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Milestone 3: Competitive Analysis

The Geosquad intends to create an application that allows users to utilize a local geographic map to provide real-time information to each other through a report system. The report system will be geared towards users in regions of conflict. Users could warn each other of safe and unsafe zones, military offensive soldiers, areas with shelter(s) and areas with essential aid including food, and medical supplies. In preparation to create our application, we have analyzed and will discuss three different phone applications that function similarly to our desired application including: *Waze, Wandersafe,* and *Citizen's Local Safety Alerts*. Key features of each app will be discussed and a comparison between them and our app will be detailed. The analysis will help provide a better understanding of where our app stands in terms of uniqueness and value. By the end of the analysis, we hope to answer the question of whether our app can serve the target user's needs in ways that these three other apps are incapable of.

To start the analysis, *Waze* is a GPS phone application designed for the purposes of traveling, specifically, navigating drivers from one starting point to their desired destination much like *Google Maps* and *Apple Maps*. However, this app includes several features that implement a community-based experience for users. For example, *Waze* has a popular feature that allows users to place points on the map using a "report" button which allows for users to warn each other of traffic-related hazards, construction, police, accidents and much more.

Waze is designed like GPS apps people are familiar with so it can be easy to navigate through the app that has many different buttons and screens. Moreover, *Waze* awards users points and achievements based on the accuracy and helpfulness of their reports. The award system offers users with a sense of accomplishment and recognition as a "Waze hero." There are several ways to customize the app to make it engaging for users such as sharing profile pictures, choosing a "sidekick" which comes with a voice, character, and even an alternate image for a user's vehicle while driving. This power of customization, along with the sense of community, builds and produces an engaging experience that keeps users coming back, making *Waze* a go-to app for travel, not just occasionally, but every time they hit the road!

On the other hand, Wandersafe is an app designed to help women and vulnerable individuals feel safe while traveling, whether abroad, commuting to work, or moving around their neighborhood. The app allows for users to update the locations on a map in real-time in which they felt safe and unsafe or if they wanted to include tips. The creators took another innovative step further by creating the device called *Beacon* that users may purchase and sync to *Wandersafe* via Bluetooth. The desire to create technology and an app that simultaneously worked together will allow travelers, remote workers, active seniors, and even domestic violence victims the ability to send distress calls and for first responders to reach them. Beacon will activate will a push of a button and is synchronized to *Wandersafe*. It is easy to carry, and the Beacon has strobe lights and alarm sounds that acts as a first response reaction should an assault take place before help arrives. However, if users are unable to purchase the Beacon, there is an SOS button in the app that will alert first responders within the area. The SOS feature can be voice-activated should a situation become dire as there is a secret 'crisis code'

phrase that will allow the alert activation to be sent discreetly. As more precautions, users can select emergency contacts and alert them when they feel unsafe, and an SMS link will be sent to their phone that includes information of the date, time, and location. Furthermore, much like *Waze*, *Wandersafe* has various interactive features for users such as a 'Hero' scoreboard that can be earned when feedback is shared in a specific location. However, the AI that helps assist users when navigating the app is JENI and assists in tips and information of your current location or if a specific location is searched. It is more than just a map! But, with all the features, navigating the application was difficult. A freeze and lag caused the application to glitch. The designers attempted to include a pop-up feature when clicking on buttons to highlight users' descriptions, however, the functions were broken and unreadable in which text did not appear where it should be placed in different navigation sections. When attempting to click a marker, nothing happened. If worked properly, there is a certain charm to the icons and colors used to mark if the user felt safe or unsafe. Overall, *Wandersafe* app's goal and features are great tools, especially for the intended user base.

Lastly, the Citizen Local Safety Alerts app provides real-time updates and alerts about local safety incidents, emergencies, and community events. Users can receive notifications about crime, fires, and other urgent situations in their area, helping them stay informed and safe. The app also allows users to share information and connect with their neighbors, promoting a sense of community. This app includes many features that help users receive alerts and stay updated on nearby incidents. It has a map that shows the user's location, along with nearby fires, incidents, or offenders. Additionally, it features a news feed that lets users catch up on the latest news in the area. One of the most exciting features of this app is Ultra 911;

unfortunately, this feature is only available to premium users and could not be tested in the free version.

The main feature our apps have in common is the map. At GeoSquad, we want to show our users all the threats and dangers in their location using a map. This is done effectively in Citizen's app, and we would like to implement it in our app as well, with the necessary modifications. Notifications are also a common feature between our apps. The main difference will be the content shown. We aim to display various zones, such as safe zones, hazardous zones, and environmental zones.

The key similarities between our map and the three maps are the unique capability of having a geospatial map that is locally shared between users. For the *Waze* app, users edit the map to create traffic related reports, similarly *Citizen Local Safety Alerts* allows users to edit their local map to indicate emergencies such as fires or to connect with first responders, and *Wandersafe* utilizes a geo-map that can alert a user's emergency contacts that they are in need of help especially in the event of travel. Our app seeks to create a reporting system similar to *Waze* but in a private way like *Wandersafe*, which alerts specific people. The reason behind this is to create a sense of security amongst civilians that no one is creating false or harmful data such as the Israel "Defense" forces creating false data on the map in Gaza.

We would want our app to use features from *Waze* and *Wandersafe* that allow users to create points on their map that could update all local users with the vital reported information in specific areas such safe or unsafe areas. It would also be plausible to allow users to share their live location in a similar fashion to *Waze*. In addition, our app would work well with implementations like in *Wandersafe* where close family could be alerted if a user is in dire need

via a pre-selected contacts selection but also extending that form of privacy on the entire map. Finally, we could also implement a feature like the *Citizen's Local Safety Alerts* and *Wandersafe* that can connect with first responders to get assistance.

Our app would be unlike all three apps in a few fundamental aspects. First, this is not only an app dedicated for navigating areas nor is it a map for someone to alert close individuals, but rather it is a user connected map that allows for better understanding of circumstances in a rapidly changing environment such as the unfortunate genocide happening in Gaza. Rather than three separate entities that *Waze*, *Wandersafe*, and *Citizen's Local Safety Alerts*, our app encompasses features from all three. Second, the main goal is for users to identify potential threats and avoid them, be able to send out global or personal SOSs, and share places of refuge for medical care and find aid. Third, the map would include users with elevated privileges who could give them the ability to manage who could view and/or edit the map to increase security and accuracy versus anyone having access to update. Upon reviewing the other three competing applications, we believe our application is distinct enough and fine-tuned for a specific audience whose needs are not yet met by these competitors. It is possible to create our own lane with this type of application even with many similarities to the applications and create a solution to a problem that has not yet been tackled in this manner.

In conclusion, our application aims to adopt a user interaction model like *Waze* for navigating local maps, incorporate contact-based map viewing and editing features like *Wandersafe* that has fun engagement pop-ups to show tips and descriptions of each features such as which locations is safe and unsafe, and integrate first responder functionalities comparable to *Citizen's Local Safety Alerts*. The distinction drawn for our app is the intended

purpose as it focuses on users in conflict-based regions and access to the map will be restrictive. Our application intends on granting special privileges to specific users that have an "Owner" title who holds all permissions and can elevate permissions to users of their choice. While the other applications are catered to other needs and audiences, they are unable to cater to the needs of civilians in various conflict zones. We hope to design an application in a meaningful way that is resourceful, taking inspiration from *Waze*, *Wandersafe*, and *Citizen's Local Safety Alerts*. While we are not able to prevent unfortunate events from happening, our goal is to provide people with tools that can help them. Even then, this application will not prevent atrocities from occurring but if we can help decrease those numbers then this is a success for us.