Context Aware Navigation System for Using Public Transport on Smartphone

This paper contains an idea about how we can develop a real-time navigation system on **smart-phone** which provide public transport user needs information in real-time. This paper suggests real-time navigation system built on concept of state-by-state navigation for using public transport.

Today, many web services provide information about public transport. Some of them provide path information. Others show diagram information, or provide information of public transport situation. However, these systems only provide static data such as path information or timetable.Public transport user needs information in real-time.

This paper suggest the system that can support on user's state. It has a variety of ways to help public transport users by each state, like turn-by-turn navigation.

A passenger taking public transport has many activities on using public transport. This paper classifies these activities into following 3 states-

1. Walking state
2. Waiting state
3. Riding state

Based on the above 3 state of passenger , there is a need of a system to support using public transport should provide information to the user considering the state the user is in.

There are five examples in the following : -
1. Location of Ride/Get-off Points
2. Information of Routes
3. Timetable at Ride Point
4.Timetable at Get Off Point
5.Area Information at Ride/Get-off Points

Real time information using Navigation system

Today Navigation system on smart phones are very populer technology to get real time information. Navigation system help users to get path information turn by turn not only in riding but also in walking and waiting state.

AR Navigation system:-

The technology of augmennted reality is being suited for real information.It is simple to use this system on smartphone.If user wants to know information, he/she has to hold the device only.This system provide information about bus-stop around the user and bus coming close in the user. Thus AR navigation is one of the ideal way at real-time navigation.

Problems with the simple navigation systems:-
1.A user needs to operate the system even wile moving to the destination.
2. existing navigation systems are not optimized to the public transport .

Context aware navigation system:-

As mentioned above simple navigation system cannot satisfy a public transport user.thus we can

develop a context aware navigation system for public transport.This navigation system will recognize users situation and provide information based on states of users(walking,waiting and Riding).

Conclution:-

This paper guide us to develop a context aware navigation system by dividing users activity in 3 different states(Walking,waiting nd Riding).The navigation syste em provides detailed guidance for a user in each state.

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