The Kamaʻāina Discounts: Usability Study on the Website Homepage

Karen Fujii
University of Hawaiʻi at Mānoa
U.S.A.
karenkf@hawaii.edu
www.mykamaaina.com

Abstract: Experiencing Hawaiʻi as a tourist is different from being a resident on a tropical island. A noticeable distinctness is the higher cost of living in accommodations, food, and merchandise. While Hawaiʻi is secluded from the continental U.S., daily life can become challenging without embracing the local culture. There is a wealth of online information for tourists visiting the islands, but only a minimal amount of materials scattered across multiple websites for new residents. The website, Mykamaaina.com, was created to help newcomers and people interested in moving to the island of Oʻahu with adjustment and cost-savings tips. The purpose of this usability project was to evaluate the navigation and content of the website homepage. Using the research model designed by Jakob’s Law of the Internet User Experience, users invest approximately 10 seconds looking over a new website and will click out and move onto the next if it is unusual or difficult. The homepage needs to communicate immediate value and enable the visitor to find good relevant material within seconds (Nielsen & Tahir, 2002). Built on a WordPress platform, the website contains Photoshop, Final Cut Pro, YouTube, and Pixabay elements. The data from the participants including their pre-and-post surveys were collected and analyzed. Revisions from the first two sets of usability studies were implemented. The overall results helped build a stronger homepage web presence to captivate first-time users to become repeat visitors for new content and information.

Introduction

Hawaiʻi is known as the most isolated population center in the world, some 2,390 miles from the U.S. and nearly 4,000 miles from Japan (Time, 2016). Due to the distance, over 80 percent of the goods, 90 percent of the foods, and 95 percent of energy resources are shipped to Hawaiʻi (Pape, 2015). Relocating to the remoteness of Hawaiʻi can be challenging without relevant information to adapt to living on a tropical island. One of these factors is the higher cost of living with a lower income. Another factor is transitioning to life in Hawaiʻi where the cultural differences are distinctive.

With this information, MyKamaaina.com became relevant for new residents that would like to know how to stretch their money. The domain name, “MyKamaaina.com,” was created for new residents to quickly learn the importance of this word in order to gain some cost savings. The word, “Kamaʻāina,” (kah-ma-eye-nah) means native born. The word “kama”
means child and “ʻāina” means land or earth directly translated (Dictionary, 2016). The phrase, “Kama ʻāina rate” refers to the local discounted prices that Hawaiʻi residents are eligible by showing proper identification such as a Hawaiʻi student identification or Hawaiʻi driver license.

MyKamaaina.com provides a list of information for restaurants, hotels, and tourist attractions that offered local discount rates. It also provides additional information that was suitable for this targeted population, such as when the main street, Kalakaua Avenue, was closed for scheduled parades. With multiple parades in any given month, this information can help a new resident to plan their routes accordingly. Some other relevant knowledge includes the important requirements of one’s original social security card to transfer to a Hawaiʻi driver license and information how to release a vehicle from the Honolulu loading docks.

The usability study contained these and other relevant content with emphasis on the navigation and information of the homepage. Web usability and site design were the two important determinants of quality content. In “Don’t Make Me Think Revisited,” the website usability was defined as useful, learnable, memorable, effective, efficient, desirable, and delightful. Information such as the site hierarchy, search, teases, content promos, feature promos, timely content, deals, shortcuts, and registration provided an overview on what the website had to offer on a homepage (Krug, 2014).

There are four principles of a good web design: high-quality content, frequent updates, minimal download time, and ease of use (Nielsen, 2000). The homepage of MyKamaaina.com contains three areas of inquiry. They were the navigation from the homepage, the content perceptions, and the ease-of-use. There were three research questions in the usability study. Was the homepage engaging for the users to continue through the website; was the content on the homepage relevant for the user; and how did the website impact the new residents to become return customers? The usability study provided relevant data and descriptive issues with possible solutions to revise and improve the user experience.

**Literature Review**

Media literacy is the ability to “access, analyze, and produce” information looking at the whole picture. Representations, language, production, and audiences are four factors that interrelationships provide as a structure for how we think and evaluate media messages (Addison & Meyers, 2013). The quality of interaction on the website is paramount for both the designer and marketer when creating and revising the content. This user-centric methods of website analysis provides useful information how to improve the model by using the web architecture as assessment and usability tests (Clayton & Hettche, 2012). The attributes for the UX or user experience is supporting, useful, clear, and controllable. Users are different and while some may find it easy to use a website to perform a task, others may not. Users will have different expectations (Fredheim, 2011).
According to the Huffington Post article, “Cost of Living in Hawaii Continues to Rise 20 Years After “Price of Paradise,” Hawaiʻi’s per-capita incomes are among the nation’s lowest at $32,500 compared to the national average of $36,000. In addition, Hawaiʻi is one of the only states that taxes food, which already costs more than the nation (Eagle, 2013). In 2013, electricity cost 37 cents per kilowatt-hour (kwh), or $222 a month in Hawaiʻi, while the national average was 11 cents/kwh, or $103 a month (Eagle, 2013).

The U.S. Department of Commerce, Bureau of Economic Analysis released the prototype estimates for “Real Personal Income for States and Metropolitan Areas, 2007-2011.” The regional price parities (RPPs) are a measurement of the difference between the price of goods and services across the nation and the metropolitan areas for a given year. RPPs are expressed as a percentage of the overall national price level that is equal to 100.0. In 2011, the three highest RPPs were Bridgeport-Stamford-Norwalk, CT at 122.3, Honolulu, HI with 121.0, and Poughkeepsie-Newburgh-Middletown, NY with 120.6. The metropolitan area of New York-Northern New Jersey-Long Island, NY-NJ-PA was fourth at 120.5 (BEA, 2013). The RPP attributes are the high rentals and other services. The data is produced annually from the Bureau of Labor Statistics, Consumer Price Index program, and the Census Bureau’s American Community Survey (BEA, 2013).

A single-family detached home, also known as a free-standing residential building, costs $665,000 compared to the national average of $257,000 (Eagle, 2013). In 2016, the median price of a single-family home was $760,000 while the median price of condominiums was $413,000 (Pacific Business News, 2016). Since space is limited on Oʻahu for the roads to expand, the traffic gridlock is in the top 10 worst commutes in the nation. Honolulu ranks number six, behind Los Angeles, San Francisco, New York, Seattle, and San Jose (TomTom Traffic Index 2016).

Oʻahu residents require 85 percent more money in their annual household budget compared to the rest of the nation. Approximately 61 percent of a household’s total budget goes to rent, utilities, and insurance (Eagle, 2013). Unfortunately, to live in good weather with 66°F to 88°F temperatures year-round surrounded by natural beauty and other amenities has a higher financial price than the rest of the nation (Weather.com, 2016).

Project Design

The domain, MyKamaaina.com, and web hosting was purchased for approximately 100 U.S. dollars. The website was designed and created on a WordPress (WP) platform using an existing purchased theme. The logo and advertising graphics were built in Photoshop. All the photographs were taken from the high resolution still camera or iPhone. Some of the photographs are from Pixabay, a royalty free, Creative Commons website (See Figure 1).
Methods

Five males and five females between the ages of 25 - 64 volunteered for the usability study. Eight of the participants completed their Bachelor’s degree and two had their Master’s degree (See Figure 2).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>35-44</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>45-54</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>55-64</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>Male</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>2</td>
<td>20%</td>
</tr>
</tbody>
</table>

Figure 2. Participant demographics.
Other than the age requirements, additional prerequisites were required to qualify for the usability study issued in the pre-survey questionnaire (Appendix B). The new residents residing on the island of O‘ahu within the past ten years or people that planned to relocate must be web savvy and use the Internet daily for searching news and information (See Figure 3).

![Figure 3. Number of hours spent on technology daily.](image)

The researcher used word-of-mouth marketing for the pre-screening process to find potential participants for the usability study. This method provided quicker results than sending a cold call email because the researcher started to reach out to plausible candidates for a verbal agreement before the website was developed. The recruitment process included sending the potential candidates individualized messages along with the formatted emails requesting if they wanted to participate in the usability study (Appendix A). Upon receiving a positive response, the potential participants received another email with a link to the pre-survey, created in Google Forms (Appendix B). Once the potential participants met the criteria, a follow-up email was sent to confirm the dates, times, and location that was mutually beneficial. They were all notified that a digitally signed consent form had to be completed prior to starting the usability study (Appendix C).

The software, Screencastify, was used as the instrument and observation. Screencastify was chosen because of its user-friendliness and ability to run on several platforms such as Chrome for Windows, Mac Linux, and ChromeOS. Screencastify uses the computer’s built-in microphone and has the ability to pause and resume playback. It can easily be uploaded into Google Drive, where the project materials were kept for the duration of the study.

The University of Hawai‘i (UH) Google for Education was the choice for the usability materials. These included the consent to participant in the research project and pre-and-post surveys, created using Google Forms. Due to the simplicity of Google Forms, the surveys were categorized in the set-up mode. The usability protocol script was created in Google Docs. It is a modified script from *Rocket Surgery Made Easy* (Krug, 2010). With a set of questions, each participant clicked to find the information from the homepage. They were asked to talk aloud as they completed each task. The facilitator took observation notes in addition to the Screencastify recording. This was documented in the data analysis using
Google Sheets. The data analysis is easily disseminated using the individual fields to capture the information.

**Procedures**

Six weeks were used to conduct the usability study in three groups of three-to-four participants. Each session was scheduled to approximately 30-45 minutes, however all 10 participants were able to complete the tasks within 10 minutes. From the homepage, they were given scenarios to find relevant information and content (See Table 1). The usability study was conducted at various locations dependent on the participant’s mobility. There was an option for the participant to meet in a virtual environment using tools such as Google Hangout. Immediately after the usability study was completed, the participant completed the post-survey questionnaire (Appendices D and E).

<table>
<thead>
<tr>
<th>Table 1. Scenarios for cognitive walkthrough</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task One:</strong> You are meeting a friend in Waikiki this weekend and heard that the main street, Kalakaua, will be closed for a few hours because of an event. Where would you go to find more information?</td>
</tr>
<tr>
<td><strong>Task Two:</strong> You have friends visiting O’ahu and would like to know if the Atlantis submarine tour offers a discounted rate for local residents? Where would you go to find more information?</td>
</tr>
<tr>
<td><strong>Task Three:</strong> You would like to eat at the Hard Rock Cafe, located on Beach Walk in Waikiki, but heard that the prices are expensive. Where would you go to find if they offer local discounts?</td>
</tr>
<tr>
<td><strong>Task Four:</strong> You have recently moved to Hawai’i and would like to get either a state driver license or identification card. Where would you find more information about this?</td>
</tr>
<tr>
<td><strong>Task Five:</strong> If “mykamaaina.com” had social media components such as FaceBook and Twitter, would you become a friend or follower? Why or why not?</td>
</tr>
</tbody>
</table>

The information was summarized from the screen recordings. Data analysis was completed and web revisions occurred after each group study (Appendices F and G).

A total of six weeks was required to conduct the usability study in three groups of three-to-four participants. Data analysis was summarized and web revisions occurred after each group’s study.

**Results**

**Round 1**

The participants were rated on a scale of one to three. Scale 1 means the user can’t perform task. Scale 2 means the user can perform task, but had some struggles. Scale 3 means the user can perform task quickly with no issues (See Figure 4).
Participant 1 started the first usability group without any issues. This participant found the overall experience simple-to-use, however both Participants 2 and 3 struggled to perform the first task. Participant 2 preferred to use the drop-down menu instead of scrolling down the webpage. This led to confusion to the title in the drop-down menu (See Figure 5). Both Participants 1 and 2 wanted the hyperlinks to go to another tab on the browser to avoid hitting the back or home button. This kept them on the homepage website while they searched for information from the hyperlinks on another tab (See Figure 6).

Participant 3 was confused with the advertisement placement towards the bottom of the homepage. Since the advertisements were the same size as the content images, it distracted the attention away from the content (See Figure 7). Participant 1 suggested by adding a map, it would be easier to locate the hotels, accommodations, and activities (See Figure 8).
Round 2
There were four participants, instead of three, in the second group. There was a technical issue with the first participant, however even though the mouse movements were recorded, the audio was not. Since all the data was collected immediately, including the facilitator’s observations and reflections, Participant 1’s data was retained. If the facilitator needed to refer back to the audio recordings, this data would be abandoned leaving only three participants (See Figure 9).
Even though improvements were made for the first task by adding the “Events in Waikiki” in the second dropdown menu, Participant 2 and 4 struggled with the first task. Two of the participants were distracted with the location of the map on the hotels, accommodations, and activities pages. It was suggested to place the map below the links (See Figure 10).

<table>
<thead>
<tr>
<th></th>
<th>Task 1</th>
<th>Task 2</th>
<th>Task 3</th>
<th>Task 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Participant 5</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Participant 6</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Participant 7</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Figure 9. Second usability test group.*

Round 3
All the participants in this group found the first task to be relatively simple, however Participant 2 struggled with the second task (See Figure 11).
A suggestion was made from Participant 10 to increase the font size of the titles on the homepage for clarity (See Figure 10). Participant 1 did not realize the images were clickable and would like to see both the text, “Where to stay, What to eat, What to do” that coincides with the images to be clickable.

The descriptive issues were captured immediately after each participant (See Figure 13).

<table>
<thead>
<tr>
<th>Issue Type</th>
<th>Description</th>
<th>Location</th>
<th>Possible solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1</td>
<td>Could not find &quot;events&quot; on the homepage. Did not scroll, only used main menu navigation bar.</td>
<td>Homepage</td>
<td>Added &quot;Events&quot; in the dropdown menu</td>
</tr>
<tr>
<td></td>
<td>Have the links open in a separate tab</td>
<td>Homepage, Where to stay, Where to eat, What to do, Driver's License, All Pages</td>
<td>Coded every link to direct to a new tab</td>
</tr>
<tr>
<td></td>
<td>Advertisements were confusing, need to rethink placement</td>
<td>Homepage bottom</td>
<td>Added the word &quot;Ad&quot; above the ads</td>
</tr>
<tr>
<td></td>
<td>Needs a map to find locations</td>
<td>Where to stay, Where to eat, What to do Pages</td>
<td>Added Google maps</td>
</tr>
<tr>
<td>Round 2</td>
<td>Map is distracting and can't find the links to the hotels, restaurants, activities without scrolling, is a distractor.</td>
<td>Where to stay, Where to eat, What to do Pages</td>
<td>Moved the Google map past the links to the hotels, restaurants, activities. Researching if Google allows, can add the places (physical locations) on the map</td>
</tr>
<tr>
<td>Round 3</td>
<td>Need to differentiate the title font from the text</td>
<td>Homepage middle (What's happening in Waikiki and What is Kama'aina)</td>
<td>Made the fonts larger</td>
</tr>
<tr>
<td></td>
<td>Only the images are hyperlinks, not the text on 'Where to stay, What to eat, What to do'</td>
<td>Homepage middle (Where to stay, Where to eat, What to do)</td>
<td>Made the text words hyperlinks</td>
</tr>
</tbody>
</table>

**Legend**

1 = Cosmetic problem only; need not be fixed unless extra time is available on project
2 = Minor problem: fixing this should be given low priority
3 = Major problem: important to fix, so should be given high priority

**Figure 11.** Third usability test group.

**Figure 10.** Increase font size of the title.

**Figure 13.** Descriptive issues.
As social media becomes a more popular form of communication, each participant was asked if they would follow Facebook and/or Twitter if it were offered. Ten participants or 70% were interested (See Figure 14).

Ten participants or 90% found the images on the homepage design layout to be the most appealing. This was followed by the content or information at 70%. News came in third at 60% and category, other, came in fourth at 30%. The ads ranked the lowest at 20% (See Figure 15).
Eight of the ten participants or 80% found the content on the homepage to be relevant to the website (See Figure 16).

![Figure 16. Content relevance.](image)

Only six or 60% found the organization on the homepage to be logical. This data will need more analyzing since the information could be interrupted as users losing interest and clicking out of the website (See Figure 17).

![Figure 17. Organization of the homepage.](image)
Discussions and Conclusions

In hindsight, the original usability script was minimized from 10 scenarios to four in the final version to stay within the allocated 30-45 minutes. If choosing Internet savvy participants was a criterion, the likelihood that all 10 scenarios could be completed in this timeframe was reasonable. This was proven when all the participants finished the study in 10 minutes or less. Additional suggestions and improvements in the post-survey could have provided further information and deeper insights to the homepage. This was a missed opportunity.

Furthermore, since Screencastify was used in this study, conducting a short test to ensure the audio and mouse movements were working properly should be added into the checklist. The research was conducted on a Mac laptop, however some of the participants were PC users. If the question was asked beforehand and a quick Mac mouse orientation was given before the recording started, the outcome for the first scenario data would be different. A lesson learned was to turn off anything distracting, such as email, so the participants could concentrate only on the testing.

Overall the key components of the research questions were addressed positively with the homepage. The insights gained from this project resulted in a stronger design and user experience. The feedback from the three groups of participants improved both the navigation and content on MyKamaaina.com. Even though the homepage contained relevant news and information, local discounted rates for Hawai‘i residents, and some useful tips to live in the most isolated population center in the world (Time, 2016), modifications still need to be made. It would be beneficial to conduct additional research on the homepage organization to learn what edits are required for an optimal user experience.

MyKamaaina.com went live in March 25, 2017, due to the fact that the strong search engines kept finding the hidden website and indexed it. This caused a trustworthy issue. A quick Google search displayed if the website was a scam or legit. When MyKamaaina.com launched, the trust score was 62%. On April 30, 2017, the rate increased to 86% and was indexed as a new website. The website’s progress will be measured through analytics to gain insights on how many users are on the website for the first time or if they are repeat users. The success of this website relies heavily on constant improvements, fresh content, and measureable outcomes. By studying these measurements with continuous cycles of edits, the search engines will eventually find MyKamaaina.com and it will organically increase in the web rankings and become easier to find.
References


Appendix A
Recruitment Email

Subject Line: Invitation to participate in a website usability study

Aloha,

My name is Karen Fujii and I’m conducting a usability study for my Master’s project in Learning Design and Technology (LTEC) at the College of Education, University of Hawai‘i at Mānoa. In an effort to improve the website’s homepage, I am looking for new residents who have moved to Hawai‘i, particularly the island of O‘ahu, in the past 10 years or people who may be interested in moving to Hawai‘i. If you decide to participate in this website usability study, you will be providing feedback to enhance “mykamaaina.com” for users to be able to navigate with ease from the homepage.

In the usability study, I will ask you to do several short tasks using the “mykamaaina.com” website. I will also ask you to several questions about the website’s homepage, your experience, and perceptions. The data taken from your participation will be used solely for the purpose of this usability study. Your responses will be kept for research purposes only and it is not meant to assess your individual performance.

The estimated time is 30-45 minutes.

The usability study will be held on a mutual date and time either in-person or online. There will be no traveling required if you decide to perform online. You will need to have a PC, tablet, or smartphone and Internet access to participant.

Please reply to this email with your contact information (name, email, phone) or alternatively email me at karenkf@hawaii.edu if you are interested in participating in this website usability study.

If you have any questions, please contact me at karenkf@hawaii.edu.

Thank you for your time and interest.
Karen Fujii
Appendix B
Participant Pre-Survey Questions

Participant Pre-Survey Questions

Form description

Website Usability

Aloha!

You are invited to participate in the survey for a website homepage content and usability study for the University of Hawai'i Learning Design and Technology (LTEC) Master's program. In this survey, participants will complete questions about the technologies they use, internet access, and their relocation or desired move to the state of Hawai'i. Your information will help improve a website’s homepage. The anticipated duration of the survey will take less than 10 minutes to complete.

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this project, however if you feel uncomfortable answering any question, you can withdraw from the survey at any time.

Your survey responses will be strictly confidential and data from this research will be reported only in the aggregate. Your information will be coded and will remain confidential. If you have any questions about the survey or the procedures, please contact Karen Fujii by email at karenfh@hawaii.edu.

Thank you very much for your time and support.

Technology

Description (optional)

What technologies do you have access to? Mark all that apply. *

☐ Desktop computer
☐ Laptop computer
☐ Tablets
☐ Smartphone

How many hours daily do you spend on each technology? *

<table>
<thead>
<tr>
<th>Row</th>
<th>Technology</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Desktop</td>
<td>0-3 hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row 2</td>
<td>Laptop</td>
<td></td>
<td>3-6 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Row 3</td>
<td>Tablet</td>
<td></td>
<td></td>
<td>6-9 hours</td>
<td></td>
</tr>
<tr>
<td>Row 4</td>
<td>Smartphone</td>
<td></td>
<td></td>
<td></td>
<td>9+ hours</td>
</tr>
</tbody>
</table>

How many hours a day are you online checking your email, reading news & information, gaming, etc.? *

☐ 1-5 hours
☐ 5-10 hours
☐ 10-15 hours
☐ 15-20 hours
☐ I'm always online
Internet Access

Description (optional)

Do you have Internet access at home, work, or both? *

- Home
- Work
- Both
- Neither, I use public wi-fi

Living or Moving to Hawai'i

Description (optional)

How many years have you lived in Hawai'i? *

- Less than 1 year
- More than 1 year but less than 3 years
- More than 3 years but less than 5 years
- More than 5 years but less than 10 years
- I have not lived in Hawai'i
- Other...

Do you live in or near Waikiki? *

- Yes
- No

Have you heard of the word, "kama'aina"? *

- Yes
- No

Are you aware of any discounts offered only to the residents of Hawai'i? If so, * which ones? If not, write N/A.

Long answer text
Demographics Information

Description (optional)

What is your gender? *

- Male
- Female
- Other

What is your age group? *

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

What is your highest level of completed education? *

- High school diploma/GED
- Associates degree
- Bachelors degree
- Masters degree
- Doctorate degree

Thank You!

Thank you for your time and responses. All the information from the survey is confidential and will not be shared other than the purposes for this research.
Appendix C
Consent to Participate in Research Study

CONSENT TO PARTICIPATE IN RESEARCH PROJECT

Form description

My Kama'aina Homepage Usability Study

Aloha!

My Name is Karen Fuji and I am a student at the University of Hawai'i at Mānoa. I am conducting this research project as a component of a Master's degree in Learning Design and Technology. The purpose of this usability project is to develop and evaluate the content and navigation on "mykamaaina.com" homepage. You are being asked to participate in this research study because you plan to or have moved to Hawai'i in the past 10 years. Your participation in this study will help determine the changes to be implemented on the homepage to improve the user experience.

What activities will you do and how long will they last?
Participation will be either in-person or an online synchronous session with a mutually agreed location and time. Both the in-person and synchronous session will use either a computer, tablet, or mobile device with internet connection between the subject and facilitator.

If you participate, you will be asked to evaluate the content and navigate from the website’s homepage while being prompted by a series of scenario questions. These questions are intended to evaluate the content, ease of use, and overall effectiveness of the homepage. You will be asked share your thoughts out loud as you navigate the website, which will assist the researcher in gaining further insights into the user experience.

Your actions and verbal comments will be screen captured and recorded using Screencastify. Once all scenarios are completed, the researcher may ask follow up questions as needed. You will be asked to complete an online demographic survey form prior to beginning the usability test, as well as a user satisfaction survey after participating. The user satisfaction survey is intended to gather your attitudinal feedback pertaining to the homepage content and overall effectiveness. The entire usability study, including both surveys and debriefing interview, will last about 30-45 minutes.

Confidentiality and Privacy:
The data taken from your participation will be used solely for the purpose of this usability study. The data will be stored securely on a password-protected computer. When I report the results of my research project, I will not use your name or any other personal information that would identify you. The recordings from this study will be transcribed to determine commonalities from all participants. Once the research is complete, all recordings will be destroyed.

Voluntary Participation:
Participation in this research project is strictly voluntary. You are free to choose to participate or not to participate in this project. You may withdraw your permission or discontinue participation at any time without penalty or loss of benefits.

Questions:
If you have any questions regarding your participation in this research study, please contact me via email at karenf@hawaii.edu. You may also contact Faculty Advisor Curtis Ho at curtis@hawaii.edu. If you have any questions about your rights in this project, you can contact the University of Hawai'i, Human Studies Program, by phone at (808) 956-5007 or by e-mail at uhirb@hawaii.edu.

Participant: I have read and understand the above information, and agree to participate in this usability study. I understand that I can change my mind about being in the project at any time by notifying the researcher.

☐ Yes

☐ No

I understand that my verbal responses and screen activity will be recorded as * I participate in this usability study. These audio recordings will only be accessed by the researcher and will be destroyed once the research is complete.

☐ Yes

☐ No

Please input your Full Name. This will serve as a digital signature.*

Short answer text
Appendix D
Usability Protocol Script

My Kama’aina Homepage Usability Study

Before the session:
Setting up Screencastify extension in Google Chrome browser
Getting the website ready
Testing the website walkthrough to check the functionality of the mic and webcam

During the session:
Start Screencastify

Facilitator Script
Hi, [insert participant’s name]. My name is Karen Fujii, and I’m going to be walking you through this session today.

Before we begin, I have some information for you, and I’m going to read it to make sure that I cover everything.

I’m asking people to take a look at the website homepage (mykamaaina.com) that I have designed for a portfolio project in the Learning Design and Technology (LTEC) at the College of Education, University of Hawai‘i at Mānoa. I would like to see what you think and how you think to complete a few tasks with an interface like this. The session should take about 30-45 minutes.

The first thing I want to make clear right away is that I’m testing the website homepage, not you. You can’t do anything wrong here. In fact, this is probably the one place today where you don’t have to worry about making mistakes.

As you complete the tasks, I’m going to ask you as much as possible to try to think out loud: to say what you’re looking at, what you’re trying to do, and what you’re thinking. This will be a big help to us.

Also, please don’t worry that you’re going to hurt our feelings. We’re doing this to improve our designs, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we’re interested in how people do when they don’t have someone who can help. But if you still have any questions when we’re done I’ll try to answer them then.

And if you need to take a break at any point, just let me know. Do you have any questions so far?

● Ask participant a few preliminary questions:

OK. Before we look at the site, I’d like to ask you just a few quick questions about your experience as an online student.
1a. If you have relocated to Hawai‘i in the past 10 years, did you find any websites with relevant information to help you with your move or adjustment? If so, please explain.

1b. If you are planning to relocate to Hawai‘i, have you found any websites with relevant information to help you. If so, which ones?

2. How do you feel about the cost of living in Hawai‘i compared to other places you have previously lived in?

3. Are you aware that quite a few of hotels and restaurants, particularly in Waikiki, offer local discounts for residents living on O‘ahu?

OK, great. We’re done with the questions, and we can start testing out the site.

- **Have participants do a narrative of the wireframes’ overall appearance for one or two minutes, at most:**

  I’m going to ask you to look at this website’s homepage and tell me what you make of it: what strikes you about it, what you can do here, and what it’s for. Just look around and do a little narrative. You can scroll around if you need to.

- **Ask participant to complete a few specific tasks (be sure to give the participant a handout of the scenarios):**

  Thanks for doing that. You did a great job. Now I’m going to ask you to try doing some specific tasks. I’m going to read each one out loud. You should have received a copy of these before this study. Again, as much as possible, it will help us if you can try to think out loud as you go along.

  **Task One:**
  You are meeting a friend in Waikiki this weekend and heard that the main street, Kalakaua, will be closed for a few hours because of an event. Where would you go to find more information?

  **Task Two:**
  You have friends visiting O‘ahu and would like to know if the Atlantis submarine tour offers a discounted rate for local residents? Where would you go to find more information?

  **Task Three:**
  You would like to eat at the Hard Rock Cafe, located on Beach Walk in Waikiki, but heard that the prices are expensive. Where would you go to find if they offer local discounts?

  **Task Four:**
  You have recently moved to Hawai‘i and would like to get either a state driver license or identification card. Where would you find more information about this?
Task Five:
If “mykamaaina.com” had social media components such as FaceBook and Twitter, would you become a friend or follower? Why or why not?

Thanks, that was very helpful.

We are done with the main questions, but I have a few more general questions to ask you.

1. On a scale of 1 to 5, with 1 representing very difficult and 5 representing very easy, how would you rate your experience during today's testing? Please elaborate on your rating.
2. After participating in this study, would you recommend this website to any of your friends? Why?

That’s the last question, do you have any questions for me now that we’re done? I want to thank you for your time and willingness to be a participant in this study.

● Stop the screencasting software

After the Session:

1. Save screencast to your local computer
2. Quickly scrub through the video to ensure the integrity of the audio and video
3. After completing both sessions, upload the video to Google Drive
4. Set the sharing options for the videos to “anyone with the link”
5. Share the videos with your team

Modified from Usability Script- Rocket Surgery Made Easy © 2010 Steve Krug
Appendix E
Participant Post-Survey Form

Participant Post-Survey Form

Aloha!

Thank you so much for participating in my usability study! Below are questions I’d like for you to answer about your experience with the website. Your responses will be kept for research purposes only and it is not meant to assess your individual performance. This post-survey should take no longer than 10 minutes to complete. Please respond with as much detail in order for me to improve the content and navigation of the website’s homepage.

Thank you for your time and support.

Design Layout

Description (optional)

The website’s homepage was appealing because... click all that apply *

☐ Photos
☐ News
☐ Information
☐ Advertisements
☐ Survey
☐ Other
☐ Other...

The website’s homepage was easy to find news and information. *

1 2 3 4 5

Strongly Disagree ☐ ☐ ☐ ☐ ☐  Strongly Agree

The content on the homepage was relevant and interesting. *

1 2 3 4 5

Strongly Disagree ☐ ☐ ☐ ☐ ☐  Strongly Agree

The images are interesting *

1 2 3 4 5

Strongly Disagree ☐ ☐ ☐ ☐ ☐  Strongly Agree

The website is visually appealing. *

1 2 3 4 5

Strongly Disagree ☐ ☐ ☐ ☐ ☐  Strongly Agree

The homepage organization is logical and easy to follow. *

1 2 3 4 5

Strongly Disagree ☐ ☐ ☐ ☐ ☐  Strongly Agree
Website Navigation

The website was easy to navigate? *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strongly Disagree: ○ ○ ○ ○ ○ Strongly Agree

The number of clicks to get to any section was reasonable. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strongly Disagree: ○ ○ ○ ○ ○ Strongly Agree

The labels for each page is clear and concise. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strongly Disagree: ○ ○ ○ ○ ○ Strongly Agree

Ease of Use

From the homepage, it is easy to navigate to find relevant content. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strongly Disagree: ○ ○ ○ ○ ○ Strongly Agree

Every link I opened worked *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strongly Disagree: ○ ○ ○ ○ ○ Strongly Agree

I could easily navigate back to the homepage from a different page. *

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Strongly Disagree: ○ ○ ○ ○ ○ Strongly Agree

Additional Comments

Description (optional)

Do you have any suggestions to improve any other component of the website? *

Long answer text

Were there any content, features, or pages that were confusing to you? If so, please explain.

Long answer text

Thank You!

Thank you for taking the time to help me improve the homepage's website. Your confidential feedback is important for me to continue to enhance "myhomepage.com" so other users can benefit from it.
## Appendix F
### Data Collection

<table>
<thead>
<tr>
<th>Participant's Data - Visibility Test</th>
<th>Preliminary Q1</th>
<th>Preliminary Q2</th>
<th>Preliminary Q3</th>
<th>Preliminary Q4</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Points:

- 3: User can perform task quickly with no issues.
- 2: User can perform task, but has some difficulty.
- 1: User cannot perform task.

Adapted by student.net
## Appendix G
### Descriptive Issues

<table>
<thead>
<tr>
<th>Type of Issue</th>
<th>Description</th>
<th>Location</th>
<th>URL Link</th>
<th>Possible solution</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provide a brief (1-2 sentence) reason for why you rated the severity with that score.</td>
<td>Where did the problem occur</td>
<td>URL Link</td>
<td>How the problem was resolved</td>
<td></td>
</tr>
</tbody>
</table>

### Legend

0 = I don’t agree that this is a problem at all
1 = Cosmetic problem only: need not be fixed unless extra time is available on project
2 = Minor problem: fixing this should be given low priority
3 = Major problem: important to fix, so should be given high priority
4 = Catastrophe: imperative to fix this before product can be released

Adapted from: Severity based rating on this scale (Nielsen, 1995)