

Evaluation Assignment - Heuristic Evaluation

Urban Green Infrastructure and Flood Risk

Team 4

App Idea: The basic idea of the App is to educate people about green areas and Flood areas risks and their medications. The app also supports adding new green areas to list on the app by uploading the images. These photos are collected with timestamps and location which are used for mapping the images with better mapping and Researchers, scientists map these images and provide better measures.

Team Members:

UX Consultants

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Developers:

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Scientists:

1. Jesse Alger
2. Mary Ellen Miller

Date: Feb-13-2023
Team Green Space

App Idea:

The main idea of green space is to provide awareness about the importance of green spaces around them and reduce urban flooding, also our target audience ranges from 5th-grade researchers.

Additionally, users can navigate through the space located around the world in the app and upload photos about their known greenspace.

UI -Domain

Since Green space audiences start from 5th grade to researchers and deal with education and environmental green spaces. The UI must be simple and easily understandable. Since we also implement photo uploading features and provide education it must be interactive to view and learn. Hence it comes under educational and informational UI.

Heuristic Usability principles

1. **Visibility of System:** Green space provides users with the status of the image upload whether it is approved by the scientist or rejected. It also provides feedback about the images and (optional feature)
2. **Match between the System and the Real world:** Greenspace GUI is very simply designed and developed so that it can be used easily and is navigable.
3. **User control and Freedom:** Whenever a user uploads a wrong image or wrong data, he can delete it safely without other notice also if he wants to remove his account completely it can be done in greenspace.
4. **Error prevention:** Since the app is very concise and only two things are presented for the user to interact most of the actions are abstracted for scientists, hence errors performed by the user are minimized.
5. **Recognition rather than recall:** If a user uploads images from the same location more than twice or thrice we can expect the same location from the user for the next upload, however, this is an experimental feature for the greenspace app and could reduce user time to type location again
6. **Flexibility and Efficiency of use:** green space system is flexible for the user to use, as a welcome sign Greenspace promotes a quick tour of the app which clearly shows all possible ways of interaction with the app.
7. **Aesthetic and Minimalist Design:** Green space has a minimalist design which makes users interact easily and use it our target audience is expected to be from 5th grade we don't expect App experts to be our users.
8. **Help and Documentation:** We should have a help section and a tour section which helps you to tour the application and documentation which guide you in detail about the app and its usage.

Potential Usability Problems:

1. When a user uploads the image there is no progress bar for data uploaded. If there was a progress bar it could be interactive for the user

2. For making a finding his contribution user login/registers in the app, if the user wants anonymously, they can also submit a photo with the guest account.
3. While uploading the image if the user's internet is slow or hangs up the state should be saved and continue once the connection is restored.
4. If the user uploads the wrong information or data, they should be prevented from doing further actions after a few warnings.
5. The first page of the app should be interactive and good design so that it would be easy to access.
6. Also, the size of the webpage is very small, and their pictures are better representations of figures instead of text.
7. If the internet was not reliable during the upload there were no use cases addressed for this issue.

Critical Usability concerns:

1. There is no help and documentation in the Greenspace app which violates the Help and Documentation usability principles, moreover, it's better to have a help section which help returning users.
 - a. Scenario: When a user uploads the images and tries to delete them later or wants to edit the text they need, a documentation or help section would be useful for naïve users.
2. If the user uploads the images and tags another location other than where he took them, it would be difficult for the scientist to approve it, because not all the locations can be known to the scientist.
 - a. Scenario: Let's suppose Evan took a photo near a beach in California and tags another location somewhere in India, though it looks similar that geolocation is different, it is better to get the location automatically and edit them, such as the given new location must be near to the device GPS.
- 3.