The Seeing Eye

Mobile Application for blind users

Background

Our client is a pioneer of accessible GPS and they needed an iPhone GPS app for US, UK and Australian users with all the usual navigation features as well as certain elements unique to blind users.

Our Solution

We developed an iPhone app that is a fully accessible turn-by-turn navigation system with all the normal navigation features. We have also incorporated several features that are specifically designed for blind or visually impaired users. These are features such as:

1. Ease of use: Instead of the usual system of multiple menu layers, we have placed the three important navigation elements - Route, Points of Interest (POIs) and Location on the lower portion of every screen. The usual elements, Maps, and Settings are also seen at the lower portion of the screen.

2. Maps: Users of The Seeing Eye GPS get a real-time map and point of interest data updates. Even if the user loses cell coverage, if he has a route loaded, the app will continue to work as long as he stays on that route.

3. LookAround: The LookAround feature of the app has two modes - the Automatic LookAround mode and the LookAround Wand.
   ● The Automatic LookAround mode starts up by default as soon as the user opens the app and it works whether he is moving or stationary. It searches in all directions and announces the nearest POI or intersection to the user.

   ● The LookAround Wand tells the user what's nearby and how far he is from it when he points his phone in a particular direction. For instance, if the user wants to know what is to his right he just
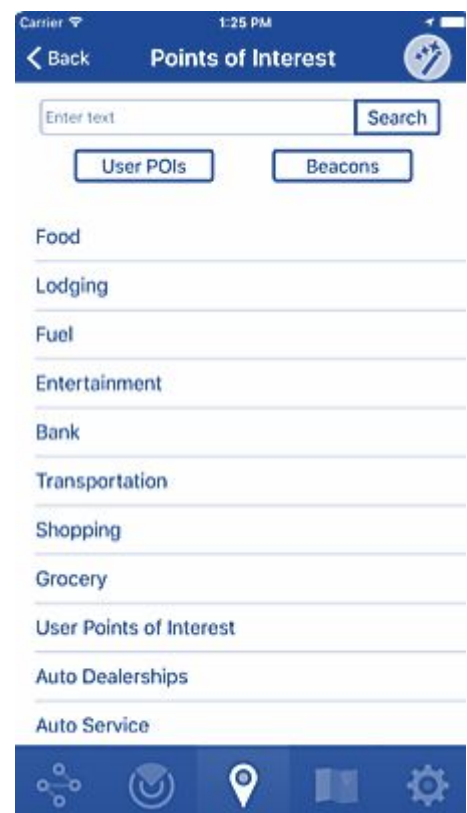
needs to point his phone to the right and the intersection, as well as points of interest, will be announced.

- Routes: Once the user has chosen his destination the route will be created the user will hear an announcement reporting the distance to the user's destination, estimated time and direction. If the user shakes his phone while he is on the Route Loaded Screen the user will hear the distance, street name, and direction of the next turn, distance, and direction of the destination, and Estimated Time of Arrival, or ETA.

If the user wanders off the route, it's automatically recalculated and updated turn information is announced, thus ensuring that the user never gets lost. POIsThe Points of Interest (POIs) allows the user to search for nearby POIs, a specific POI or any of the user POIs that the user might have saved. POIs can be identified with the help of Google Places as well as the search and discovery service, Foursquare. Other than these two services, users can add their own POIs. They can also edit and delete POIs and share User POIs via AirDrop or Email.

- Location:As soon as the user activates the app it will give the user's location, direction, what's nearby, nearest POI, location accuracy and altitude.

Other than these, other useful features of the phone are –

- A firm shake of the device will refresh the Location information and announce the items on the

Screen.
- At intersections, the cross street and its orientation are announced out loud for the user to hear.

Intersections are described with the clock face orientation of the streets. (e.g. four-way at 8'o clock).
- The app will run in the background and even when the screen is locked in iOS 7 phones.
- The app will work on WiFi as well as 3G/4G.

The user can toggle between American and British accents.

Benefits
- The app helps blind and visually impaired users navigate wherever they want without getting lost.
- The user can add his own POI and thus can easily navigate to places he visits often.