

Final Web Design Report

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1 Introduction

Websites are like a transition point of online and offline. The development of digital media does not increase the distance between customers and offline services but strengthens their relationship. Companies and organizations try not only to inform customers their products or services, but also to discover their needs, known or unknown, and raise their awareness that they can meet these needs by the product or service. After recognized the needs of customers, a medium is required to raise the awareness online and encourage them to take steps on purchasing online or offline. In today's stage, website is usually chosen and although mobile applications begin to take place of it, their core concepts and developing methods are alike. Therefore, despite of the specific forms, website design is still important today, connected to the conversion rate closely.

In Jesse James Garrett's theory, there are five planes of UX elements: The Strategy Plane, The Scope Plane, The Structure Plane, The Skeleton Plane and The Surface Plan, which can be divided into aesthetics, structure and strategy parts. My report will be based on the five plans and explains each part in detail, though different names will be given to each section instead of the planes'.

The aesthetics part is linked to the visual impression, which is how the contents are presented, including the layout of colors, shapes, images, texts, grids. The structure part emphasizes usability, which is how the contents are organized and interact with users. And the strategy part is the most important and fundamental: it decides the two explained above. User experience is based on users'

needs, which means that if the product or service does not meet their needs, they would never “experience” it. Therefore, I will initially discover the need that has not been met perfectly yet by other websites and build my project on that specific need.

2 Strategy Plane

2.1 Market Analysis

With the rising awareness of art education, visiting museums has become a new option for travelling purposes. As a remarkable movement in the art history, impressionism paintings are always popular all over the world. Every museum exhibiting impressionism paintings devotes effort to advertise these paintings as highlights of exhibitions. Visitors also consider appreciating impressionism paintings as an initial when they come to museums.

There are already many websites on impressionism paintings, most of which focusing on providing detailed information of paintings and trying to make the website a collection of impressionism paintings or artists. However, these websites do not mention how to find the paintings offline if the visitor wants to visit the museum. Some designers of these websites have paid attention to museums, but they only add a message showing the museum’s name. After knowing the information of a painting, users cannot find anything practical linked to offline museums.

Among all the impressionism artist, Monet is the most famous one, who is liked by art lovers all over the world and known by everyone. Websites designers also created pages on Monet, which is mainly a collection of his paintings as well.

Based on the above analysis, I find three issues: The first one is that people wish to visit museums even internet provides much information on artworks and artists. Impressionism is still

popular today, and both the visitors and museums consider the paintings as highlights of exhibition.

What's more, there are enough websites focusing on introducing impressionism paintings and artists to the public. However, these websites do not become the conjunction of online sources and offline museums. In addition, compared with all the impressionism artists, Monet is the most welcome one. Besides the reputation, he also drew many paintings which are impressive and amazing, attracting people to see them in museums.

2.2 Identify User Needs

After identifying the three issues on impressionism and museums, I targeted my website users as impressionism lovers especially interested in Monet's paintings and gallery museums and defined their needs in three perspectives responded to the issues: Firstly, users need information on planning their visits to museums, including the ticket price, the location, opening hours, official websites, brief introduction and also highlights of the museums. It would be better for them to find the online booking link and map guide in a single website. Second, in addition to the description of paintings, information on the museums exhibiting them should be provided. Then, many impressionism lovers have not seen all Monet's paintings, which make it possible to attract users by both world famous and not-well-known paintings, encouraging them to have discovery trips in museums.

In addition to the background analysis, several interviews were carried out to identify the primary needs from the perspective of impressionism lovers. Initially, the participants are willing to visit the museums with their favorite paintings, but most of them do not know the paintings are exhibited in which museums. For those who know a lot on impressionism, they also wish to visit as many museums with impressionism painting as they can in a single journey. For those who are new to but curious about impressionism, they wish to see some world-famous impressionism paintings

or paintings drawn by great artist such as Monet. Some of them also need recommendation based on location, enabling them to plan trips accordingly.

2.3 Site Objectives

At first, I decided to create a website for two types of people (the original proposal can be seen [here](#)): those are curious about impressionism and impressionism paintings, and those who want to find the museums exhibiting specific paintings (I also posted the prototype of this website on my GitHub [here](#) and will try my best to finish it afterwards). However, thinking of the professor's suggestion and the heavy burden of database, I adjust the website to a simpler one with clearer target and objectives.

The website's theme is "See Monet in Museums", which concludes the site objectives. Through my website, users can find all museums exhibiting Monet's paintings and receive practical information on planning visits there. They can also get tips on museum visiting in a trip to a foreign country. Some basic introduction on Monet and his paintings is also included for those who are not that familiar with impressionism. More details on how to achieve the objectives will be presented in the scope plane.

3 The Scope Plane

3.1 Functional Specifications

There are mainly four core parts on my website, Overview, Portfolio, Recommendation, Planning. They serve for four questions separately: where visitors can see Monet's Paintings, where most famous paintings of Monet are exhibiting and their relevant information, museum recommendation and planning a visit to a country to see as many as museums with Monet's paintings.

In the Overview part, I try to emphasize the importance of visiting museums to see the paintings by a video, which describes the reasons why people should be visiting museums. I also provide users with an overview of all the museums with Monet's paintings, aiming at telling people where to find museums with Monet's paintings. Moreover, users can choose to skip the section or search painting's name with the search bar offered by Airtable.

In the Portfolio part, I choose six typical paintings of Monet and give information on the museums exhibiting them. Besides, an overview of all Monet's paintings containing image, painting's name, description, museum name and the country it belongs to is presented.

In the Recommendation part, a table showing the image, paintings exhibited, address, ticket price, opening hours and official website of top 10 Museums with most Monet's paintings aims at providing suggestions for those who do not have a specific definition. What's more, users can find the 10 museums in the following map. A map showing the museums in three districts (Europe, North America and Others) is designed for recommending museums based on the users' location. Users wishing to go to a nearby one can refer to this map.

In the Planning part, an analysis is made based on the countries and their museums with Monet's paintings. This is for those who want to go to a country for the paintings and visit more than one museum with Monet. Users can see the numbers of museums with Monet in each country and make further decision based on the them.

3.2 Content Requirements

Mainly three databases are required to support the functions stated above. The first one is a database with all paintings drawn by Monet, including the name, image, description, current status (on view/ not on view/ lost), the name and country of museums exhibiting them. The second one is

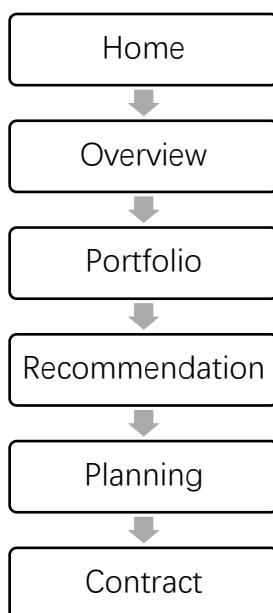
a database with the detailed information of museums: Address, Opening hours, Ticket Price, Online Ticket Booking Access and official website. The third contains the image, page link of Wikipedia and precise location of the museums.

All the data is collected by me. There is no applicable way for me to use the tools to collect the data with diverse sources and complicated layouts currently. I am still adding contents to them so there may be some paintings drawn by Monet which cannot be found on my website.

4 The Structure Plane

4.1 Information Architecture: Site Map

Confirming my target user and problems to be solved, the structure is initially developed to attract impressionism or Monet lovers to use it find the museum they wish to go and plan their visit. What's more, I also want to provide people who are interested in impressionism with some knowledge on impressionism paintings, artists and museums. Therefore, I adopt the single-page web template with a fixed navigation bar at the top. The website will be based on the site map (See Figure 1).



(Figure 1 Site Map)

My web structure tries to match the expectation and usage habits of users. The site map is based on a linear structure. The journey seems to be one-way, but the users can jump back to any section with the navigation bar.

4.2 Interaction Design

Most of the interaction design is friendly for users can choose to click a button to have a check or collapse the details by re-clicking it. The map showing the location of museums contains a “clear marker” button for various expectations.

More relevant information will be explained in the next part with wireframes.

5 The Skeleton and Surface Plane

5.1 Wireframe

Once the map has been set up, the wireframe needs to be developed. The wireframe prototype is shown as following (Figure 2-12). I will explain how it interacts with user’s action as well.

When users firstly come to my website, my first aim is to catch the attention of users and make them stay longer. To accomplish the goal, I use one of the most famous and impressive impressionism painting, Impression Sunrise as the background picture and write a brief lead on the center to tell users what this website is about and introduce the functions of it (Figure 2). A motivated sentence “Tell me more” follows the lead to encourage people to click. When it is pressed, the page will automatically jump into the next section, which is an introduction of the whole website. If the user has no idea and want some suggestions, he or she can press the recommendation section and will be directed to the recommendation page. The navigation is fixed, and it will move through the user journey. Users can find where they are through the navigation grid for the current part viewing is marked with a different color.

In the next stage, there is a video telling users the reasons why we should be visiting museums in the digital age and persuading users to plan their visits on Monet' paintings (Figure 3). After the video comes an overview of museums with Monet's paintings (Figure 4), which uses the gallery view of Airtable to present the detailed information of a number of museums. Users can see the details, just skip it or click now and collapse later due to their different types of needs.

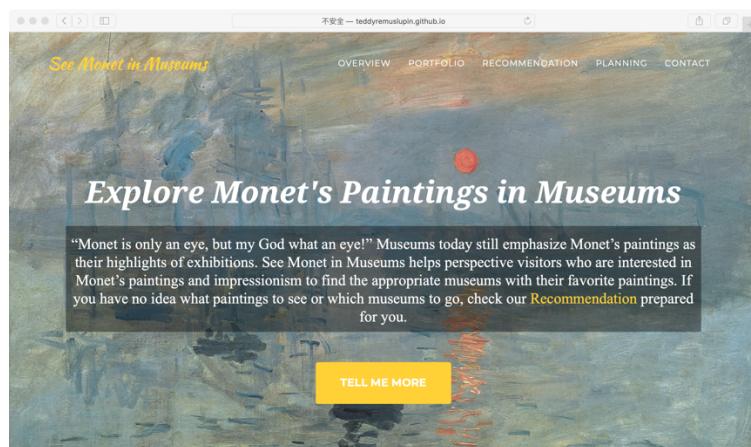
In the Portfolio stage (Figure 5), I used six paintings of Monet exhibited in six museums of six countries to meet the needs with following types: 1) just want to know more about some famous paintings; 2)want to discover a museum in a nearby place; 3) willing to find a famous painting of the six is exhibiting in which museum. And if the user clicked the image, a window with the description of paintings and information on the museum's ticket, address and opening hours (Figure 6). If the user clicks on the ticket price, the website will jump to an online ticket booking system provided by the website of museums. If the address information marked with yellow is clicked, the user will come to a map guide of the museum. The following part is an overview of Monet's paintings just like the one of museum (Figure 7). In addition, this overview adds information on whether the painting is on view or not.

In the Recommendation part, I selected two ways of recommendation. The former one is based on the number of Monet's paintings on exhibition (Figure 8). The later one refers to the area (Figure 9). Users can click the button with "Top 10" (This one is linked to the former part), "Europe", "North America" and "Others". The result will be shown on the map with different colors of location mark. The marks can be clicked and after being clicked, it will show

The Planning part contains analysis based on countries and museums with Monet's paintings (Figure 10 & 11). If users wish to visit a country and see the museums during the journey, they can

use this part to seek for destinations. Clicking the “Check” button will lead users to a conclusion on the analysis, which can be collapsed as well (Figure 11). This part is also suitable for users who just want a Monet journey, visiting museums with his paintings. In addition to the table, the result is shown as a chart, which is more friendly considering the visual presentation (Figure 12).

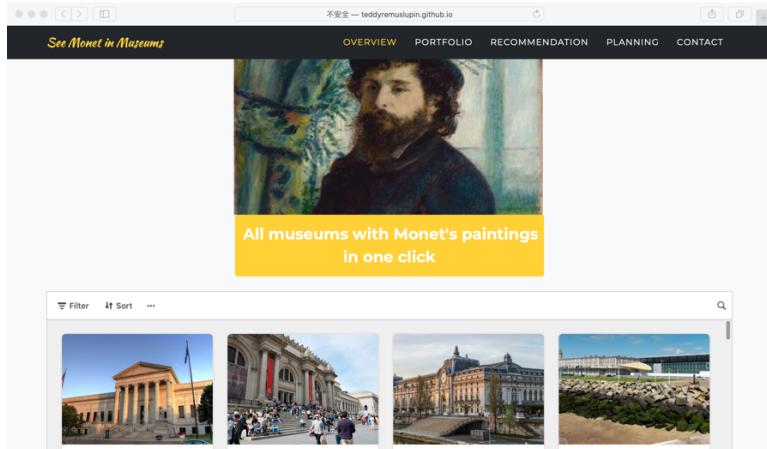
Last but not least, feedback of users should be taken into serious consideration and I inserted an Airtable in form view to collect users’ suggestions and complaints (Figure 13). The website will be optimized and improved according to these contents. What’s more, there are three icons of Twitter, Facebook and LinkedIn, which is linked to my personal accounts. Users can contact me directly by social media accounts.



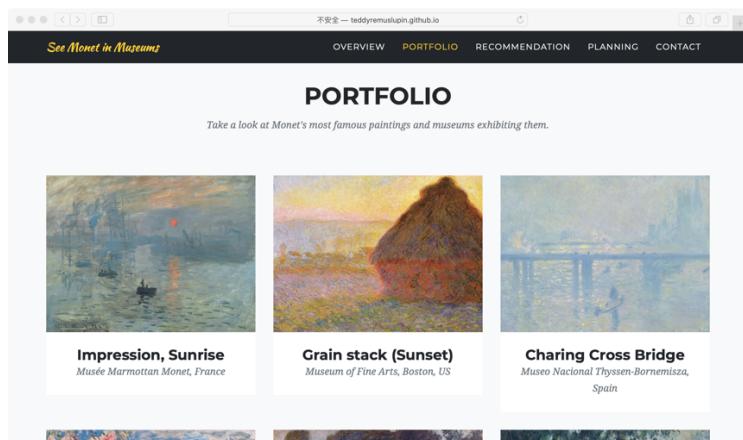
(Figure 2 Homepage)



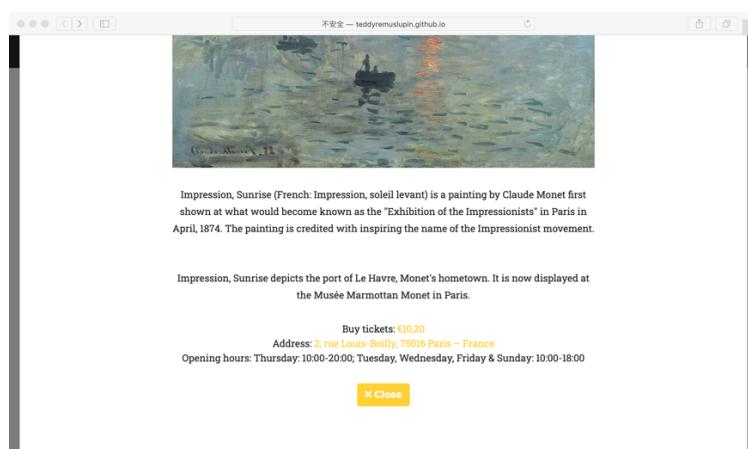
(Figure 3 Overview Page- Video)



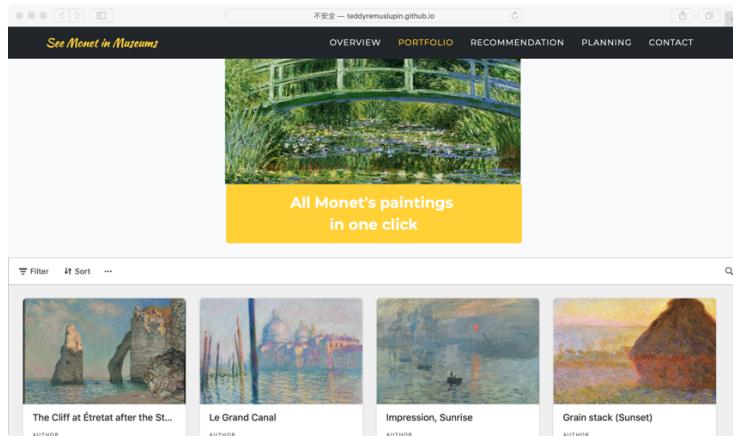
(Figure 4 Overview Page- Museums)



(Figure 5 Portfolio Page- Paintings Introduction)



(Figure 6 Portfolio Page- Portfolio Details)

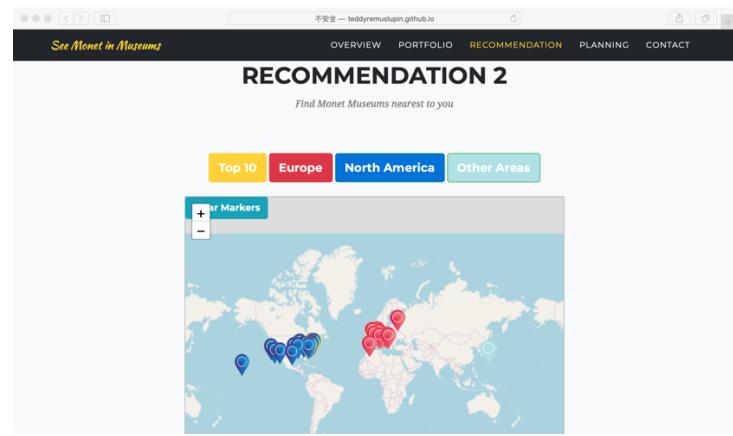


(Figure 7 Portfolio Page- Paintings Overview)

The screenshot shows a recommendation page titled 'RECOMMENDATION 1'. It lists the 'Top 10 Museums with Most Monet Paintings'. The table includes columns for Ranking, Museum Name, Image, Paintings Exhibited, Address, Ticket Price, Opening Hours, and Website. The first entry is for Musée Marmottan Monet, which exhibits works such as 'Impression, Sunrise/Vétheuil in the Fog/Water Lilies/Water Lilies and Reflections of a Willow/Rouen Cathedral at sunset/The Rose Walk/'.

Ranking	Museum Name	Image	Paintings Exhibited	Address	Ticket Price	Opening Hours	Website
1	Musée Marmottan Monet		Impression, Sunrise/Vétheuil in the Fog/Water Lilies/Water Lilies and Reflections of a Willow/Rouen Cathedral at sunset/The Rose Walk/	2, rue Louis-Boilly, 75016 Paris – France	€10.20	Tuesday, Wednesday, Friday & Sunday: 10:00-18:00 Thursday: 10:00-20:00	https://www.marmottan.fr/en/

(Figure 8 Recommendation Page- Recommendation 1)



(Figure 9 Recommendation Page- Recommendation 2)

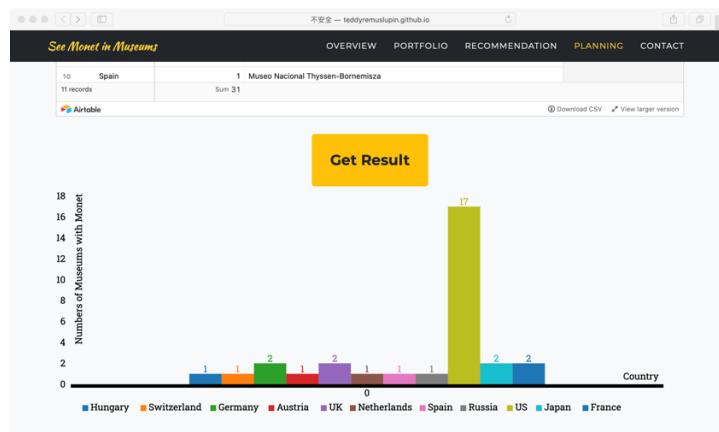
The screenshot shows a web application interface titled "See Monet in Museums". At the top, there is a navigation bar with links: OVERVIEW, PORTFOLIO, RECOMMENDATION, PLANNING, and CONTACT. Below the navigation bar, a large yellow button labeled "Check" is centered. Underneath the button is a table with the following data:

Country	Museums' Name
US	Metropolitan Museum of Art (The Met Fifth Avenue)/ National Gallery of Art/ Art Institute of Chicago
UK	The National Gallery/ Tate Britain
France	Musée d'Orsay/ Musée Marmottan Monet
Germany	Städelsches Kunstinstitut/ Neue Pinakothek
Japan	Pola Museum of Art/ National Museum of Western Art
Switzerland	Foundation E.G. Bührle
Netherlands	Kröller-Müller Museum
Austria	Albertina

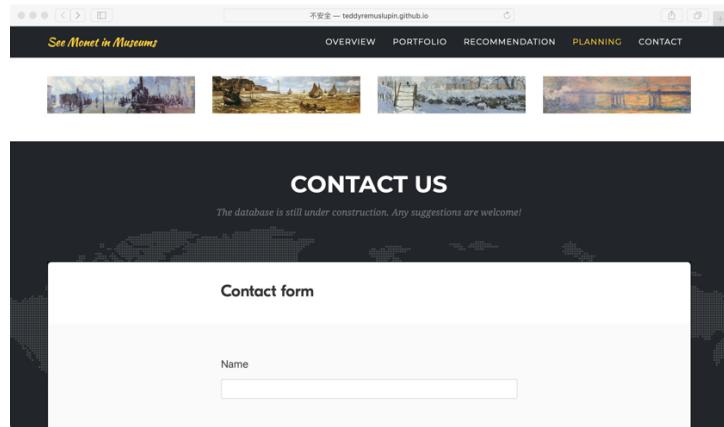
(Figure 10 Planning Page- 11 countries)

The screenshot shows the same web application interface as Figure 10. A summary section at the top states: "11 countries have museums exhibiting Monet's paintings: Europe: France, UK, Germany, Switzerland, Netherlands, Russia, Hungary, Spain, Austria North America: US Others: Japan". Below this summary is the same table as Figure 10.

(Figure 11 Planning Page- Check Details)



(Figure 12 Planning Page- Result Chart)



(Figure 13 Contact Page)

5.2 Usability Test

To test the usability of my website(the original proposal which is not adopted at last can be seen [here](#) and the prototype of this website can be seen [here](#)), five volunteers was invited, among which two are experts in impressionism paintings, two know something about impressionism and three are just curious about these artworks. Three questions were asked:

Q1. What do you think the website is about?

Q2. Is it easy to find what you are looking for?

Q3. Are there any other functions or contents you expect to see on the website?

For the first questions, all interviewees knew the website was about impressionism and try to provide them with some information on the paintings and museums. However, some of them, especially those two knew little about impressionism, did not consider the website a finder for seeking for which museum(s) is/ are exhibiting (a) certain impressionism painting(s) and how to visit it/ them.

For the second question, four participants who do not know much about impressionism are confused by what to look for, since they do not have a specific thing to search for. The two experts can find their aims easily, but they consider there are too much information on the pages.

For the third question, all participants thought that the pages contain enough information on impressionism, which is comprehensive and there is no other functions or contents to add. However, two of them complained that the existing functions and contents should be organized in a clearer way and some similar contents should not be repeated in different pages. Advise was given that the homepage can contain options with different functions for users to choose from. For example, users with impressionism knowledge can click the button “Find your favorite paintings/ artists” to search for which museum exhibits the painting and how to visit the museum. Those who just want to see nearby impressionism paintings, any famous paintings drawn by well-known artists or need recommendations can click another button with the words “Not sure what to see?” and be directed to a recommendation page.

Therefore, I continued improving my website and developed it to [the current version](#).

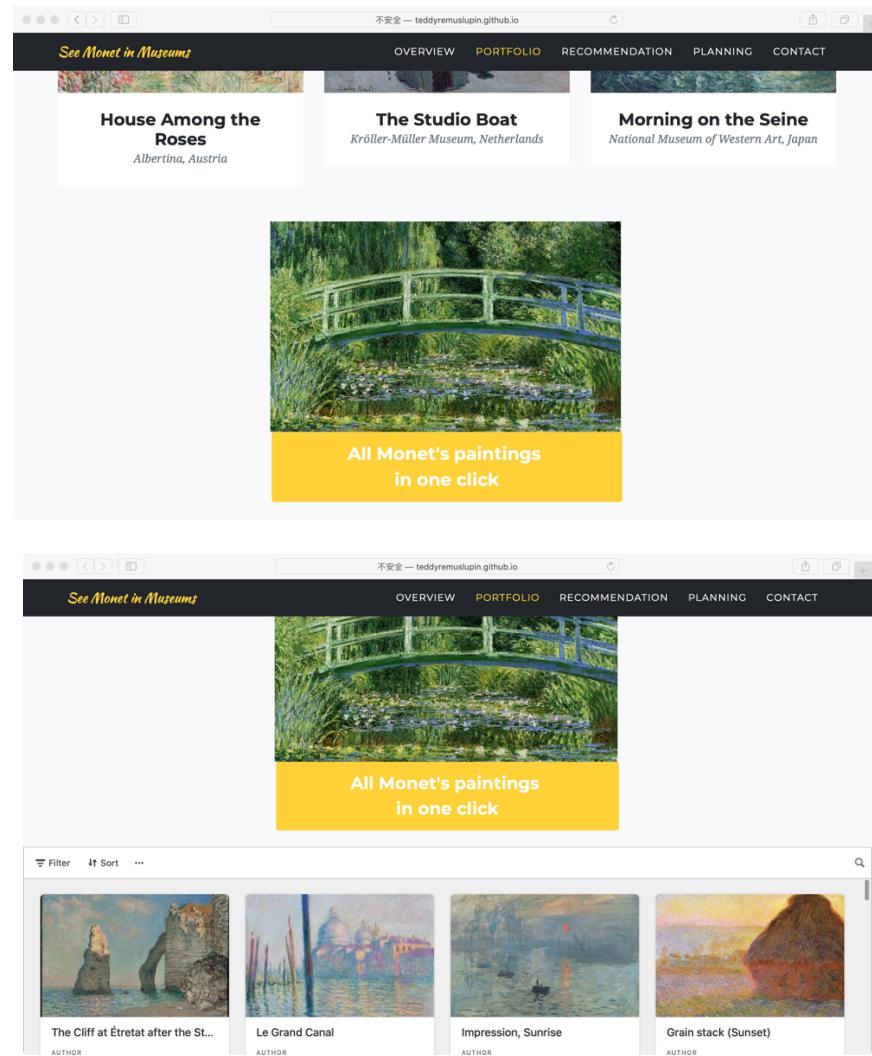
5.3 Goals setting and A/B Test

After designing the website, the coming step is to test its performance. I embedded Google Analytics codes in my website and set a goal: Duration above 3 minutes.

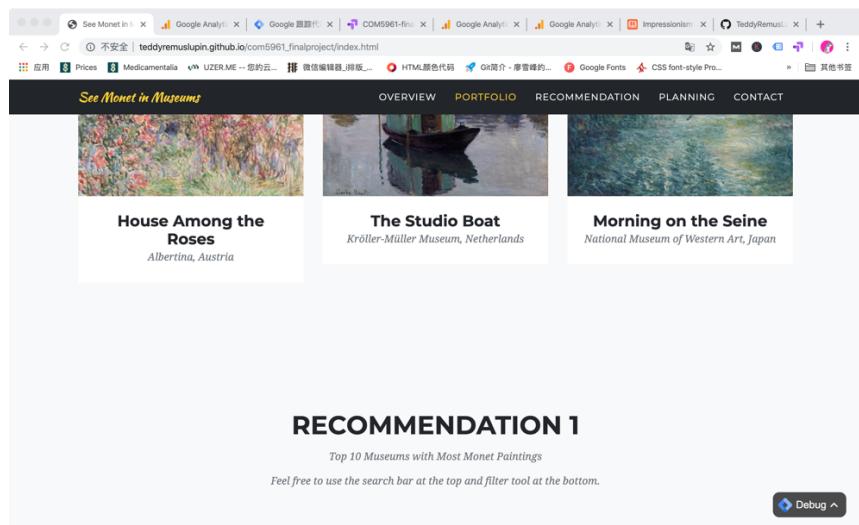
I wonder if one part is suitable to add to my website, for my website focuses more on the museums rather than the paintings. Therefore, the goal was set to examine whether one part on overview of all Monet’s painting can improve the duration time of users staying on the website. I also set two goals which is “click the header button” and “click the icon of social media” to test if the two grids matter.

As for the A/B test, the original version and the variant version are demonstrated as Figure 14,15 and Figure 16. The test lasted for two days, and the result is as follows: The goal has been achieved for 9 times in total and 7 of them were completed in the original version. In terms of

duration time of the website, the original version with the overview of paintings performs better than the variant version. As a result, I kept that part on my website.



(Figure 14,15 A/B Test- A Version)



(Figure 16 A/B Test- B Version)



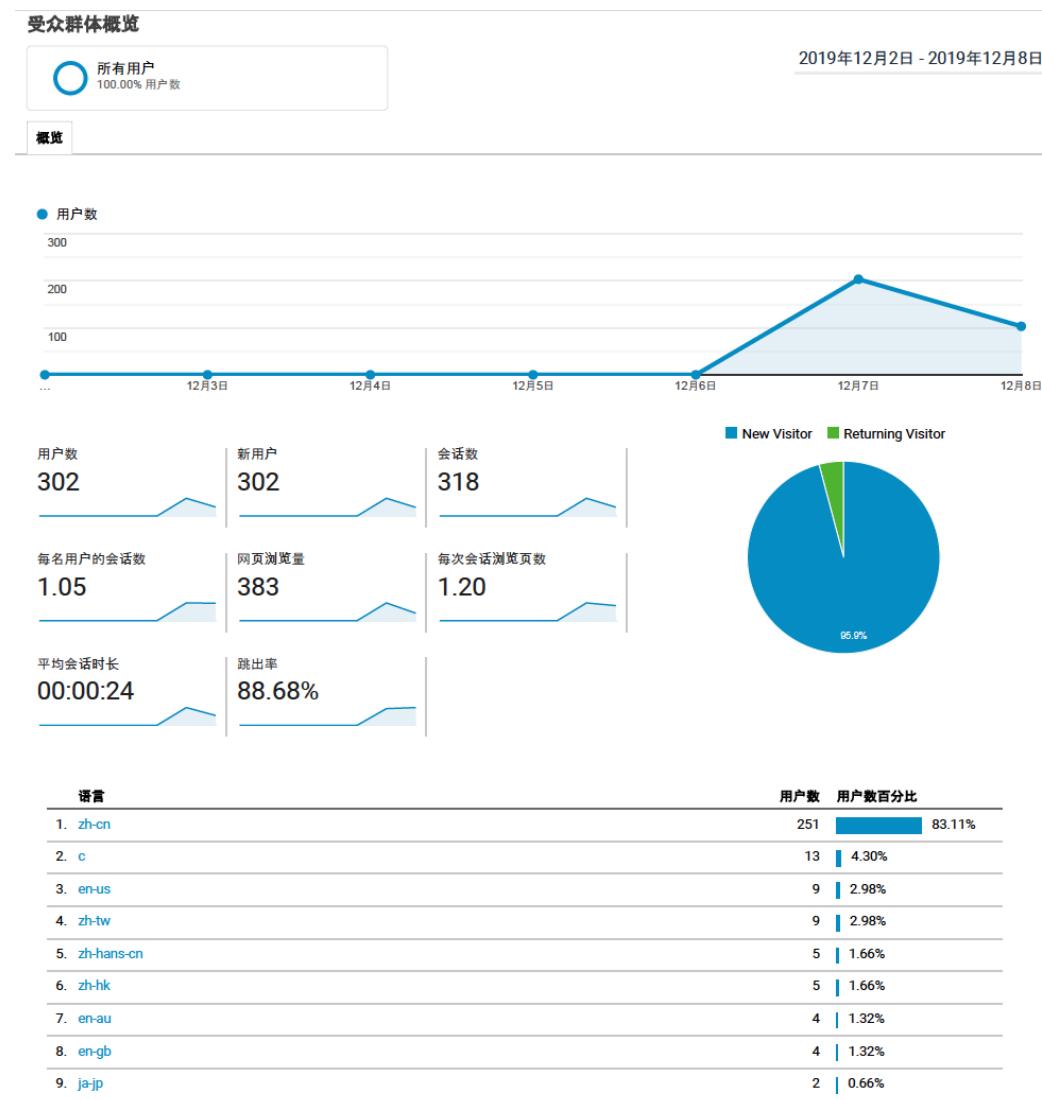
(Figure 17 A/B Test Report)

The report of Google Analytics also shows that during the test time, no user clicked the header button or the icon of contacts, which means that maybe the two parts are inefficient, and some further adjustments should be made.

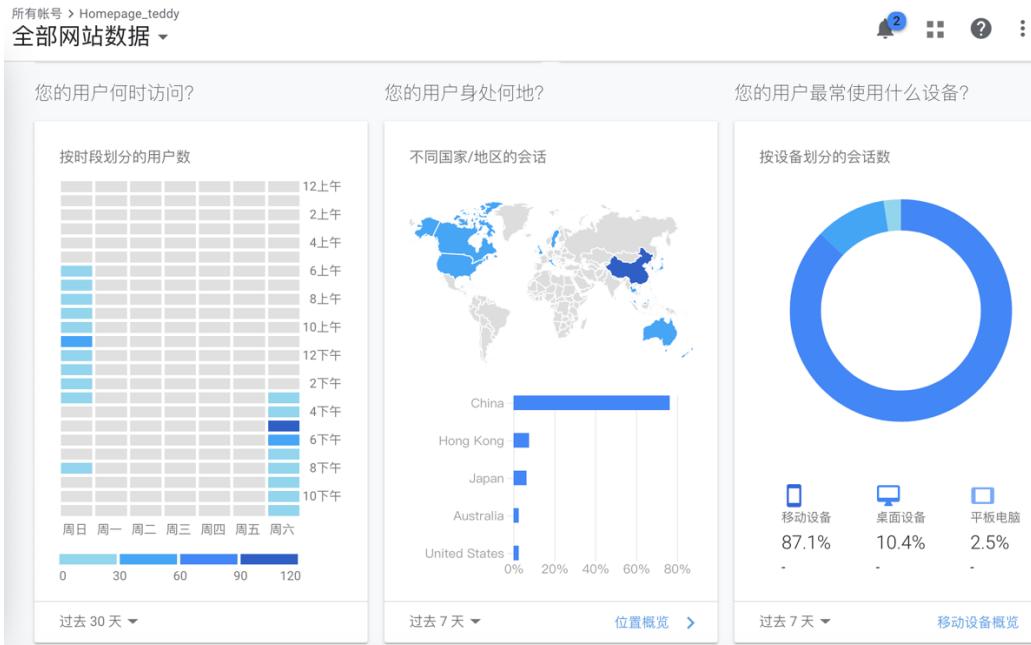
5.4 Dashboard

After two day's data collection and measurement, Google Analytics has generated a dashboard containing data on the views, sessions, duration, visiting time of the users. I should have tested my website among impressionism lovers. However, it is a little hard for a brand-new website to reach

a large number of impressionism lovers in a short time. Therefore, I posted the link on my social media accounts to encourage my classmate, friends, past workmates and followers to visit it, some of whom are impressionism lovers but most of them are not. Although it is reasonable that they only stay on the website for a short while because most of them are not my target users, the duration maybe too short and an adjustment on the homepage should be taken into consideration. In the future, an A/B test on the homepage needs to be carried out.



(Figure 18 Dashboard Report 1)



(Figure 19 Dashboard Report 2)

Conclusion

This is the first time I have built a website completely by myself. The first thing I want to emphasize is that user needs are the top priority of all steps. There is little meaning no matter how well your website is designed and how perfectly it interacts with the users if you did not define your target user and their needs clearly. In fact, I adjusted my website to a completely different version and changed the topic of it at last because of unclear functions and vague objectives, which is connected directly to the problems on identification of user needs. Data driven services and products are always something driven by user need initially. Given a second chance to build a website or make improvements on this one, I will take user research and analysis more seriously.

There is still a long way to go for my website. I do not want to abandon it after the final. More A/B tests are waiting for me to carry out to optimize my project. Sometimes I think that I have prepared everything adequately for the users, but data from experiments are the only reliable source. Technology, design and functions should always base on “real” user need coming from researches,

rather than “I think” and “I suppose”.