

# Letter of Transmittal

Mark Okerstrom  
CEO of Expedia Inc.  
HQ 333 108th Avenue NE  
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December 12, 2017

Dear Mr. Okerstrom,

This usability report discusses current usability findings new users experience while booking bundle deals on Expedia.com. The usability dimensions of discoverability, satisfaction, and error correction are examined. This report includes methods, metrics, and findings. The report concludes with recommendations and a conclusion discussing the current process of booking a bundle deal.

We hope you find this report useful in improving the usability of Expedia.com.

Sincerely yours,

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# Final Report

**HCDE 417 Usability Techniques**

**December 12, 2017**

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## Executive Summary

During the week of November 13th, 2017, a group of four Human Centered Design and Engineering undergraduate students at the University of Washington, conducted a usability study to improve new user retention and decrease site drop-off while booking a bundle deal on Expedia.com.

Before creating the study, the team individually performed heuristic evaluations and cognitive walkthroughs to determine inconsistencies in booking bundle deals (See heuristic evaluation summary in Appendix 1). After these evaluations, the team decided to focus the study on the usability dimensions of discoverability, satisfaction, and error correction while booking bundle deals. We hypothesize by increasing discoverability and satisfaction, first time users will be more likely to return to Expedia for future services. Additionally, if new users are able to correct booking errors with ease, they will be less likely to drop-off the site.

In total, 47 individuals responded to a screener survey and nine participants (including our pilot) were selected for testing. These participants were between the ages of 20-22 years old, new to Expedia, and had traveled two or more times in the past year. The usability study consisted of three tasks relating to booking a bundle trip. Study data was recorded, coded, and analyzed for common themes.

Below are the findings found for discoverability, satisfaction, and error correction in booking bundle deals:

- Adding additional rooms may cause number of passenger errors
- Confusion about how to change dates of travel efficiently
- Hotel Results showcased options that could not be booked.
- High use of filters with minor issues
- Long loading times created some uncertainty and frustration
- Low discoverability and Inefficient use of map

Based on our analysis of these findings, we have created design recommendations for improving the usability and overall user experience of booking a bundle deal. Firstly, we recommend redesigning the search widget using progressive disclosure to prevent

users from accidentally booking the wrong amount of people. Secondly, we recommend improving the map search discoverability as a majority of users did not discover it. We further recommend improving the ability to change trip dates by allowing users to easily modify their trip details from the confirmation page. Lastly, improving loading times, filters, and hiding sold out options could improve overall user satisfaction.

## Introduction

For this usability study, we looked at Expedia.com. Created in 2001, Expedia is an online price aggregator used for booking airline tickets, hotel reservations, rental cars, cruises, experiences, or bundle deals. They compare travel expenses from multiple companies to allow users to compare options for convenient trip planning in one place. Specifically, we tested the usability of Expedia's booking process for bundle deals (booking hotel and flights together at once) since this seems to be one of the more common yet complex tasks done on the website.

The purpose of this study was to identify pain points in the bundle deal booking process to provide insight for design recommendations. Ultimately, we hope our findings help Expedia improve the usability of the booking process to decrease the drop-off rate of new users who book bundle packages.

Through this study we focused on exploring discoverability, satisfaction, and error correction on the site through the following research questions:

1. Will new users be able to navigate through Expedia to find the information they are looking for?
2. How satisfied are new Expedia users with the end to end process of booking a bundle package?
3. How efficiently can users correct mistakes in booking?

Our research team is comprised of four Human Centered Design and Engineering (HCDE) students from the University of Washington (UW): Yuka Asanuma, Brent Gruenke, Allyson Kline, and Karena Vongampai. From October – December 2017, our team worked together to develop our study plan, research questions, test kit, conduct usability tests, as well as analyze and report our data. The rest of this report highlights our methods used, metrics of data collected, results and recommendations, and conclusion about our study.

## Methods

We conducted our studies during the week of November 13<sup>th</sup>, 2017. We had one pilot study followed by eight official study sessions. The following section details our participants, study session logistics, and task overview.

## Participants

To narrow down the scope for our study we first conducted audience analysis by looking at the different types of potential users for Expedia. We identified four different user groups for Expedia: users who have never booked online at all, users who have booked online before but are new to Expedia, experienced Expedia users, and users who use Expedia just for browsing purposes.

Potential Users	Goals	Characteristics
Users New to Booking	<ul style="list-style-type: none"><li>• Book a hotel, flight, or bundle package without running into any problems</li><li>• Save money</li></ul>	<ul style="list-style-type: none"><li>• Possibly inexperienced traveler</li><li>• Unfamiliar with booking process</li></ul>
New Users to Expedia	<ul style="list-style-type: none"><li>• Book a hotel, flight, or bundle package</li><li>• Save money</li></ul>	<ul style="list-style-type: none"><li>• New to Expedia's UI</li><li>• No experience with booking on Expedia</li><li>• Possibly inexperienced traveler</li><li>• Does not own an Expedia account</li><li>• Familiar with booking trips online</li></ul>
Experienced Users	<ul style="list-style-type: none"><li>• Book a hotel, flight, or bundle package</li><li>• Save money</li><li>• Earn points</li></ul>	<ul style="list-style-type: none"><li>• Familiar with UI</li><li>• Understands how to use complex features</li><li>• Knows how to navigate through the website</li><li>• Travels often</li><li>• Utilizes Expedia points</li><li>• Has an account</li></ul>

		<ul style="list-style-type: none"> <li>• Uses “My List” and “My Trips”</li> </ul>
Browsing-Only Users	<ul style="list-style-type: none"> <li>• Compare prices of hotels and flights</li> </ul>	<ul style="list-style-type: none"> <li>• Familiar with search results section</li> <li>• Does not own account</li> </ul>

Given the limited time for our study, we focused on young adults ages 18-35 for convenience sake. We were interested in testing people familiar with traveling and the online travel booking process, but brand new to Expedia. We defined our ideal participant criteria as those who had traveled at least three times within the past year, those who booked their travels themselves, and those who had never actually booked on Expedia, but may have browsed on the site before. We created a screener survey through Google Forms to gather demographic data about our potential participants and help us get in touch with our ideal participants. Our survey was sent out through Facebook and also by emailing individuals who potentially fit our study criteria.

In total we received 47 responses to our screener survey, and recruited a total of 9 participants (including our pilot). Three identified as female and six identified as male. These participants were between the ages of 20-22 years old, and had traveled at least two or more times within the past year. None of our participants had ever booked trips on Expedia. Due to time constraints and screening survey exposure, we made our participant qualifications more lenient and allowed people who had traveled at least two times within the past year instead of three, as we had originally hoped for.

**Study Session: Environment/Testing Conditions**

During the week we conducted our usability study, we reserved rooms around the UW campus. We aimed to have relatively quiet testing locations to minimize distraction and allow for optimal recording. All sessions were recorded with audio and video using UXCloud software. In each session, the participant was seated and given a laptop and mouse to work with. Because we had a different assortment of team members present at each study, and thus different laptops used between sessions, we made sure to use “Guest” Chrome browsers for each participant. This prevented unwanted browser cookies or search criteria to be saved after each session.

## **Study Session: Format and Procedure**

We designated an hour for each session but most took around 45 minutes or less. All sessions were run in the same order and manner using a script to ensure consistency across all of our tests. Each participant was greeted and seated for the session. We informed them of the conditions of study through a consent form and had our participants run through a think aloud exercise to practice with vocally walking us through a logic problem. We wanted our participants to think aloud through each task, sharing their thoughts and feelings to help us better understand their experience. After getting through all the introductory material, we conducted a pretest interview to gather initial thoughts on the travel booking process in general and initial thoughts on Expedia. All participants were given a physical copy of the tasks one by one and instructed to read them aloud to ensure the tasks were understood properly and could easily be referred to. The participants would then proceed through each task, thinking aloud through the process. Immediately after, the participants would fill out a brief questionnaire regarding the satisfaction of the task completed. During this time, we also asked participants to think aloud when filling out the questionnaires, so we could understand why they selected each option. Following the completion of all three tasks, we conducted a post-test interview to gather insight about the overall experience of booking a bundle deal on Expedia. To thank the participants for partaking in our study, we provided each individual with a snack of their choice.

## **Roles**

Every session, there was one moderator present and at least one note taker present in addition to the participant. Each team member took turns alternating roles. The moderator facilitated the session and took notes using our test kit materials (see test kit in Appendix 2). Handwritten notes were taken for the pre and post-test interviews and the moderator also took notes on our data logging sheet (found in the test kit). On this sheet, the moderator noted which Expedia tools our participants used, whether or not participants passed the task, and anything else significant. In addition, participants filled out a survey sheet, rating their experience with each task. The note taker(s) typed notes on UXCloud, noting the participant's process through each task along with significant quotes or body language.

## **Tasks**

In each session, we had our participants do the same three tasks on Expedia.com in the same order (full task scenarios can be found in the Appendix 2). All tasks were related to the bundle deal booking process. Task one had our participants booking a tropical



getaway for themselves and three friends with free range to book a dream hotel. However, there was specific criteria for flight booking (preferring to fly in the afternoons and with Delta airlines). The second task was a separate situation and involved a different itinerary of booking an educational weekend in Washington D.C. for themselves and their hypothetical family. This task was more focused on rigid hotel booking details of requiring free WiFi and breakfast and the hotel location being within two miles of the United States Capitol Building. The third task built upon task two's situation and required participants to change their dates of travel from the previous task's confirmation page.

## Metrics

A mixture of both qualitative and quantitative data was collected for this study through pre-test interviews, a three-question likert scale survey after each task, and post-test interviews. In addition, we collected video, audio, and screen recordings for each participant through UXCloud. The pre-test interview, post-task survey questions, and post-test interviews are included in the study test kit which can be found in the Appendix 2.

The pre-test interview consisted of two, two-part questions about the participant's experience booking trips and perceived opinions about the Expedia brand. The post-task survey questions involved three likert scale questions about trip information, difficulty, and satisfaction. The post test interview was semi-structured and involved asking four questions about the overall experience of using Expedia. Participants were asked for suggestions for improving the experience and if they would book with Expedia in the future. This data was later compiled and categorized into common themes and findings as seen in our study results.

The recordings from UXCloud can be viewed here:

[https://drive.google.com/drive/folders/1PLlj\\_-e8RcgcqMlzyuM68glDZTivvgMO?usp=sharing](https://drive.google.com/drive/folders/1PLlj_-e8RcgcqMlzyuM68glDZTivvgMO?usp=sharing)

## Results

After conducting all of our usability studies, we compiled all of the answers to the pre- and post-interview questions for easy analysis (see Appendix 5 and 7). We first analyzed our data through affinity diagramming, assigning severity levels to findings, and tallying survey data (see Appendix 6). For affinity diagramming, we wrote out data snippets onto sticky notes and grouped them by common themes and issues. To further analyze our data, we assigned severity levels for each finding to understand which issues are most concerning and urgent. In addition to listing out all of our findings, we also tallied all the participant survey results to see which answers were most common across everyone

### Severity Levels

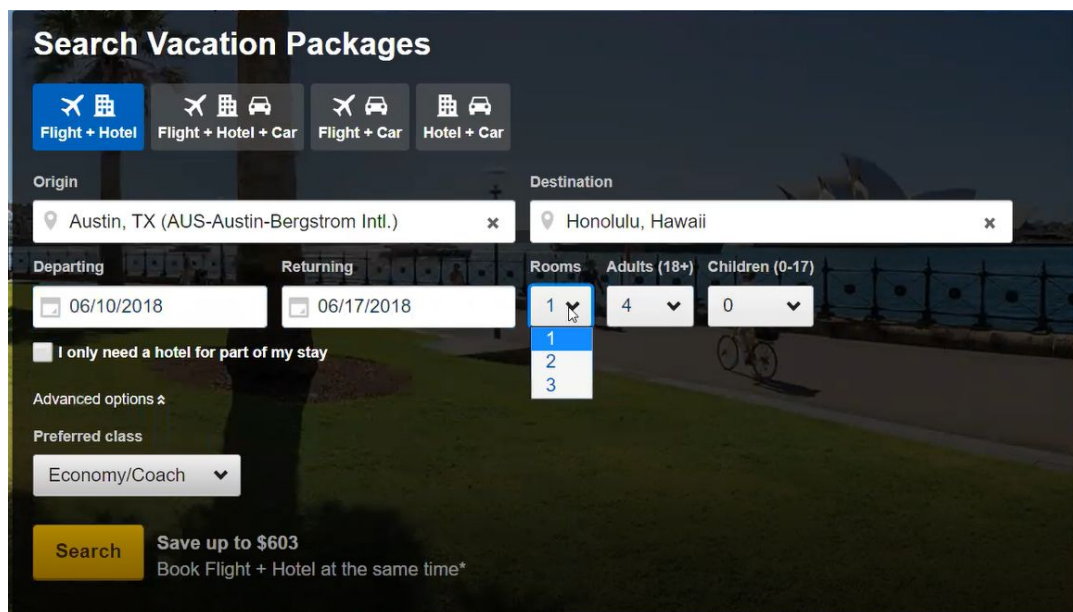
Severity Ratings	
Severity Level	Definition
<b>High</b>	Problems that frequently happen across participants, which result in highly impacting the overall user experience of Expedia.
<b>Medium</b>	Problems that occur sporadically across participants, which result in moderate impacts on the user experience of Expedia.
<b>Low</b>	Problems that rarely occur across participants, which result in minor impacts on the user experience of Expedia.

### Findings

Searching Bundle Package	
Severity	Finding
<b>High</b>	<b>Adding additional rooms may cause number of passenger errors</b> <b>Description:</b> On the Expedia homepage, the user interface asks participants to enter their desired number of rooms and passengers. Within the interface, the rooms input box is to the left of the passengers box, but during the study, five of eight participants went straight to passengers, skipping over number

of rooms. After doing so, participants were unaware that the order in which they enter room and passenger numbers can cause them to book too many passengers, since Expedia assumes there will be two adults per room. Out of those five participants, two accidentally booked six people instead of four. These participants realized their mistake later in the booking process, but were forced to restart and select a new hotel and flight (unless they could recall the same hotel and flights and they were still available). When a new room is added, interface not only defaults to adding two passengers to the room, but also moves the passenger dropdowns below the selected departure date. If a participant does not recognize this, they will continue booking the trip for the wrong number of people, which could cost thousands of extra dollars or force them to resolve the issue by contacting customer support.

**Evidence:**



P1 and P5 intend to book the trip for four people and then decided to change their search to two rooms.

**Search Vacation Packages**

Origin: 
Destination:

Departing: 
Returning: 
Rooms:

**Room 1**  
Adults (18+): 
Children (0-17):

**Room 2**  
Adults (18+): 
Children (0-17):

I only need a hotel for part of my stay

Advanced options

Preferred class

Now that P1 and P5 have selected two rooms, the interface shifts and adds two people to the second room automatically, keeping their original number of passengers present in room one.

**Recommendations:**

Better understand how the average expedia user thinks about room quantity by conducting A/B testing on the order in which hotel number or passenger number should be displayed. Additionally, utilize progressive disclosure to show the minimal amount of information possible. For example, allow users to enter the number of room then the display the next dropdown box to input number of passengers instead of display both at the same time. The adult and children dropdowns repositioning caused participants to not notice the additional adults added.

**Medium**

**Confusion about how to change dates of travel efficiently**

**Description:**

Six out of the eight participants had difficulty when changing their dates of travel in Task #3. In Task #2, they were asked to book a bundle deal which included a flight and hotel. Within the task were specific constraints about hotel accommodations and flight times. Following this task, participants were asked to adjust their trip dates, which gave us the opportunity to observe how people would error correct, once they had reached the

confirmation page. Two out of the eight participants had made booking errors prior to reaching Task #3, which gave them the opportunity to explore and learn how to fix mistakes with dates for the previous tasks. These participants were able to successfully get back to the original place that allowed them to easily change the dates without completely starting over again. Six out of the eight participants were unsure what the fastest method to make trip date changes. One participant went straight to the “Change Flights” option on the confirmation page, but when the page refreshed and showed no direct ability to change the dates, opted for clicking back to the “Bundle and Save” home page and redoing the entire booking process.

**Evidence:**

"Hmm at this point i'd probably just want to go back and start a new search and start from scratch but hmmm..we'll work with this..hmmm I don't see way to change the date like that so easy so I'm just going to keep going back" (P1).

"I don't see anything that is like immediately visible that shows me how to like change the date of my flight. Ummm, my first thought would be to like completely restart, but that seems kind of annoying" (P4).

"I couldn't find a way to change the starting and ending dates" (P4).

"I don't see any easy options here...um... the first thing that comes to my mind is to scrap it and start over because the whole didn't really take more than five minutes. And at this point I'm thinking that actually searching for the option to select the flight would take over than to start over. So it's exactly what I'm going to do" (P7).

**Recommendations:**

To ensure that people can easily find an option that allows them to change the dates of travel, we recommend creating a consistent location that showcases trip details at the same place on every page of the workflow. Additionally, these consistent locations could offer quick links to allow people to edit the main logistics of their trip, including dates of travel and number of passengers. And our last recommendation would be to give users the option to change the dates of travel, but maintain their hotel

selection if it was available for the new dates. This would increase user satisfaction, so that they could get what they originally wanted after going through the process of picking their preferred hotel.

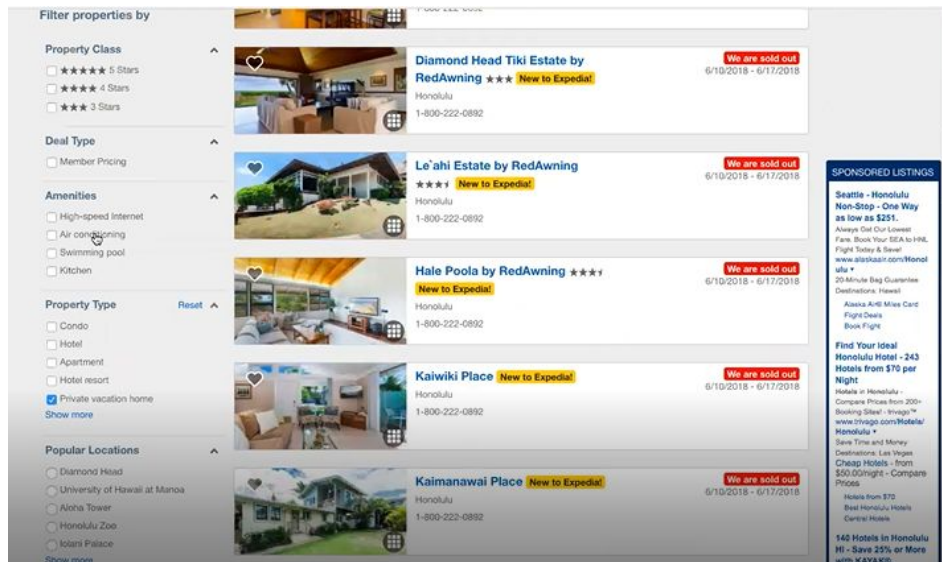
Low

### Hotel Results showcased options that could not be booked.

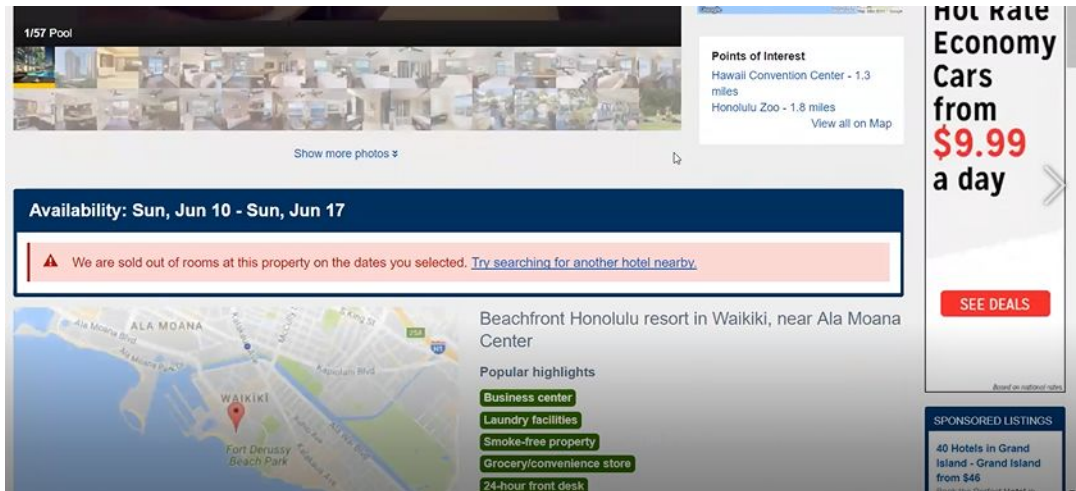
#### Description:

Two of eight participants saw hotel options that were sold out and could not be booked. This appeared to be a minor annoyance since it wasted their time and the search results did not filter out sold out properties. This happened on two different pages, the search results page when filtering for “vacation properties” and for the specific hotel pages. P3 sorted the hotel options using many filters at the same time. Once P3 applied the “private vacation home” filter it showed him a list of completely sold out properties and he reasoned that he had to go back and uncheck that filter in order to keep looking. P5 looked at two different sold out hotels before finally saying “I’m going to go back to recommended options”. P5 seemed minorly frustrated when they had to go back to the results and keep looking.

#### Evidence:



“[I’m] going with private vacation home. And it’s entirely sold out.... so I guess I can’t do that....” (P3).



“Ok, just kidding that one's sold out. Wait...ummm...come on.. Ok well that one looks nice but this one also isn't available. I'm just going to go back to recommended then” (P5).

**Recommendations:**

Participants found themselves back tracking to find a suitable hotel and unsure of themselves once sold out options were display. Consider modifying Expedia's algorithm to hide sold out options or guide users to similar options that are currently available.

**Medium**

**Long loading times created some uncertainty and frustration**

**Description:**

Once participants have entered their search criteria for hotels and flights, it takes a while to load the results page. Wait times varied from participant to participant, from task to task. Some users were more annoyed than others by the long loading times. Often, participants simply stared at the screen not saying anything. One participant commented that the wait times were a minor inconvenience while another commented that it took a long time to load. Eight out of eight participants experienced long (10+ second) loading times or commented on them feeling long. Due to external factors such as the Expedia database and internet speeds, we were unable to control how long each participant waited.

**Evidence:**



\*waiting on loading screen\* “It’s good to know they have 24 hour customer service. [20 seconds go by] I probably would just open up Facebook chat at this point or look at my phone...it’s taking a while. [10 seconds go by] I might just do that. [shrugs]” (P1).

“Expedia seems like really slow at loading their results” (P4).

[11 seconds go by on loading screen] “One of the reasons i don’t like using these websites is they take forever...which I get because it’s getting all these other things for you” (P5).

**Recommendations:**

Let the design team make the loading screens more engaging. Currently they state “24/7 customer support” but offer no phone number or link to provide that support. The loading screen could display the user's destination, facts about Expedia or the destination, and provide them with guidance about how the booking process will work on Expedia. For example, the screen could show a shot of a resort in Hawaii and state “Pick the perfect hotel next! 24/7 customer support at this phone number 1-xxx-xxx-xxxx”. This would let the user know they should expect to see hotels before flights and give them some inspiration for their trip by displaying a hero image of the destination. The overall experience would feel much more personalized and might make the wait time feel less noticeable.

**Search Tools**

Severity	Finding
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Low

## High use of filters with minor issues

### Description:

Eight out of eight participants used filters throughout the browsing process either in task one, task two, or both. It helped them narrow down their results so they can find hotels and flights that fit their criteria. However, while everyone did use filters, there were three participants who had issues with inconsistent refreshing of the results after selecting filters. P1 attempted to click “high speed internet” and “free breakfast” but when the page loaded with the updated results, the “free breakfast” filter did not go through. There were also two participants who were confused with the inconsistent wording of the filters and the hotel description. For example, when the participants were searching for hotels with free Wi-Fi, they were unsure of how to narrow the results since the filter option only offered high speed internet. Many participants clicked on the high speed internet filter to find hotels with free internet but some were unsure whether this filter was actually showing them the correct hotels.

### Evidence:

#### *High Usage*

“Umm, i wish there would have been more filter options for different amenities, that would have been nice.... So like, so umm, when i was looking for the first task, um, there was four adults and so i would have liked to find a place that had four beds and i couldn’t find an option for the filter that had like multiple bed options” (P3).

#### *Filter Refreshing*

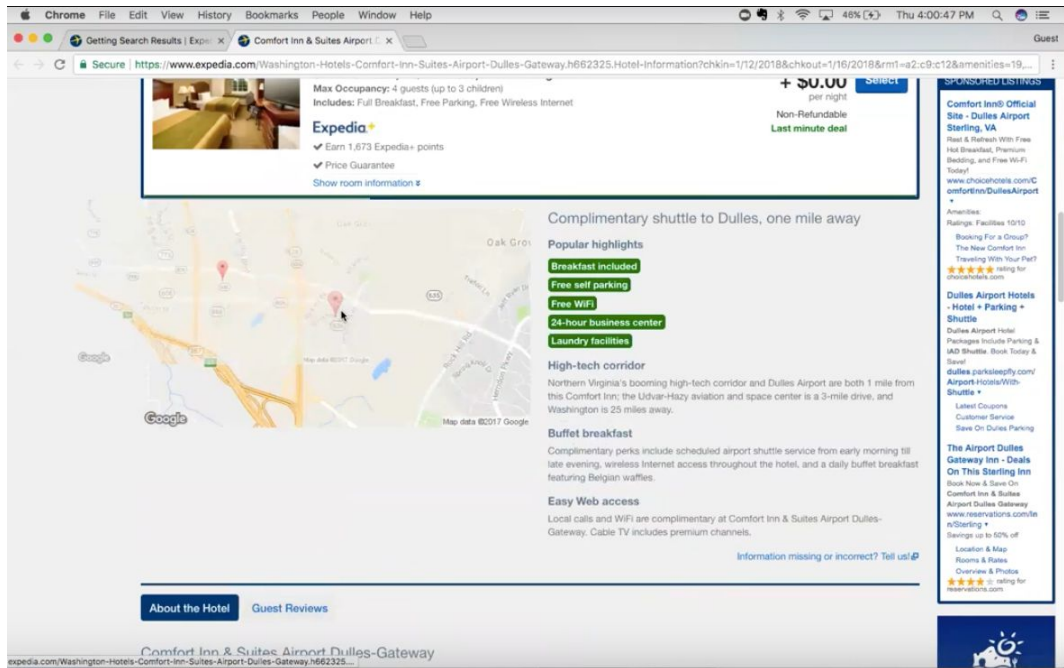
“ Okay. It doesn’t let me click two amenities at once. It takes a while to update... Now it’s just being annoying, there it goes..” (P1).

#### *Filter Wording*

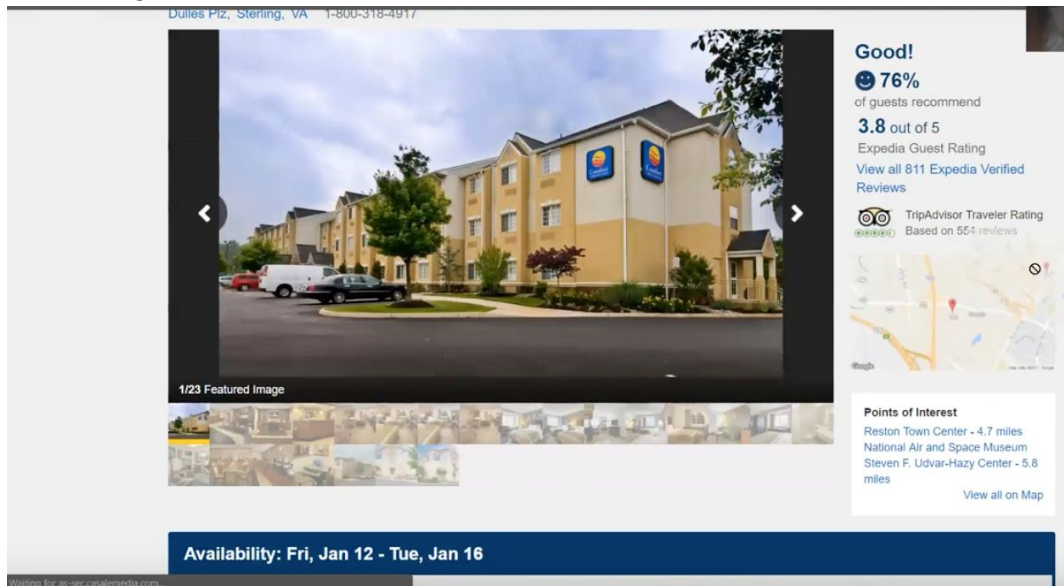
“I want...I don’t want, I don’t really care about high speed internet but I want internet and free breakfast” (P1).

“Amenities I think, there is free breakfast but doesn’t specify anything about free wi-fi. It says there’s high speed internet but other than that, I don’t think there’s anything” (P4).

	<p><b>Recommendations:</b></p> <p>While sometimes the refresh rate is slow enough to take multiple filters, often times it was not. For increasing the satisfaction of using filters, consider modifying the refresh rate to feel more fluid. When users want to check multiple filters they sometimes don't all apply and the screen reloads, not saving all the checkboxes selected. Additionally, adding free wi-fi to the filter options would be more consistent to how hotels list their internet options.</p>
<p><b>High</b></p>	<p><b>Low discoverability and Inefficient Use of Map</b></p> <p><b>Description:</b></p> <p>Task #2 asked the participants to find a hotel near the United States Capitol Building. Because this task involved distance and location, there were many opportunities for participants to use the map feature. However, the results show that participants were unable to efficiently and effectively use the map to find a hotel close to the Capitol Building. There were many different issues that came up as people tried to interact with the map. Two participants dragged the map and did not know whether the map was an interactive map, a clickable image, or just an image. One participant used the map to figure out distance from the Capitol Building but then ended up clicking through almost every single hotel marker to check for the hotel with the cheapest flight. Another participant commented on including Google Maps into the website to improve the website which shows that there is poor discoverability for the current maps on the website. Overall, the discoverability and effectiveness of the maps in allowing the participants find a hotel near a certain location was not very good.</p> <p><b>Evidence:</b></p> <p>"I struggled a lot with the, location wise, I just didn't know. The map was really hard to see so I didn't know where the united capitol was. I don't even know if this place is within two miles" (P6).</p>



*Unsure about how to interact with map and drags map instead of interacting with it*



*No ways to filter hotels in map view*

“I thought it was a little difficult to find in the map view, it was difficult to find which hotels were cheapest, i would have liked some kind of sorting feature in the map view” (P3).

*Did not notice maps on the website*

“Maybe map functionalities, since i was, um, presented in this, um, i don’t know how easy it’d be to do a google maps plugin but it probably wouldn’t

	<p>be that hard” (P8).</p> <p><b>Recommendations:</b>  For increasing the discoverability of the map, consider making the maps on the search results and hotel detail page more prominent. Two out of the three embedded maps on the website are very small and does not seem to add as much value to the search experience as it possibly can. For increasing satisfaction, consider adding clear indicators for whether the embedded map is interactive or a button to open a modal so users know how to interact with the map. Also, creating a sort feature in the map view on the search results page could make it easier for users to see location of the hotels while also understanding which hotels fit their criteria.</p>
<p><b>Low</b></p>	<p><b>Misuse of Property Name</b></p> <p><b>Description:</b>  During task #2, we asked participants to search for hotels that are close to the United States Capitol Building. When trying to search for hotels near the Capitol Building, two out of eight participants started typing in “Capitol Building” into the search box for property name until they realized that this text box is only to search hotel property names.</p> <p><b>Evidence:</b>  “So they wanted somewhere near the United States Capitol Building so, I guess i’ll search by property name.” [<i>Types in “united states capitol building”</i>] “So I was assuming if I, um, wrote in the property name it would give me some, like a hotel that was like closest to it but it just returned nothing” (P4).</p> <p><b>Recommendations:</b>  Since participants used the property search box to look for hotels that fit their criteria, make it usable to search keywords also. This change would make the search box work the way the participants expect it to. Additionally, if Expedia wants users to primarily use the property name box for only hotel establishments, then they could have a gray, example present in the text box, to signal and showcase what kinds of properties they could search for. When the user clicks into the property name box, then the gray example could disappear.</p>

## Conclusion

In conclusion, we evaluated the user experience of booking bundle deals on Expedia by exploring the website's discoverability, user satisfaction, and ability to error correct. After analyzing the data collected from this usability study, we recommend that Expedia focus on redesigning their bundle deal search widget, to ensure that users are aware of what happens when adding additional rooms onto their query. We found this to be a high severity problem, because our usability participants overlooked Expedia's assumption of automatically adding two people into every additional room. The second high severity recommendation is to increase the discoverability of the map feature. We feel the map feature has great potential to help new Expedia users quickly find affordable and interesting accommodations but many participants did not even get to it. Thirdly, we recommend improving the ability to change trip dates, specifically at the confirmation page to allow users to quickly fix errors. Lastly, by improving loading times, filters, and hiding sold out options, overall user satisfaction could improve.

In the future, we would like to perform the same usability test with mid-tenured and well-experienced Expedia users to define the scalability of our findings. The second usability test we would like to perform would be booking bundle deals with apartments, or houses, since many of our participants voiced how they stay in Airbnbs more than hotels. This would also give Expedia the option to making booking bundled deals more appealing to young adults. Additionally, since the Expedia website released multiple versions throughout the week we ran our usability test, we would like to run future tests with a consistent version, to ensure that all participants are presented with the same user interface.

## Appendix 1: Heuristic Evaluation Summary

Each teammate conducted a heuristic evaluation and cognitive walkthrough individually. The tasks each person used to evaluate the site revolved around booking bundle deals on Expedia. Heuristics for evaluation were based upon Jakob Nielsen's Usability Heuristics and are defined below. The following table showcases our collective ratings for severity, highlighting areas for exploration on Expedia.com.

Heuristic	Definition	Collective Severity Rating (0-passed, 1-low, 5-high)
Error prevention	The system prevents problems from occurring, but if a problem does occur it offers meaningful error messages.	2
Aesthetic and minimalist design	The system design understands that every piece of information presented in the user's experience must be relevant.	5
Match between system and the real world	The system utilizes user friendly language, which is different from internal system language. It additionally follows real-world conventions, by showcasing information in a natural and logical order.	0
Recognition rather than recall	The system design tells users what they can do during the experience. This	0

	can be done with dialogue boxes, clear visual instructions, and objects.	
Visibility of system status	The system informs user of what is currently happening in the experience, by offering feedback in a timely manner.	3
Easy decision making within the system	The system design offers plausible suggestions to the user, to ensure that they are thinking less when they have to make a decision in the experience.	0
Flexibility and efficiency of use	Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.	5
Consistency and standards	Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions	4
Help users recognize, diagnose, and recover from errors	Error messages should be expressed in plain language (no codes), precisely indicate the	2

	problem, and constructively suggest a solution.	
Help and documentation	Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.	0



## Appendix 2: Test Kit



# Usability Test Kit

**HCDE 417 Usability Techniques**

**November 10, 2017**

Yuka Asanuma | Brent Gruenke | Allyson Kline | Karena Vongampai

# Introduction

## Purpose

Expedia.com is an online price aggregator used for booking airline tickets, hotel reservations, rental cars, cruises, experiences, or packaged deals. Expedia compares travel expenses from multiple companies to allow users to compare options for convenient trip planning. To decrease the drop-off rate of new users who book bundle packages, Expedia wants to improve the usability of the booking process. To do this, we will conduct research that focuses on the discoverability and learnability of booking bundled packages in order to understand how user satisfaction and system flexibility can be improved.

## Research Questions

### Discoverability

- Will new users be able to navigate through Expedia to find the information they are looking for?
  - Does information displayed by Expedia meet user expectations?

### Satisfaction

- How satisfied are new Expedia users with the end to end process of booking a bundle package?
- Will new users be able to navigate through search results within Expedia to meet their specific trip criteria without frustration?
  - How do they accomplish this?
  - Do they even complete the task?
  - What qualitative proof do we have that shows they did this without frustration?
  - Emotions, body language, remarks, etc.

### Error Correction

- How efficiently can users correct mistakes in booking?
  - How do they correct mistakes?
  - How do they feel about the process?

# Screening Questionnaire

Google Forms survey link: <https://goo.gl/forms/5ztXm4dnVTqFsnWK2>

## Survey Introduction

We are a team of students at the University of Washington seeking participants for a usability study. We are seeking an hour of your time to help to evaluate a travel website. If you are interested in helping us please fill out this survey below. Respondents will be contacted based on their compatibility with the study's needs.

Please note that this study is for a class assignment and participation is voluntary. Participants do not need prior experience with travel websites, but must be over the age of 18. Additionally, ideal participants will have some experience with traveling. The study will take place at the University of Washington Seattle campus and will require a one hour commitment. Thank you for your interest and we look forward to hearing from you.

What is your name?

---

What is your age?

- 18-24
- 25-35
- 36-44
- 45+

*Participants should be 18-35 years old*

What gender do you identify with?

- Male
- Female
- Prefer not to say
- Other

*Ideally, a 50/50 split of genders*

Have you ever booked flights or vacation packages through an online website?

- Yes

No

*Yes; no option will end the screener*

Please rate how often you book trips with the websites listed below:

	Never	Rarely	Sometimes	Often	Always
United Airlines					
Delta Airlines					
Southwest Airlines					
American Airlines					
Alaska Airlines					

*We will learn what booking systems they are familiar with.*

Please rate how often you book trips with the websites listed.

	Never	Rarely	Sometimes	Often	Always
Booking.com					
Travelocity.com					
Expedia.com					
Kayak.com					
Priceline.com					
Orbitz.com					
Hipmunk.com					
Google Trips					

*Participants should never or rarely book on Expedia or Orbitz. Orbitz is a clone of expedia. Pre-test question will address users browsing usage on expedia.*

Please list any other travel websites you use not listed in the previous two question:

---

*Understand if participants use any other booking websites.*

How many times have you booked flights / vacation packages online in the past year?

- 0
- 1-2
- 3-4
- 5+

*3+ bookings in the past year for an ideal frequent traveler.*

Please select all the times that work well for you

- Mon, November 13
- Tuesday, November 14
- Wednesday, November 15
- Thursday, November 16
- Friday, November 17

Please leave your email address and we will contact you if you're a good fit for the study.

---

## Pre-Test Interview

1. What is your usual process for booking a trip?
  - a. How do you feel about the online booking process?
  
2. You answered *never/rarely* for booking on Expedia in the survey but what is your experience with browsing on Expedia?
  - a. How do you feel about Expedia?

# Consent Form

*We are a team of student usability researchers from the University of Washington Department of Human Centered Design and Engineering. This study is part of the curriculum associated with HCDE 417: Usability Research Techniques. The consent form below details important information to help you decide whether or not to participate.*

I agree to participate in the study conducted and recorded by the Expedia Usability Research Team from the University of Washington Department of Human Centered Design and Engineering.

I understand that participation in this study is voluntary and I can withdraw at any time. If any concern or discomfort arises at any point during the study, I agree to raise these issues with the study moderator.

During this study:

- I will be asked to complete tasks on a computer
- I will be asked short survey questions after each task
- I will be interviewed after completion of all the tasks
- I will be recorded through audio and video

I understand and consent to the use and release of the recording conducted by the Expedia Usability Research Team. My on-screen actions and voice recordings will be used for later analysis. Any information obtained during this study will only be shared amongst the research team and HCDE 417 class teaching staff. No personal identifiers will be associated with the information gathered during this study. I understand that the information collected is for research purposes only and that my name and image will not be used for any other purpose.

By signing below, I am signifying that I have read and understood all of the above information and that any questions I might have had about the study have been answered.

---

Print Name

---

Signature

---

Date

# Introductory Script

---

Before each session, I will

- Make sure the computer is ready, on the correct start point
  - Set up the web browser properly in incognito mode
  - Prepare think-aloud activity
  - Offer refreshments to the participant
  - Let participant know where the restroom is
- 

Hi, and thank you for taking the time to participate in our research study today. My name is \_\_\_\_\_, and I will be moderating the session. This is \_\_\_\_\_ and he/she will be observing and taking notes. We will be reading instructions from a script for every test we conduct for consistency.

Here we have a consent form. Can you please take a minute to look it over and sign if you agree?

- 
- Hand over consent form and pen
- 

Thank you. I would to start by asking you a few follow up questions from the screener survey you completed.

- 
- Give pre-test interview
- 

Ok, thanks. Today we are interested in learning about the usability of expedia.com. We want you to know that we are independent researchers *not* affiliated with the design or development of the website, so we appreciate and encourage honest feedback. We are interested in what you honestly think and we promise our feelings won't get hurt.

During the session, we will have you complete three tasks on the website while we observe and take notes. We will be recording the screen to help us with our analysis. All of our task prompts will be written and delivered in the same format for everyone who participates in our study. Prompts are not meant to trick or confuse you, so please say something if you find any part confusing.



During each task, we would like you to think aloud. We want to hear everything you are thinking. For practice, we would like you to show us how you would staple three sticky notes together and talk us through every step of the process.

- 
- Place three sticky notes and stapler on table in front of participant
  - Wait for practice activity to be completed
- 

Okay, great.

After each task, you will complete a survey about your experience completing the task. Then after you complete all three tasks, we will ask you a few questions about your overall experience in this study.

We would like to stress that we are not testing you, we are testing the usability of the website. And there is no such thing as mistakes in this study. Your participation today will help us better understand what works and doesn't work about the website.

So to recap, you will complete three tasks with a few survey questions after each, then end with a short interview at the end of the session. We would like you to think aloud during each task and give us your honest thoughts similar to the sticky note exercise. Thinking aloud means walking through what you are thinking, feeling, and problem solving out loud. Please just talk through what you are doing and thinking. The entire session will take around an hour.

Do you have any questions before we begin?

- 
- Answer participant questions
- 

In the consent forms we ask for your permission to record, but before I begin recording, I'd like to ask if you're alright with beginning the recording now?

- 
- Begin audio and screen recording
-

# Task #1 Script

For today's session I'm going to have you do three tasks on the website Expedia.com.

For this task, you'll have 15 minutes to complete the task. This is just to ensure that we finish the study on time so please don't feel pressured. If you can't finish the task within the 15 minutes that's okay. I'll let you know when you have five minutes remaining so you can pace yourself.

Here is the first task.

---

Hand over Task Sheet

---

Now, can you please read the task aloud for me?

---

Wait for participant to read task aloud

---

Do you have any questions?

---

Answer participant questions

---

Okay now you may begin this task on the computer. Please remember to think aloud as you walk me through how you would go about doing this and let me know when you think you are done with the task.

---

Start timer  
 Observe Task

---

Now would you mind filling out this quick questionnaire?

---

Hand over Task Questionnaire (and pen if necessary)

---

Thank you.

## Task #2 Script

Now let's move on to the next task.

You will also receive 15 minutes to complete this task as well. We will remind you again when you have five minutes remaining.

Please read task two.

- 
- Hand over task sheet
  - Wait for participant to read task aloud
- 

Do you have any questions?

- 
- Answer participant questions
- 

Okay you may now begin task two. Please remember to think aloud as you walk me through how you would go about doing this and let me know when you think you are done.

- 
- Start timer
  - Observe Task
- 

Now please fill out this questionnaire again.

- 
- Hand over Task Questionnaire (and pen if necessary)
- 

Thank you.

## Task #3 Script

Now let's move on to the last task.

For this task, you will have 10 minutes to complete it. Again, we will remind you when you have five minutes remaining.

Please read task three.

- 
- Hand over task sheet
  - Wait for participant to read task aloud
- 

Do you have any questions?

- 
- Answer participant questions
- 

Okay you may now begin task three. Please remember to think aloud.

- 
- Start timer
  - Observe Task
- 

Please fill out this last questionnaire and walk us through why you selected each response.

- 
- Hand over Task Questionnaire (and pen if necessary)
- 

Thank you.

## Post-Test Script

Now we have some questions about your overall experience. I am going to ask you some questions aloud.

---

Proceed with Post-Test Interview

---

Okay, so now we are at the end of our session, do you have any questions for us?

---

Answer participant questions

---

Thank you for participating in our study today!

---

After each session, I will

- Close browser sessions
  - Reset browser
  - Note particular issues and surprises
  - Debrief with observers
-

## Task Scenarios

Task #1	
Scenario:	Imagine you live in Austin, Texas and you just won \$50,000 from a lottery ticket. You and three of your closest friends have always wanted to go to Honolulu, HI so you decide to book a trip on Expedia. You plan to leave on June 10, 2018 and return on June 17, 2018. Since you are a frequent flyer with Delta Airlines, you would prefer to use their service. You like to sleep in, so you would to prefer to fly in the afternoon or evening. With your newfound wealth choose your dream hotel!
Goals/Output:	Book hotel and flights
Task #2	
Scenario:	Imagine you live in Denver, CO with your spouse and two kids (ages 9 and 12). You want to book an educational weekend getaway with the family to Washington D.C. Since the kids are in school, you'll want to travel during MLK weekend. You plan to leave on January 12, 2018 and return on January 16, 2018. Select the cheapest flights and select a hotel near the United States Capitol Building (within 2 miles) that includes free WiFi and breakfast.
Goals/Output:	Book hotel and flights
Task #3	
Scenario:	Oh no! You just received an email from the kids' school, reminding parents that school is back in session on January 15th. Change your flight information, to ensure that the kids are back in school on time.
Goals/Output:	Change past booking

# Task #1 Questionnaire

*Please complete this questionnaire about your experience with the task.*

**Please rate the following statements below:**

1. Expedia gave me enough information to make the best decision about my trip.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

2. I was able to complete this task without difficulty.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

3. How satisfied are you with completing this task?

- Completely satisfied
- Very satisfied
- Moderately satisfied
- Somewhat satisfied
- Not at all satisfied

## Task #2 Questionnaire

*Please complete this questionnaire about your experience with the task.*

**Please rate the following statements below:**

1. Expedia gave me enough information to make the best decision about my trip.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

2. I was able to complete this task without difficulty.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

3. How satisfied are you with completing this task?

- Completely satisfied
- Very satisfied
- Moderately satisfied
- Somewhat satisfied
- Not at all satisfied



## Task #3 Questionnaire

*Please complete this questionnaire about your experience with the task.*

**Please rate the following statements below:**

1. Expedia gave me enough information to make the best decision about my trip.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

2. I was able to complete this task without difficulty.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

3. How satisfied are you with completing this task?

- Completely satisfied
- Very satisfied
- Moderately satisfied
- Somewhat satisfied
- Not at all satisfied

## Post-Test Interview

1. How did you feel about the process of booking trips on Expedia? Why?
2. You stated that there were parts that were difficult, but I was wondering if you could elaborate on that. OR: You stated that there were parts that were easy to understand, I was wondering if you could elaborate on that.
3. Would you use Expedia to book a trip in the future? Why or why not?
4. Is there anything else you'd like to share about the study, or Expedia?

# Data-Logging Task 1

Imagine you live in Austin, Texas and you just won \$50,000 from a lottery ticket. You and three of your closest friends have always wanted to go to Honolulu, HI so you decide to book a trip on Expedia. You plan to leave on June 10, 2018 and return on June 17, 2018. Since you are a frequent flyer with Delta Airlines, you would prefer to use their service. You like to sleep in, so you would prefer to fly in the afternoon or evening. With your newfound wealth choose your dream hotel!

Goal: Select a suitable flight using Expedia's flight information

---

Start Time

---

End Time

**Entering Destination and Dates ( Completed / Not Completed )**

<b>Steps</b>	<b>Pass?</b>	<b>Comments / Body language</b>
Enter destination		
Enter date		
Passenger info		

**Hotel Selection** ( Completed / Not Completed )

<b>Steps</b>	<b>Tools Used</b>	<b>Comments / Body language</b>
Hotel Results Page	Price Filters Map Ratings Sorting bar Other	
Hotel Details Page	Price Images Room Information Hotel Highlights About Hotel Section Reviews Other	

**Flight Selection** ( Completed / Not Completed )

<b>Steps</b>	<b>Tools Used</b>	<b>Pass?</b>	<b>Comments / Body language / Errors</b>
Flight Page: Departure	Filters Sort Price Flight Detail Other	Delta   Noon	
Flight Page: Return	Filters Sort Price Flight Detail Other	Delta   Noon	

## Data-Logging Task 2

Imagine you live in Denver, CO with your spouse and two kids (ages 9 and 12). You want to book an educational weekend getaway with the family to Washington D.C. Since the kids are in school, you'll want to travel during MLK weekend. You plan to leave on January 12, 2018 and return on January 16, 2018. Select the cheapest flights and select a hotel near the United States Capitol Building (within 2 miles) that includes free WiFi and breakfast.

Goal: Meet geographic needs of hotel using Expedia maps, filters, and text.

\_\_\_\_\_

Start Time

\_\_\_\_\_

End Time

**Entering Destination and Dates** ( Completed / Not Completed )

<b>Steps</b>	<b>Pass?</b>	<b>Comments / Body language</b>
Enter destination		
Enter date		
Passenger info	2 Kids	

**Hotel Selection** ( Completed / Not Completed )

<b>Steps</b>	<b>Tools Used</b>	<b>Pass?</b>	<b>Comments / Body language</b>
Hotel Results Page	Price Filters Map Ratings Sorting bar Google Maps Other	Wifi  Breakfast	
Hotel Details Page	Price Images Room Information Hotel Highlights About Hotel Section Reviews Google Maps Other	Wifi  Breakfast	

**Flight Selection** ( Completed / Not Completed )

<b>Steps</b>	<b>Tools Used</b>	<b>Pass?</b>	<b>Comments / Body language</b>
Flight Page: Departure	Filters Sort Price Flight Detail Other		
Flight Page: Return	Filters Sort Price Flight Detail Other		



## Data-Logging Task 3

Oh no! You just received an email from the kids' school, reminding parents that school is back in session on January 15th. Change your flight information, to ensure that the kids are back in school on time.

Goal: Revise past booking

Start Time \_\_\_\_\_

End Time \_\_\_\_\_

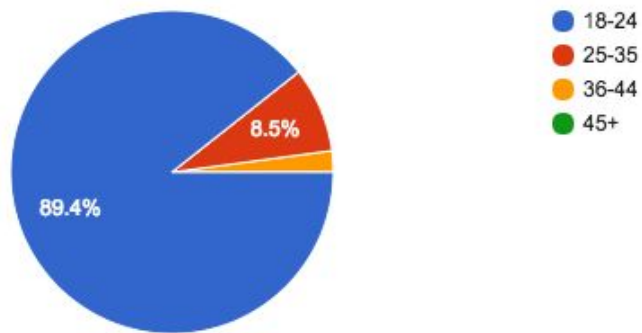
Steps	Tools used?	Pass?	Comments / Body language
Navigates to a place that allows scheduling changes	Browser Back Home Change Flights Change Hotel Live Agent Other		
Corrects dates	Changes to a new date		
Completes booking	Returns to confirmation page		

## Appendix 3: Screener Survey Results

(Note: questions involving personal information excluded for privacy)

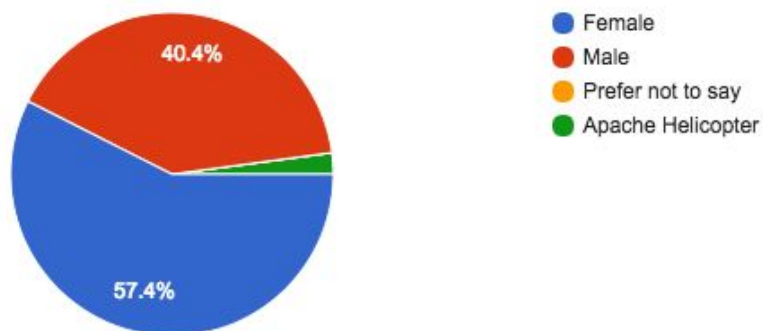
### How old are you?

47 responses



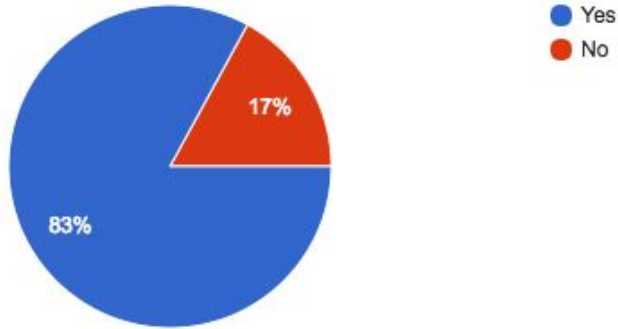
### Which gender do you identify with?

47 responses

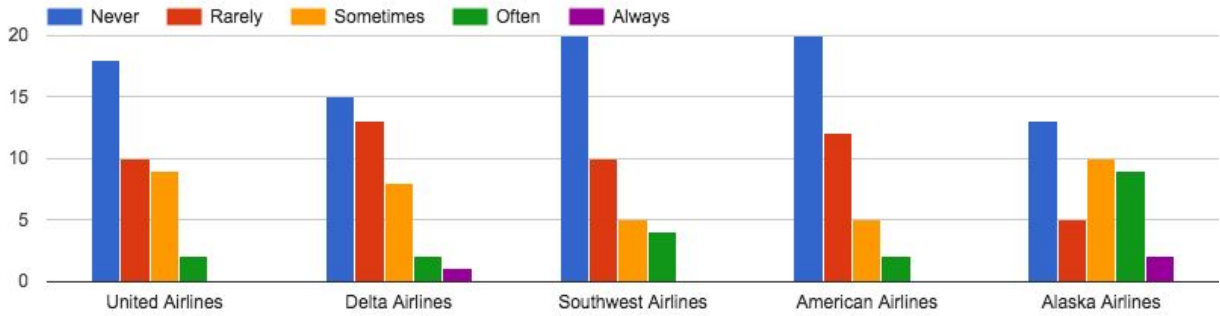


# Have you ever booked flights or vacation packages through an online website?

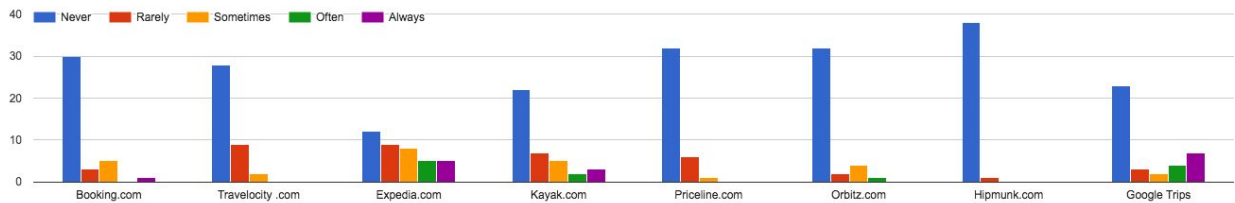
47 responses



Please rate how often you book trips with the websites listed below:



Please rate how often you book trips with the websites listed below:

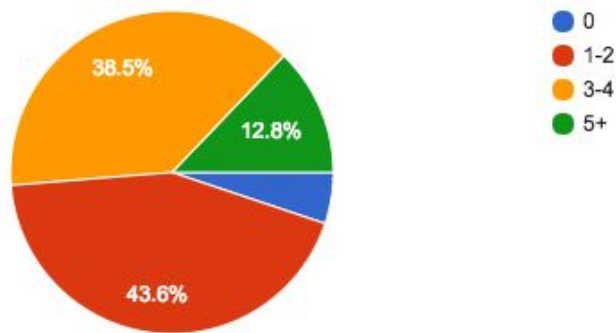


Please list any other travel websites you use not listed in the previous two questions: 12 responses

- JetBlue, AeroMexico
- N/A
- Hopper, to watch flights
- JetBlue
- Hotwire
- I usually book through the airline website
- Sprint
- studentuniverse.com
- ANA Direct, United Direct
- I used Alaska Airline's actual website
- Studentuniverse
- LastMinuteTravel

How many times have you booked flights / vacation packages online in the past year?

39 responses



## Appendix 4: Participant Screener Survey Data

Participant	Age	Frequency for booking trips on Expedia	# of flights/vacation packages booked online in past year
P1	18-24	Never	3-4
P2	18-24	Rarely	1-2
P3	18-24	Never	1-2
P4	18-24	Never	3-4
P5	18-24	Never	3-4
P6	18-24	Never	1-2
P7	18-24	Never	1-2
P8	18-24	Never	1-2

## Appendix 5: Pre-Test Interview Results

### 1. What is your usual process for booking a trip?

P1 – google flights (try different browsing/just), kayak

P2 – 1.) flights, airlines first -> mileage plan 2.) package deals 3.) cheap date 4.) airbnb, Mariott

P3 – one trip, parents usually book; last minute travel, phone app

P4 – Alaska airlines, put in beginning and end; airport to and from, on another screen, look at the timeframes, usually choose the cheapest

P5 – google flights: easy all the time

P6 – specific airline; thing against cheap flights. Sometimes cheaper stuff – Japanese sites

P7 – airline website, generally have an account. They give nice miles. Doesn't use any third party.

P8 – almost never books trips; typed in online, picked flights → times relevant on Google. Flights from SEA – LAS Vegas

### 1a. How do you feel about the online booking process?

P1 – frustrating; looking to book flight, articles when best to book

P2 – traditional booking outdated, airbnb nice, comparing takes time

P3 – easy to use, basic

P4 – pretty straightforward, easy to use

P5 – convenient, quick, send yourself itinerary

P6 – convenient

P7 – pretty smooth. Pages take a bit to load. Consolidated into one page instead.

P8 – something infrequent; uncertainty – if there's a better way (price efficiency)

### 2. You answered never/rarely for booking on Expedia in the survey but what is your experience with browsing on Expedia?

P1 – never; Kayak → opens Expedia but never on own

P2 – just browse, more comfortable with hotel/airline website, directly to source

P3 – never; no

P4 – maybe once add an event, don't remember

P5 – no experience, google trust, expedia trusted. On it a couple times. Packages nice if you're looking

P6 – sometimes look for places to stay. Searching not booking

P7 – knows what it is. Doesn't have the need. As far as I know it aggregates flights so if we use, we usually find the cheapest

P8 – no impressions

### 2a. How do you feel about Expedia?

P1 – market campaigns, jingle seems trusted; doesn't know much but more comfortable

P2 – like to compare on Expedia, wouldn't book normally

P3 – parents use Expedia, works well for them

P4 – just another company. I know some people who interned for them but no real experience with it

P5 – n/a

P6 – only used a few times a long time ago. No problems browsing.

P7 – can see why people use it

P8 – everything is organized well

## Appendix 6: Post-Task Questionnaire Results

TASK QUESTIONNAIRES - <i>overall results</i>					
Task 1					
	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
Expedia gave me enough information to make the best decision about my trip		7	1		
I was able to complete this task without difficulty	3	4		1	
	Completely Satisfied	Very Satisfied	Moderately Satisfied	Somewhat Satisfied	Not at all Satisfied
How satisfied are you with completing the task?	1	4	3		
Task 2					
	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
Expedia gave me enough information to make the best decision about my trip	2	5	1		
I was able to complete this task without difficulty	3	5			
	Completely Satisfied	Very Satisfied	Moderately Satisfied	Somewhat Satisfied	Not at all Satisfied
How satisfied are you with completing the task?	1	5	2		
Task 3					
	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree
Expedia gave me enough information to make the best decision about my trip	2	4	1	1	
I was able to complete this task without difficulty	2	5	1		
	Completely Satisfied	Very Satisfied	Moderately Satisfied	Somewhat Satisfied	Not at all Satisfied
How satisfied are you with completing the task?		2	5	1	



## Appendix 7: Post-Test Interview Results

### 1. How did you feel about the process of booking on Expedia? Why?

- P1 – interesting, never book hotel/flight together; find flight then airbnb but Expedia does hotel first which she didn't like; amenities filter was good
- P2 – if you have info, it's fine; can't change flight without hotel; browsing kinda difficult
- P3 – pretty easy, intuitive; issue second flight was for; good process
- P4 – not too complicated, lot of waiting, filtering; easy to backtrack; couldn't find way to change date; neglected to check smaller details (points of interest)
- P5 – didn't like that much, partly advertising, too much info, personally like individual things; bundle, cancel whole thing
- P6 – it was okay, convenient – gives you best option; not too hard to put preferences but wanted to do multiple preferences at once
- P7 – simple, liked that he was able to book hotel at the same time, do it all in one place; there are sites that specialize in hotels; better information, more reviews, amenities, better user interfaces
- P8 – faster than he did with las vegas, better than, what made it faster -> salient features being in front of him, task features -> filter | hotel + flight grouped

### 2. You stated that there were parts that were difficult, but I was wondering if you could elaborate on that? OR: You stated that there were parts that were easy to understand, I was wondering if you could elaborate on that?

- P1 – switch order/personal preference; more buzzwords, want them to tell what I'm getting out from that area, wait times are long
- P2 – re-choose departure/arrival; Alaska does it separately
- P3 – N/A
- P4 – info->too much, give a couple options; if you sort, should show less results
- P5 – simplify search results, lots of filters; subtext deals confusing; extra content confusing; only hotel is nice
- P6 – changing date – wish it could be changed from the complete booking page; dislikes how everything reset
- P7 – experience better if you had option to scroll through... somehow made that one option
- P8 – expectation of the study; would be more sensitive to what's actually available; things you think are important are more difficult if he had to change

### 3. Would you use Expedia to book a trip in the future? Why or why not?

- P1 – no, not the way she functions; better for families, for me all inclusive was maybe
- P2 – no, don't like hotel->flight; like assembling trip themselves; don't tell full price (+\$0, +\$30)
- P3 – yes, intuitive enough, pricing good
- P4 – probably not, a lot longer than Alaska; don't usually book hotels
- P5 – no, complicated, long to load especially when changing info, extra time/work
- P6 – yeah, for trips within the US, convenient to use frequent flier airline

P7 – yeah, wouldn't have a problem with it, commonly to where... focus on flights more, can see it very useful

P8 – potentially, I wouldn't give this experience... needs real world experience with expedia before deciding

**4. Is there anything else you'd like to share about the study or Expedia?**

P1 – don't not trust them; gotten themselves a name, respected

P2 – same layout of airlines homepage=familiar

P3 – nope

P4 – no

P5 – N/A

P6 – N/A

P7 – N/A

P8 – make process more explicit; if he was attentive, then he'd look again

## **Final Reflection**

After conducting each of the usability sessions, we debriefed as a group to understand what we could do to make each of the following sessions better. At the end of the project, when discussing what we would have changed about our study, three main areas come to mind: (1) revising task scenarios, (2) screening participants for experience with booking hotels, and (3) spreading out our screening survey farther than the University of Washington community.

### **Revising Task Scenarios**

If we were to repeat the study, revising task scenarios would be the first thing we would do. Within Task #3 we found that the last line led participants to immediately select “Change Flights” on the confirmation page, since it said “Change your flight information, to ensure that the kids are back in school on time” (Task 3). By stating change your flight information, our task scenario became too specific, in terms of telling the participant what to do, rather than having them think of what to do in that moment. The task could have been better worded as “change your trip dates” instead of “change flights”. Rewording is an example of a specific change, but in addition to this, we would like to increase the flexibility and freedom, to encourage participants to take ownership of the situation.

### **Screening Participants for Experience with Booking Hotels**

During our pre-test interview, many of our participants talked about being unfamiliar with the hotel booking process, because they typically rely on Airbnb for lodging accommodations. After realizing how being unfamiliar with the hotel booking process affected our study, we realized that we could have recruited better participants. If we were to repeat the study, we would keep the same criteria, but add that participants had to be familiar with booking hotels. Secondly, if we wanted to keep the same group of experienced travelers, we could ask participants to either (1) search for an accommodation similar to Airbnb (apartment or home), or (2) reword task scenarios to

be more general, so participants could think to look for short term apartment or home stays.

## **Spread Screening Survey Outside of University of Washington Communities**

Due to the time constraint of recruiting participants over one week, we relied on sharing our screening survey through UW Facebook groups. This limited our survey exposure to primarily UW students and alumni. With more time, we would have liked to take our time with recruiting participants all across the greater Seattle area, to ensure that we are reaching people other than students. Because students are typically working with a tight budget, it was difficult for them to empathize with the final price presented on the screen since it wasn't their money. Additionally, it was difficult for them to reasonably imagine that they were booking a trip for them, their spouse, and their kids in Task #2. With more time, we would have liked to reach out to people with a more established lifestyle, to ensure that we were receiving candid responses to the information and details Expedia displayed.