

## User Experience (UX) Design: Improving Travel Experience for Solo Travelers

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**Abstract.** The purpose of this paper is to propose user interface design for a travel app to improve travel experience for people who travel alone. The process of improving the user experience was divided into three parts. First, the concept of solo travel, mobile travel trends, and user experiences were researched through previous research and statistics. Second, solo travelers' needs were determined by interviewing people who have experienced traveling alone at least once, and pain points and potential opportunities were discovered through the Persona and User Journey Map based on the results of the interview. Third, a visual representation of travel apps' user interface design was created and a usability test was employed to verify that the design fits user needs.

### 1. Introduction

The number of single-person households due to choice or environment has increased in recent years. The phenomenon has impacted not only the share of single-person households but also lifestyle trends. With the rise of these households, eating alone at restaurants and traveling alone have become normal lifestyle trends, which have implications for various industries. In the travel industry, as there is an increase in the people traveling alone, there is a growing trend for "going it solo." In line with this rising trend, online travel companies have offer online booking platform for travel activity and tour. However, there are few platforms that offer tours and activities for solo travelers.

Despite the growing culture of solo travel, there is a lack of service for them. Online travel agencies offer discounts flight tickets for the solo traveler, but it is a temporary service and travel-related platforms provide only general information about travel destination. Therefore, this paper aims to propose a travel app design that improves the travel experience for solo travelers by identifying the needs of them through the user experience design process.

### 2. The Rise of Solo Travel

Research from Statista shows that the travel and tourism industry is one of the world's biggest industries that contributed to the worldwide economics of over 7.6 trillion U.S dollar in 2016. This phenomenon has resulted in many changes in the travel industry as it has become possible to search about travel information via mobile devices. Smartphones and other mobile devices have increased demand for travel mobile apps.

Solo traveler is rising trend in the travel industry. More and more people travel solo and the rising trend of 'solo travel' is expected to continue. According to a survey conducted by Agoda, travelers decides to go on a solo travel fort escaping the stresses of modern life. The result of the survey, the biggest motivation for solo travel was relaxation compared than traveling with friends. Also solo travelers who responded to the survey rated themselves as the best motivator to explore new cultures in their daily lives. Solo travelers in Asia are mostly Millennials, on the other hand, solo travelers in the West are the Baby Boomers. For women who choose to solo travel, they choose the solo travel as a way to be free of repeated work, stress at work, fatigue, and comfort their exhausted minds.

### 3. User Research

User research was conducted to understand the emotions felt by solo travelers and behavior of them. First, in-depth interviews were conducted with people who have had solo travel experience more than once to understand the emotions they feel at each stages of the solo travel. Based on the results of the interviews, Persona was created in two categories: those planning the travel itinerary before the travel and those planning the travel itinerary while traveling. Lastly, pain points and potential opportunities were found in the every stages of the solo travel through the User Journey Map.

#### 3.1 In-depth Interviews

For collecting data of solo traveler, the study were conducted in-depth interviews from October 24 to October 26, 2018, with six people (age range was 27-42, 3 females and 3 males, different job position) who have had travel alone more than one time. John M.Johnson refers that analyzing in-depth interviewing is a method or technique of collecting data.

The interview questions contain main idea of motivation for solo travel, travel types, and way of getting information of solo travel. Also, interview questions were divided into three stages: before, during, and after the trip.

In-depth interviews helped to understand behavior pattern and motivations of the solo travel. It turned out that all participants prefer to travel alone instead of traveling alone as a group. Most of the destinations for solo trips were cities. Although they had a positive opinion about traveling alone, there were some inconveniences while preparing to travel alone. If the companion who was supposed to do together did not come with them, they selected to go on a solo travel, instead of canceling the trip. The person who decided to travel alone on his own will had the purpose of solo travel, and the preparation process was long and information about traveling alone was obtained through various routes. Despite spending time on deciding the travel itinerary and founding solo travel information that suits for their interest before or during the solo travel experience, there was aspect that the schedule had to be changed according to the situation at the travel destination.

#### 3.2 User Journey Map

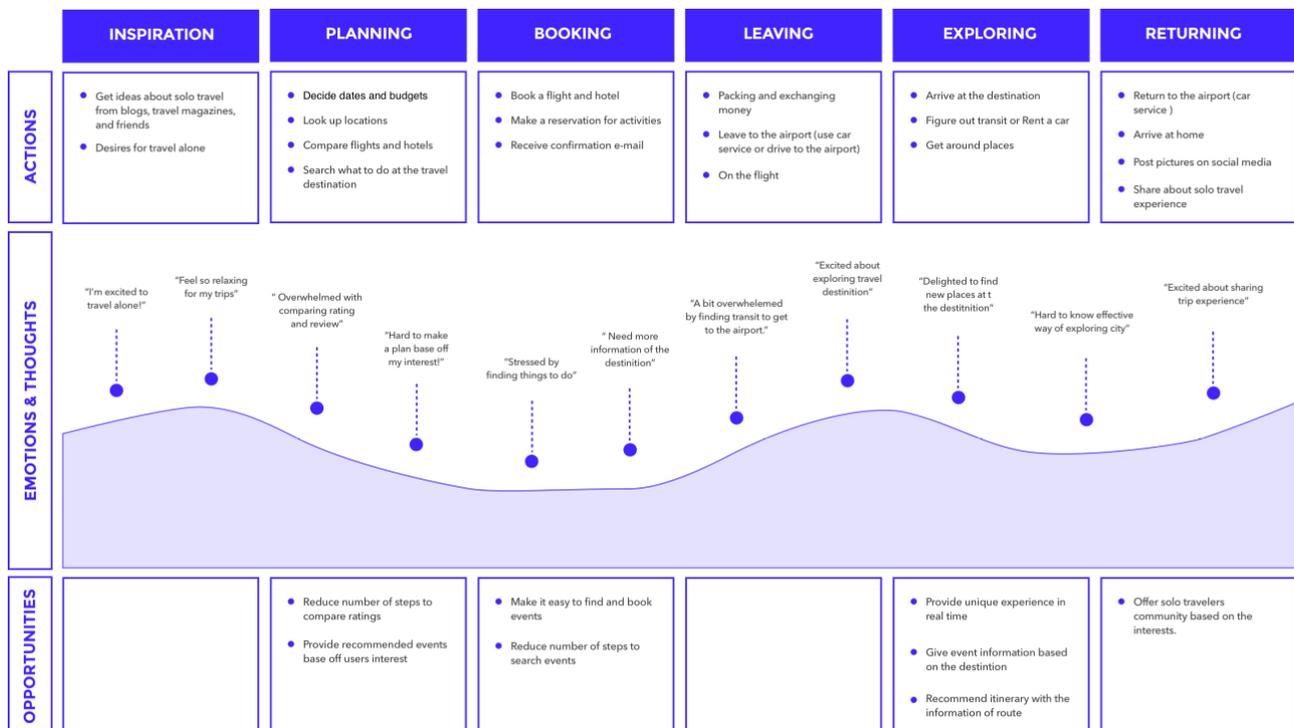


Figure 1. User Journey Map

Potential opportunities were found through user journey map process. (see figure 1) The process was set out to understand the pain points of solo travelers while traveling.

1. Reducing number of steps to compare travel information.

2. Suggestion on trending destinations or activities based on the users interest.
3. Providing travel itinerary based on users' section
4. Offering solo travelers community based on the interests.

Table 1. Pain points and Opportunities

Pain Points	Opportunities
<ul style="list-style-type: none"> <li>▸ Time-consuming for planning solo travel itineraries.</li> <li>▸ Over-load information</li> <li>▸ Changing Itinerary depending on the situation of the destination</li> <li>▸ Sharing experience with friends</li> </ul>	<ul style="list-style-type: none"> <li>▸ Recommends travel destination and activity based on the users interest.</li> <li>▸ Provides only the information user need based on users' choice</li> <li>▸ Suggests travel information in real time based on location.</li> <li>▸ Offers solo travelers' community</li> </ul>

## 4. User Interface (UI) Design

### 4.1 Design Concept

The design concept applied the user experience design process based on the result of Persona and User Journey Map through in-depth interviews. The purpose of the study is to propose user interface design with concept of simplicity, convenience, and experience for a travel app to the improve travel experience for people who travel alone.

### 4.2 User Flows

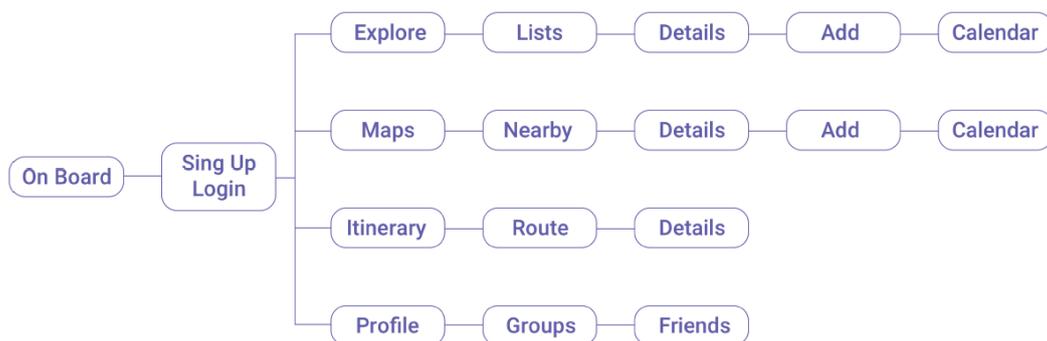


Figure 2. User Flow

### 4.3 Prototyping

Prototyping is the process of creating the user interface and using them in usability test for gathering feedback from participants. Home screen recommend travel destination or activities on home screen so that solo travelers are able to explore the world. The recommendations changes based on users' interests and locations. List screen offers attractions, activities, and restaurants information depending on users' selections. User can save any information to travel itinerary screen through the details screen directly. These process may save time for planning travel itineraries.

Map screen shows attractions based on the locations so that users can access any times to search places nearby. Also map details screen shows more information about the place. On itinerary screen, user can manages all activities and trips. The itinerary are shown on map with routes.(see figure 3)

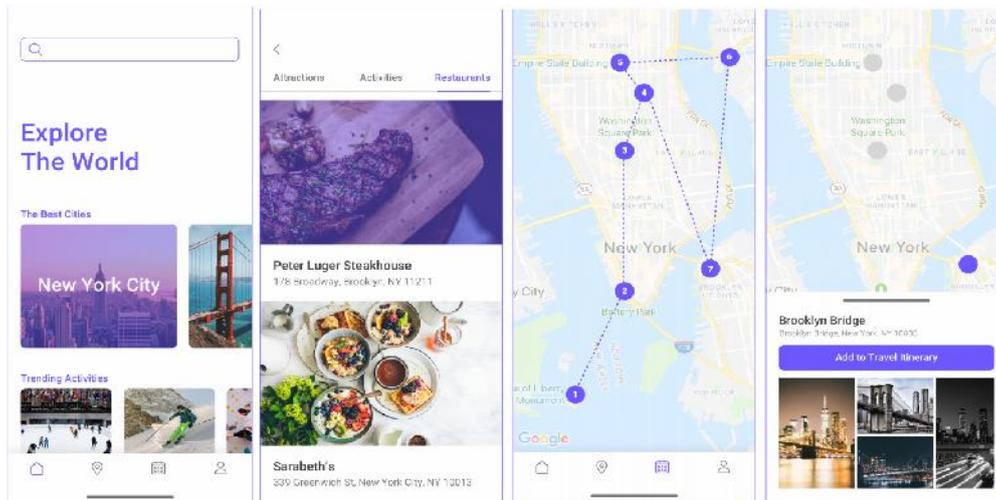


Figure 3. User Interface (UI) Design

## 5. Usability Test

Table 2. Usability Test Result

Evaluation Elements		Participants	%	Comment
Useful	Very Satisfied	1	17%	“Beside selecting spots on the map, I want to type name of spots on the search bar.”
	Satisfied	5	83%	
	Neutral	0	0	
	Dissatisfied	0	0	
	Very Dissatisfied	0	0	
Desirable	Very Satisfied	0	0	
	Satisfied	4	67%	
	Neutral	2	33%	
	Dissatisfied	0	0	
	Very Dissatisfied	0	0	
Accessible	Very Satisfied	0	0	“There are only lists of result without searching bar on list screen, I need search bar to access more information.”
	Satisfied	4	67%	
	Neutral	2	33%	
	Dissatisfied	0	0	
	Very Dissatisfied	0	0	
Credible	Very Satisfied	0	0	
	Satisfied	3	50%	
	Neutral	3	50%	
	Dissatisfied	0	0	
	Very Dissatisfied	0	0	
Findable	Very Satisfied	0	0	“Setting date is not able on home screen.”
	Satisfied	1	17%	
	Neutral	3	50%	
	Dissatisfied	2	33%	
	Very Dissatisfied	0	0	
Usable	Very Satisfied	1	17%	“Map screen is easy to use, but I can no go back to list screen unless I click the navigation bar on the bottom.”
	Satisfied	3	50%	
	Neutral	2	33%	
	Dissatisfied	0	0	
	Very Dissatisfied	0	0	
Valuable	Very Satisfied	2	33%	
	Satisfied	4	67%	
	Neutral	0	0	
	Dissatisfied	0	0	
	Very Dissatisfied	0	0	

## 6. Redesign

Exploring cities and activities were able, but setting travel duration was unable on home screen. Therefore, calendar icon were added on the bottom of search bar so that user could choose the dates.

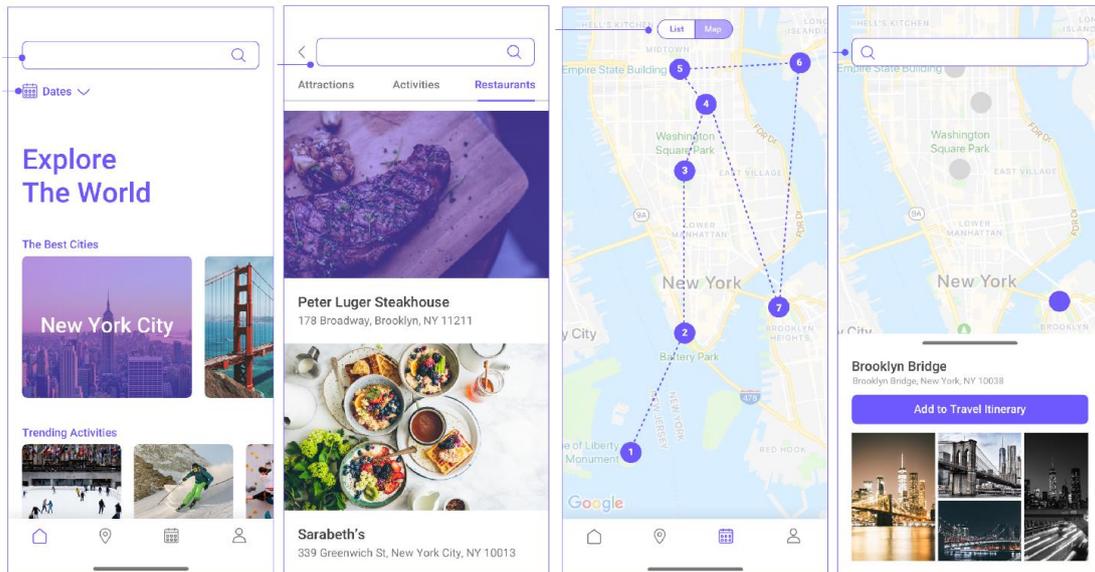


Figure 4. Redesign

One of Participants wanted to search detail on lists screen, and search bar was added on the screen to search more information. User could access to search instead of going back to home screen by adding search bar. Once participants enter the map screen, it was not able to go back to list screen unless clicking bottom navigation bar. Therefore, List icon were added on the top of the map screen. Participant wanted to types destination rather than clicking spots on the map, so search bar was added on the top of the map screen. This functions only available on exploring screen not route screen. (see figure 4)

## 7. Summary

As the number of single-person households increases, the number of solo travelers increases as well, which has become a trend in the travel industry. However, there has been a lack of mobile platforms that offer tours and activities for solo travelers despite this rising trend. Thus, the purpose of the study is to propose a user interface design for a travel app to improve the travel experience for people who travel alone.

First, solo travel and mobile travel trends in the travel industry were researched through previous research. Second, user research was conducted, which determined solo travelers' needs with in-depth interviewing. Based on the results, pain points and potential opportunities were identified through user experience process; Persona and User Journey Map. According to the results of the study, the solo travelers wanted an app that provides precise information based on location in real time and activities related to their interests and trends. Furthermore, they wanted a travel itinerary recommendation feature based on selected activities. Thus, the study proposed the travel app design and employed a usability test to improve user experience through the user interface design based on the opinions of the participants.

We believe the proposal of the travel travel app improves the solo travel experience by changing the perception that it is time consuming to plan travel itineraries. Moreover, I hope that it will be a practical service for those who are interested in traveling alone. I expect the app will affect the travel and activity market for solo travelers and help to make the travel culture more popular.

## **Acknowledgement**

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