CS5760 - Human Computer Interaction & Usability Testing

App : Urban Green Infrastructure and Flood Risk

Heuristic Evaluation
Team 3

UX Consultants :

1. Aakash Gunda
2. Aditya Patil
3. Soufia bahmani

Developers:
1. Kevin Bak
2. Patrick Janssen
3. Sean McFall
4. Andrew Koman
5. Leela Root
6. Matthew Cronin
7. Maxim Reuchlein

Scientist:

1. Jessica Alger

App description:

The motto of the application is to address the challenges posed by continued urbanization, complex urban landscapes, and the accelerated hydrologic cycle in Southeast Michigan. The focus is on utilizing Green Stormwater Infrastructure (GSI) practices to mitigate flood risks associated with stormwater runoff in urban areas. The application aims to educate the general public & high school students , about the significance of GSI.

User Interface (UI) Domain:

The Purpose of this application is to educate the general public about the green spaces in the Detroit area and gather information about green spaces with the help of application for scientist.

Heuristic Usability principles :

1. **Visibility Of System :** General Public should be able to view the system when they want to view the green spaces.

   When a student uploads a image it should go through the process of approval and once approved it should be displayed on the map feature.

2. **Match between the System and the Real world:** This application should be a user friendly one, with general features like navbar which are easy to use.

3. **User control and Freedom:** Once the user uploads a image it should go through the approval process , in the meanwhile if he wants to delete his uploaded image from the approval process user should be able to remove it.

4. **Error prevention:** A report button can be included. And as the app has minimalistic features with ease to understand errors can be prevented.

5. **Recognition rather than recall :** If there is no network while uploading , user can always upload data after reaching a good network area. Keeping the UI with Significant eye grasping color will help in recognition rather than recalling the did mistake.

6. **Flexibility and Efficiency of use:** As the main feature is map making it more user friendly will be primary goal for the efficiency of use. When too many pictures of the same location are uploaded by different users this can be a potential problem for the scientist to eradicate the duplicates.

7. **Aesthetic and minimalist design:** Primary users are high school students as they will be already familiar with the usage of different applications , using gsi would also be a

simple task for them. When coming to general public as the UI is very interactive they shouldn't face any problems.

8. **Help users recognize, diagnose and recover from errors:**

   ● Adding report feature.
   ● Including the contact information of the scientist and the administrator.
   ● Help feature to give a basic introduction about the application.

9. **Help and documentation:** Help section is always a mandatory part for most of the applications to serve as a guiding light to use the application. Overview , tour guide of the application can be included in this section.

Potential Usability Problems:

 In the login section there should be a forgot password than change password.

Instructions using the map feature can be at the bottom of the page.

Needs a back button at the top/bottom of the page.

Currently seems to be more web page friendly , But needs to be mobile friendly.

If the user has issues with uploading the data , the progress should be saved when he reopens the application.

Instead of logout option on top , can include a user symbol with name of the user.

Critical Usability Concerns:

● Tour guide / help section isn't there for the application.
  Scenario : If a user is not aware of how the approval process works or how the features of the application works it might be a critical usability concern.

  - **Team is deciding on more changes on the current prototype for more interactiveness of mobile users. Once done I could include more.**