Research Plan

**Ma-event: Mobile AR Application Event for Additional AR Tour Guide Service using Tour Cloud Mobile View-management Component**

Introduction

Although there is a large a month of information that helps tourists, it is difficult for tourists to get the required information through a proper representation while traveling [1]. Based on research, tourist organizations management recognizes the importance of events at the tourist destination, especially social and environmental impacts of events for the development of tourist destinations [2]. With events, local culture, tradition and customs are celebrated, entertainment and recreation complement each other and cultural and social advancement is ensured. Events are an important motivator of tourism and they are very present in destination development plans and tourism development strategies [3]. With the growth of mobile device, tourists have started using tour applications and so on. However, the information still limited and does not exactly provide updated information, especially the occasional events are underway in those cities or merely around them. Actually, it does not only tourist’s issue, even citizen do not exactly know events which are occurred in their surrounding area. *All even in city* [4] is mobile applications for events that help you discover a current or future event nearby, local, and global. However, the information still limited and user do not have ability to upload their event directly through mobile application. Applications such as *Eventbrite,* *Eventful*, *Eventbase*, and *Nearify* also provide same information as described in [5, 6, 7, and 8]. *Eventbrite* provides event that easy to get the ticket but lack of flexibility to search information nearby. *Eventbase* provides launch event guide that make you able to see the event schedule/session, map, speakers, and link to social media page but only work well in some area. *Eventful* and *Nearify* provide many event category but have the same problem with *Eventbase*. Most of this application showed the information by list and map.

Recently, there is Mobile Augmented Reality (MAR) occur and become the hottest technology in mobile industries. MAR is able to show real artefacts and landmark with virtual object by using camera and display in mobile device [9]. A visual AR system enhances the surroundings of the user with virtual information that is registered in 3D space and seems to co-exist with the real world [10]. In a typical GPS-based smartphone AR application for outdoor use, the tourist points the device towards physical objects in the real world. She is then able to see additional virtual information overlaid on top of the camera view through virtual annotations [10]. The type of content and amount of information within the virtual annotations varies amongst applications and can include video, images, text or symbols for different types of landmarks [10]. Tour Cloud Mobile is mobile AR tour guide application with three type view which are list, map, and AR [9]. Tourists can select a view depending on their context, and each view has a view management that allows tourists to obtain appropriate information through a proper representation [9].

Therefore, the goal of this study is to develop a mobile AR application event as additional AR Tour Guide service using Tour Cloud Mobile view-management component that not only provide events information but also the users are able to access, upload,and update their events through application in real-time. The application would also combine some features from earlier event application, so it will provide the complete mobile event experience for users.

Objective

As mentioned earlier, this study aims to develop a mobile application media platform for events that is easily to access and updated in real-time. In detail, the objective of this study is enable user to contribute in giving, searching, and updating information related to event that has been provided, giving space for comment in real-time about the event, having flexibility in find out things nearby, searching data based on category as well as time and place, linking to SNS, and providing event report (photo, video, attendances, and review of event). The app can be accessed globally that useful for planning tourist traveling destination base on event before or while traveling. The users are also able to communicate each other through the app. In this application will use three search tools which are typing search box, shake phone, and tab the screen. The information will provide list, map, and AR view.

Methodology

To achieve the objective, this study will use application development for android and link it to the tour cloud mobile. For testing the app, it will use study case of tourist try to search an event using the app in five places. The app can be able to download for free in apps store and get the rating review of application from user. The program analysis will compare the data from each case and rating review from users using the quantitative data analysis with SPSS 20.0.

This research is planned to be conducted in Imaging Media Research Center, Korea Institute of Science and Technology, University of Science and Technology, Korea.

Reference

1. Jungbin Kim, ByounghyunYoo, HeedongKo, “Tour Cloud Mobile: Helping Tourists Acquire the Information Effectively Using Three Types of Views”, IEEE International Conference on Consumer Electronics (ICCE) 2015, pp. 673-674, 2015.
2. Hede, A., Jago, L. & Deery, M. “Special Event Research 1990-2001: Key Trends and Issues”, Paper presented at the Event Research Conference: Events & Place Making, Sydney, July 2002.
3. Milohnic, I., Trost, C. “Importance of Events at A Tourist Destination: Empirical research of Country of Istria’s management attitudes”, Institute of Agriculture and Tourism Porec*,* Croatia, 2012.
4. Amitech Business Solutions. “All event in city,” October 14, 2015; [http://allevents.in/#](http://allevents.in/).
5. Eventbrite “Eventbrite,” October 15, 2015; <https://www.eventbrite.com/>.
6. Eventful, a CBS Local Digital Media Business “Eventful,” April 17, 2015; <http://losangeles.eventful.com/events>.
7. Eventbase Technology Inc. “Eventbase – the Free Event App,” March 6, 2013; <http://eventbase.com/>.
8. Nearify“Nearify – Discover Events,” September 11, 2015; <http://www.nearify.com/>.
9. Injung Song, Ig-Jae Kim, Jae-In Hwang, Sang ChulAhn, Hyoung-Gon Kim, HeedongKo,”Social Network Service based Mobile AR”, Proceedings of the 9th ACM SIGGRAPH Conference on Virtual-Reality Continuum and its Applications in Industry, The Association for Computing Machinery Inc, pp. 175-178, 2010.
10. Yovcheva, Z, Buhalis, D. and Gatzidis, C,“Smartphone Augmented Reality Applications for Tourism” e-Review of Tourism Research (eRTR), vol.10 (2), pp. 63-66, 2012.