

CS5760 - Human Computer Interaction & Usability Testing

App : Urban Green Infrastructure and Flood Risk Design Support Document Team 3

UX Consultants :

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Developers:

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6. Matthew Cronin
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Scientist:

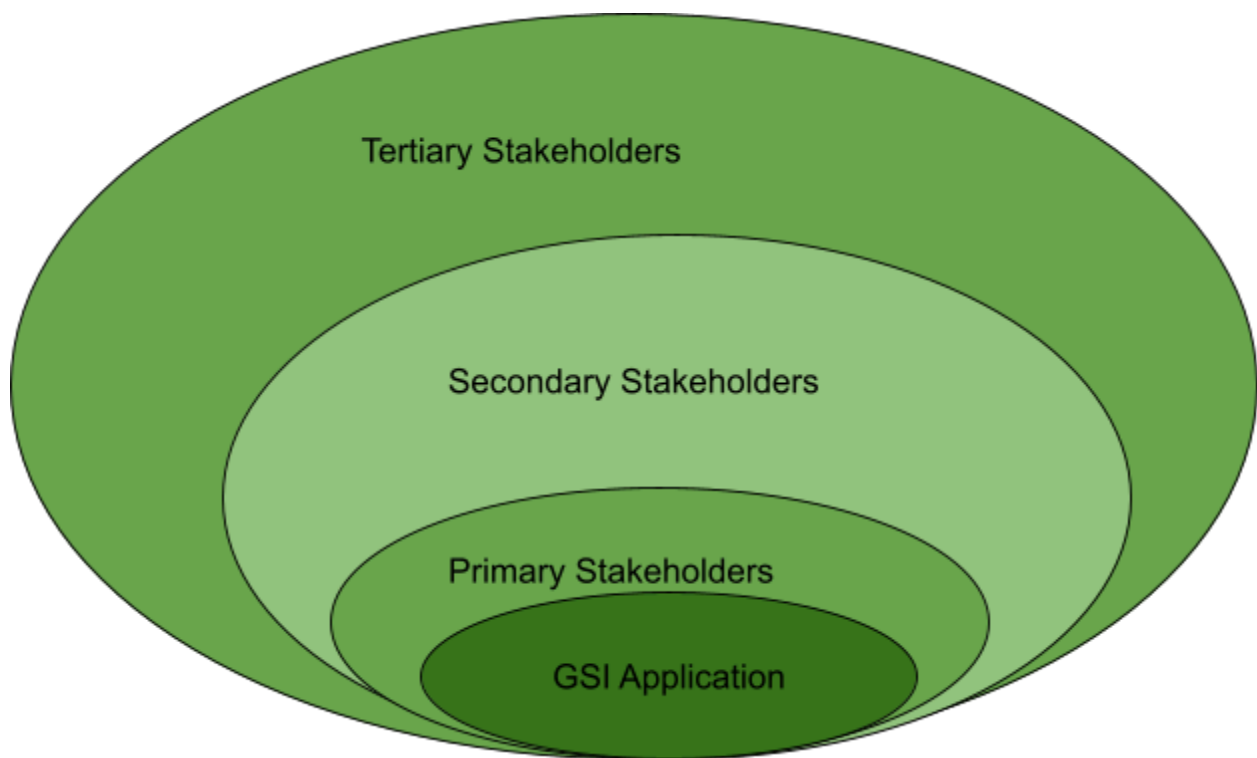
1. Jessica Alger

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.

Stakeholder Analysis:

Onion model



Stakeholders Description

Primary Stakeholders:

Developers: They are responsible for constructing, testing, debugging, and improving the technical components of the application.

UX Consultants: Responsible for UI Evaluation , testing and providing the feedback.

Scientist: Administer the application. Has all the rights, collect the data from the students after uploading images to the application and update them accordingly.

High School Teachers: Act as another admin and also as a user.

Students: Students are major users of the application , they take images of the green spaces and add them to the map.

Secondary Users:

Scientists , Instructor(As she is also responsible for creating accounts.)

Tertiary users: MTU IT Administrators.

Stakeholders' goal-influence table:

User	Goal	Influence
Student	Upload images in the map with the description	As most of the data is uploaded from the High students during their class, UI should be flexible to them.
Scientist	Administer the user data and look for further updates. Work with every individual who uses the application.	Can modify the application whenever its needed
Developers	Develops the application corresponding to requirements. Parallely, works with UX consultants for feedback.	Can design or redesign the application based on the needs.
Teachers	Use the application and help students on how to use it.	Will be the point of contact between the primary user student and the scientist.
General Public	Uses the application for awareness of GSI.	Able to just see the application and use the functionalities of it.

Personas:

1.Primary User 1:

- a. Name: Alex
- b. A Nature admirer
- c. Goal: To explore and contribute to the development and preservation of green spaces

Alex is passionate about green initiatives and wishes to learn about sustainable practices for enhancing and maintaining green spaces. Logging in with user credentials The application provides valuable insights into Green Spaces, Awareness , Observations with images and locations.

Alex can navigate through features of the app to access information contributed by both researchers and other students, fostering a deeper understanding and engagement with green space initiatives.

2.Primary User 2:

- a. Name: Kim
- b. High School Student
- c. Goal : To get interest towards class and school

Kim is an high school student , he is more concentrated on studies than any other activities. To make him motivated with extra activities. This application is a best example. When the teacher assigns a task through the application , students should login with there user credentials and finish the task . Kim when opened by seeing the map and rest features he might get interest on the concept of GSI through the application.

Here the Map feature is an interesting one , students can take pictures, write down the observations and learn about GSI.

Secondary User:

- a. High school Instructor
- b. Goal : To make students more interactive in her class
- c. Name : Emily

Emily is an high school teacher , she is new to her profession but she has a strong belief on herself that she can handle her students . She always strives for the interactiveness in her class .On the website she found the application for GSI . She thought this is one of the great ideas to make students interactive in the class and learn from it.

She is eager to inspire her students and foster love for nature . Unfortunately, her students didn't like her. So after finding the application it helped her to make students learn about nature with GSI and achieved her goal to make class more interactive.

Hierarchical Task Analysis:

Tasks for high school students, Teachers/instructors, and the general public using the app:

- Install the App: Download the app from the app store.

Initiate the App:

- Open the application.

Explore Green Spaces:

- Access the green space map feature in the navigation bar.

Navigate the Map:

- Zoom in/out on the map.
- Search for a specific green space.

View Green Space Details(General public, students , instructors & Scientist):

- Access information about a green space.
- View photos related to the green space.
- Access location details.

Contribute to the Database(High school students) :

- Upload information about a green space.
- Capture and submit a photo on the map.
- Enter location Observations.
- Review information submitted by other users.

Tasks for Scientist:

- Open the application with admin credentials.
- Look for the data and observations uploaded.
- Check whether the data is appropriate .
- Take the necessary actions if not appropriate.
- Analyze the data uploaded for more research and development.

Hierarchical Task Analysis Summary

General Public:

- View the location and observations.
- Learn about GSI.

High school Student:

- They are the primary contributors for the application , responsible for collecting the data and inserting it in the application.
- Should also be able to write down the observations.
- The students share the common user ID.

Instructor/Teacher:

- Able to use the application.
- Point of contact between students and the scientist.
- Guides students in person through all the aspects of the application.

Scientist:

- Have all the features of the application.
- Have a unique login credential as administrator.
- Will modify/alter the data entered according to her needs.
- If data is incorrect or inappropriate will delete it.
- Will help users through all the aspects of the application.
- Plays a pivotal role in maintaining the application.

Interview Questions:

1. Asked if each student needed a unique login credential ?
 - A. One user credential for all the students.
2. Does instructor/Teacher have any special features like admin?
 - A. No , they will use the same features of students , they can contact scientists in case of any queries.
3. Will the instructor/teacher have unique login credentials?
 - A. Will use the same as a student.
4. Asked if she need any download feature for the observations?
 - A. Replied , if possible please include a download button where users can download an excel file.
5. Asked what is the main feature that she wants us to focus on?
 - A. Maps is all she need for now to work with all the features.
6. Told she will share a few docs which are needed shortly.