P4: Design Requirements

Koyo Nakamura, Audrey Sun, Han Mei, Varun Chawla

Project Description:

Our project targets commuting students who spend time near the Ave. A mobile application, our product provides services to increase the user's sense of safety. Key features of the application include a map displaying the location and contact information of friends nearby, an emergency button in case the user needs immediate assistance, and a navigation system that suggests routes based on the amount of lighting, the number of people, and safety level. The map with contact information and the navigation system address the user's desires to find companionship and avoid dangerous areas.

Design Requirement	Action	Object	Context
Allow users to get immediate support when put in an unsafe/ uncomfortable position	Call the police or emergency contacts by clicking one button	Button - press and hold for 5 seconds if emergency to call the police, tap if less severe to call emergency contact	To get help in potentially tense/ dangerous situations
Allow users to see whether their mutual friends are on the Ave	See the location of friends and peers on the Ave	Map that shows where friends are	To assist users looking to find companionship
Allow users to coordinate with nearby friends when they feel uncomfortable	Coordinate a meetup through chat	Messaging system that tells you which friends are near your location to message to meet up with them	When walking alone, a user can meet up with friends who are near to have someone to walk with
Allow users to receive news alerts of all events on the Ave (construction, crimes etc.)	Gathering information regarding crime incidents and related matters on the Ave	Notification of the news on the Ave	To gather information before the user plans their trip
Allow users to plan a route that avoids dangerous sections of the Ave	Plan a route to avoid dangerous areas	GPS feature that considers "danger levels" based on crime reports when planning routes	To figure out which route is safest to take to get home

Design Requirement	Data	Functional	Contextual
Having the ability to see where friends are to coordinate commutes on the Ave	Friends' or other users' locations in relation to the user's location	Generate a list of potential companions to walk with based on distance by ordering the contacts from nearest to furthest distance from the user to figure out who is most convenient to walk with	Coordinating commutes on the Ave with friends or other users using the embedded map feature
Having the ability for users to report accidents and unsafe areas so users can be aware of parts of the Ave to avoid	Warning reports from other users about incidents that occurred	Crowdsourcing incident reports from participating users so that other users can be aware of areas to be cautious in	Using a form to post in detail about the situation that will be shared to a public database
Adding users you may know or want to get to know	User suggestions of users with mutual friends or that travel similar routes as you and their public profiles	Develop potential walking company	On the platform when users look at friend suggestions tab
Ability for route-making to be improved based on user feedback	Qualitative feedback following commute trips	Gather voluntary feedback about the emotional experience of taking the route and use that information to improve route-making for future users that will walk a similar route	Voluntary feedback survey after the user reaches the destination of their trip
Ability for users to see real-time data for where other people are currently located	Population density of all users of the app	Provide a real-time visual of population density in different areas of the Ave using information from all users, with a consideration for privacy	When the user wishes to find where people generally are when the map feature is being used