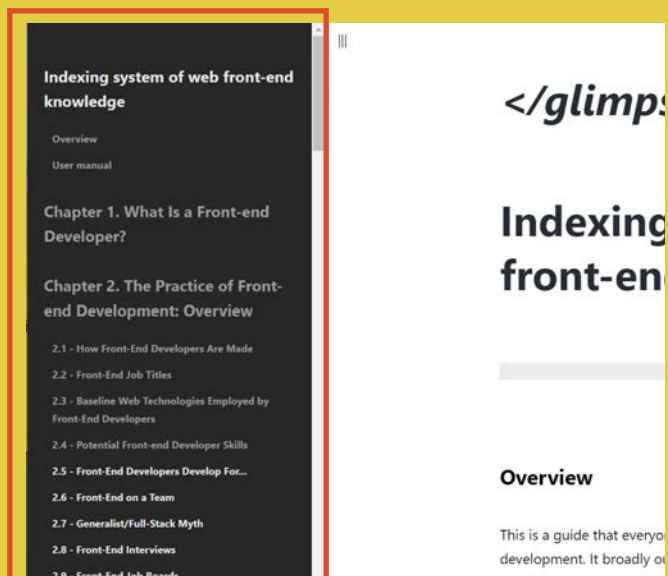
2. Suspend the loading(lazy load) of images on the page to speed up the page loading speed.

```
5433 <script>  
5434 // Lazy load images that have [data-src]  
5435 var observer = lozad('[data-src]');  
5436 observer.observe();
```


3. Create TOC (table of content side bar) dynamically from content

```
5446 // Create TOC dynamically from content
5447 jQuery(".chapter").each(function(index) {
5448     jQuery("h2", "#chapter" + (index)).each(function(i) {
5449         $(this).attr("id", index + 1);
5450         $("#toc").append(
5451             '<h5><a href="#" + (index + 1) + ">' + $(this).html() + "</a></h5>"
5452         );
5453     });
5454
5455     jQuery("h3", "#chapter" + (index)).each(function(i) {
5456         $(this).attr("id", index + 1 + "." + (i + 1));
5457         $("#toc").append(
5458             '<h6><a href="#" +
5459                 (index + 1) +
5460                 "." +
5461                 (i + 1) +
5462                 ">' +
5463                 $(this).html() +
5464                 "</a></h6>"
5465         );
5466     });
5467 });
5468
5469 jQuery("#panel").on(
5470     "click",
5471     "a:not(.codesandboxlink a, .toolbar a)",
5472     function() {
5473         window.open($(this).attr("href"));
5474         return false;
5475     }
5476 );
```

This is how it looks like ➡



Abstract

Since its development in the 1990s, the public has accepted web communication and applications' advantages and convenience. Modern web front-end design, which intersects with conceptual art and interactive design, is meaningful for today's interdisciplinary designers. It does not stop at simply digitizing and uploading works that can be viewed on the web, replacing the function of traditional galleries and the museum system. Instead, this type of design practice is essentially dependent on the internet's existence, usually (but not always) interactive, participatory and multimedia-based. Furthermore, it takes advantage of injected interactive interfaces and the connectivity of multiple socio-economic cultures and micro-cultures. Specifically, in the work and communication between front-end designers and front-end developers, there will be gaps in communication because of the difference in the direction of attention and the work's content.

Both of these situations can be used as a reason for interdisciplinary designers to reasonably study the conceptualization of web front-end design and programming methods. Furthermore, to improve the environmental model of project design experimentally. This project takes action research methodology as an exploratory model and proposes a more interactive and intuitive information and knowledge platform model for learning front-end design and programming methods. Interdisciplinary designers and anyone who needs to use the proposed system can quickly and effectively realize systematic and intuitive web front-end design and programming knowledge. To fill the communication gap between the two to a certain extent by mastering more front-end development knowledge through interdisciplinary designers. Ultimately, this thesis provides a one-stop centralized and systematic front-end knowledge and practical application platform - an indexing system project- ' </glimpse> '.

Xavier's MDes Thesis survey

[EN]

Hello my colleagues,

For my MDes thesis, I'm exploring alternative ways to better the user experience and interaction when front-end designers trying to access more front-end development knowledge.

To that end, I need to get a better grip on how designers feel about my proposed model which is a website that provides indexing of front-end knowledge.

So, please use the link provided to you, and following the instructions to finish the task and the surveys. And spend less than 10 minutes with it. (๑•̀ㅂ•́) 3

In addition, this survey will not collect any personal information and identification information, it is completely anonymous, and your privacy is fully protected. Honest answer is much appreciated.

Thanks a lot,
Xaiver

[CN]

您好，同僚们

为了我的MDes论文，当前端设计师试图访问更多前端开发知识时，我正在探索方法来改善用户体验和交互。为此，我需要更好地掌握设计师对我提出的模型的看法，该模型是一个提供前端知识索引的网站。

因此，请使用提供给您的链接，并按照说明进行操作以完成简单任务和调查。请您尽量花费少于10分钟的时间。(๑•̀ㅂ•́) 3

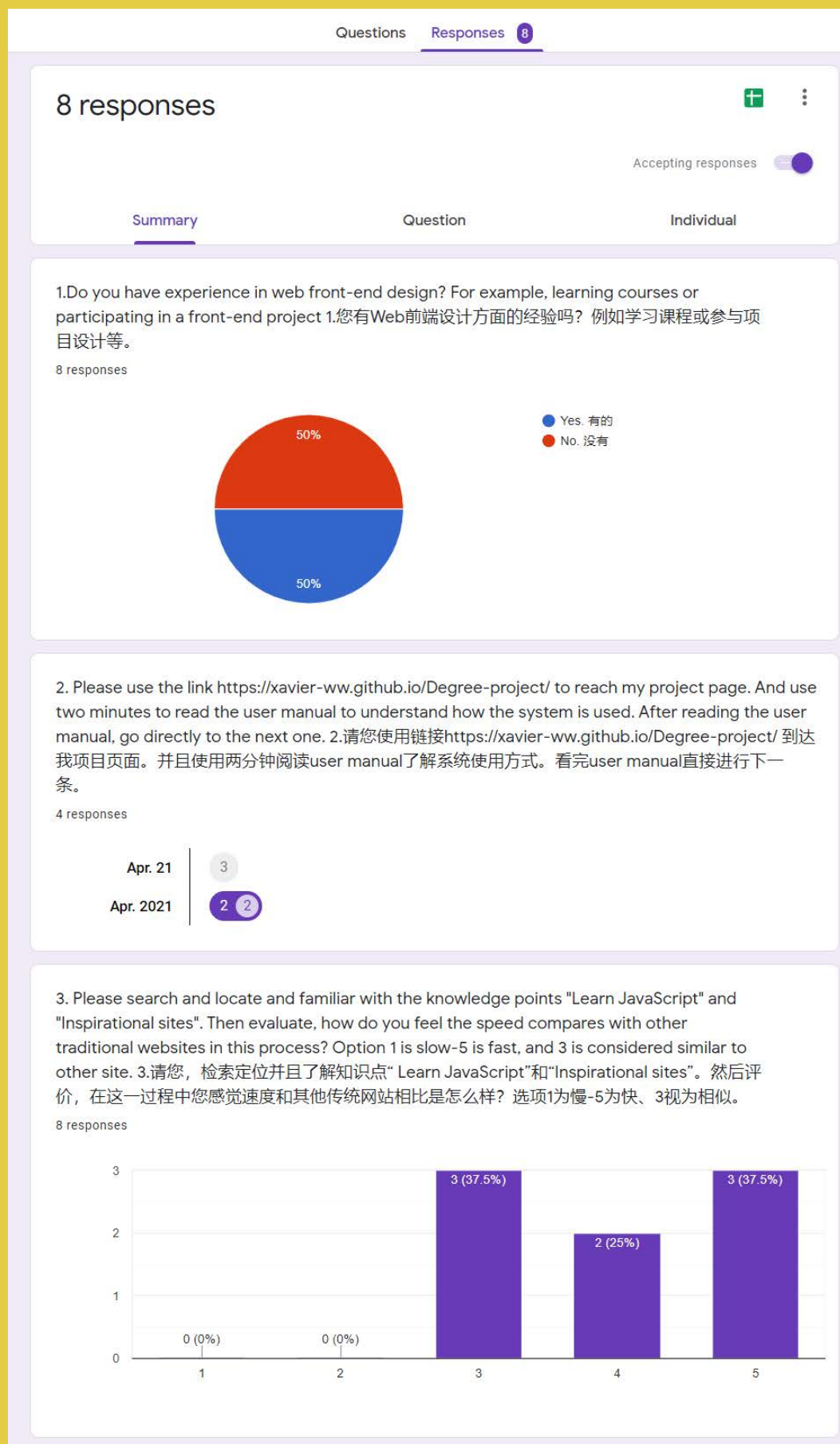
此外，本次调查不会采集任何个人信息和身份识别信息，完全匿名，您的隐私得到充分保障。如实回答就好。

非常感谢，
Xavier

*必填

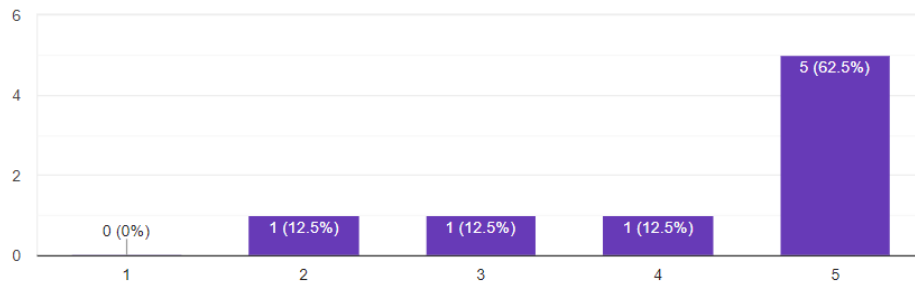
Link: <https://forms.gle/tK1ba97Tbphmn2Hs6>

- Online survey result



4. When performing the operation in question 3, compare it with other similar websites. What is your evaluation of the real-time preview function provided by the system and the interactive help provided by the label (tag/filter) at the top of the page? Option 1 is not helpful at all, -5 is very helpful, and 3 is considered general (no special feelings). 4.在执行问题3中的操作时，和其他类似的传统网站相比。您对本系统提供的实时预览功能和页面顶部的标签对您提供交互的帮助，评价是怎样的？选项1为完全没有帮助-5为很有帮助、3视为一般（无特别感受）。

8 responses



5. Do you have any other comments or suggestions that you think are important for the entire front-end knowledge indexing system? If so, please attach below. 5.您对整个 front-end knowledge indexing system 有什么其他您认为重要的意见或建议吗？如果有请附上。

4 responses

交互方式：我认为顶部的关键词按钮作为导向菜单是个很好的方式，这种实时的目录可以帮助读者迅速定位希望看到的内容。同时我觉得，点完顶部菜单后如果左边的目录页能够同步显示该section的一些小点，这样读者会更容易定位更细化地内容

The whole system is really helpful with detailed instruction. But I was a little bit freak out when saw the many sub-titles under some chapters. I don't know if there any possible ways to improve this concern. If not, this system is still great.

APPENDICES



- Lecture on repair and repairability & Sustainable, Rudi Oct. 27

Sustainability:

- "Bug" → The first bug in computer is actual insect.
- Thoms Edison.
- "Earth rise" - Apple mission, designing for specific task.
- duct tape.
- ad hoc.
- "Built-in" durability - lifespan.
- control of product life.
- Annual car replacement.
- "stream lining" - rail
- Refrigerator. - commercialism.
- "The Waste Makers"
- "Made to break"
- Ball-pin (Ball-point pen)
- Lighter
- Bottle → "light bulb" fill water in → samples.
- Bauhaus - formalism, look/claim
- Same as olm school.
- shedding clothing.

△ Japanese Kintsugi, boroboro da

△ Boro textile

△ Yokai ↔ object

Singmeister - poster on body. ALGA



Kintsugi

Object repaired by gold powder



Boro

Patched clothes
The charm of natural wear out

- Lecture on Japanese package, Rudi Dec. 01

Dec 1. Package.
 Egg package, 5.
 it is sustainable.
 rice in babbom.
 box of Japanese paper. → trees, wood.
 sushi container. wood/airtight.
 Woden noodle. / miso.
 Candy. 和菓子. Wagashi. わがし /
 paper. → it's a map of Kyoto
 Knot. → ribbon → color. cannot be undone → marriage / bond.
 decorative box → transport rice wine / miso.
 fish package. ~~fold~~ fold
 dry d
 vegetable / shrimp / tofu.
 Sekei. 清酒.
 JPDA.
 Kenya Hara 原研哉.
~~Shi~~ shisedo ^{Kagami mochi}
 rice cake. Mochi? 餅 / ~~Kagami~~ Yukata 浴衣 ゆかた
 wedding dress — Shiromuku 白無垢. ↑
 Kimono 着物. / Wafuku 和服 わふく. / Gokufu 呉服 ごくふ
 Water bottle. / can. / automatic s / vending machine.
 Knot.
 envelop - with money. 祝儀. 御祝儀. / 祭礼
 beer. Asahi.
 gift wrap - bag.
 bento - 弁当. - lunch box.
 Curry - カレー - カレ-
 cup noodles
 convenient store. 7-11 / 全家.
 Rice package. △ sea weed wrap. & film of plastic.
 Tama doll / daruma doll 達磨.
 Furoshiki. 風呂敷



Japanese Kanji Package

I appreciate that Rudi give us additional (partial review) his unique design experience. Since my first year in NSCAD and even before, I have enjoyed discussing many related and similar topics with you. You also share a lot of your wisdom with us, and talking with you and Prof. Rudi is always inspiring. Although sometimes I have no clue about what you mentioned, but I know that I will be there. Go beyond ignorance, a little bit; someday, somehow. 🌸

AND NEXT...

- Things to be followed up

1. Finish the thesis - a *new whole*
2. The layout design of the thesis - a *book*
3. Program review - a *new beginning*
- ...



THANK YOU

For all your *wisdom* and *joy* sharing with me

Why would anyone walk through life satisfied with the light from the candle of their own understanding when, by reaching out to our Heavenly Father, they could experience the bright sun of spiritual knowledge that would expand their minds with wisdom and fill their souls with joy?

-Dieter F. Uchtdorf