GuidAR

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ABOUT PSY

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We are second year students majoring in Computer Science & Engineering at IIT Delhi. We are passionate about coding. Our team stood first at the On-Campus Round of Microsoft code.fun.do for the same project GuidAR, and wish to take this further into market in the near future, to bring a positive change in the life style of the common man.

CONCEPT

NEED OF THE HOUR

Bumping into walls.
Falling down stairs.
Stepping into traffic.

It's happening all the more these days for one overwhelming reason.

People just can't seem to walk down a street without doing something on their mobile phones! Researchers at The Ohio State University say an estimated 1,500 pedestrians were treated in emergency rooms in 2010 for injuries related to using their cell phones while walking.

So, we present GuidAR as our answer to this menace.

PURPOSE AND BASIC FUNCTIONALITY

This Augmented Reality app aims to guide users to their destinations in a more interactive and, more importantly, safer way.

Users will be directed to a page where they would have to enter their destination.

On pressing START the user is directed to a real time video feed from the rear camera on their device.

The user would have to follow a UFO (:D), that would be augmented flying over the road ahead towards their destination.

If they receive any text messages during the journey, the messages would be overlaid above the content ahead. So even while they are texting they would have an eye on the road, thus preventing accidents.

TARGET MARKET

Our application is aimed at the new generation - people who are multi tasking while on the go.
People walking to office, or looking for a restaurant, while at the same time co-ordinating with friends on the phone about finding one another.
Not just that, this app will change the lifestyle of every individual who walks to his place of work while texting.

Who else?
Going to the shop to fetch veggies, and asking your mom what all things she has told you to bring?
Going to class and late for the lecture? Want to know if the prof. is already in the class?
Just Open GuidAR, and text, walk and get navigated to your destination.

THE INNOVATIVE SPARK

A NEW CATEGORY OF PRODUCT OR SERVICE

Our application creates an entirely new category of user services in the market. This is an enhanced user-productivity application that provides users

- Augmented Reality Navigation
- Texting while Walking
- View of the World Ahead

The augmented reality navigation that helps you multi-task is an entirely new market segment.

Apart from this we will soon be adding object recognition and voice interface to the app, which will give greater versatility to our app.

TECHNOLOGY USED

PLATFORMS/ TECHNOLOGY USED

Android Studio: Enabled us to combine the basic framework of our app with a unity plugin for all android mobile devices.

Unity: The one stop shop for all your graphic rendering. Helped us get our navigation UFO in place. And the best part, combines as smoothly as silk with Vuforia.

Vuforia: Our go-to man for all AR based plugins. We really enjoyed toggling with what it brings to the table and make our app more interactive and user friendly.

Directions-API: Waking directions from source to destination were never as easy. We could combine the API with the Android-Studio Application.

Forge: Server/Client services for creating our very own multi-user chatting interface that gels superbly with Unity.

INNOVATIONS IN TECHNICAL DESIGN/ IMPLEMENTATION

1. This app is a one-of its kind technical application that implements a Unity overlay on an Android Studio Project. This is a challenge that was unheard of before this, and was one of our biggest achievements in terms of technological implementation.

2. The compatibility of backend technologies like Forge with Frontend technologies like Unity to create a chatting platform in Android Studio.

3. As a future scope, we are also going to integrate our technology with Microsoft HoloLens, and also include Voice navigation and Object Recognition.

INNOVATIONS IN USER EXPERIENCE

Augmented Reality has always been a buzz word in the user market. However, for long, we haven't seen that one productive application that will revolutionise user experience in terms of not just leisure activities, but also things that affect the lives of people more significantly

We provide the user with an opportunity to be navigated to his destination with a personalised UFO assistant. We create a new market and UI of Parallel Navigation, that lets users multi-task while on the go. Giving them the ability to chat with their friends, get directions to their destination and most importantly make their transit safe by giving them a world view of what lies ahead.

BUSINESS MODEL

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We also wish to partner with **Microsoft HoloLens** as we believe this will help us get greater publicity in the market, and also the funds to enhance user experience.

We hope to get the monetary returns from our applications through advertisements that we would show on the bottom of the screen.

We would also explore the feasibility of taking paid subscriptions from users if they want to avail advanced services like Speech Assistant and Object Recognition, or an Ad-Free Version.

EXTERNAL VALIDATION FOR THEIR PROJECT

User-Review Survey: Since the idea of this project sprung up from our daily walking experience to college, and how we end up bumping into one another, we decided to take User-Review from our college peers. We created a short 4 point survey about what college going students like us would like to see in our app. Questions were about Chatting platforms, AR Navigation, Voice Control, Object Recognition. Based on popular opinion, we decided to work on the first two options before we move forward.

Recommendations from subject-matter experts: We had a one-on-one session with Mr. Vijay Rajagopalan, who is the Principal Group Engineering Manager for Microsoft. This gave us great insight into how we needed to brainstorm our app. The improvements that our idea needed, and the way we should go about marketing our product.

FUTURE PROSPECTS

We aim to incorporate a **speech assistant** which would say aloud the instructions to the users. We also aim to better enhance our AR experience to make it even more user friendly and hope to incorporate voice-recognition chatting facilities in our application.

Apart from this we ill incorporate **object recognition** into the application that informs the users of the obstacles in front.

Once we get permissions from chatting platforms like WhatsApp and Skype, we will also make this a **message aggregator** for all texting purposes.