

Smart Travel Buddy

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ABSTRACT

This is a Smart Travel Buddy system which helps travelers to get more and accurate information of that place in which they are interested. It is your pocket buddy which will be with you wherever you go. Whenever so you would like to understand about places and historical objects it will help you. Smart Travel Buddy is like your private tour guide. You can see the history of a certain place and position in your smartphone in this implementation order to put your phone camera at that location and artifacts. This application integrates Augmented Reality (AR) technology. With the support of this technology; use can get an experience and feel of the place. By these application travelers interaction with the real world will become more easy and wonderful. There are many applications based on the Tourist guide but they didn't provide this kind of user experience feature. This application will help you to get experience of the places in different seasons as well. This will make tourist experience more lucrative, convenient and give them the look of that place in different seasons on that bases they will prepare their next plans. In this paper the system design suggested will help the designer to design the lightest application because of which users experience will become more marvelous.

Keywords- Augmented reality (AR), Smart Phones, Android, Tour guide.

1. INTRODUCTION

As There's a bunch of different tour guide application in the market, which helps many travelers to experience their journey wonderfully by providing them with detailed information about that place and object in the textual format and images. This type of applications only provides the information which is already present on Wikipedia and many different websites. Almost everyone is using many new technologies to make user experience joyful by providing there are also many distinct kinds of services and products to the customers. There's a bunch more other applications in the market which allows the user to save their last visit and uploads their photos and videos as in the form of their memory but none of the applications is showing and giving the users that experience which Smart Traveler Buddy is providing.

The current system doesn't provide the feature to get virtual experience. In all existing applications users won't be able to see any kind of animations or videos by placing their smartphones on particular place or an objects. This is where Smart Travel Buddy will come into the picture. This Application will provide the user to feel that object or place as it is in reality with the help of this new technology Augmented Reality which is basically the software which is invented by the Google Inc.

Augmented Reality (AR) is an interactive experience of a real-world environment from which objects existing in the real-world are strengthened through computer-generated perceptual information, sometimes through various subcortical structures, including visual, related to hearing, tactile, occipital cortex and olfactory.[1]. This experience is intermingled smoothly with the physical world so it is perceived as an immersive aspect of the real world[1].Augmented reality thereby influences one's perception of a real-world environment thus virtual reality completely replaces the real-world environment of the user with a simulated one[1]. With integration of this technology(AR) with smartphone devices will make the view towards the objects and places will be changed totally. In this Application users can interact with the real world with the simulated one so that they can enjoy that place or viewing of the objects will become more wonderful.

2. LITERATURE REVIEW

Most researchers noted (Briguglio, Archer, Jafari, & Wall, 1996 Briguglio, L., Archer, B., Jafari, J., & Wall, G. (1996). Issues and policies on sustainable tourism in islands and smaller countries. Pinter, London. [Google Scientist] ; Butler, Butler, 1991, R. (1991)[4].Tourism has the capacity to contribute to sustainable development, especially through job creation, including women's employment and marginalized communities (Cukier, 2002 Cukier, J. (2002)[4]. Sustainable development in community tourism is undertaken to enhance the

quality of life of citizens by optimizing local financial advantages, protecting the natural and built environment and offering tourists with a high quality experience (Bramwell & Lane, 1993 Bramwell, B., & Lane, B. (1993)[4]. With that in mind, the idea of feasible tourism emerged with the aim of reducing the adverse effects of tourism activities that have become almost universally understood as a beneficial and economically acceptable approach to the advancement of tourism (Sharpley, 2003 Sharpley, R. (2003)[4]. Muller and Cleaver (2000) (quoted in Swarbrooke et al. 2003, p. 29) described adventure tourism as the ability to provide comparatively elevated sensory stimulation levels for visitors. It is generally contained within the (typically brief) tourist experience some physical complicated elements[5].

3. METHODOLOGY

The things that require is only your smartphone device which have a camera in it. You just need to install this smart travel buddy application and your work is done you do not need to install any other applications to get work done. This application provides the user virtual environment of that place and object. Users need just place the smartphone device which has that smart travel buddy install init. There are many different features will be given to the users into this application.

First feature would be live object viewing, in this feature user will get the animated objects into their smartphone this can be funny animated characters or you can see history about that place and how that is made as well as you can see that place and objects from different angles and direction only by just placing your smartphone device camera to that location or on an objects. This will put very great impact on user experience. This feature will also show users season wise view, there will be an option which helps them to decide which will be the perfect season to visit that place. Let's assume you went for site seeing in the hilly region where there are many mountains but it is summertime and you won't be able to enjoy who does it looks in to rainy, winter and spring seasons. But no need to worry about that with the help of smart travel buddy application you can enjoy that season virtually so you user can make future plans according to that. This will show the user how it looks like in any seasons as well on the different angles and directions. With this application travelers can explore that location more deeply and wonderfully.

Another feature of this application will help you to enjoy that place or an object at your own place in which users do not have to present on that location to view he/she can view that place or an object at their place where they want to see. Until now, there is no such application that can provide such features in any tourist application. In this feature you will get virtual environment at your place of which you are willing to see. This application will save your time and money by moving to the places which are not that good after visiting it. In this feature you just have to place your smartphone device camera in front of plane object like table, wall, ground, etc,. And then you have to select a place or an object which you want to see. Then that object and place of virtual view will come on your smartphone display. With the help of this technology it becomes easier for the students as well to understand and study about that place and object ease. This feature will not use your GPS location for places and objects for viewing virtually. Because it is not using much of your in build sensors this is why it is light weight application. The technology used in this application is latest and trending application.

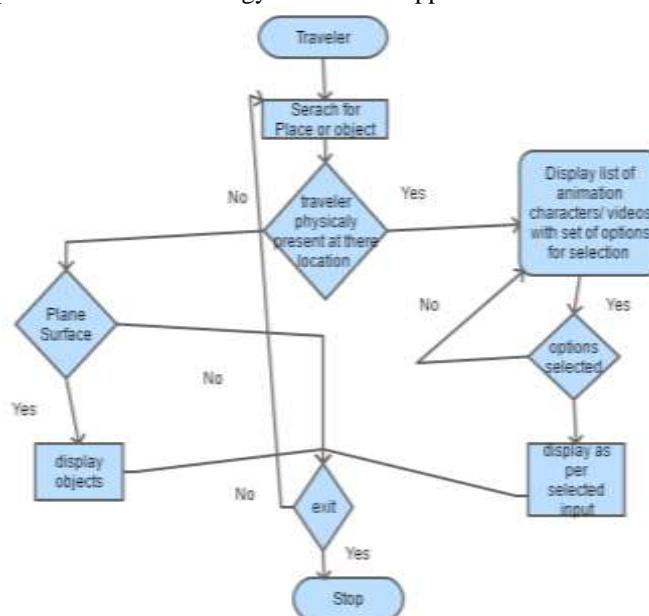


Fig 1: Flowchart of Smart Travel Buddy

4. FACTS AND FIGURES

- The Augmented Reality market figure is predicted to hit US\$ 61.39 billion by Markets and Markets by 2023. It was estimated at US\$ 2.39 billion in 2016, which is expected to rise at a CAGR (Compound Annual Growth Rate) of 55.71 percent over most of the forecast period.[2].
- As per the ISACA survey, 73 percent of Americans retorted they knew about the Internet of Things (IoT) and AR markets. This signifies a 10 percent drop opposed to 2015, suggesting that these markets could become more confusing as more and more appliances are accessible. However, 40 million Americans will interact in some form of augmented reality on a fairly regular basis in 2017. That's up 30% year-on-year[2].
- Results from the same study revealed that 60 to 70 percent of clients see clear benefits with the use of AR and Internet of things devices in their daily and working career. 69% hoped that the technological advances could help them learn new skills in their everyday lives, 62% saw shopping advantages and 62% saw health advantages[2].
- Mobile accelerated reality by the end of 2018 could hit 900 million installed base and by 2022 touch 3.5 billion (Digi-Capital)[3].
- Within 5 years (Digi-Capital)[3], increased reality (mobile AR, smart glasses) could accomplish \$90 billion in earnings[3].
- 32% of clients use Augmented Reality and 73% of mobile AR users reported extremely high or very high satisfaction with mobile AR (Artillery Intelligence and Thrive Analytics) experiences[3].
- 53% of users over the next three months are concerned in using Augmented Reality (Pymnts)[3].
- The overall touchscreen market of AR and VR may grow to 8.9 million units in 2018, approaching 65.9 million units by 2022 (IDC)[3].
- Close to 50% of customers would be more likely to shop at a supplier utilizing Augmented or Virtual Reality (AVR)[3].

5. CONCLUSION AND FUTURE WORK

Among the latest developments, Augmented reality is one among those technologies which will be in great demand in the future and become an indispensable part of our lives Augmented reality utilizes current environment and offers user interactive experience of a real-world scenario where objects are enriched by perceptual data obtained by machines. Augmented reality provides perfect mixture between reality and virtual reality. So costs and risks are reduced are just using this app. This application will give abundance wonderful user experience in a positive way. This will lead future into new road map.

In future we can take this application to another level just by adding some of the features which will save all their experience data which they can later view and enjoy it. Augmented Reality is not present in many different fields. But as we can use this technology into travels field later it will be used in educational fields, etc., We can create the virtual environment in more advanced level that we can enjoy the feeling of reality like we are present at that place. Eg. while sitting at home you can enjoy how Taj Mahal (INDIA) looks like just by using of augmented reality.

6. REFERENCE

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