NEW INVENTION: GOOGLE GLASSES

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ABSTRACT

The idea of having everything you need in the blink of an eye has been talk for centuries. The idea of having a device that is able to provide all of those services is becoming all too real for the upcoming year. The product Google Glass is expected to hit the consumer market relatively soon. Google Glass will be the equivalent of a smartphone, although it will be integrated into a type of eye wear the user can wear. Electronics News describes Google Glass as being "the latest addition to the emerging field of "ubiquitous computing" (UC) and is designed to fit comfortably into people's lives." The idea of Google Glass gives numerous potential benefits. This product raises a few social and ethical concerns, but with further research will be able to hit the market in no time.

I. INTRODUCTION

The Google Glass, a technology that has been long-rumored about, is simply a pimped out pair of glasses. And by pimped out, I mean it comes with a optical head mounted display (OHMD) which allows the wearer to see through and look at projected images coming from a small component on the glasses themselves. There are many other capabilities of the Google Glass: users can ask the headset question, prompt it to Google words, take photo and video by the prompt of your voice, get directions and view a GPS, and even participate in group web conversations via a Wi-Fi connection. The Google Glass takes "hands-free" to a whole new level.

II. BACKGROUND

Only a few lucky people were able to experience the Google Glass and in turn provide feedback to the developer behind this next big thing as it was released to a group of selected individuals called the Explorers; however that may be the first batch of the Google Glass came with a hefty price of $1500.00. In 2011, the first Google Glass prototype weighed nearly eight pounds (Miller, 2013). In 2012, after the eight-pound prototype but before the Explorers trial run, Google Glass made appearances on the Gavin Newsom Show (Baldwin, 2012), at a Google Input/Output seminar where those in attendance were able to watch a live feed from a skydiver (Velazco, 2012), and even at a hospital in Madrid, where "the Spanish doctor Pedro Guillen, Chief of Trauma Service of Clínica CEMTRO of Madrid, became the first physician in the world to broadcast a surgery through the use of Google Glass" (Riggins, 2013). From the prototype in 2011 to the Google Glass Explorer version in 2013, Google isn't showing signs of slowing down any time soon. The current edition of the Google Glass now weighs less than the average pair of sunglasses.

III. LEGAL AND ETHICAL ISSUES/SECURITY CONCERNS

"Many say that the Google Glass does not raise any new privacy issues, but merely rehashes existing ones in a more prominent way." (Katikala, 2013) Just as it comes with benefits, Google Glass comes with its fair share of legal and ethical issues and security concerns. Existing issues with almost all of the new technology, whether it be smartphones, tablets, cameras, or computers, include unwanted surveillance and the ability to take discreet pictures and/or video, cheat on quizzes and exams, and a multitude more. How many students have received text messages with test answers or Googled 'Who was Ho Chi Minh?' while in class? How many inappropriate pictures or videos have been taken and then posted to the Internet by simply clicking the 'send' button? Unfortunately, Katikala was correct in saying that these existing problems will likely become much more prominent in the near future when these products reach the hands of all. By receiving the answers to a test, emailing them, and then accessing them via the Google Glass, cheating just became a whole lot easier. The answers are right in front of your face and no one will suspect anything because all you are doing is looking down at the test. With the Google+ Hangout feature, an online chat room that can also be accessed with the new Google Glass, everyone in the group will be able to see what your glasses are seeing. Looking at a confidential file, surveying a house, stalking a group of young students? These can all become new group chat activities. Many people have already voiced concerns about how simple it would be to record and take pictures discreetly and how much of a security concern that could become, including Congressman Joe Barton, the co-chair of the Congressional Privacy Caucus. Google was quick to address him and this ever-growing concern:

"In its letter [to Congressman Joe Barton], Google attempts to explain away the privacy concern by citing some of Glass's basic functionality: When Glass users want to, for example, take a photo, they have to say something like "OK Glass", which, in theory, would prevent them from secretly taking photos."

Even though Google Glass is a voice prompted device, people are still concerned as to how to best protect themselves from the users. In addition to Barton and the public's photography concerns, they are more worried about the rumors regarding the proposed ability of Google Glass to have facial recognition software and the legal and ethical issues that would surely come with it. These rumors were confirmed when Google stated "Google has said for several years that we won't add facial recognition features to our products without having strong privacy implications in place. With that in mind, we won't be approving any facial recognition at this time." "At this time" became a focus of the public when it was inferred by Google that facial recognition software would indeed be released, just not yet (Bilton, 2013).

IV. SOCIAL PROBLEMS

The world seems to be ruled by technology. As far as the eye can see there are tablets, iPads, iPhones, Androids, Blackberries, laptops, Macs and Windows. Kids these days are already texting during school, browsing Facebook and Twitter when they are supposed to be doing their homework, and businessmen and businesswomen are writing emails while driving which is an enormous safety hazard. Sadie Whitelocks states, "If you're aged between eight and eighteen, you'll spend more than eleven hours a day fixed to an electronic device." No leap of imagination is needed to believe that we do, in fact, spend eleven hours a day with several electronic devices! That number can only go up with the release of the Google Glass (Whitelocks, 2013) With it easier to create group conversation with Google+ Hangout, asking 'Wanna hang out?' will mean strapping on

the Glass instead of going outside and playing a pickup game of football. The proposed facial recognition app and software that has yet to be released could come with a multitude of functions. We could have the ability to pick our friends out of a crowd, see how old someone is and if they are single by connecting Facebook to the facial scanner. It might even be possible to one day learn everything about a complete stranger by scanning their face and then Googling them. There would be no need to use the television, or even a computer, to check the weather, news, or watch a movie. No need for any social interaction at all. Today's society revolves around technology; the Google Glass is only going to amplify what we are already experiencing.

V. FURTHER REQUIRED RESEARCH

Google hopes to start partnerships with major sunglass companies, such as Ray-Ban, in order to further promote their product. (Miller, 2013) While the Google Glass has come far from the eight-pound prototype it once was and has now been seen at events like the Vogue Fashion Show, there is still work needed to be done. For instance, right now the Google Glass does not come with any lenses. While that may be fine, maybe even ideal, for those of us who do not usually wear glasses, the people who do wear prescription lenses or contacts are going to have to wait until Google upgrades the Glass. Because the only members of the general population who have tried the Google Glass are those who applied, were selected, and paid $1500.00, Google has been considering opening up retail stores where customers would be able to try them on. As specified earlier, and perhaps the most eminent area of research that needs to be attentive on, is their facial recognition software. Without the appropriate privacy requirements and privacy features, Google may lose many prospective customers who are fearful of the security threat. The incorporation of texting and calling, more colors, and a cheaper price are the other areas of research which could serve to benefit the Google Glass.

VI. CONCLUSION

There was a footprint left in the history of technology when Steve Jobs created his apple products. Brilliantly, Google and its executives may be doing the same. Google is already a famous name because of its search engine, email accounts, maps, Google earth, and, most recently, Google Wallet. The addition of the Google Glass may just be enough to push Apple and those like it out of the way and put Google on the throne.

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