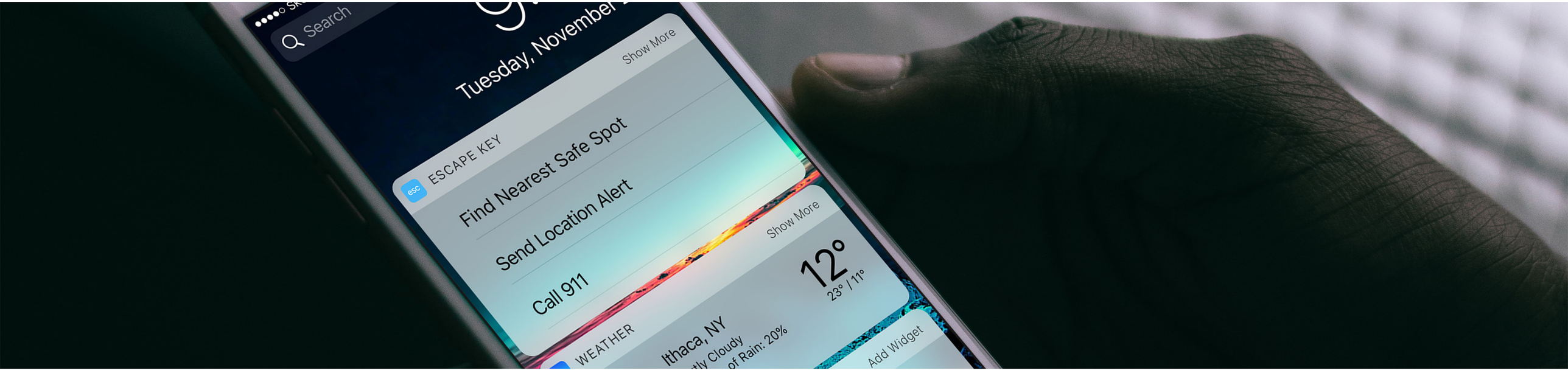


# Escape Key: Addressing Women's Perception of Safety in Public Spaces

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## Introduction

**Background & Motivation:** Our team chose to address the issue of women feeling disproportionately unsafe in public spaces compared to men. We felt this issue had the most space to design for, and we would be able to research and test our solution with a large variety of users within our demographic. Although this issue has been addressed by many applications on the market, we wanted to challenge ourselves to create a solution that could differentiate itself and work more effectively.

**Goal: To empower women by enabling them to feel safer in public places.**

## Process

**Contextual Interviews:** To inform our solution, we conducted interviews with college-aged women from a variety of socioeconomic backgrounds.

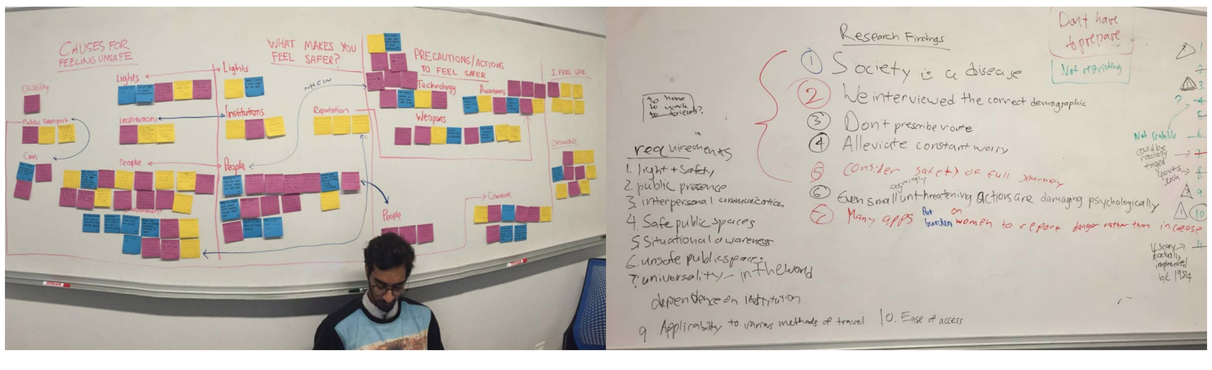
*Our questions were focused on:*
- -Which situations they felt unsafe
- -What their reactions were
- -The precautions they took to avoid those situations
- -The measures they took to feel safer

*We found that:*
- -Interviewees tended to feel afraid at night, especially when: either alone, in a darker area, or with a only a few people, especially men.
- -This fear largely manifested itself as a increased alertness and cautious ness.
- -For a sense of security most of the interviewees relied on non-emergency modes of communication such as SMS, phone call, or Facebook Messenger.
- -Few had heard of existing solutions such as the app Companion, and even fewer had used them or other services such as the Blue Lights.

**Literature Review:** To enhance our understanding of the way women felt in public, we consulted a study done by the Paris Institute of Political Studies (Sciences Po) "Feeling Unsafe in Public Places: Understanding Women's Fears."

*What we learned:*
- -Fear of going out at night affected 40% of the female populace
- -Despite this, 62% of those who said they were afraid of being out in public, were still mobile at night
- -75% of assaults were in places with at least 1 other person present
- -85% of assaults occurred in areas that they went to regularly and were familiar with

**Market Survey:**
- -Most existing solutions are only useful when the user feels unsafe, like in unfamiliar areas or when anticipating danger
- -These solutions aren't useful when danger is actually present and almost always requires users to circumvent existing features.




**Organizing Findings:** We organized findings from interviews and the literature review to determine what features to include.

**Initial Prototype:** We made paper prototypes with the program Marvel to make an interactive phone UI. We later worked in Balsamiq and inVision to create interactive high fidelity prototypes for phone and desktop use.

*Based on our interactions and tests, we came to some final design decisions.*
-We created a system that lived on the phone's lock screen.
-When activated, it had a toolbox of features such as Find Nearest Safe Spot, Send Instant Alert, Contact My Friends, and Call 911.
-All features used the built-in SMS, maps, or phone functions in iOS.

**Evaluation and Iteration:**
*Heuristic analysis:* We made a list of heuristic violation in our initial prototype using Schneiderman's heuristics and included these considerations in the next iteration.

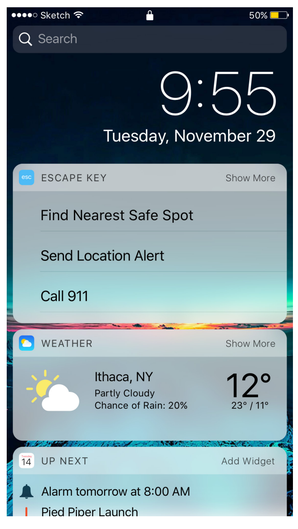
*In-person user testing:* This mockup was tested with another set of college-aged women similar to the group that was interviewed earlier. We asked them to perform certain tasks and saw how they used the system. We also took note of what parts of the system confused or frustrated participants.

*Final design:* The notification became a widget because when it was a notification, almost all the participants in the user testing swiped instead of tapped it as intended. The change was also the result of a comment from a couple users that having a notification constantly on the lock screen could get irritating. Instant Alerts became the more appropriately named Location Alerts as most users were confused what Instant Alerts were and the new name more accurately describe the function of the feature. Contact My Friends was removed because it duplicated another existing default widget that listed the user's favorite contacts. Send Location Alerts and Find Safe Spots now have tooltips

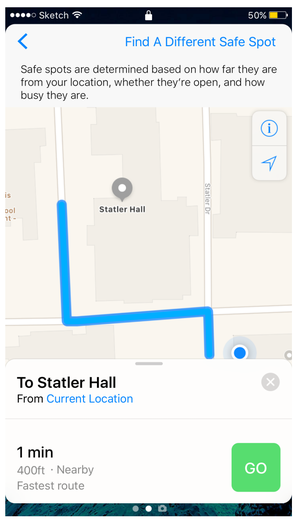
## Final Design

esc

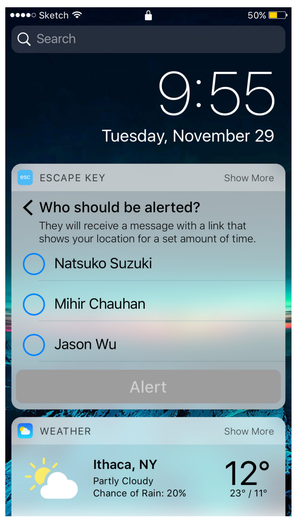
Escape Key is a widget included on your smartphone. It provides a quickly accessible toolbox that users can use to take action instead of waiting for help.



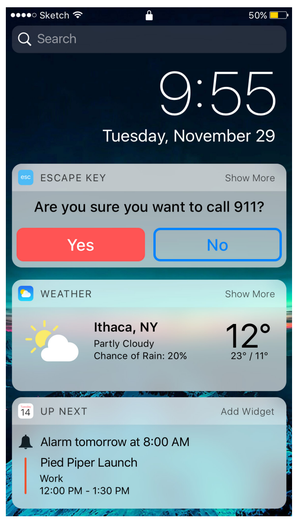

Widgets Screen




Find Nearest Safe Spot




Send Location Alert




Call 911