5-15-2019

EXPLORING THE EMERGING BODY-WORN CAMERA PRACTICE WITHIN THE SWEDISH POLICE

Marie Eneman
Department of Applied IT, marie.eneman@gu.se

EXPLORING THE EMERGING BODY-WORN CAMERA PRACTICE WITHIN THE SWEDISH POLICE

Research in Progress

Marie Eneman,
University of Gotheburg
marie.eneman@gu.se

Abstract

Police authorities in a number of countries have recently started to use body-worn cameras. Unlike stationary surveillance cameras, body-worn cameras are maneuvered by the individual officers and can be used in a variety of different circumstances and even brought into private settings such as people's homes. This means that personal and, in some cases, even sensitive information can be captured and must be correctly managed and stored within the organization. Hence, not only actual camera usage but also management of the collected material need to be properly regulated. Previous studies, however, have shown that technology - and the new practice it affords - changes more rapidly than do the regulative mechanisms governing it. Therefore, our study aims to understand how individual police officers cope with this uncertainty during their everyday practice of using body-worn cameras. Using the Swedish police as a case, and based on qualitative interviews with individual representatives of both police and legislative authorities, we draw on Lessig's four modalities of regulation - law, norms, architecture, and market - and our preliminary results shows that the modalities of norms and architecture dominate with quite clear regulative effects whereas law and market have only marginal impacts.

Keywords: Wearable digital technology, Body-worn cameras, Police authorities, Surveillance, Lessig's modalities of regulation

1 Introduction

Police authorities have in a number of countries introduced a new mobile and pervasive technology, namely body-worn cameras, aiming to enhance trust and transparency (Eneman et al, 2018a). There are high expectations that the use of these cameras will improve accountability and strengthen trust in the police (Lee et al., 2016). Body-worn cameras have emerged as a tool that may contribute to "civilising" the police as well as consolidating their legitimacy, but concerns have also expressed about what effects the technology may have on the state's ability to monitor its subjects and whether there is a risk that the citizens' integrity may be violated (Lippert & Newell, 2016; Mateescu et al., 2016).

The focused technology in this study, i.e. body-worn cameras, has due to digitalisation become more widespread during the last few years. In addition to improving trust and transparency, controlling police officers' work environment, the cameras are also expected to secure evidence for prosecution. Body-worn cameras are seen as a preventative measure as well as a way to reveal when officers violate their own legal authority, e.g. by using unjustified force. By filming their own actions, the idea is that the police force improves their accountability. On the other hand, it has also been suggested that officers deliberately adapt their behaviour to any situation where there is a risk of being filmed in order to act "camera-friendly" (Sandhu, 2016).

With the use of body-worn cameras, the police now have access to new forms of mobile and powerful surveillance equipment. There are some significant differences between stationary surveillance cameras and body-worn cameras, as the latter are maneuvered by the individual officers and can be used in a variety of different circumstances and even brought into private settings such as people's homes. To make sure that citizens understand the circumstances, the cameras used are placed visibly on the police officers' uniform. It is often left to the individual officer's discretion to turn the camera on or off, despite potential negative consequences (see e.g., Maskaly et al., 2017). Another consequence of the camera use is that a large volume of information about individuals' behaviour can easily be collected, which means that material consisting of personal information and in some cases even sensitive information must be managed and stored within the organization in line with rules of law. Joh (2016) argues that the use of body-worn cameras within the police needs to be regulated and that the regulation should focus both on the actual use of the cameras and the collected material. Miller and Toliver (2014) report that nearly one third of the police departments claiming to be using body-worn cameras in their study did not have a written policy related to the cameras. The main reason reported by management was that they lacked guidance on what such a policy should entail. This finding was repeated in 2016, when Lee and colleagues reported that only a very small number of the agencies they examined had policies related to body-worn cameras that were publicly available. Furthermore, the policies that did exist focused on addressing the need of adapting body-worn cameras. Established policies on how to properly handle the cameras and the information they captured were still lacking in 2016 (Lee et al., 2016).

In sum, body-worn cameras as a technology in society brings up a number of complex issues around which formal regulative instruments are largely missing. The fact that these are concerns that to a large extent still await investigation has not prevented authorities from introducing the technology in a number of countries (Mateescu et al., 2016). The police are a public authority with a broad societal mission aimed at reducing crime and increasing security in society, but are also entitled to make use of force at work (Manning, 2008). The latter is a fact that places high demands on them to organize and conduct their work in accordance with legitimacy and rule of law, to ensure legal security for citizens, and to provide transparency and accountability. As described above, a number of questions concerning organisation of work, policies, and governance still needs to be investigated. *Therefore, this research in progress paper aims to understand how individual police officers cope with this uncertainty during their everyday practice of using body-worn cameras.* We have applied a qualitative study using the

Swedish Police as a case. We have conducted interviews with respondents primarily from the police but also from the Swedish Data Protection Authority. By doing so we start filling the gap of empirical studies investigating body-worn technology within the police.

Bennett Moses (2013) argues that the term 'regulation' has some advantages over the term 'law' when it comes to how technological activities are controlled and influenced. First, regulation can capture 'softer' issues that formal or traditional law ignores. Second, regulation captures better more distributed means of control, thus highlighting means of influence other than traditional top-down rules. Third, regulation can also accommodate unintentional influence such as market forces. This creates a richer picture of what influences practice than simply asking what laws are applicable (Bennett Moses, 2013). One framework that deals with regulation, and has successfully been applied in information systems research (cf. Mlcakova & Whitley, 2004), is Lessig's modalities of regulation (Lessig, 2006). Theoretically we therefore intend to draw upon Lawrence Lessig's model with the four modalities law, norms, architecture, and market in our analysis.

2 Introduction Lawrence Lessig's modalities of regulation

Many factors influence how a technology is brought to use, and in the case of surveillance technology, one obvious factor is the law. However, technical development and development of law do often not travel at the same speed, so there is a need to take a broader look that includes also other regulative instruments. One theoretical framework that serves this purpose is Lessig's model of regulative modalities. Lessig (2006) offers a model with four 'modalities of regulation', laws, (social) norms, architecture, and markets, which according to Lessig is the key for regulators to control the actions of individuals whether it take place in offline or online environments (Murray 2016). The model suggests that these four modalities constrain/regulate the activities of an individual and each of these modalities functions by acting as a constraint on the choices of actions individuals have. Thus, law constrains through the threat of punishment, norms constrain through the application of societal sanctions, architecture constrains physically, and the market constrains through price and price-related aspects. Lessig's model demonstrates how these four modalities function individually or collectively on an individual's choice of actions with a 'pathetic dot' in the centre that represents the individual and then the four modalities are graphically illustrated as external factors, which constrain/regulate the actions of the individual (Lessig, 2006). It should be noted that the four different modalities are not independent of each other and thus not operating isolated from the other modalities. The modalities are interacting in a number of different ways, regulating directly or indirectly depending on the circumstances.

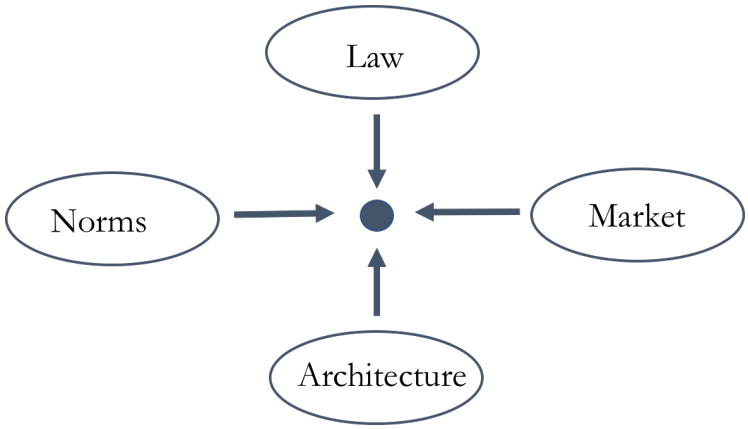

Figure 1. Lessig's modalities of regulation.

The figure above illustrates the four modalities law, norms, architecture, market and the 'pathetic dot' in the middle represents an individual. The regulation of the dot is the sum of the four modalities, any changes in one of the modalities will affect the regulation of the whole whereas some will support others and some will undermine others (Lessig, 2006; Murray, 2016; Reed & Murray, 2018).

Law

Law is one of four modalities that constrain/regulate an individual's actions. Law regulates through the power of the state through the creation and implementation of legislation (Murray, 2016). Law is sometimes assumed to be a powerful mechanism which orders people to behave in certain ways, but as Lessig (1999) argue this argument is somewhat problematic and based upon 'naive' assumptions regarding the power of law. For example, law (in many jurisdictions) tells us not to steal and not buy or sell drugs, thus law regulates by threatening with punishment from the state. The modality of law also is also assumed to act/function as a preventing mechanism in order to constrain/regulate us from engaging in certain activities. The application of law is in certain areas of little impact - an example - many individuals are engaged in downloading films and music by using illegal services (Murray, 2007). While the direct effects of the law may be failing for certain areas/activities, the other modalities can provide an alternative approach for regulation.

Norms

The second modality, social norms, constrains through the application of social sanctions. According to Lessig (2006) 'social norms constrain through the stigma that community imposes' and Murray (2016) suggests that this could take the form of criticism or ostracism. This indicates that norms to some degree are similar to law by threatening with punishment, albeit another form of punishment i.e. social sanctions from the surrounding social context/community (here work practice, organisation) and not from government as in the case with law. Even though, that law criminalises certain behavior in society it is assumed not only to be the legal imperative that prevents most of us from engaging in illegal activities. Most of us do not for example steal, not because we fear imprisonment but because we have been morally conditioned to view stealing as socially unacceptable. This highlights the existing mutual relationship between norms and law. Social norms affect the creation of laws and the laws in turn have effect upon norms. An illustrative example of this can be found in the creation of the Swedish law regarding corporal punishment of children that was enacted 1979 and which also succeeded to change the general attitude against the phenomenon in Sweden (Eneman, Gillespie and Stahl; 2010).

Architecture

The modality of architecture constrains/regulates via the environment, which can refer to "the way the world is or specific aspects of it are", or to designed and built environments, hence the use of the term architecture. The modality of architecture does not function in the same way as law and norms in that sense that an individual can't ignore the constrains and wait to later to suffer the consequence. Unlike the modalities of law and norms, architecture always regulates individuals' actions, for example a door is locked whether or not you wish to go through it (Lessig, 2006). Another important and unique feature with this modality is that it is self-executed, i.e. the execution takes care of itself whereas law needs/is dependent of law enforcement agencies such as police, prosecutors and courts to have effect. For norms to have effect it is required that individuals are aware of what is regarded as socially acceptable behaviour in the specific context and follows that, otherwise the surrounding will react with social sanctions (Reed & Murray, 20018). This unique characteristic i.e. self-execution is important in the understanding of its role in regulation. Law, norms and markets as modalities are dependent on a further step, in form of human judgement by a person or a group of persons, before they are executed.

Market

The modality of market constrains through price and price-related signals (Lessig, 2006). Markets do not sanction behaviour, but rather regulates choices directly when that choice is being made. That means that when your desire is to buy for example cigarettes, the price will affect your choice and thus act as a constraining/regulating factor (Murray, 2007). Where law fails to have impact, market solutions seem to have effect. This is in line with the industry-solution predicted by Lessig's saying while the effect of legal controls is diluted by remoteness from law enforcement, other modalities are strengthened including market modalities.

3 Research Design

The Swedish Police as a case

In this study we are interested to understand how the use of digital technology such as body-worn cameras within public authorities here represented by the Swedish police is shaped during an early stage of implementation. This paper presents the initial research findings, after the first year of three, of a larger ongoing study investigating opportunities and challenges related to the implementation, organisation and use of body-worn cameras within police authorities. The Swedish police is a public authority with a broad societal mission aimed at reducing crime and increasing security in society through preventive, interventive, and investigative activities (Manning, 2008). This implies that the police constitute a concrete case of government work that must relate to a variety of requirements for a responsible and lawful work. As a case, this provides us with access to rich material allowing us to examine different aspects, for example technological affordance and regulative mechanisms.

Semi-structured interviews

This study has been designed as a qualitative study where interviews have been conducted. Our ambition with the larger ongoing project is to interview approximately 40-50 individuals (primarily from the Police but also from other regulative authorities) and to date we have interviewed 20 individuals which constitute the empirical material for this research in progress paper. The majority of interviews (17) were conducted with police officers within the Swedish police and with three lawyers at the The Swedish Data Protection Authority. The three lawyers are involved in legal inspection of the body-worn camera practice, and all the 17 police officers are involved in practises where body-worn camera use occur. The interviews were semi-structured and based on an interview guide designed with a number of broader themes that stimulated the respondent's for in-depth discussions, follow-up questions and thus also provided for perspectives and ideas that we did not anticipate when we created the guide. All the interviews with the police officers, were conducted at their workplace and the interviews with the lawyers at the Swedish Data Protection Authority at their workplace and the interviews lasted between 1-2 hours. each. Before each interview, we gave information about the study and asked for permission to record. All the interviews were (sound) recorded after approval. Once the recorded interview material was transcribed by the Transcriptions agency the material was read and re-read and notes were made. In the next stage the material was structured and coded as an iterative process in relation to Lessig's four modalities of law, norms, architecture, and market.

The next step in the continuance of our research project is to broaden the collection of empirical material by conducting more interviews with police officers from other regions in Sweden. After that we will deepen our analysis and develop this research in progress paper to a full research paper with a more detailed result and a thorough discussion section.

4 Preliminary Results

Now when body-worn cameras are used more systematically and to a larger extent within the Swedish police, we wanted to investigate aspects that are regulating individual police officers' camera use. There are also relatively few empirical qualitative studies focusing on questions related to regulating mechanisms of these new practices were the body-worn camera use occur. The police constitutes a clear example of an organisation that is exposed to the requirement to develop skills and practices that ensure legitimacy and lawful enforcement in a continuous manner. There is a strong belief that the introduction and use of digital technologies such as body-worn cameras within police authorities will lead to more efficient work and improve transparency and accountability. It is however crucial that police officers' use of the new technology is legally appropriate and responsibly regulated.

As recognized in this study it is obvious that *law* as a regulative mechanism has limited impact due to the fact that there currently is a lack of enacted law surrounding this practice. This failure of law does not mean that the use of body-worn cameras within the police could be subject to accountable control. Because one should not make the mistake to confuse how something currently is regulated with how it can be regulated (Lessig, 2006). For while the direct effects of the law may be failing the other modalities may provide an alternative means of regulation. An obvious theme that was brought up when talking about how the implementation and use of body-worn cameras within the Swedish police is regulated to be considered to be in line with the rule of law, is that the legal support currently is insufficient. All the three lawyers at the The Swedish Data Protection Authority were unanimous in their view that there is an absence of legal support regulating aspects related to body-worn cameras. When discussing the need of legal regulation, the integrity aspect was highlighted by all the three lawyers. They are referring to the fact that since the camera can be used to film both picture and sound that makes it further sensitive for individuals' integrity. They argue that it is important that this is regulated by law since it represents intrusion into individual's privacy. They also raised concerns regarding the lack of procedures since that could pose a risk for individual police officers to do wrong. Another theme that was brought up during the interviews relates to organisational challenges. Challenges related to the size of the police authority were addressed, i.e. that it is a complex task for such a large authority as the Police with so many employees to make them act in the same way.

This study has identified different *norm* systems in relation to the use of body-worn cameras within the police. Our material shows that police officers have created their own norms and values within their work practices. These norms can be seen as a set of rules within their practices and defines what is allowed and what is not. The lack of clear legal rules and guidelines have consequences for the individual police officer using the cameras and it was expressed that this places large responsibilities on the individual police officers. Furthermore, it places large requirements on the police organisation to create clear procedures and guidelines for their employees so they know how to conduct their authority work. The police in one region described that they formulated their own guidelines for the use of body-worn cameras. Soon after they had purchased a number of cameras, they faced the legal questions and didn't know how to proceed. Therefore, the local police took the initiative, together with lawyers in their organisation at the regional level, to create guidelines for their practices regarding the body-worn cameras. The same region has now taken a further local initiative by creating a steering group to handle issues related to the body-worn cameras.

In this paper the *architecture* modality refers to the involved technology, i.e. the body-worn cameras, and its feature as an infrastructure that afford and/or constrain certain behaviour for the individual police officers. We view the involved technology as a socially defined materiality (Orlikowski & Scott, 2008), holding certain features that promotes potential affordances (Gibson, 1979). The term affordance was coined by Gibson (1979) as a concept to understand how a certain environment enables/facilitates opportunities for actions. The same environment affords quite different opportunities/possibilities depending on the individual. Affordance therefore refers to the specific interaction between an actor and the environment. The potential possibilities in a specific environment are thus

different for different individuals (Gibson, 1979). In this study that means that we direct our interest towards how body-worn cameras enable and/or constrain a set of actions for the individual police officers in their work practices (Gibson, 1979; Norman, 2011). Technological affordance may also foster different types of accountability. The meaning of accountability may take different shapes depending on the interaction between human actions and the cameras. Thus, when police officers apply the camera and its ability to document and broadcast shortcuts from real situations, they will organise their actions in relation to a set of other actors and demands on governance and accountability. For instance, it may mean that filmed material is turned into and used as evidence in courts, or raises demands that individual officers adhere to formal accountability. In the analysis of the type of accountability that is associated with body-worn cameras, this study draws on the fact that the police are forced to consider that this is a technology that can be used everywhere and in very different ways (Sörensen, 2010). Demands for accountable digital work are not only evident in situations when the police officer sits down at his or her office to conduct computer-based administration. Instead, they have to reflect upon how to apply a more ubiquitous technology in a correct manner (Castells, 1998). To be in accordance with public directives, they have to acknowledge that this is a technology that Adam Greenfield (2006) has described as "everywares", demanding awareness of the fact that they bring it with them into continuously new contexts. Hence, they have to reflect upon the fact that these cameras will be applied under different circumstances, where a variety of affordances and consequences are possible. An interesting aspect in our sample related to this, is whether court praxis will change due to the role of camera use by police authorities since it could have the effect that it may be more difficult to prosecute when there is no filmed evidence. It should be noted that this also refers to other camera use than only the body-worn cameras, it also covers camera surveillance via stationary systems, drones etc.

The modality of *market* constrains through price and price-related signals. In our material we have identified that the market modality could be used to understand the logic why certain regions within the Swedish Police have purchased a larger volume of cameras while some others have few. We have also discerned differences in the purchased technology, i.e. some regions have cheaper camera systems with less function while some other regions have been able to buy more advanced camera technology. As shown above the technology and its features affects the police officers' behaviour and the organisation that needs to handle the introduced technology.

5 Conclusions

The aim of this study was to understand how individual police officers cope with this uncertainty during their everyday practice of using body-worn cameras. This research in progress paper contributes with preliminary empirical results on regulative aspects related to police officers' use of body-worn cameras. The police as a public authority constitute an interesting case since it can teach us how the logic based upon how requirements of legitimacy and the rule of law affect the way the employees organise themselves (when using digital technology) as a legal authority. By building the study on Lessig's modalities of regulation and the Swedish police as a case we contribute with knowledge about different aspects of regulation related to the use of body-worn cameras. The model is useful since it enables us to identify different regulative aspects in relation to individual police officers' use of body-worn cameras and help direct our attention to regulative mechanisms other than merely law, which otherwise often tends to be in focus when discussing the issue of regulation. Still, we find that law is considered important although law is in its infancy and therefore cannot fully govern body-worn camera practise. In addition, we find different norms that have been developed locally and in different contexts, and that market seem to have more indirect regulative effects since the police officers using the cameras are not involved in the purchase and contract process. Architecture, finally, refers to the regulative force of the camera technology and its impact on individual police officers' use of the cameras that is highly related not only to the camera functionality, but to the whole infrastructure surrounding the cameras.

Acknowledgement

We would like to thank all the respondents for generously sharing their experiences and perspectives with us. This research is funded by Swedish Research Council for Health, Working Life and Welfare.

References

Bennett Moses, L. (2013) How to Think about Law, Regulation and Technology: Problems with 'Technology' as a Regulatory Target, Law, Innovation and Technology, 5(1), pp. 1-20.

Castells. M. (1998) The information age: economy, society and culture, Wiley- Blackwell.

Eneman, M., Ljungberg, J., Rolandsson, B., & Stenmark, D. (2018a), "Encountering camera surveillance and accountability at work–case study of the Swedish police", Proceeding of the 23rd UK Academy for Information Systems International Conference. Oxford, UK, March 20-21, 2018.

Eneman, M., Gillespie, A., Stahl, B. (2010) Technology and Sexual Abuse: A Critical Review of an Internet Grooming Case, Proceeding of the International Conference for Information Systems, available at: https://aisel.aisnet.org/icis2010_submissions/144

Gibson, J. J. (1979) The Ecological Approach to Visual Perception. Reading, MA: Houghton Mifflin.

Joh, E. (2016) Beyond Surveillance: Data control and body cameras, Surveillance & Society, 14(1): 133- 137.

Lee, J, Wang, J, Cliff, G & Rao, H.R. (2016), "Management of Digital Evidence: Police Judgement about ethical Use of Body Worn Camera", Proceeding of 37thInternational Conference on Information Systems, Dublin, Ireland, December 11-14, 2016.

Lessig, L. (2006) Code Version 2.0, Basic Books.

Lippert, R.K & Newell B.C. (2016) Debate Introduction: The Privacy and Surveillance Implications of Police Body Cameras, Surveillance & Society, 14(1): 113-116

Manning, P. K. (2008) The Technology of Policing: Crime Mapping, Information Technology and the rationality of Crime control, New York, London, New York University Press.

Maskaly, J., Donner, C., Jennings, W. G., Ariel, B., & Sutherland, A. (2017) The effects of body-worn cameras (BWCs) on police and citizen outcomes: A state-of-the-art review. Policing: An International Journal of Police Strategies & Management, 40(4), pp. 672-688.

Miller, L., and Toliver, J. (2014), "Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned", Police Executive Research Forum. Washington, DC: Office of Community Oriented Policing Services.

Mlcakova, A., and Whitley, E. A. (2004). Configuring peer-to-peer software: an empirical study of how users react to the regulatory features of software. European Journal of Information Systems, 13(2), pp. 95-102.

Murray, A. (2016) Information Technology Law: The Law and Society, Oxford University Press.

Murray, A. (2007) Regulation of Cyberspace, Oxford University Press.

Norman, D. (2011) Living with Complexity. Cambridge, MA: MIT Press.

Orlikowski, W & Scott, S (2008) Sociomateriality: challenging the separation of technology, work and organization. Academy of Management Annals, 2 (1), pp. 433-474.

Reed, C & Murray, A. (2018) Rethinking the Jurisprudence of Cyberspace, Edward Elgar Publishing.

Sandhu, A. (2016) Camera-friendly policing: How the police respond to cameras and photographers, Surveillance & Society, 14(1): 78-89.

Sörensen, C. (2010) Cultivating Interaction Ubiquity at Work, The information Society, 26: pp 276-287.