

Chapter 50

Societal Implications of Wearable Technology: Interpreting “Trialability on the Run”

Katina Michael

University of Wollongong, Australia

Deniz Gokyer

University of Wollongong, Australia

Samer Abbas

University of Wollongong, Australia

ABSTRACT

This chapter presents a set of scenarios involving the GoPro wearable Point of View (PoV) camera. The scenarios are meant to stimulate discussion about acceptable usage contexts with a focus on security and privacy. The chapter provides a wide array of examples of how overt wearable technologies are perceived and how they might/might not be welcomed into society. While the scenario is based at the University of Wollongong campus in Australia, the main implications derived from the fictitious events are useful in drawing out the predicted pros and cons of the technology. The scenarios are interpreted and the main thematic issues are drawn out and discussed. An in depth analysis takes place around the social implications, the moral and ethical problems associated with such technology, and possible future developments with respect to wearable devices.

INTRODUCTION

This chapter presents the existing, as well as the potential future, implications of wearable computing. Essentially, the chapter builds on the scenarios presented in an *IEEE Consumer Electronics Magazine* article entitled: “Trialability on the Run” (Gokyer & Michael, 2015). In this chapter the scenarios are interpreted qualitatively using thick description and the implications arising from these are discussed using thematic analysis. The scenario analysis is conducted through deconstruction, in order to extract

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the main themes and to grant the reader a deeper understanding of the possible future implications of the widespread use of wearable technology. First, each of the scenarios is analyzed to draw out the positive and the negative aspects of wearable cameras. Second, the possible future implications stemming from each scenario context are discussed under the following thematic areas: privacy, security, society, anonymity, vulnerability, trust and liberty. Third, direct evidence is provided using the insights of other research studies to support the conclusions reached and to identify plausible future implications of wearable technologies, in particular use contexts in society at large.

The setting for the scenario is a closed-campus environment, (a large Australian University). Specific contexts such as a lecture theatre, restroom, café, bank, and library, are chosen to provide a breadth of use cases within which to analyze the respective social implications. The legal, regulatory, and policy-specific bounds of the study are taken from current laws, guidelines and normative behavior, and are used as signposts for what should, or should not, be acceptable practice. The outcomes illustrate that the use cases are not so easily interpretable, given the newness of the emerging technology of wearable computing, especially overt head-mounted cameras, that draw a great deal of attention from bystanders. Quite often resistance to the use of a head-mounted camera is opposed without qualified reasoning. “Are you recording me? Stop that please!” is a common response to audio-visual body-worn recording technology in the public space by individuals (Michael & Michael, 2013). Yet companies such as Google have been able to use fleets of cars to gather imagery of homes and streets, with relatively little problem.

There are, indeed, laws that pertain to the misuse of surveillance devices without a warrant, to the unauthorized recording of someone else whether in a public or private space, and to voyeuristic crimes such as upskirting. While there are laws, such as the *Workplace Surveillance Act*, 2005 (NSW), asserting a set of rules for surveillance (watching from above), the law regarding *sousveillance* (watching from below) is less clear (Clarke, 2012). We found that, while public spaces like libraries and lecture theatres have clear policy guidelines to follow, the actual published policies, and the position taken by security staff, do not in fact negate the potential to indirectly record another. Several times, through informal questioning, we found the strong line “you cannot do that because we have a policy that says you are not allowed to record someone”, to be unsubstantiated by real enforceable university-wide policies. Such shortcomings are now discussed in more detail against scenarios showing various sub-contexts of wearable technology in a closed-campus setting.

BACKGROUND

The term *sousveillance* has been defined by Steve Mann (2002) to denote a recording done from a portable device such as a head-mounted display (HMD) unit in which the wearer is a participant in the activity. In contrast to wall-mounted fixed cameras typically used for surveillance, portable devices allow *inverse surveillance*: recordings from the point of view of those being watched. More generally, point of view (POV) has its foundations in film, and usually depicts a scene through the eyes of a character. Body-worn video-recording technologies now mean that a wearer can shoot film from a first-person perspective of another subject or object in his or her immediate field of view (FOV), with or without a particular agenda.

During the initial rollout of Google Glass, explorers realized that recording other people with an optical HMD unit was not perceived as an acceptable practice, despite the fact that the recording was taking place in a public space. Google’s apparent blunder was to assume that the device, worn by 8,000

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