

# **Final Web Design Report**

COMM5961 10/12/2018

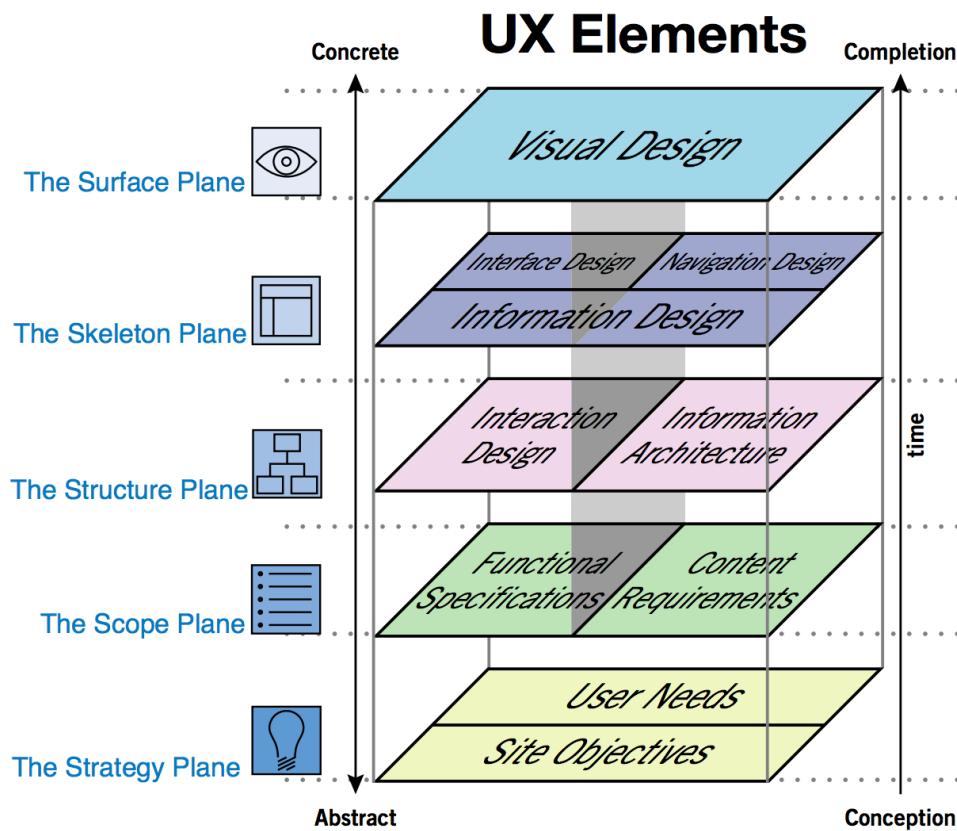
**JIANXIANG SUN (1155117200)**

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## **Introduction**

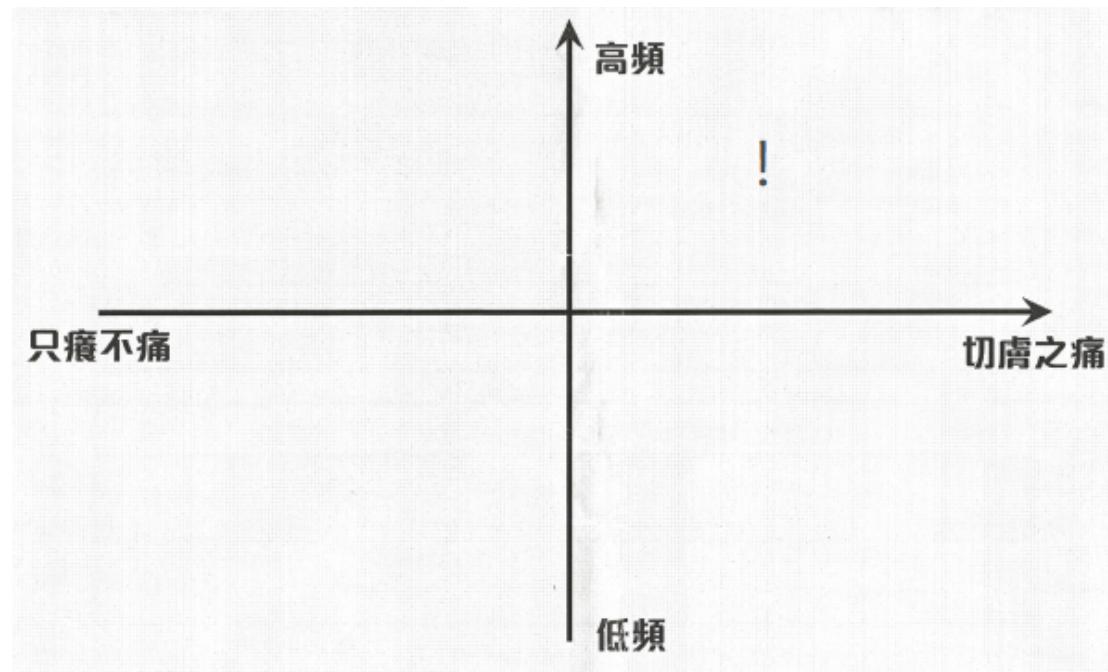
Since we have moved from the age of mass media to digital media, a business who runs its website aims not just to reach potential customers and raise their awareness like what television advertising and newspaper advertising function. More importantly, the website is dedicated to influencing the customers and encourage them to take actions, ultimately converting the traffic into revenue. Therefore, website design becomes so important that determining the conversion rate to a large extent. There are two dimensions that need to be taken into consideration: the site's aesthetics and structure. The "aesthetics" part emphasises the site's visual impression, which is formed through a conscious combination of colours, shapes, grids, typefaces, images and so on that can evoke human's emotions and improve their readability. The "structure" part is where usability come into play, which assesses how easy user interfaces are to use.

But if we get back to the starting point of user experience, the most important and fundamental thing is to define the problem and find out the user needs (see Figure 1). Moreover, the problem our product (i.e. The website) aims



Source: Elements of User Experience  
by Jesse James Garrett

**Figure 1: Five UX Elements**  
to solve should be ideally located in the top-right part of the pain point map,  
which is highly frequent and acute pain (see Figure 2).



### ***Figure 1: Pain Mapping***

The aforementioned concepts and theories have set the foundation, from which I start to think what problem my website is going to tackle. In the following sections, I will unfold the design experiences of my web project, which is called the HK Museum Finder.

### **Idea formation**

The idea of creating a website for foreign visitors (exclude Mainland China's visitors) to find and experience the museums of Hong Kong came to my when one of my friends from UK came to Hong Kong to visited me. He complained the high expenses of the hot tourism attractions and looked for museums to learn more about Hong Kong's cultures and histories. However, the information was separately stored on different museum's websites, which is time-consuming and inconvenient. His experience inspired me to make this project in order to provide foreign visitors like him with a more convenient way to find the appropriate museums and highlight this special and meaningful way to experience Hong Kong.

### **Market analysis**

According to the statistics published by Hong Kong Tourism Board (2018), Hong Kong has welcomed more than 52 million visitors in this year by October, a 9.7% growth compared with the last year. Besides that, there are three interesting facts which have drawn my attention. Firstly, even though the number of visitors from Mainland China has increased by 13%, the number of foreign visitors has declined by 0.9%. Secondly, the number of overnight visitors from Mainland China has only accounted for less than 40% of total Mainland's visitors. On the contrary, about 66% of foreign visitors have chosen to stay overnight. Thirdly, the figures show that the short haul tourism

markets (visitors from Southeast and East Asia) is declining, while the long haul tourism markets (visitors from the western countries like U.S., U.K., Canada and Australia) is rising.

The results convey three signals. The most frustrating one is that Hong Kong is losing its attractiveness as a tourism city, which may be resulted from the monotonous tourism market of Hong Kong that focus only on those one-off spots such as the Ocean Park and Disneyland. On the other hand, the inspiring thing is that the increase of long-haul tourists is followed by the increase of the length of stay, which means they physically have enough time to travel around Hong Kong. My website, the HK Museum Finder, will help them plan their visit in advance and enrich their time in Hong Kong.

## **Identify the needs and pains**

After interviewing several of my foreign friends, I have identified three primary needs from the perspective of tourist. Initially, they are willing to visit one or two Hong Kong museums during the journey, but most of them have no idea which museum to go. They may need some recommendations best with convincing reasons such like other visitors' reviews or scores. After confirming which to go, they need relevant information regarding to the type, location, price and opening hours of the museum(s). Thirdly, they need to know if there is any special exhibition taking place there. The main pain for tourists is that the pertinent information disperses at many different places, and even on the museums' websites, English version of information is missing.

During the research, I went to some of Hong Kong museums and found although the number of foreign visitors was very few, they appreciated every item with great interest. More importantly, I noticed that connecting visitors to

the museums is also the demand of these museums since visiting museums is not the rigid demand for visitors during the journey. To solve this problem, my website will highlight the current events and special exhibitions for visitors to add values to their visiting. The website will also rank the museums based on the scores of traveller's overview on online travel websites for those who have no idea which to go. Duration is also one of their concerns for visitors who have limited time. My website lists the suggested duration of each museum to help visitors plan their journey more effectively. For those people who love to visit hot places, we provide a map that shows several most popular tourist attractions of Hong Kong and the museums nearby. So they may consider to pay a visit to the museum by the way. For those who are interested in particular fields and look for specific types of museums, the search bar is placed to facilitate their way to find their goals. Users can also locate a museum based on the regions (i.e. Kowloon, New Territories and Hong Kong Island). Other information include the opening hours, museum websites and contact numbers.

## **Structure**

After I have confirmed my target user and the problem I want to solve (i.e. the objective of my website), I start thinking the structure: how the information and content should be arranged to attract and engage the users and to be used by them. The information architecture is closely related to the user journey, in which users "flow" (or said move) from stage to stage to the end. Each stage is expected to be designed as logically and coherently as possible. My goal is to make a foreign visitor who has never been to Hong Kong before be attracted and have clear plan to go to one or two museums of Hong Kong

after using my website. Therefore, I adopt the single-page web template with a fixed navigation bar at the top. The website will be build based on the site map (See Figure 3)

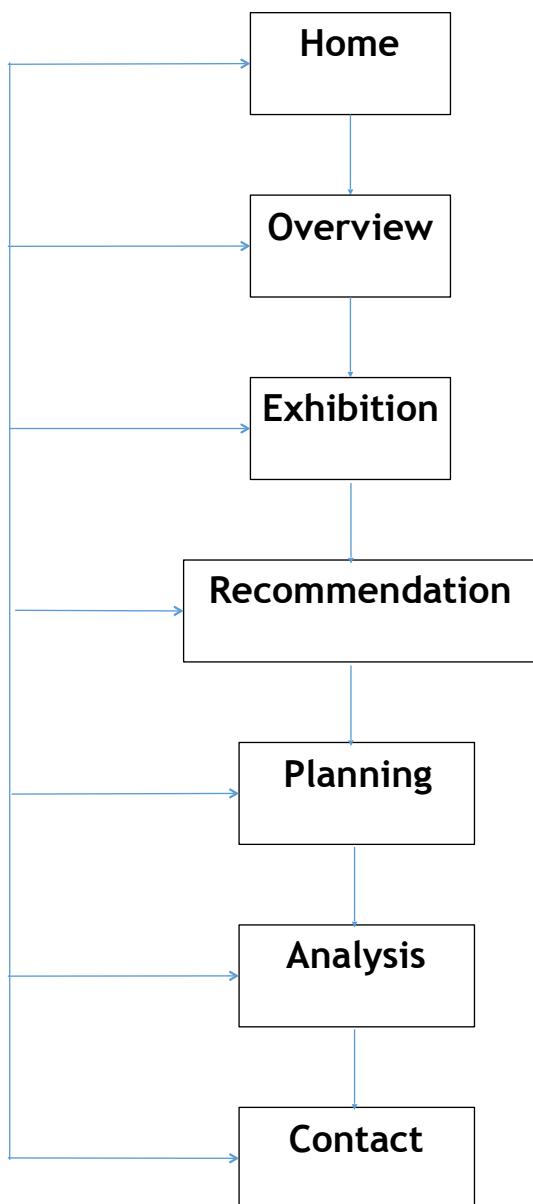


Figure 3: Site Map

My web structure tries to match the users' expectation and their usage habits.

Details will explained in the skeleton section. What this map emphasises is a linear structure that corresponds to the user journey. However, because of the fixed navigation bar, it also make a non-linear flow of information possible.

Users are free to jump to any section they want to focus on.

## Skeleton

Once the map has been set up, the next step is the wireframe, which demonstrates the layout and location of different media elements and shows how the website will look. It is the cheapest and most convenient way to test if the media elements are arranged logically and reasonably because I can revise anytime I need to. The wireframe prototype is shown as following (see Figure 4-9)

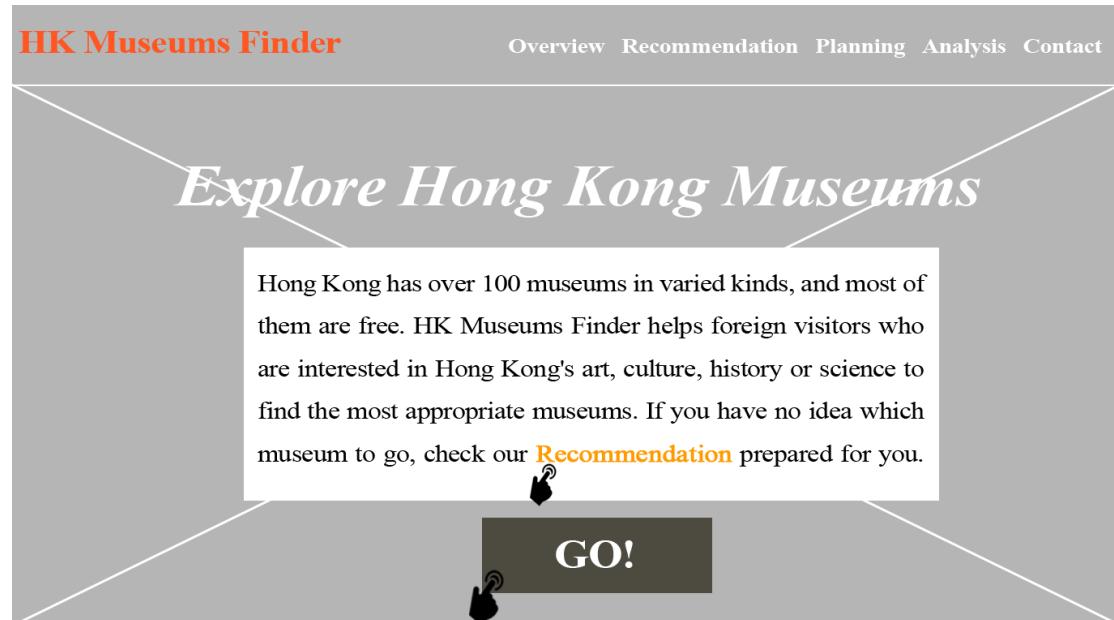


Figure 4: Home Page

## MUSEUMS OVERVIEW

#Free but Precious!



Figure 5: Overview Page

## RECOMMENDATION

The top 13 most popular museums

**\$.getJSON API Table**

**Figure 6: Recommendation Page**

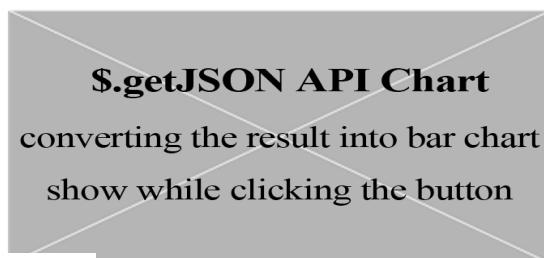
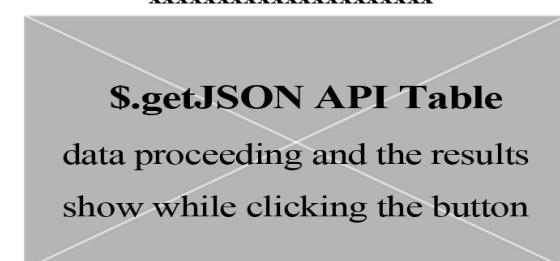


**Figure 7: Planning Page**



**Our recommendation is caculated based on the following criteria:**

xxxxxxxxxxxxxxxxxxxx  
xxxxxxxxxxxxxxxxxxxx  
xxxxxxxxxxxxxxxxxxxx



**Figure 8 Analysis Page**

## CONTACT US

Your Name

Your Email

Your Phone

Your Message

SEND MESSAGE

**Figure 9 Contact Page**

When users firstly come to my website, the only thing I need to do is to impress them to make them stay. Therefore I cover the background with a big image and put a brief introduction on the center to tell users what this web is and how it is going to help them. A motivated simple word “GO!” follows the introduction to engage people to click. When it is pressed, the page will automatically scroll down to the next section “Overview”, where the linear flow of information starts. However, if users want to see the museum recommendation, a highlighted word “Recommendation” can be pressed, which will take them to the “Recommendation” section directly. The navigation bar fixed on the top also allows them to browse my website in a non-linear way. In the “Overview” section, a video published by Leisure and Cultural Services Department will be embedded, which highlights two benefits of museum visit: “free” and “precious”. Since other hot tourism attractions are so expensive and only the sensory stimulation, our value proposition seems more competitive and attractive. An Airtable that lists all museums and relevant information will be embedded in this section for users’ reference.

“Recommendation” lists the 13 most popular museums that are widely recommended by visitors with hundreds of positive comments on the online travel websites. The button “CHECK ON MAP” will be placed underneath, which will take users to the “Planning” section, where they can find the exact location of each of the 13 museums on an interactive map. The pop-up of each marker will display the image and name of the museum, through which users can be directed to the official website of each museum. The six buttons above the map allow users to seek museums according to regions or types, which will facilitate their trip planning. “Analysis” section will explain how these 13 museums are obtained, supported by the Airtable’s function of conditional formulas and a bar chart. Finally, there will be “Contact” section at the bottom, where users are free to send me any suggestions and requirements for the further improvement of my website.

## **Usability Test**

To test the usability of my website, five volunteers has been invited, among which three come from Malaysia, two come from UK, to answer three questions as following:

**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 my website?**

For the first question, all participants knew this website tried to introduce and promote Hong Kong museums to foreign visitors. However, for the second question, all of them had no idea which museum to go after seeing the list of

103 museums, so they just went to the “Recommendation” section to look the table (see Figure 10). Most of them commended that the table should be

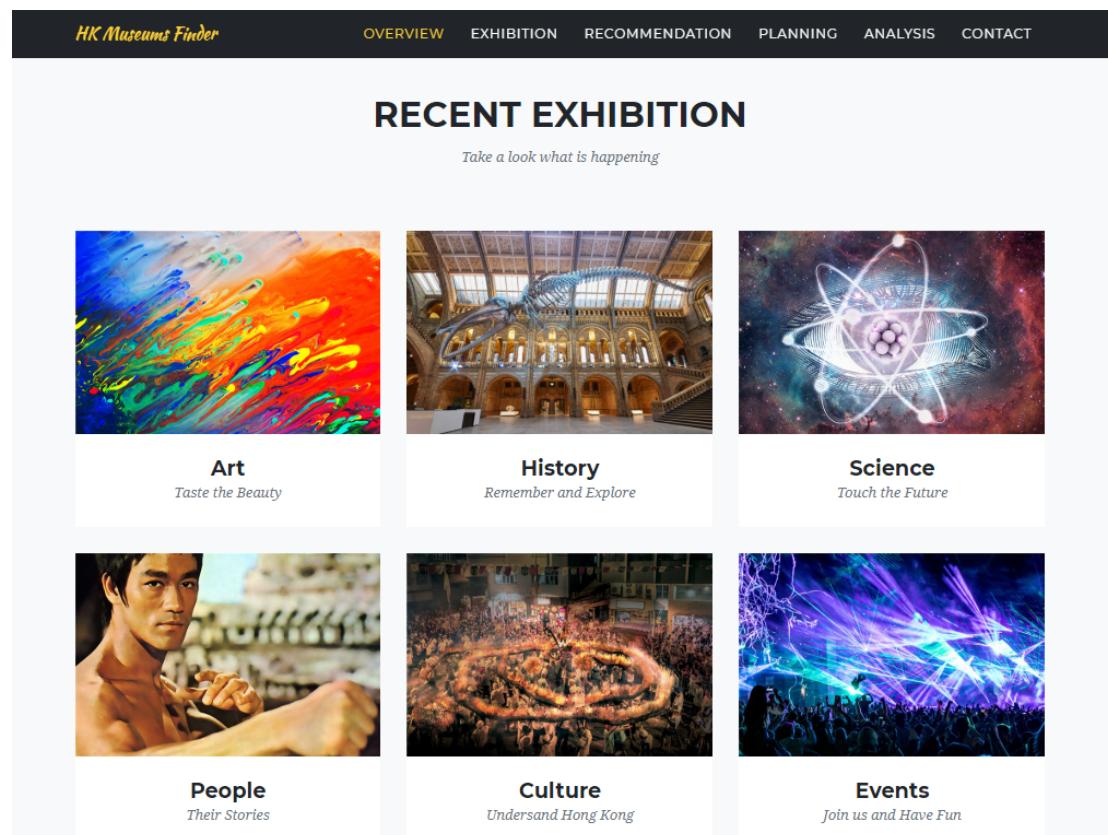
| Ranking | Museum Name                 | Image   | Suggested Duration | Address          | Types                       | Opening Hours  | Contact Number |
|---------|-----------------------------|---|--------------------|------------------|-----------------------------|--|----------------|
| 1       | Hong Kong Museum of History |  | 2-3 hours          | Kowloon          | Museums, History Museums    | Monday 10:00-18:00<br>Wednesday 10:00-18:00<br>Thursday 10:00-18:00<br>Friday 10:00-18:00<br>Saturday 10:00-19:00<br>Sunday 10:00-19:00                        | +852 2724 9042 |
| 2       | Madame Tussauds Hong Kong   |  | 2-3 hours          | Hong Kong Island | Museums, Speciality Museums | Monday 10:00-22:00<br>Tuesday 10:00-22:00<br>Wednesday 10:00-22:00<br>Thursday 10:00-22:00<br>Friday 10:00-22:00<br>Saturday 10:00-22:00<br>Sunday 10:00-22:00 | +852 2849 6966 |
| 3       | Hong Kong Science Museum    |  | 2-3 hours          | Kowloon          | Museums, Science Museums    | Monday 10:00-19:00<br>Tuesday 10:00-19:00<br>Wednesday 10:00-19:00<br>Friday 10:00-19:00<br>Saturday 10:00-21:00<br>Sunday 10:00-21:00                         | +852 2732 3232 |

**Figure 10: The recommendation table**

designed to be more impressive and colourful in order to attract the visitors. In addition, they advised me to add some special exhibitions or events taking place in these museums so that it will be easier to convince them to take action. Also, it will be better to have a brief introduction of each recommended museums in order to let visitors know what differentiates these museums from each other.

As for the third question, participants proposed many kinds of functions and contents they expect to see. For example, one suggested to add a section called “recent exhibitions” to update recent activities in different museums so that users are given an alternative way to choose museums based on the exhibitions and events, rather than the type or ranking. Another participant expected a big search bar on the home page. He claimed himself as a search-oriented user. If there had been a search bar, he could have typed the key word such like “Picasso” or “Opium War” to find the museums he wanted to go.

Unfortunately, I cannot realise their expectations within such a short period of time, but I did add the “Exhibition” section to my website (see Figure 11). Hopefully, I can continue improving my website to meet users’ expectation in terms of aesthetics and usability (the current version website: <https://jianxiangsungithub.io/>).



**Figure 11: The new-added “Exhibition” section  
Goals setting and A/B Test**

Once I have completed the process of website design put it online, it is time to measure the performance. Foremost, I connected my website with the Google Analytics and set several goals including:

1. Click the “GO!” button;
2. Watch the video in the “Overview” section;
3. Check the “Recommendation” section;
4. Check museum locations on the map;
5. Check the research results in the “Analysis” section

The goals were set following a progressive pattern. Clicking the “GO!” button is a key action, which reflects whether the home page is impressive enough to make people stay and go on reading the website. Then following the path I designed, they are expected to watch the video or just go directly to the recommendation section. After that, they check the map and find the location of particular museums, which comes to the end of the user journey on my website. The “Analysis” section is just the add-on to show to users how the result comes from. Actually, I am considering to remove this section to the back end, which will depends on the completion rate of the fifth goal.

As for the A/B Test, the original version and variant version are demonstrated as following (see Figure 12-14). As the experiment somehow automatically ended on the 3<sup>rd</sup> of December, there was no data collected after that. But according to the comparison of the two conversion rates, the original one was proved better than the variant.

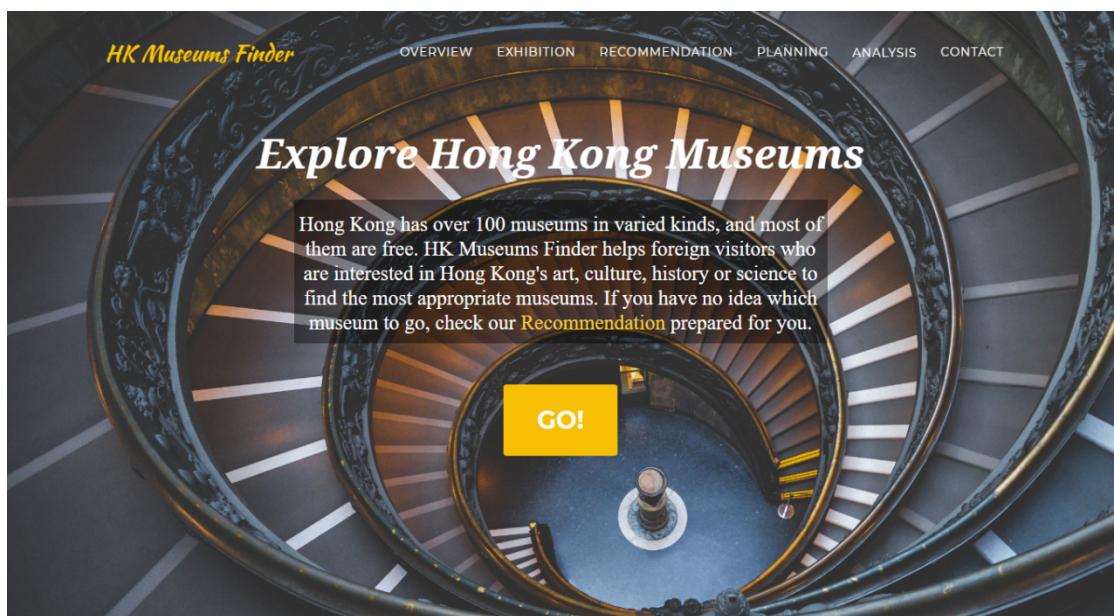
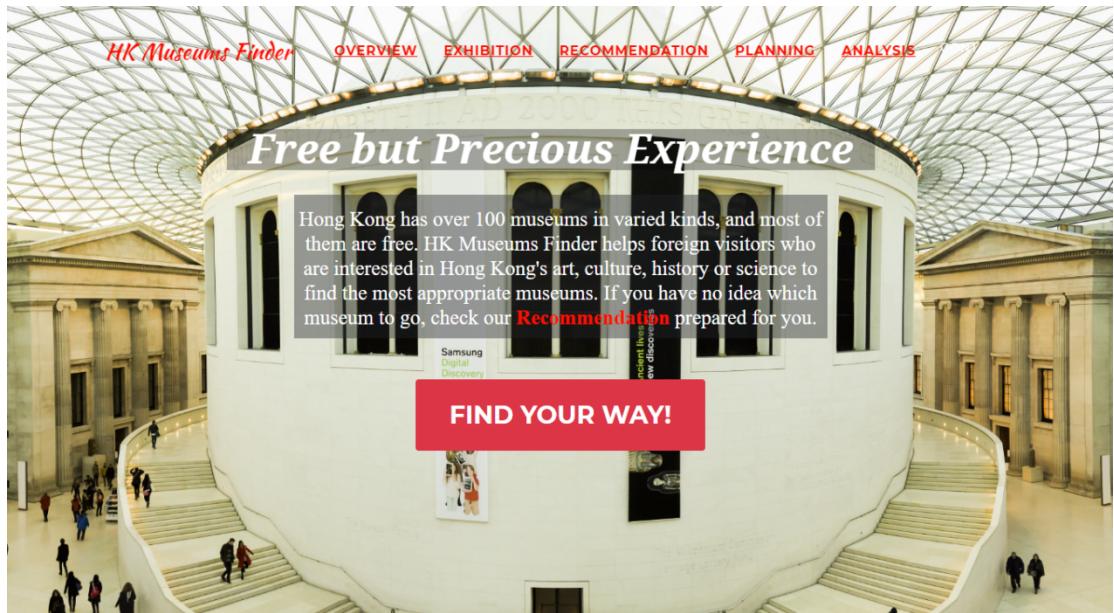
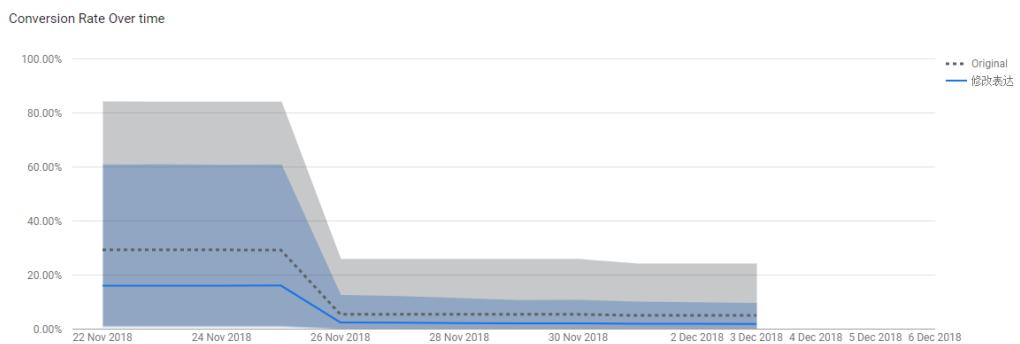


Figure 12: A/B Test - Original version



**Figure 13: A/B Test - Variant version**

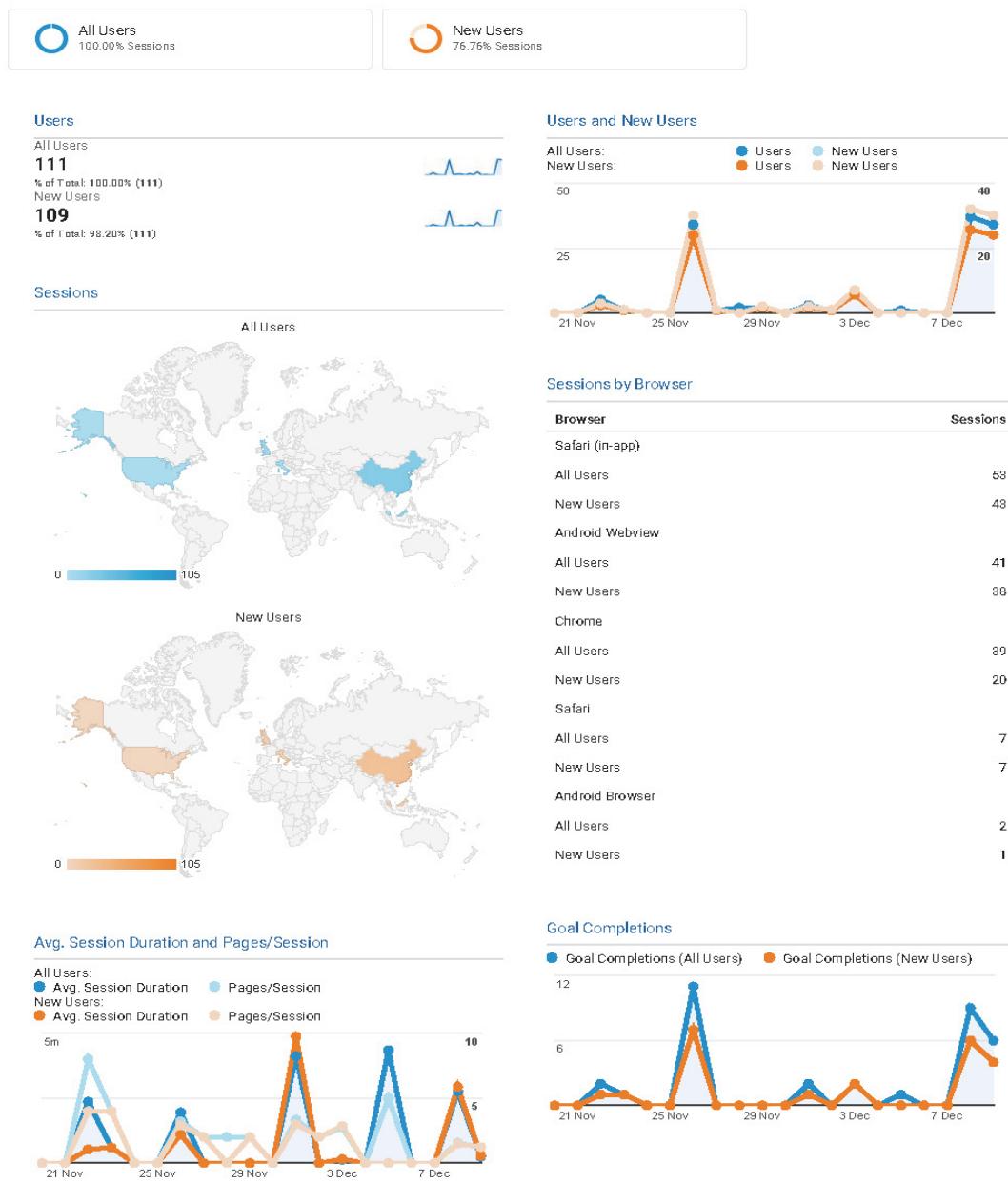


**Figure 14: A/B Test - Results Dashboard**

After several days' measurement, Google Analytic has generated a dashboard for my website (see Figure 15).

**Final3**

20 Nov 2018 - 9 Dec 2018



**Figure 15: The Dashboard of my website**

Ideally, the target users of my website should be the foreign visitors. But it is not easy to find such group of people and collect their response in a short period. Instead, I just sent my website link to my foreign friends, who did not necessarily have plan to visit Hong Kong, as well as my classmates and friends in Hong Kong and Mainland China. They are actually not my target

users, so it is reasonable the average amount of time users spent on my page is only 1 min 13 sec, and the conversion rate is quite low too.

## **Conclusion**

This is the first time I have coded a website by myself. I have encountered lots of problems and bugs to come to this stage. And my website is still far from the one I imagine. For example, I have yet fixed the problem about the map, where the markers of the first button may not disappear when I click the second button, which leads to the makers overlapping. Also the tables in the web are supposed to be more concise and aesthetic and correspond to the theme of museum. Other wishful thinking includes adding a search bar in the home page for search-oriented users, removing the analysis and data part from the front end, and more importantly, finding out my target users to carry on the web performance measurement.

## **Reference**

Hong Kong Tourism Board. (2018). *Monthly Report - Visitor Arrival Statistics : Oct 2018* [online] Available at:  
[http://www.discoverhongkong.com/common/images/about-hktb/pdf/tourism\\_stat\\_10\\_2018.pdf](http://www.discoverhongkong.com/common/images/about-hktb/pdf/tourism_stat_10_2018.pdf) [Accessed 8 Dec. 2018].