COMFORT ZONE

Protect yourself

Problem Statement

Walking alone in an unknown neighborhood, or even a familiar one, can be a dangerous proposition. If you are attacked, you are often too preoccupied to contact police or trusted friends and family. Thus, a system that contacts the authorities if you become unable to reach your phone is an important safely precaution. Additionally, the best way to avoid being attacked is to avoid high risk areas. However, if you are in an unfamiliar area, it can be difficult to determine how safe it is. A tracking system which monitors the frequency of use of a personal safety system can rank areas based on perceived risk, advising you as to how dangerous an area can be. Integration with police incident reports, information that can be difficult to consolidate, may be the solution needed to accurately gauge the danger of certain areas.

Katelyn Stewart

18 year old
college student

Katelyn Stewart

Katelyn is an 18 year old college freshman, recently moved to town to attend the college of her dreams. Katelyn loves to party, but is concerned with her lack of familiarity with the surrounding area, as the college town is a much different environment than she is used to. Katelyn wishes to experience the local nightlife, yet also be in control if she were to be attacked. She preferably would like to avoid places she is likely to be attacked, though it would comfort her to know she had a failsafe in case such an event occurred.

Lester Sullivan

28 years old
hospital orderly

Lester Sullivan

Lester is 28 years old, and has recently become a father. As an orderly at a hospital, Lester must commute to his work in the city from his home in the suburbs. Wishing to keep in shape, and to do his part for the environment, as well as due to the lack of parking at the hospital, Lester uses his bike and busses to commute to work every day. Unfortunately, Lester's bus stop on his return trip is out of the way, and Lester rarely feels completely safe when waiting for the bus, especially with his not inexpensive bike. Lester wishes to have a way to improve his odds of recovering his property if he were to be attacked, especially if his phone is stolen from him, or he is knocked unconscious, and unable to contact authorities.

Scenarios

KATELYN

After a hard day of studying, it is time to party and unwind for Katelyn Stewart. She hears the most popular place in town is the Nightwing Club across the freeway. Katelyn is not very familiar with the area, being from out of state, but after driving there, finds a severe lack of nearby parking, forcing her to walk. Katelyn, with it now being dark, and being in an unfamiliar area, pulls out her Comfort Zone app to take a look at the risk factor of the surrounding area. Upon finding a risk factor of 'medium', much higher than the risk factors she is used to, decides to use the personal safety aspect of the app. As Katelyn is walking to the club, she continuously holds a dead-man switch on her phone, where if she were to un-press the button, 911 would be called, presuming she is attacked. Additionally, the app takes her location, and paints a zone of risk around her path to be used by future app users to gauge the risk factor of certain areas. Luckily, Katelyn makes it to the club, and back home later that night, without incident, but with greater peace of mind.
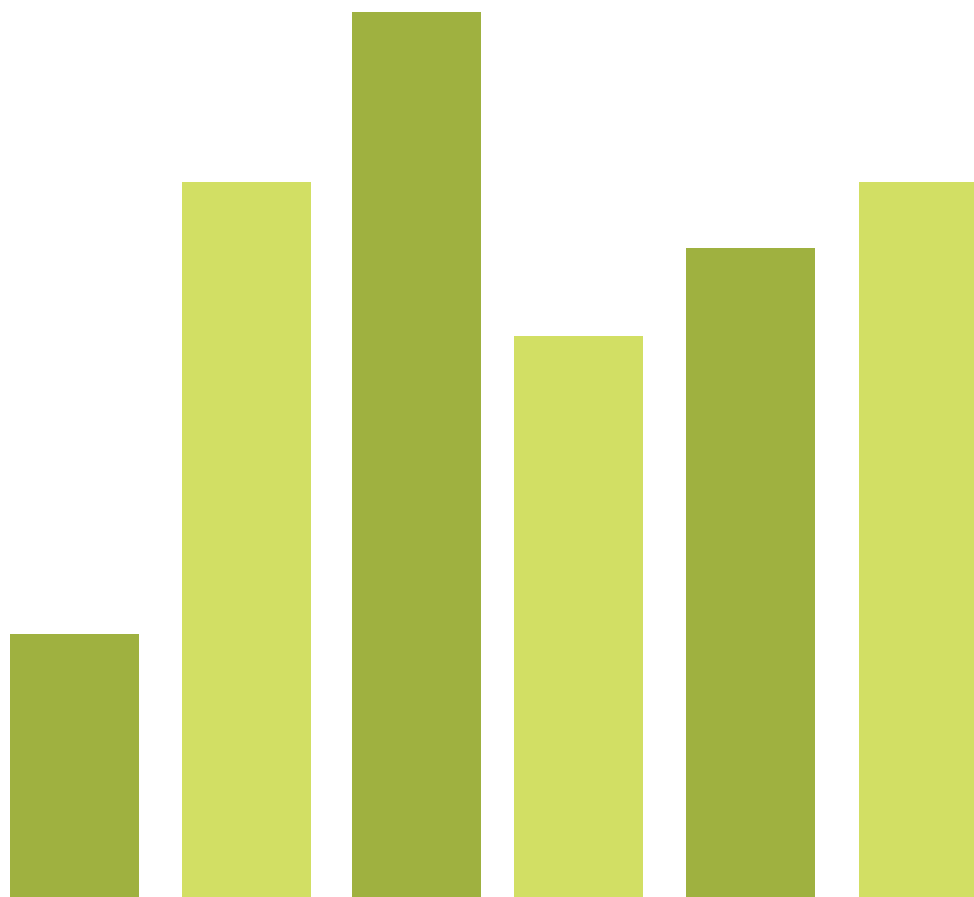
LESTER

Lester Sulivan, father, and Hospital orderly, is biking after finishing his shift, attempting to reach a nearby bus stop that the bus home runs by. Unfortunately, the stop is in a rougher neighborhood than Lester, a suburbanite, is used to. Upon reaching the bus stop, Lester takes out his phone, and activated the dead-man switch on his Comfort Zone app. It's a good thing he did, for a few minutes later, a group of assailants leaps from the bushes, snatching his phone and bike, while knocking Lester to the ground. A few minutes later, Lester hears sirens, which he knows were called by Comfort Zone recognizing an incident. As he walks towards the sirens, Lester finds the kids under arrest. After some talking with the officers at the scene, Lester recovers his property, and is able to get back to the bus stop before the last bus of the night arrives.

Research

Personal safety is an important current issue facing many commuters and others walking around at night or in risky areas. Women especially are highly at risk for attacks, and many desire ways to mitigate or counteract the results of such attacks. Numerous apps designed to alert authorities or contacts already exist, and are fairly effective at minimizing the potential repercussions of being attacked. The Watch Over Me App[1] alerts added close friends and family to the user's location when the user fails to meet a check-in timer. The app bSafe[2] has an additional SOS Button, and utility options such as providing a fake call, to dissuade potential attackers or remove the user from uncomfortable situations. Such apps have inspired Comfort Zone, which is designed with many of the same features. How Comfort Zone surpasses them however, would be the implementation of area risk tracking, as a way to monitor dangerous areas. No other researched app has such functionality. The ability to avoid a confrontation through avoidance of risky areas is a step above of simply mitigating encounter damages, and provides the niche that Comfort Zone can fill.

WIREFRAMES

USER TESTING

During User testing, we found that users appreciated the functionality provided to them, feeling the app would impart a degree of comfort to them when walking alone. A few minor suggestions to the app design were made, and more user testing is sure to provide iterative improvements. Firstly was the moving of the Fake Call option from within a 'Utilities' menu option, to the forefront of the app as a secondary function. This allows for much quicker access, and broadens the scope of the app from isolated encounters to social situations as well. Secondly, was the clarification of the old 'Utilities' menu, to a settings menu, where the user can configure Fake Call settings, optional video capture upon activating the alert system, or to adjust the timer of how long the emergency button can be non-pressed until activation.

CITATIONS

[1] Watchovermeapp.com, "Watch Over Me - award-winning app that turns your smartphone into a powerful safety device", 2016. [Online]. Available: http://www.watchovermeapp.com/about/.

[2] bSafe, "bSafe", 2016. [Online]. Available: http://getbsafe.com/.