

Evaluation Report-II

Heuristic Evaluation

Team 4: Calm b4 the storm

Team Members:

Anthony Fantene – Technical Lead

Daniel Wagner – Developer

Neil Culbertson – Developer

Michael Spoehr – Developer

Nathan Hierl – Developer

Taylor King - Product Owner

Ellie Bruckner - Usability/Communications

Katy Roose - Usability/ Testing Consultant

Tanmayee Kshirsagar - Usability/ Testing Consultant

Tanmayee Kshirsagar
Grad 8
thkshirs@mtu.edu
906-275-9064

Description of the Undergrad team design:

Wet/dry mapping app is the Mobile application. The design considers the various navigations and screens after navigation. It also gives a desktop view for the back-end user who directly downloads the data. The app opens with the Registration screen which is used for registering the members of the team. The members of the team are the volunteers and size of each team can be at most 5 members. It also captures river segment and direction of flow. The next screen starts the reach and the survey. The survey includes waypoint, accuracy and the category of water. It also allows to write the comments for the users. The details of the measurement of wet spot are entered. This includes Waypoint, Start point, Easting, Northing. These fields are editable and can be deleted. After all the details are entered the user presses Finalize reach button. The desktop view allows the user to select the date range from calendar to get the required data. It will also provide the facility to download this data in the form of Excel sheet.

Identification of the UI domain and short description:

The Wet/dry mapping is the Mobile application. It will be a part of web UI domain. The users of this application will enter the details and submit those details. The backend users fetch the data on the desktop. Thus, it belongs to the Web UI domain.

List of heuristic usability principles for the design's UI domain:

1. Visibility –

As it's a mobile application, Visibility is the one of the most important principle. The contents displayed on the screen like the buttons, the text written on buttons, the font size etc. should be easily visible. The visibility also depends on the color scheme used in the background and the text displayed on the screen.

2. Affordance –

In case if the resolution of the screen is low or the phone may have low battery then it should show the buttons or the text clearly. Using the dark buttons and having the lighter color text on them can increase the visibility.

3. Consistency –

The screen should provide a one-line description or information that will help understand the user the use or the functionality of the screen. This can be also being done by using the prompts before and after clicking on one button to indicate the user what next step is.

4. Robustness –

The app should be robust as the users will be new, the system or app should not crash due to some mistake/ error in data entering operations.

5. Flexibility –

The app should be flexible. For an example, in place on using two buttons for start and end, it should be able to convert the same button of start to end.

6. Aesthetic design –

The design should be attractive with correct use of contrasting colors. It should able to give options or drop-down lists to select the data instead of user entering the data.

7. Adequate information –

The app should give adequate instructions or guidelines and provide simple description in the places where it might seem confusing for a new user.

8. Feedback –

The screen having the optional page of feedback can help in understanding the doubts or problems related to the app. These suggestions can help in improvement for the next application version.

List of usability problems generated from heuristic evaluations:

1. One screen has only one button ‘Start Reach’. The screen can contain the other data as well or it can be moved to another screen. The screen looks reasonably empty as it just has one button.
2. Start reach and Finalize reach can be made on the single button.
3. Limit should be specified for the comment box.
4. No use of prompts for user activities.
5. No use of drop down lists to select the data instead of entering every time.
6. Download option is missing for the back-end users who will work on desktops.
7. Clocks can be provided to select the time.

Identification of critical usability concerns:

1. Use of just one button on whole screen looks inappropriate. If this button is to be kept, then some description or help should be written on the same screen so that it will not look blank.
2. It should have buttons for the start and end of Wet/Dry spots.
3. The fields Waypoint, easting and northing should have separate labels and text boxes instead of typing these by the users.
4. River segments can have drop down list to just select.

Illustrate the critical usability concerns with a short story:

One of the volunteers Steve, was using this app for entering the values of coordinates for the reach he was selected to work on. He was using this app for the first time. He had to enter the team members as well as the river segment name. He had to type everything correctly to ensure the right details. He thought that the list for river segments would have been better. He did not find any button to enter the dry spot. So, he could not enter the data for dry spot. Also, the screen did not show much details about how the data should be, so he was bit confused to enter the information. Once he collected the information the screen did not have upload button to upload the data. Thus, the data could not be transferred on to the server on time.