Project Assignment #1: Draft Project Proposal

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Project Name: Using Estimote Beacons for Clemson Tours

Project Description:

Target Audience

The target audience is going to be primarily directed towards those who are touring a particular “Museum” building on Clemson’s campus. By “Museum” building I am referring to buildings which have rooms that are used to display historical, technical, cultural, or artistic artifacts associated with the University. One such example would be Thomas Green Clemson’s house which is often visited by those touring Clemson’s campus who want to know more about the history of the campus. The application is designed to help provide them with more information about these artifacts without the need for a tour guide.

Description

The basic idea behind the application is to use the Estimote Beacons to mark various rooms in these “Museum” buildings. The application then connects with these Beacons, figures out what room they are referring to, and displays the appropriate information regarding these rooms to the user. It obtains this information from an external database (one of Clemson’s databases) that can be updated regularly. I am primarily targeting smartphones for this application as I assume the tourists will be carrying around Android devices that they can easily put into their pockets although I will take tablets into consideration as well.

Benefits

- Allows tourists to gain information about the areas they are visiting without the need for a tour guide
- Information is very easy to update (especially if the rooms change)
- Low cost

Artifacts

Information will primarily be conveyed textually. Images, videos, audio, and anything in a binary format will be difficult to use because it cannot be stored in a SQL database (although it is very easy to link YouTube videos that the University may have posted to the application)

Additional Devices

Estimote Beacon – used to mark locations of interest so that the application can provide additional contextual information about them to the user. It can communicate with an Android application via Bluetooth and 6 Beacons can be purchased for around $200.

Databases

External – a database that gets updated information about the various touring spots on Clemson’s campus. The application relies on this database for its information.

Internal – a database that gets loaded with information from the External database. Used to save information from the external database and provide it to the user when the user reaches an area of interest. Periodically refreshes itself to stay up to date.
How it works

Periodically checks

Clemson Server (External Database)

Communicates via Bluetooth

Receives update

Estimate Beacon

Room of Interest

Welcome! To begin walk to a tour room

Home Screen

You are currently at: <roomname>
<description>

Give user information about room

Play some sort of "Alert" sound to let the user know they've reached a special area

Note: These are just some poorly drawn prototype sketches of the application and its functionality