

# Usability Test Plan

## Assignment 4

### Keweenaw Time Traveler Story Query Tool

#### **Team 4: Konnected Keweenaw**

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## **Introduction**

This is about Usability Test plan for the Keweenaw Time Traveller Application which is enhanced by Konnected Keweenaw (team 4). This report outlines the procedure followed by the administrator, Karan Sunchanakota, along with the forms given in the appendices, which include the test scenarios, instructions followed, questions asked, consent forms, and bug reports.

## **Design Description**

Keweenaw Time Traveller is a web application that aims to bring user submitted history to the public and present it in an organized way. Apart from retrieving the information/data from the user quickly and accurately, the main goal is that the user should be subjected to gain more interest into the site using recommended stories or pictures based on their searches since the more time a user spends on the site, the more stories are shared. Konnected Keweenaw updated the search function to interact with the existing and operating database to bring better, more relevant search results to a user and worked on some features in user interface which includes dots on the map and zoom in/out of the map. Furthermore, an emphasis on the scalability of the database and querying function is required by the scientists. The submitted data from users would be gathered by the database. Scientists and researchers can view such collected data and extract the information from this database.

## Usability Test

Following is the procedure that every user go through during the test:

Step 1:

Each participant is provided with guidelines about how the test is going to be and then he/she will be signing a Computer User Interface Usability Testing Consent Form and will be giving a Pre-Test Questionnaire.

Step 2:

Using the Web application and performing all the test scenarios as per the guidelines.

Step 3:

After Step 2, Participants would be giving a Post-Test Questionnaire.

Participants will perform the test on a Laptop which will be provided. By exploring the application from the Chrome browser, participants will be informed to start the test. For each task, the time will be counted through using a timer. Some of the notes will be taken side by side for the later detailed report.

Test Location	04/17/2019	04/19/2019
Library 237	<ul style="list-style-type: none"><li>• 12:00 PM</li><li>• 1:00 PM</li><li>• 2:00 PM</li></ul>	<ul style="list-style-type: none"><li>• 12:00 PM</li><li>• 1:00 PM</li><li>• 2:00 PM</li></ul>

# Test Scenarios

## *Test Scenario 1*

- **Test Scenario Name:**  
Konnected Keweenaw Existing Web Application.
- **Test Goals for the Scenario:**  
Test goal for this is to check the Existing Web Application. This scenario will check the functionalities and the navigation of the search query tool. It will also check how the search results are relevant to what the user wants and how easy it is to him/her to access the desired result.
- **Quantitative Measurement List:**
  - The amount of time needed for the participant to complete the search?
  - Does the search query button work properly?
  - Does the filtering between Addresses, People, Places, Stories work?
  - Does the click on any search result navigate to desired location?
  - Does the pin appear when clicked on the pink dot on the map?
- **Scenario Description:**  
The search query tool of this web application provides the functionality to search the link to a specific time period and location in the Keweenaw. User submissions can range from stories and memories to formal documents of work and living to pictures and videos from across the Keweenaw. As the application is a great collection of primary source history, a user can view any story as per his/her interest.
- **Task List:**
  - Search for the desired story/address/people/place which is related to Keweenaw.
  - Check for the desired story/address/people/place in the search result using any related keyword.
  - Click on the story if found.
- **Qualitative Measurement List:**
  - Facial Expressions of User
  - Ease of use
  - Challenges faced by the participant in understanding how to use the application to get the desired result

- **Potential Observations of Participant:**

- Reaction of participant on successful completion of this test:
- Reaction of participant on unsuccessful completion of this test:
- Response/Feedback from the participant for this test:

- **Bug Report Form:**

Bug Number	Bug Name	Bug Uniqueness	Bug Location	Bug Description

- **Post Scenario interview:**

- Rate the User interface of the application on the scale of 1 to 5. (5 Being highest)
- Was the process of this test easy and interesting or boring?
- Suggestions to the design of search query tool?

- **Test Set up details:**

The test would be conducted in a well-equipped and quiet room so that users can focus on the testing process.

## **Test Scenario 2**

- **Test Scenario Name:**  
Search Features and Filters Updation
  
- **Test Goals for the Scenario:**  
Test goal for this is to check the enhanced/updated search features and filters in Web Application. This scenario will check how the functionalities and the navigation of the search query tool are different from the existing app. It will also check how the search results are improved and relevant to what the user wants when compared to the previous version to achieve the best user experience.
  
- **Quantitative Measurement List:**
  - The amount of time needed for the participant to complete the search
  - Is the search query button performance improved?
  - Is the home page returning all search results when the app starts up and empty search is executed?
  - Is the searched keyword made persistent so that it doesn't disappear when the search is submitted?
  - Are the "submit filters" and "clear filters" updated to make the user's understanding better.
  
- **Scenario Description:**  
The search query tool of this web application provides the functionality to search the link to a specific time period and location in the Keweenaw. When the user submission is done, every phase of the search which includes filtering of the search as per the user's wish and navigation towards getting his desired information in the search result is noticed properly.
  
- **Task List:**
  - Search for the desired story/address/people/place which is related to Keweenaw.
  - Filter the search as per the requirement.
  - Click on the story if found.
  
- **Qualitative Measurement List:**
  - Facial Expressions of User
  - Ease of use
  - Challenges faced by the participant in understanding how to use the application to get the desired result

- **Potential Observations of Participant:**

- Reaction of participant on successful/unsuccessful completion of this test:
- Response/Feedback from the participant for this test:

- **Bug Report Form:**

<b>Bug Number</b>	<b>Bug Name</b>	<b>Bug Uniqueness</b>	<b>Bug Location</b>	<b>Bug Description</b>

- **Post Scenario interview:**

- Rate the User interface of the application on the scale of 1 to 5. (5 Being highest)
- Was the process of this test easy and interesting or boring?
- Suggestions to the design of search query tool?

- **Test Set up details:**

The test would be conducted in a well-equipped and quiet room so that users can focus on the testing process.

### **Test Scenario 3**

- **Test Scenario Name:**  
Badges and Feedback Notification
- **Test Goals for the Scenario:**  
Test goal for this is to check whether the feedback dialog box is popped up when the search result is empty and to check whether the badges are added to the filter headers to show filter that was selected which will remind the user about which filters were applied even after the filter accordion has been closed.
- **Quantitative Measurement List:**
  - The amount of time needed for the participant to complete the search
  - Is the badge added to the filter?
  - Does the feedback dialog box appear if the search result is empty?
- **Scenario Description:**  
The search query tool of this web application provides the functionality to search the link to a specific time period and location in the Keweenaw. After the user submission, badge feature and feedback dialog box feature helps the user to understand better by notifying what is going on in the search result.
- **Task List:**
  - Search for the desired story/address/people/place which is related to Keweenaw.
  - Filter the search as per the requirement.
  - Click on the story and check if it is found or not.
  - Check for badge feature and feedback feature.
- **Qualitative Measurement List:**
  - Facial Expressions of User
  - Ease of use
  - Challenges faced by the participant in understanding how to use the application to get the desired result
- **Potential Observations of Participant:**
  - Reaction of participant on successful completion of this test:
  - Reaction of participant on unsuccessful completion of this test:
  - Response/Feedback from the participant for this test:



- **Bug Report Form:**

<b>Bug Number</b>	<b>Bug Name</b>	<b>Bug Uniqueness</b>	<b>Bug Location</b>	<b>Bug Description</b>

- **Post Scenario interview:**

- Rate the User interface of the application on the scale of 1 to 5. (5 Being highest)
- Was the process of this test easy and interesting or boring?
- Suggestions to the design of search query tool?

- **Test Set up details:**

The test would be conducted in a well-equipped and quiet room so that users can focus on the testing process.

## **Test Scenario 4**

- **Test Scenario Name:**  
Zoom in/out, Dots feature and Final Exploration
- **Test Goals for the Scenario:**  
Test goal for this is to check whether the dots notified on the map serves its purpose properly or not and check whether zoom in/out of the map is working properly or not. This also reviews the final overall application and checks whether it is better than the previous version or not
- **Quantitative Measurement List:**
  - The amount of time needed for the participant to complete the search
  - Are the dots shown on the map understandable?
  - Is the Zoom In/Out of the map working?
- **Scenario Description:**  
The search query tool of this web application provides the functionality to search the link to a specific time period and location in the Keweenaw. After the user submission, some dots appear on the map notifying all the search results in which green dots are the stories related to the searched keyword, Points(Dots) notifies all the other stories in that location which are not related to the searched keyword.
- **Task List:**
  - Search for the desired story/address/people/place which is related to Keweenaw.
  - Check for the Green dots and normal dots which is an update to previous version and know if the user understands the purpose of dots better.
  - Check for the complete enhanced/updated application and know if the user likes it better or not.
- **Qualitative Measurement List:**
  - Facial Expressions of User
  - Ease of use
  - Challenges faced by the participant in understanding how to use the application to get the desired result
- **Potential Observations of Participant:**
  - Reaction of participant on successful/unsuccessful completion of this test:
  - Response/Feedback from the participant for this test:

- **Bug Report Form:**

<b>Bug Number</b>	<b>Bug Name</b>	<b>Bug Uniqueness</b>	<b>Bug Location</b>	<b>Bug Description</b>

- **Post Scenario interview:**

- Rate the User interface of the application on the scale of 1 to 5. (5 Being highest)
- Was the process of this test easy and interesting or boring?
- Suggestions to the design of search query tool?

- **Test Set up details:**

The test would be conducted in a well-equipped and quiet room so that users can focus on the testing process.

# APPENDIX

## Pre-Test Questionnaire

- I. How many years have you used a smartphone?
- II. Please indicate your level of agreement to the follow statement: I am very interest in the testing of this application.
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
- III. Level of interest in browsing about Historical Artifacts?
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
- IV. Level of interest in browsing about Ancestors?
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
- V. Have you previously done the Usability testing?
  - A. Yes
  - B. No

## Computer User Interface Usability Testing Consent Form

You are being invited to participate in a research study to determine the usefulness and usability of computer user interfaces. This study is being conducted by Dr. Robert Pastel of Michigan Technological University Computer Science Department and students in Dr. Pastel's Human-Computer Interaction (HCI) courses. The students are performing the usability tests as part of their project and to fulfill the HCI course requirements.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide and tasks that will perform will determine the usefulness and usability of user interfaces. The questionnaires and the tasks should take less than an hour to complete. The information collected may not benefit you directly, but the information learned in his study should provided more general benefits.

The questionnaires and test are anonymous. Do not write your name on the survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study except for the instructor of the class that is giving you credit for participating. Should the data be published, no individual information will be disclosed.

If you have any questions about the study, please contact Dr. Robert Pastel, Assistant Professor, Computer Science Department, Michigan Technological University, Houghton, MI 49931.

The MTU Institutional Review Board has reviewed my request to conduct this project. If you have any concerns about your rights in this study, please contact Joanne Polzien of the MTU-IRB at 906-487-2902 or email [jpolzien@mtu.edu](mailto:jpolzien@mtu.edu)

Participant Signature and Date:

## Post-Test Questionnaire

- I. Please indicate your level of agreement to the follow statement: Overall, this application was easy to perform the task.
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
  
- II. Please indicate your level of agreement to the follow statement: I enjoy using this application.
  - A. Very Much
  - B. A little bit
  - C. Neutral
  - D. Not very much
  - E. Not at all
  
- III. Please indicate your level of agreement to the follow statement: I would use this application again.
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
  
- IV. Please indicate your level of agreement to the follow statement: The application was easy to understand?
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
  
- V. Please indicate your level of agreement to the follow statement:
  - A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly disagree
  
- VI. Any other comments about the app:

