BlindNavi

A Navigation App for the Visually Impaired Smartphone User

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Background

Problems

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Tedious Search Process	Typing Problem	Easy to Get Lost on the Complex UI Layers	Abstract & Imprecise Navigating Description	GPS Deviation & Immediacy of FUF	Fragmented Route Detail Memory
Users have to switch between many so apps to get different kinds of information e.g. address, phone no., complex route / transfer plan, bus information, or more location details. All these are crucial to the preparation of going to somewhere they've never been before. In order to get what is needed, they have to go through the whole cumbersome process.	Switch between apps and key-in the text to the right spot is time-consuming. It has become the main reason why the visually impaired prefers to search information on PC rather than their cell phone. Problems include: 1) Select each alphabet on keyboard is slow; 2) Speech input may occur errors that requires modification; 3) The VoiceOver gesture of copy paste is not always functional.	It's easy to get lost for the visually impaired to switch between complex UI layers. Most of the apps requires user to "go back" to previous layer to start another task. However, too many layers would only make users feel lost.	Current navigation messages are hard to imagine for the visually impaired, for example, numbers of meters & the term of east, west, north, or south. These descriptions are too abstract for people without sight. Extra tools are needed to help identifying those concept sometimes.	"Current Position" is the most most frequent used function while navigating. But touch the screen to activate it seems not instant enough. Plus, GPS deviation is troublesome when the precise address (numbers of each door) is needed.	Each individual has their own way to memorize the route information. However, it's hard to remember all the details on the road. Only fragmented memories left after going home. Not to mention review the route again or share those experience to help others. We discover there's huge need for information preserving and sharing.

Solutions

Features