Cyborg Cops, Googlers and Connectivism

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Abstract

The paper mentions that Project Glass is a research and development program by Google to develop an augmented reality head-mounted display (HMD). The intended purpose of Project Glass products is the hands-free display of information available to most smartphone users, allowing for interaction with the Internet via natural language voice commands. Given that Project Glass connects wearers en-mass and ostensibly ensures that they can continue with physical activity hands-free, it creates arguably one of the largest known veillance vehicles into previously unmapped territories that humans already frequent. A hands-free, fashionable, and constantly connected technology positions the product well among the seemingly unending array of Google's seamless and integrated services.

Keywords

Augmented reality, Cameras, Google, Privacy, Internet, Cell phones, Headphones, augmented reality, helmet mounted displays, research and development, cyborg cop, Connectivism, Project Glass, research and development program, Google, augmented reality head-mounted display, HMD, information hands-free display, smartphone user, Internet, natural language voice command

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I rarely leave my mobile phone out of physical reach or indeed earshot and it is almost always powered on. It has become my camera, compass, calculator, calendar and main communication channel with literally thousands of contacts in my networked cloud.

You may agree that this is not dissimilar to your own current relationship with this disruptive technology - in essence it has become your personal electronic portfolio. It might also occur to you, upon reflection, the profound impact this technology is now having upon your communications with family, friends and work colleagues. At a stretch you might even acknowledge that your cell-phone is "closer" to you than you ever imagined possible a decade ago, and thus is, in relative terms, wearable.

Project Glass is a research and development program by Google to develop an augmented reality head-mounted display (HMD). The intended purpose of Project Glass products is the hands free display of information currently available to most smartphone users, allowing for interaction with the Internet via natural language voice commands.[1]

Known synergies exist between Google's founder Sergey Brin and Professor Steve Mann, Toronto University who is attributed as being the “father of wearable computing” so it comes as no surprise that this PoE (Point-of-Eye) [2] innovation finds itself subject to forces that now seek to bring it to market. Whilst we might recoil aghast at Steve Mann’s predictions [3] as to our wearable, portable and existential future, we must also acknowledge that this consumption of hyper-connectivity is simply yet another transformation in humanity.

Given that Project Glass now connects wearers en-mass and ostensibly ensures that they can continue with physical activity hands-free, it creates arguably one of the largest known veillance vehicles into previously unmapped territories that humans already frequent. A hands-free, fashionable

and constantly connected technology positions the product well amongst the seemingly unending array of Google's seamless and integrated services. [4]

It is notable that Google's CEO Eric Schmidt is attributed with publicly dismissing privacy concerns as unimportant or as old fashioned according to Dwyer;

> "...When companies sell information for a living, privacy is not their priority." [5]

It now seems evident that this body-worn technology is set to revolutionize the manner in which we will interact with each other in the not too distant future and conversely how others will interact with that open and captured data thereafter.

Google's first "Glass Session" in 2012, which demonstrates what it's like to use Glass while it is built, follows Laeticia Gayno, the wife of a Googler, "as she shares her story of welcoming a new baby, capturing every smile, and showing her entire family back in France every "first" through Hangouts." [6]

The reality emerging from interactions in early 2013 between the general public and these body worn technologies brought to market by Google are evidenced in recent online interactions that are almost certain to explode upon mass adoption.

> "...I'd also challenge your argument about cameras. We're also constantly surrounded by surveillance/security cameras pointed at us in public and private spaces, but most of us don't act much differently as a result, even though those cameras are actively recording, because we've grown accustomed to them." [7]

Location enabled body worn cameras are used widely in sports, medicine, health sciences, utility services, agriculture, manufacturing, engineering, policing, armed services, emergency services, construction and transport in an international education and training context.

In many of these cases the premise for deployment of these technologies is to build upon and improve existing work practices, selected by seemingly well informed and trusted technical experts, substantially guided by organizational policy and secure data management plans pursuant. The interoperability between these location-aware body-worn technologies now opens new domains of socio-ethical consideration as to the effects that an always-on network will have on humanity as a whole.

Educators will need to shift to a networked learning theory for the digital age, a connectivism [8] so profound the very architectures of educational participation are set to become only but a loosely bound accreditation arrangement.

> "...It is widely understood that the area of digital technologies in education covers education through digital technologies. However, it must also, crucially, encompass education about digital technologies, and particularly about their social, socio political and ecological consequences." [9]

The general public will need to embrace change in policing and the justice system more rapidly than ever to accommodate a cyborg cop, a omnipresent jury and a recollection of events frame by frame. Our role has changed from a passive participant in an abstract recollection to a first-person perspective; where we have become the camera and it has become us [10] in essence a state of Uberveillance.[11]

The IEEE SSIT ISTAS'13 Symposium on Technology & Society [12], 27-29th June 2013 will further inform this perspective from a transdisciplinary gathering of world authorities in wearable smart technologies and the socio-ethical implications of wearable computing and augmediated reality in everyday life.

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