

BODY-WORN CAMERAS

A number of high-profile and countless low-profile cases of public unrest involving the behaviour of citizens and the police have triggered discussions on how to improve relationships between communities and their police services, in a bid to increase police accountability and restore trust. With the increasing use of CCTV already delivering benefits, the idea of wearable body cameras is seen as a possible solution, recording interactions between police officers and citizens.

Police in Copenhagen were the first to trial body-worn cameras (BWCs) back in 2005. Interest in BWCs has gained considerable momentum since then, particularly following high-profile police shootings that grabbed media and public attention, such as the case of Mark Duggan in the UK and the events of Fergusson in the US. In fact, police services, public security policy makers and even human rights groups have committed resources to understand the impact of using BWCs for law enforcement. This has resulted in numerous pilot projects and a vast array of literature, reports and publications trying to consider all the aspects of adoption, from technical challenges to the legal and ethical issues around the use of body-worn cameras. The USA and UK have led the way with these activities.

While for some countries the interest in body-worn cameras has been part of a pre-existing drive for police reform, one of the key factors for all countries has been to help rebuild trust between the public and law enforcement authorities. The gathering of video evidence about events involving exchanges between citizens and police officers has proved to be the most reliable way to achieve this.

In our recent Beechem Research report *Wearable Technology in Public Safety – The Dominant Role of Body Worn Cameras*, we addressed the issues of adopting body worn cameras worldwide and the main drivers and challenges per region and country. The wearable technology market is rich with ideas and products and the Security and Safety application area has been of great interest to wearable technology providers.

Despite numerous pilots around the use of smart glasses and smart textile for police services, BWCs have been the only devices to clearly move from pilot to large commercial deployment, with substantial roll-outs in countries such as the US, UK, Russia and China. There are a number of other benefits from the use of body-worn cameras. For example, several studies – usually a collaboration between academics and police or run by human rights groups – have shown that BWCs can limit the risk of police abuse. A police officer, knowing his

or her actions are being recorded is less likely to deviate from procedure. The footage will also give community members a better insight into the tough decisions police are faced with; and providing a better understanding of what has happened in a particular situation will help to improve civilian-police relations. In addition, the cameras will also help protect the police from false accusations.

Despite the obvious advantages of body-worn cameras, there are a number of issues that still need to be considered by police services, policy makers and ethicists. Does the public need to have access to the footage? If so, should they have access to all of it or only on demand when specific situations arise? Will police officers lose the incentive to improve their behaviour without public access to the footage? Who should decide when the cameras should record? Is there a need for all parties involved to consent to the recording? How will police address rapidly expanding technologies such as providing officers with real-time information about the interactions like facial recognition, deception detection or object recognition?

These questions also have implications on the design of the technical solution. Data storage and data management become critical, as well as powerful data analytics tools. With the data being audio-video, the data storage space and the sophistication of the analytics tools are very important. The idea is to have video-analytics tools with predictive capabilities, making the back-office part of the solution very relevant, but also very expensive.

With the prospect of a complete solution from the

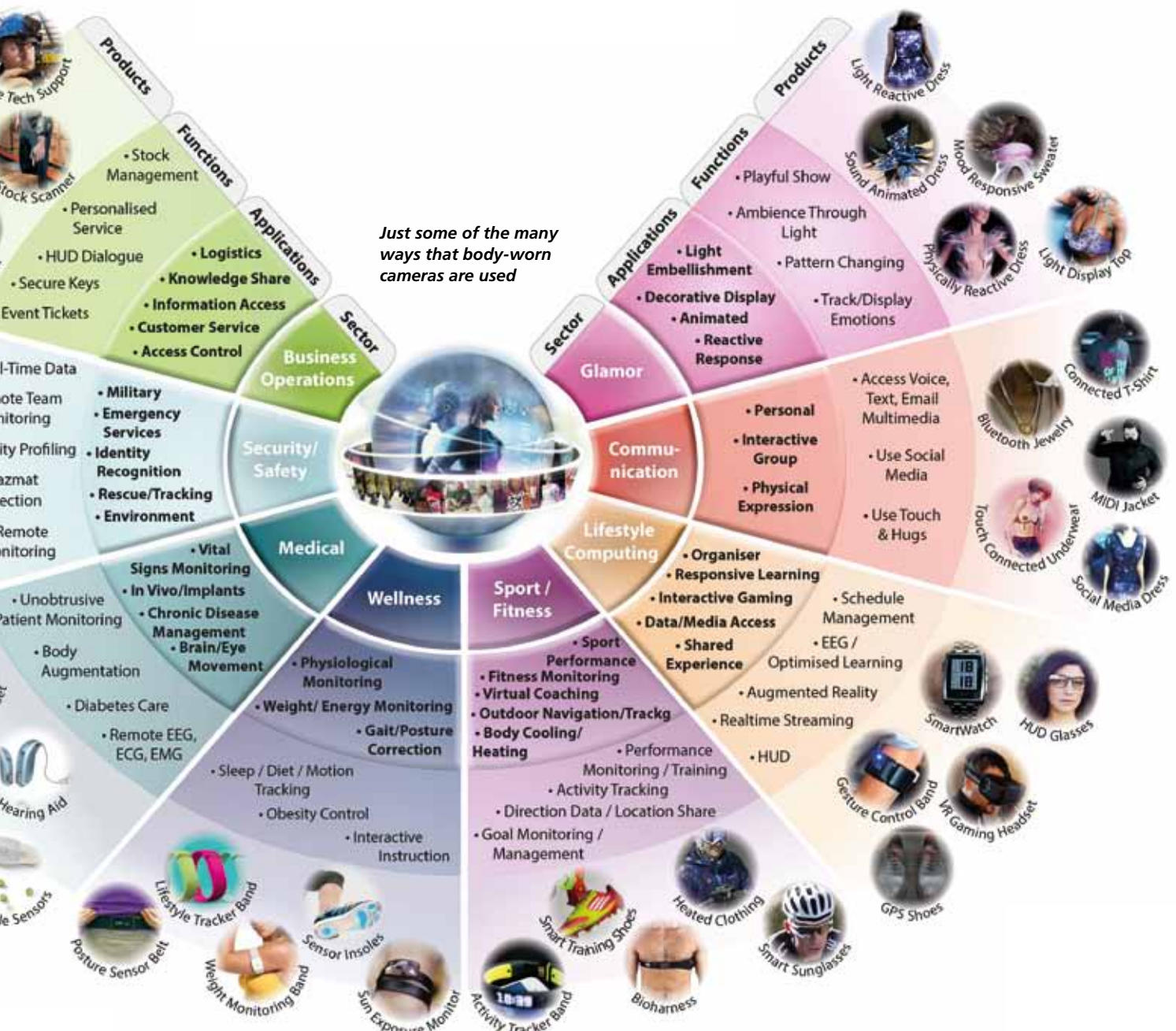
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A police officer in the US downloads footage from his camera to his laptop



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back office to BWCs, a number of privacy issues can also arise. What about privacy protection for civilians recorded by the cameras? In particular, what about bystanders? How will the footage be analysed and what if the footage is used for police training?

Other privacy issues are posed with the streaming capabilities of body-worn cameras. Of course, in some circumstances it can be of great benefit for public safety as in case of riots or misbehaviour from football fans where a responding unit can analyse the situation and plan a strategy while en route to deal with the problem. But what about privacy in these circumstances and who has the right to have access to the footage? Will the need or right arise only at the time of the accident or at any point after? Police services have been proactive in addressing these issues, with guidelines already designed and put in place in the US, UK and other European countries.

The US, which is at the forefront of body-worn camera adoption, has led this process through suggested guidelines from a nationwide perspective. Several states have transformed those suggestions into operational guidelines, creating a very diverse approach to body-worn camera guidelines. For example, South Carolina and Nebraska exempt access to body-worn camera footage for the general public entirely. The conflicting number of issues require detailed review by policy makers. A balance has to be drawn between the public's need to access the information, which provides accountability for government officials that have power to arrest, imprison and in some countries shoot to kill. The exercise of these powers, of course, may well be substantiated. According to data US police departments submitted voluntarily to the FBI, police killed 404 people in the United States in 2011 while only six were killed in Australia, two in England, and six in Germany.

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A police officer in the UK using a body-worn camera

On the other side of the story comes the citizens' rights to privacy. It might be fine when the body-worn camera records an interaction in a public place with a particular citizen and a police officer. The majority of problems arise when it comes to other individuals that the camera captures. What about when police officers enter a private residence to respond to a call? Issues may arise when such footage gets into the public domain. The footage from inside the individuals' home, for example, can provide an additional tool for burglars to select their future target. And the problems arising from public access to footage of famous people by the popular press is hard to underestimate.

Many of the aims and motivations that have driven police services towards the use of body-worn cameras are shared by a number of other professions. Particularly those that carry weapons and have the potential to harm people as part of their duties.

Additionally, any professions subject to malevolent accusations can benefit from body-worn cameras. One might assume that the number of those adopting body-worn cameras would be high, but in spite of the clear benefits, adoption for non-police professions is still limited. Some of the reasons for this are similar to those experienced by the police, but the approaches used by the police in terms of privacy regulation are yet to be proven and may not be applicable elsewhere.

For example, several organisations such as ACLU (American Civil Liberties Union) have shown strong opposition to body-worn cameras in non-police contexts. A number of professions, potentially benefitting from body-worn cameras are in a learning phase. They can see the value of body-worn cameras, but, they do not have the same pressure as the police, such as when the adoption of cameras was triggered by media attention like the Ferguson events and similar ones. Additionally,

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on balance the investment required for implementation is often not justified.

BWC is just an element of the future view of law enforcement technologies. The approach moves towards an integrated view of law enforcement activities from connected devices worn by officers, such as body-worn cameras to autonomous devices such as drones, vehicles and robots. Behind that there is a robust back-end office based on sophisticated data analytics solutions enabling prediction of misbehaviour and enhancing the intelligence capacity of police services. This data will be gathered by the number of devices spread all over the spaces and zones in which the law enforcement team operates. This data is exchanged with the back-end office through ultra-broadband 4G, 5G, fibre optics-based dedicated networks. The overall view is that of a smart and safe community. However, as this concept evolves because of continuous technological innovation, new ethical and societal issues will arise. Therefore, designing the future of law enforcement technologies should be a multidisciplinary exercise: technological, political and ethical.

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