

A brief review on augmented reality based google glass

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Abstract—Augmented reality that is Wearable technology is fast becoming a part of our technological life. There are many devices, from dresses to headphones that can record your day-to- day life. The maturing field of wearable computing aims to inter- weave computing devices into everyday life. This report focuses on smart glasses, one of the categories of wearable computing devices which is present in the media. This paper provides a concise overview of the history and context of Glass based on AR technology. The intended purpose of smart Glass products would be the hands-free displaying of information currently available to most smartphone users, and allowing for interaction with the Internet via natural language voice commands.

Keywords—augmented reality, hands-free, smart glasses, smartphone, wearable technology.

I. INTRODUCTION

People are increasingly moving away from desktop computers and latching on to smartphones and tablets. The entire world is just focused on their phone in front of them. The reason behind this is that we want to connect to other people in our life; we want to connect to information. So the question is ‘Should it be by just walking around looking down?’. Project Glass or smart glass is one answer to that question. Project glass is a research and development program by Google also called as Google glass, started by BabakParviz, director of Google. The intended purpose of google glass would be the hands free displaying of information currently available to most smartphone users.

II. LITERATURE SURVEY

Based on Eye-Tap technology developed in 1990s. It is similar in appearance to Google Glass. It is perceptibly bulkier and less elegant; the older, larger computer parts attached to the thin aluminum frame assert themselves more aggressively against the organic life-form behind them. It functions differently, although some of the applications are the same.

What is google glass?

Google Glass is simply a wearable computer with optical head mounted display(OHMD) that looks like a pair of glasses and lets users accomplish various tasks and receive quick information in a smartphone form. The difference is that Google Glass is used hand-free and does not require the user to look away to receive information, which is officially called a heads-up display. Google Glass was created to ease the user’s daily and social life by taking the bulky and physical part of technology out of the way to help the user connect to the world in a faster way. It is connected to the Internet, and the user can take photographs, record videos, send and receive messages, and stream live recordings, amongst others.

III. PARTS OF GOOGLE GLASS

Google Glass consists of a lot of the same parts that you would find inside of a smart phone. Google Glass has a 640×360 prism projector display, a CPU, sensors, GPS, a bone transducer speaker, a battery, a touchpad, 2GB of ram, 16GB of storage, and a camera. All of these components are attached to a frame that is worn by the user. It has features with the small video display which is used to display the hands free information by pop up. It also has the video camera with front facing through which we can take photos and videos in a glimpse. Google glasses are designed to be hands free wearable device that can be used to make or receive calls via a bone conduction transducer. Single button on the side of the frame sophisticates the glasses to work with the physical touch input.

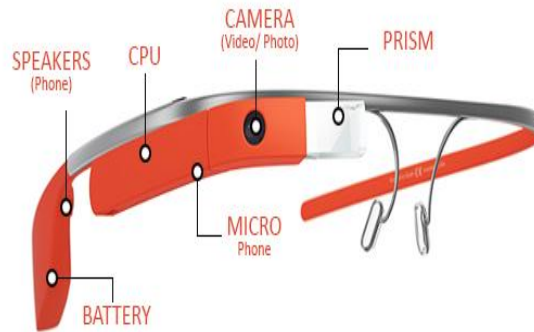


FIGURE 1: Parts of Google

3.1 How Does Google Glass Work

Google Glass operates in a pretty simple fashion. Users connect Google Glass to their phone and Google Glass receives different information from that phone to provide notifications and information to the wearer. These notifications include things like incoming email alerts, call alerts, text message alerts and other notifications like that. These notifications are displayed to the user via the prism on Google Glass that rests over their right eye. Users can access different options and different notifications by using the touchpad on the device or by using voice commands. Like a smart phone, applications that serve different purposes can be installed on the device and can be accessed via the touchpad and voice commands. Basically, the way that Google Glass works is sort of the same way that a smart phone works. Users access different information and applications and those things are displayed to them on the screen. The only thing that is different about Google Glass when compared to a smart phone is that the information is being displayed to the user via a prism located above their eye.

3.2 What google glass does?

Users can start using the device by tapping on the touchpad or by saying the words “Ok Glass”. Ok Glass is a voice command that is used to select and launch different applications. It’s also used to perform different actions. Once a user taps on the touchpad or says “Ok Glass”, the display above the right eye will show the user the home screen. The home screen isn’t anything special, it’s just a list of different applications, actions, options and settings. From the home screen, Google Glass owners can launch an app, record a video, take a snapshot, or call someone, for example. Users can select these different things by using the touchpad or by saying the command “Ok Glass”, followed by what they want to do. So, for example, “Ok Glass, take a picture” will have Google Glass take a picture. So, Google Glass is controlled by using the touchpad on the right hand side of the device and by using voice commands



FIGURE 2: Google glass

IV. FUTURE SCOPE

Market Estimations:- BI Intelligence, at the beginning of the 2014, estimates of sales for the next few years that arrive to the interesting figure of 21 million units for the year 2018, all depending on various factors such as the price is, interest and attraction of developers by creating new applications and the cultural barrier to social acceptance the everyday use of this device (privacy, snobbery, design).

With the upcoming technology, google has promised a new google glass that will hit market in 2019.

V. CONCLUSION

Google glass is wearable computer. This brings ease and sophistication at life. As google glass is used as Smartphone like hands free format it makes life simple. The technology behind Google Glass is impressive. It takes communication to next level.

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