Any Body Could Be Watching: Policing with Body Worn Video Cameras in the Canadian Prairies

By

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Abstract

My thesis is concerned with how law enforcement officers make sense of and use the new visibility created by body worn video (BWV) and in-vehicle video (IVV) in the context of their work. The data comes from a case study of a small policing organization in the Canadian prairies. Data was collected through semi-structured interviews and observation. The study found that officers are generally proponents of the two video technologies, acknowledging that the benefits they provide are inextricably linked to certain difficulties and shortcomings. The benefits of video relate primarily to how it can support officer testimony while discrediting competing narratives; video can help dismiss unfounded complaints and charges against officers, and provide highly credible evidence for certain prosecutorial scenarios. Concerns that officers expressed about IVV and BWV relate to the amount of work required to maintain and use cameras to their greatest potential, the limitations of the technology to capture or convey important details, and the capacity to undermine officer testimony. This research suggests that the visibility generated by IVV and BWV and effects thereof arise through the interaction of organizational, legal, technological, and social factors.

Preface

This thesis is an original work by Neil Topinka. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Any Body could be watching: Policing with body worn video cameras in a Canadian prairie city”, Study ID Pro00050131, August 27, 2014.

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Introduction

The story was sensational; the news coverage ample. Bleeding and bruised, strapped into an ambulance stretcher, Dr. Simona Tibu's face appeared on television screens and news websites across Canada. Within a day of the incident, the world heard from Dr. Tibu that a nameless peace officer had sexually assaulted her and slammed her face-first to the ground during a traffic stop just outside of Edmonton, Alberta (Huffington Post, August 13 2013). To those following the story, it seemed that a grave injustice had been done, that police brutality had once again reared its ugly head.

Dr. Tibu's story has taken a number of twists and turns since it burst into the spotlight. Initial reports, based on interviews with Dr. Tibu, cast the officer as a violent, power-crazed villain. Video of the event recorded by the arresting officer's dash camera has since been made publicly available. Dr. Tibu's early accounts do not seem to fully align with the video content; early in the video, the officer does not seem to be as aggressive as Dr. Tibu suggested he was. The footage also shows Dr. Tibu attacking and actively resisting the officer as he tries to arrest her.

Dr. Tibu has since been charged and convicted of assaulting Peace Officer Robert Behiels. The arresting officer has been cleared of any wrongdoing based on a review of the video footage, and has launched a four million dollar lawsuit against Dr. Tibu, citing damage to his reputation and income (CBC, June 22 2015).

The video recorded by the officer played a central role in shaping comprehension about the event. The footage was instrumental in clearing the officer of wrongdoing, and securing the charges against Dr. Tibu. Groups online, however, still vociferously disagree about the actual

contents of the footage. Some say it clearly shows an officer properly dealing with an unpredictable and combative individual. Others say that despite her struggling Dr. Tibu was never a genuine threat and that any force used was unjustifiable violence against an innocent woman (CBC, April 15 2015). While the use of force is controversial, the existence of video footage fundamentally changed the nature of the public and legal discussions attempting to qualify Officer Behiel's actions as lawful or abusive.

The Tibu/Behiel incident drives home the point that video *matters*. The presence of video footage changes how events can be understood, and what claims can be made about them *ex post facto* (Goldsmith, 2010). When video surveillance is focused on law enforcement officers, a group tasked with using lawful violence when necessary, such claims have a direct bearing on questions of truth, public safety, and justice (Goldsmith, 2010).

My thesis research explores the following question: How do officers in Pierson Hill County[1], Canada, make sense of and use the new visibility created by body worn video (BWV) and in-vehicle video (IVV) in the context of their work? This work identifies several ways in which newer video technologies - in particular BWV and IVV- are affecting law enforcement for one organization in the Canadian Prairies.

Such work is important given that technologies do not exist in a vacuum. The effects or technologies depend not only on their technological attributes, but also on how people and institutions employ them. To develop a full understanding of the dangers, limitations and benefits of a technology, we must understand how they are used in practice, where hardware meets culture (Chan, 2001; Sanders & Hannem, 2012; Menichelli, 2014).

[1] The true name of the study area and policing organization have been changed to adhere to ethics requirements.

With this project, I aim to improve our understanding of the use and effects of BWV and IVV for Pierson Hill Protective Service. My data consists of interviews and field observation conducted to provide insight into officers' perceptions of the benefits and challenges associated with video technologies, and of video in their work more generally.

Based on the data, I argue that visibility created by video technologies changes how officers, citizens and justice system officials can understand and communicate "what really happened," particularly when events are contentious. To use the term coined by Ericson (1995), video modifies the *account ability* of all involved- that is, it changes the processes by which individuals can compete to make credible claims about events. I suggest that both the valued and detrimental effects of video visibility arise from an interplay of legal, organizational, technological, and social factors. I found that officers are generally proponents of recording their own video, because of the empowering effects that technologies provide in the current operational environment. However, officers also noted problems with video technologies in the present, while acknowledging that alternate applications for video in the future could have decidedly disempowering effects for officers.

Visibility and Policing

Visual recording technologies have improved drastically and become much more prevalent in the past two decades. Personal video recorders and video-equipped cell phones have become nearly ubiquitous; further, the rise of video sharing services such as YouTube allow for content to be shared to vast audiences quickly and easily. These technological and accompanying social changes characterise "the new visibility" (Thompson, 2005). This growth in video use has been gradually changing policing, allowing officers to both see and be seen in ways that were

impractical or impossible in earlier decades. (Sandhu & Haggerty, 2016; Brown, 2015; Brucato, 2015; Goldsmith, 2010; Farrar, 2014). As more cameras have been finding their ways into the hands of both police and citizens, a great deal of academic work has gone towards theorizing the effects of this technological shift, and the social changes which accompany it.

The increasing prevalence of video cameras has changed how police are visible, allowing more actions of officers to be reviewed after they have occurred. Prior to the presence of video cameras, police operations were generally only visible to the officers and those citizens immediately present (Brucato, 2015; Sandhu & Haggerty, 2016; Ericson & Haggerty, 1997) This type of visibility is known as "actual" or "primary" visibility (Goldsmith, 2010). However, police actions are nowportrayed after the fact through media in stories, photos and videos more than ever before. These various media comprise the "secondary visibility" of police, and provide a means for those who are not present at an actual event to learn about - and make moral judgements about - police actions (Goldsmith, 2010).

The secondary visibility of police has changed over time. Changes in media formats and communications technologies can modify how stories about police are disseminated, shared, and perceived (Goldsmith, 2010). Similarly, shifts in cultural practices surrounding media creation and consumption will change the types of accounts of police activity which can be provided, as well as how people come to encounter and interpret this content (Ericson, 1995; Brown, 2015).

In the same vein, technological changes affect how police organizations can communicate about their own actions. Although secondary visibility of police is often discussed in the context of how the broader society comes to know of police actions, many elements of the criminal justice system also depend on forms of secondary visibility- stories, videos, audio recordings, written

records. As such, we might expect that changes brought by these technologies might affect the capacity of police to account for their actions not only in the public sphere, but also in other settings such as courtrooms, or before oversight committees or supervisors. In other words, video technologies- and the visibility they create- are likely changing how police are held accountable within the justice system as well.

Accountability "entails an obligation to give an account of activity within one's ambit of responsibility" (Ericson, 1995; p.136). According to Ericson, appearing accountable is an active process. In order to appear accountable, an organization must have the means to convey the reality of their actions to an observer. Ericson (1995) coined the term *account ability*, to describe the "capacity to provide a record of activities that explains them in a credible manner so that they appear to satisfy the rights and obligations of accountability" (p. 137).

The concept of account ability provides some useful nuances to how we think about accountability. First, it speaks to the need for a method of substantiating the claims being made. Depending on the context, there may be different types of proof which can be used to convey one's actions, enabling one to be seen as accountable. Second, an account must have particular attributes to be credible; not every account is valued evenly. Even the most detailed, likely sounding story or source may not appear credible for a number of reasons. For instance, it could be tainted by contrary evidence, not exist in a "credible" format, or come from a questionable person or source. Third, Ericson's definition highlights that one only need to "*appear* to satisfy the rights and obligations of accountability" [emphasis added] (Ericson, 1995; 137). This indicates that in practice, the ability to tell a compelling story may be more important than whether or not the contents of the story are true. Account ability is contingent on how individuals leverage various means of conveying information to others. Accounts do not convey absolute,

objective truth, but instead provide approximations of reality which can be designed to appear credible (Ericson, 1995). Account ability as a concept presents the possibility that an organization or person may be unable to compellingly report their actions. Alternately, it could be possible that information could be presented to make it appear as though obligations were met when they in fact had not been.

Accountability and account ability are particularly useful concepts within this thesis, as officers are constantly being held to account regarding their actions and decisions. From the moment an officer begins an investigation into suspected wrongdoing, he or she is collecting evidence with the goal of being able to support any charges that they might lay. In court, the officer is accountable for the charges laid, and must be able to articulate through testimony and evidence why those charges are justified. On the other hand, when officers are subject to complaints or criminal charges themselves, they are also required to explain their conduct and decisions.

Much of the early literature on policing's new visibility suggests that the increased visibility of police disrupts long held policing practices. Much of the disruption results through the changing account ability of different parties. The rise in citizen journalism which is a key component of the new visibility described by Goldsmith (2010), is partially the result of citizens becoming increasingly aware that the "making visible of actions and events is… an explicit strategy of individuals who know very well that mediated visibility can be a weapon in the struggles they wage in their day-to-day lives" (Thompson, 2005; p.31). Video can support claims by showing the actions of the involved parties.

Goldsmith (2010) argues that increased video visibility of police also has the effect of making police violence and misconduct more visible. Video recording and sharing technologies are

adding powerful substantiation to the claims made by citizens about police conduct. On the other hand, police are increasingly being held accountable as this more "objective" evidence of police misconduct cannot always be easily explained away. When faced with compelling video, the account ability of police is being eroded as their strategic options for countering such troubling disclosures can be limited. These effects could be leading to a crisis of legitimacy for police (Goldsmith, 2010).

There is a growing body of work, however, which suggests that technologies of visibility are not uniformly problematic for police. Recent work suggests that certain officers actively seek out and use sources of video visibility to assist them with different challenges in their work (Sandhu & Haggerty, 2016). Others suggest that by filming their own actions, police can strategically use video visibility as a means to nullify the advantages which citizens might possibly derive from recording footage of officers (Brucato, 2015). Companies such as TASER International suggest that body cameras stand to solve many of the challenges facing the modern officer or police force - a panacea that will not only significantly reduce violent interactions and citizen complaints, but will also reduce paperwork and court time (Taser.com). Some, but not all, of these perceived benefits relate to how video can improve officers' ability to control how events are understood after the fact. In other words, video technologies may also have the capacity to improve the account ability of officers.

In short, there is a general agreement that police are becoming increasingly visible thanks to a range of video technologies, both in the hands of citizens, and police themselves. There is less agreement about the overall effects of visibility on police. The extent to which video visibility is helpful or harmful is disputed. Most of the work which exists remains in the realm of theory, and looks at broad trends - generally at the organizational level (Sandhu & Haggerty, 2016). Limited

work exists which explores how law enforcement officers think about creating their own visibility with technologies which are becoming increasingly common; there are facets of policing's new visibility which are largely unexplored. My research speaks to this issue by focusing on individual officers and their experience and intentional use of video technologies provided by their policing organization. Understanding the logic and motivations of individual officers would be highly relevant to understanding how video technologies and the visibility they create affect how policing organizations operate. It also provides insight into the larger theoretical questions as to how these technologies affect account ability and accountability in policing organizations.

Provincially Appointed Law Enforcement Officers

The subjects of this study are given power under provincial legislation, in the role of "Special Constable" in Saskatchewan and Manitoba, and "Peace Officer" in Alberta (Peace Officer Act, 2006; The Police Act, 1990; The Police Services Act, 2009). While there are some slight differences between these roles across provinces, the underlying principle is the same. These officers wear uniforms which clearly designate them as law enforcement personnel, travel in marked vehicles, and may employ lawful violence. The officers in my study carry batons, pepper spray, handcuffs, radio units, and other typical police equipment. Where the officers in my study differ from typical expectations of police is that they do not carry a firearm, and do not enforce the Criminal Code. Instead, they are tasked with enforcement of provincial and municipal legislation. Nonetheless, they do engage in the act of "policing" in the sense that they enforce laws.

Due to their mandate, the role of my study participants is slightly different from the "traditional" role of police officer. Nonetheless, the findings of this study are relevant to sociological discussions of policing and visibility. Uniformed law enforcement officers of all sorts are subject to public scrutiny even though the various officers may derive authority from different statutes.

Surveillance and Pierson Hill

> "We're already in the public eye with everything that we do, like how much gas we spend, how often we go to the bathroom or what we take for lunch is already looked at carefully." Officer Bennett

Pierson Hill County is roughly 2,500 square kilometres in size, and contains a number of municipalities, acreages, industrial park areas, and large swathes of farm land. Located within the Canadian Prairies, its economy is primarily based on the oil and gas industry, which provides work for many of the residents.

The Royal Canadian Mounted Police is the county's primary police force, with Pierson Hill Protective Service (PHPS) operating as provincial law enforcement officers. Pierson Hill Protective Services is a small organization consisting of five officers and one commanding officer. Their work focuses primarily on enforcing the *Traffic Safety Act, Liquor and Gaming Act, Environmental Protection Act*, and the *Weed Control Act* in addition to municipal bylaws. The bulk of the work done by officers of PHPS is related to the *Traffic Safety Act*. Most officer time is spent in a patrol car, patrolling the highways of Pierson Hill County. Most- but not all- tickets and charges issued by officers are the result of traffic stops.

Like any law enforcement organization, officers also spend a significant amount of their time in their offices, dealing with paperwork and preparing for court. Officers also regularly respond to complaints, serve documents, and in the summer, perform Off-Highway-Vehicle (OHV) and boat patrols. Officers initiate traffic stops, perform investigations, collect evidence, write tickets and lay charges as necessary. They provide all documentation and evidence to the crown prosecutor, and attend court to provide testimony as needed.

The officers of PHPS typically work alone and resolve situations singlehandedly. The standard approach is one officer per patrol vehicle. Although multiple officers will work on any given day, they typically operate independently of one another. If a situation seems dangerous, officers can call on one another for backup, as well as contact the RCMP or other emergency services in the area. Due to the size of Pierson Hill County, however, backup is rarely close at hand.

The operational space of PHPS extends across the entire county, although PHPS generally does not work within the municipal boundaries of the larger towns within the county; these municipal areas have their own peace officers for matters within their municipal boundaries. At times, however, PHPS collaborates with other municipal, provincial, and federal agencies to provide focused enforcement both inside and outside of their typical service area when relevant. PHPS operates primarily in non-residential areas, encompassing large industrial parks and farmland, though a number of acreages and housing subdivisions are located within their operational area.

The large physical space brings with it a number of challenges. Radio and cell phone reception is poor to nonexistent in certain areas due to the topography and technology in use. Officers know that if they enter certain regions, they will be unable to communicate electronically or call for help. Further, the sheer size of the space means that even with functioning radios, officers may

be up to an hour's drive away from the nearest PHPS officer who could assist them. There are other environmental considerations as well; harsh winter weather can render many roads treacherous, particularly those less traveled. During the summer, the reach of the PHPS must extend into the vast areas traveled by Off-Highway-Vehicle operators, and onto lakes used by boaters.

The range of duties officers are responsible for, combined with the size of Pierson Hill County compared to the manpower of PHPS, means that officers are well aware their influence is finite. While each officer felt well-equipped to handle most situations which he might encounter, the fact that only two to four officers might be working on any typical day means that PHPS is by no means an omnipresent force in Pierson Hill County. Instead, officers provide the best enforcement they can, providing moving pockets of enforcement throughout the county over the course of the day.

The officers of PHPS used two different video technologies during the study period: in-vehicle video (IVV), and body worn video (BWV) cameras. IVV and BWV are both video recording devices with particular technological attributes. The technical capacity of each technology determines their possible functions to a certain extent. Of course, the attributes of a technology do not dictate how it will be used in practice, but any application of the technology cannot contradict its basic attributes (Menichelli, 2014). For instance, a camera cannot record video footage if it lacks a charge in its battery. Similarly, a camera can only record video of a predetermined range of qualities, in predetermined formats. No matter how much a user might want it, a digital video camera will never be compatible with a VHS tape or the roll of Kodak film they purchased in 1982.

In Pierson Hill, officers have a degree of personal choice and agency regarding their use of IVV as dictated by policy. The range of choice officers have relating to BWV is much greater due to extremely minimal policy dictating its use. The technical realities and policies associated with both technologies are factors which officers must continually evaluate and deal with when making decisions about when, where, and how to use these devices.

Officer Surveillance in Pierson Hill

Officers in Pierson Hill work in a surveillance-heavy environment. The bulk of their work is done out of a patrol car, equipped with a range of monitoring and communications equipment. Their vehicles are computerized, and constantly report their position back to a command centre, as well as to other officers connected to the same tracking system. Officers log their activities into the computer as they go about their work, creating records of when and where they engage in various activities. For instance, they indicate to the system when they are on patrol, conducting various stops, taking breaks, and so on. This system enables individuals at the command center to be notified if something has perhaps gone wrong. For instance, if a traffic stop is taking unusually long and the officer is not reporting back in, it may indicate that the officer has been injured or is in danger. This constant recording of officer activities also means nearly every action the officer makes can be quantified and stored for later review.

The members of PHPS are often recorded by police cameras, adding an additional layer of surveillance over their work. The cameras may be those owned by PHPS, or those of other law enforcement agencies. For instance, the municipal Peace Officers or the RCMP with whom PHPS regularly cooperate use vehicles equipped with IVV. When multiple agencies work together, it is not unlikely that cameras owned by each agency will be present at a given scene.

Many different varieties of IVV cameras exist; the variant that PHPS employs is mounted inside of their patrol vehicles. The camera points forward off the front of the car, and films whatever is in front of the vehicle and passes within the camera's field of view. There is a second camera in the back seat of the car, which faces towards the back window of the vehicle. The primary function of this backwards facing camera is to record footage of anyone sitting in the back seat of the police vehicle. The system saves video footage to a memory card inside the vehicle; the camera has a separate power supply which is also replenished by the operation of the vehicle. Footage is automatically uploaded to a server inside the PHPS building when officers park their car near the building. The process is wireless, and happens without any input from the officer. Video files are automatically labeled and stored on a server by the camera software, in accordance with policy.

The IVV system used by PHPS also records audio to accompany the video footage. The system has two microphones. One is battery-powered, wireless, and worn on the body of the officer. It has a functional range of several hundred feet. So long as the officer and microphone are within this range, the microphone fairly reliably captures the officer's voice, and often allows a reasonable amount of other nearby conversation to be heard. In the presence of high wind, or close to the edge of the device's range, audio quality can be very poor. If the microphone is covered by a jacket or other piece of clothing- which is not uncommon during the winter- voices can be difficult to discern. While this microphone performs reasonably well in optimal conditions, optimal conditions are rare. As such, there is often an incomplete audio record of events when the IVV wireless microphone is the sole recording device within audible range. The second IVV microphone is located in the vehicle, between the front seats. It reliably captures sounds from within- but not from outside of- the PHPS vehicle.

One novel but practical feature of the IVV system used by PHPS is the camera's ability to begin recording video without direct human input. It triggers automatically in the event of a collision, if the vehicle speed exceeds a certain limit, or in the event of extreme braking. It also begins filming automatically whenever the officer activates the emergency lights on their vehicle, which officers must do when initiating a traffic stop. This means that with few exceptions, traffic stops conducted by PHPS are video and audio recorded. While officers can manually activate and deactivate the dash cams at any time, written policy requires officers to record all traffic stops using the dash cam, provided they are driving their patrol vehicle at the time of the stop. Officers have three main ways of activating the camera manually- first, they can press a button on the IVV display inside their vehicle. Second, they can push a button to trigger the emergency lights with the goal of activating the IVV, or third, they can use a wireless remote worn on their belt to begin recording.

The ability to manually start the camera means that officers can also record interactions which did not begin from a traffic stop. For instance, if an officer is out of his vehicle serving documents, he could begin audio and video recording at any time using his wireless remote. Despite policy and the possibility for discretionary recording on the part of the officer, dash cameras do not, and cannot record all law enforcement-civilian interactions that occur in Pierson Hill County. The details of situations which IVV cannot record are discussed further in a later section of this paper.

The IVV unit also has a 30 second video pre-record buffer function. This means that when video recording is triggered, the 30 seconds preceding the activation will also be on film. The system is consequently fairly forgiving in helping officers capture critical moments. For instance, if a clear traffic violation occurs, such as a vehicle failing to stop at a stop sign, the officer can press

record after the event has occurred. Provided the officer has pushed the record button within 30 seconds of the event happening, the event will still be in the camera's memory and will appear in the recorded footage.

The dash cameras also record information that is not audio or video related: The system records when officers turned on the emergency lights, when the car brakes are applied, as well as the officer's vehicle speed and GPS location. It can also track speed readings from the radar unit in the vehicle, although this feature has been deactivated in Pierson Hill vehicles.

As of October 2014, PHPS formally introduced a BWV trial program. This placed a second video recording technology in the hands of officers, supplementing the existing IVV as a means of capturing events. The BWV cameras used by PHPS mount onto an officer's chest with the camera facing forwards, meaning the field of view roughly approximates that of the officer when he is looking straight ahead. The camera provides a video and audio recording system that moves with the officer. Video is recorded with a 170 degree field of view, with a default recording quality setting of 720p. The BWV system also records audio from a built-in microphone. This means that when using both the IVV and BWV system, an officer has audio recorded through the IVV microphone which was of generally poor quality, as well as a separate audio recording through the BWV unit. Similarly, two videos are produced: one which views the area forward from the hood of the officer's car, and one facing forward off the officer's chest.

Recording on the BWV unit happens only when the officer decides that circumstances are appropriate to activate the camera, and is also capable of manually beginning the recording. When the event concludes, the officer must also end the recording manually. The officer can choose to begin recording by pressing a button on a small, portable wireless remote, or by

pushing a button on the camera itself. The camera has a small, upwards facing light which begins flashing while recording is underway, which is supposed to be visible to whoever is wearing the camera. The camera also produces a small tone when recording begins.

The BWV units used in the study has an internal, rechargeable, non-replaceable battery charge rated to last for 4 hours of recording in typical conditions. The standard memory card could record 4.5 hours of video at the default quality settings. Most officer shifts were eight hours long, meaning that neither the battery nor the memory card with which they were equipped could sustain a whole shift of non-stop recording. The hardware was entirely sufficient for recording shorter segments of video throughout the shift, which is the approach officers took.

Unlike the IVV, officers were responsible for manually uploading their BWV videos to their personal computers. They were also responsible for creating a storage and naming system for these videos, meaning that data management and storage was more demanding for BWV than for IVV.

Strictly speaking, this was not the first time that the officers of Pierson Hill had access to BWV. Members of PHPS had access to a small number of very small, low-quality BWV cameras during the summer of 2013, though these were fairly quickly lost or broken and did not see wide use compared to the current set. In October of 2014, the current trial began with higher quality cameras, with a BWV camera assigned to each officer. One officer refused to use a camera, while the others were instructed to use the cameras as they saw fit during their work. At the beginning of the study, no official policy was in place regarding how BWV was to be used.

IVV has been around in one form or another at PHPS for at least the past 14 years. A form of IVV was already in place when the longest-serving officer joined the organization. Every officer

working at PHPS had been working with IVV since the first day of their employment. IVV use is interwoven with many aspects of officer's jobs at PHPS. Department policy exists on the use of IVV, dictating a wide range of situations where officers must use it or be in contravention of their duties. Beyond the moments where officers will actively turn on the IVV system, there are also the automatic functions of IVV which will automatically start recording in many situations. Further, IVV is present for many of the duties which officers fulfill; as mentioned earlier, the officers of Pierson Hill spend much of their time close to their vehicles, and by extension close to IVV. This means that in Pierson Hill, IVV technology and force policy work in conjunction to ensure that IVV plays an important role in officer's work.

When BWV was introduced in the trial capacity, no changes were made to the policy regarding IVV. As such, when IVV was present, officers were faced with the choice of using only IVV, or IVV and BWV together. When in proximity to IVV, the option of using only BWV without IVV was rarely present on account of existing policy requiring the use of IVV. This means that when officers were in or around their vehicles, BWV was relegated to be, at most, a supplementary technology. As IVV use was longstanding and continued through the pilot project, it had a clear place as the established technology around which BWV would have to be adapted.

Of course, officers were not always around IVV. Officers were faced with instances where IVV use was either not required by policy, or where IVV was simply not present. For instance, while officers were on Off-Highway Vehicles they had no IVV; similarly, boat patrols were without IVV; officers also did occasional foot patrols through parks or did other bylaw enforcement which took them away from their vehicles. In these instances, officers were indeed faced with choices of either using BWV or having no video whatsoever. These scenarios were much less

frequent than scenarios in proximity to patrol vehicles, but represented moments during which officers had a genuine choice about whether or not they wanted video.

Due to a methodological oversight, this study was not specifically structured to seek out situations for observation where BWV was the only video technology available to officers. The methodology anticipated that by participating in officer's day-to-day activities, these sorts of situations would inevitably come up during my observation sessions. I was surprised that at the end of the study I had not encountered any of these situations. In hindsight, perhaps I should have specifically sought these out. Fortunately, I was able to hear officer's accounts of how they acted in such scenarios. The interview content suggested that generally speaking, it was in these instances that BWV was most useful and that officers made sure to use it, precisely because they had no other source of video.

Methodology and Research Methods

This study asks: *How do officers in Pierson Hill make sense of and use the new visibility created by BWV and IVV in the context of their work?* The study develops an understanding of the relevance which IVV and BWV cameras have for Peace officers in Pierson Hill. In contrast to the majority of prior studies on organizations adopting BWV (Farrar, 2014; Goodall, 2007; Laur, 2010) this research is not attempting to quantitatively measure the camera's capacity to fulfill a particular goal, i.e: increasing conviction rate, reducing use of force complaints, or decreasing paperwork time. Instead I seek to understand how officers make sense of video cameras in their work following the introduction of BWV.

This work is important given that technologies do not exist in a vacuum. The effects of technologies depend not only on their technical attributes, but also on how people and

institutions choose to employ them. To develop a full understanding of the dangers, limitations and potential of a technology, we must understand how it is used in practice (Chan, 2001; Sanders & Hannem, 2012; Menichelli, 2014).

The research project is designed around a qualitative method of inquiry. A qualitative approach is fitting as the work both aims to "get at the inner experience of participants," and "determine how meanings are formed through and in culture…"(Corbin & Strauss, 2008; p.12). Pierson Hill Protective Services initially consisted of six- and later, five- employees, meaning that it was possible to have contact with all members throughout the course of the study. The small number of participants made it possible to have close contact with all involved, and to pursue more in-depth responses from each.

Of the six study participants, all used the IVV system. However, the supervising officer rarely found himself in situations where IVV or BWV use was necessary, meaning that his IVV and BWV use was minimal during the study period. Practically speaking, 5 officers used IVV constantly. Meanwhile, one officer opted out of using the BWV system on ideological grounds. the officer who opted out of using BWV did so on the basis that he felt that BWV could create safety hazards, be time consuming to use, and was one more possible source of technical difficulty. He also felt that IVV provided most of the benefits that BWV could afford, with less work and risk. With this officer and the supervisor not using BWV, only the four remaining officers were involved in testing BWV throughout the study period. However, all six officers consented to participating in interviews; all patrol officers agreed to have me come on ride alongs as well.

This global view of the entire organization meant that it was possible to think of and study PHPS as a "case" in the sense proposed by Stake (1995; 2005). Stake defines a case as a "specific, unique, bounded system" (2005, p.445). As such, this work should be considered a case study. It seeks to develop an understanding of what IVV and BWV have for the officers of PHPS, who all operate within a particular shared setting.

Temporally, the study focuses on the early stages of BWV introduction to officers in the organization. The cameras were provided to officers in late August, 2014, and the thesis field work began in October 2014. The first interviews occurred in December, 2014. Data collection occurred over nine months, with the last ride-alongs and interviews concluded in June, 2015. This time period allowed for interviews during fall, winter, spring, and early summer, meaning that officers were able to provide feedback about use in all four seasons.

Data Collection Methods

Data collection consisted of interviews and observation. I used two different approaches to interviewing: semi-structured verbal interviewing, and media-assisted interviewing which involved reviewing and discussing officer's video footage. I audio recorded interviews, which I conducted with only myself and the participant present to ensure confidentiality. I conducted interviews in a range of locations: in the squad cars as officers went about their patrol, in officer's offices, and in the lunch room. While I was initially hesitant to perform interviews in the squad cars, it became apparent that there were often long uninterrupted periods during patrol which were well suited to conversation. The decision to interview in squad cars was also influenced by officer's comfort in that particular environment. In the car, conversation seemed particularly non-confrontational or forced. As well, while office interviews seemed to interrupt

the flow of the officer's day, vehicular interviews kept officers in their element and did not inhibit their normal work to any significant extent.

The main downside associated with conducting interviews while in the car was the potential for interruptions. I dealt with interruptions during vehicular interviews by pausing the audio recording when an incident arose, making a note of the topic of conversation, and continuing the topic after the matter had been concluded. Interviews ranged in length from 30 to 60 minutes. No interview suffered more than 2 major interruptions, where recording had to be paused. Officers were able to stay on-topic and respond thoroughly to the various topics of discussion despite the constant minor distractions such as radio reports, the chirp of the radar set, and the various goings-on outside the vehicle.

I arranged semi-structured interviews such that a set of questions was prepared beforehand. Over the course of the study, I developed interview questions building on the content of prior observation, conversation, and topics derived from readings. For each set of interviews, however, the same basic topics were addressed with each officer, as well as with the supervising officer, who was more removed from the day-to-day patrol work. The questions I prepared for the officers would generally seek their personal experiences, while questions for the supervisor would generally focus on the larger organizational concerns on the same topics.

The ultimate goal was to get each of the officer's opinions about the same set of topics so that these viewpoints could be compared and contrasted. Given the natural flow of conversation, and relationship between questions in an interview, it was inevitable that sometimes content from one question would be inadvertently discussed while conversing about an earlier question. I sought to

keep the interviews conversational in nature, so I avoided robotically asking exactly the same question to every officer if the topic had been addressed otherwise.

Not all interviews occurred in the squad car, for a number of reasons. Sometimes it was not convenient based on the officer's tasks for that day, and the interview would take place in their office. In a few instances, we conducted interviews in the lunch room when conversation carried on into lunch hour and the officer indicated he wished to continue the interview through lunch. It was also not possible to do the media-based interviews in the squad car.

Media based interviews were also a component of this study. "Media-assisted" refers to interviews during which both myself and the interviewee view and discuss videos which the officer recorded while working. To arrange these media-assisted interviews, I contacted the Officers in advance of the interview and asked them to select two video clips to show to and discuss with me. These interviews required a computer to review footage, and were performed in an office setting where officers would have access to a backlog of videos, and where we could fully direct our attention to what was on a screen. Media-assisted interviews were also semi-structured in nature. This set of interviews questions was centred on probing the relationship between the technical limits of BWV and IVV cameras, as well as the problems that these limitations could create for officers. This approach allowed me to ask a number of questions using the videos viewed as a point from which tangible examples could be drawn or explained more clearly.

The observation aspect of data collection occurred throughout the study. Every time that I was in the office, speaking to officers, riding along in the patrol cars, or otherwise interacting with officers, I kept notes in a journal. Initially notes would be taken by hand, but would then be

elaborated on after the event in a more in-depth digital format. During observation, I sought to develop an understanding of the overall operation of the officers and PHPS as an organization, in order to contextualize the video-related activities that went on within. Further, I made note of how and when video was used, how officers spoke about it, and how they acted around active and inactive cameras. In short, I worked to understand PHPS and its role in the world, and also the roles that officers and video technologies played within it.

I sought to maintain a professional but informal relationship with the officers during the course of the study. As the officers each would spend a number of hours with me, it was important that they felt comfortable with my presence, as well as sharing details of their work. In order to reduce the likelihood of officers changing their responses based on biases they might perceive I would hold, I made it very clear that I had no vested interest in particular opinions about BWV or IVV, nor of any particular use of the technologies. I encouraged officers to share the full range of their experience with video technologies, not focusing only on merits or problems. I made significant efforts to position myself as an individual working to better understand how video technologies and BWV fit into their job, as opposed to an advocate or critic of the technology.

This relationship was cultivated over the course of the study, beginning with the introductory letter and consent form which introduced me, the study, and the rights and approximate involvement level of participants. From that point, I built rapport during ride-alongs and observation sessions. Officers were generally welcoming at the beginning of the study, and over the course of the study the relationships became even more comfortable. All things considered, I believe that officers had no strong motivations to hide information or to be dishonest.

Data Analysis

I performed data analysis using Nvivo 10. I imported research notes and transcribed interviews into Nvivo, and manually reviewed these data. Excerpts and quotes were sorted into content-based themes, referred to as "nodes" in Nvivo. This allowed me to return to the data sorted into each node, and see the totality of the data from all sources which related to a particular topic. I sorted some excerpts or quotes into multiple nodes, as they touched on multiple issues. For instance, a quote about how video was effective at supporting officer testimony and improving officer image would likely get sorted into the node labeled "Officer Testimony" as well as the node labeled "Credibility."

Node labels were created as I read through the various data collected during the study. This meant that as I progressed through the analysis, I created new nodes, while re-grouping or modifying other concepts. Throughout the analysis, I constantly sought out new relationships between the data collected. As the list of nodes/themes grew, I made several passes through the data to ensure that all data was reviewed with consideration to the various constructed categories.

I selected this approach with the goal of more effectively sorting and contrasting the data. I found it invaluable to compare various officer's accounts and research notes about a particular topic side by side, and Nvivo made this particularly easy.

Reflexivity and Methodology

In this thesis, I subscribe to a notion of dialogic validity (Saukko, 2003). This means that I seek to fulfill three primary goals in the name of "good research": first, truthfulness- to do justice to the perspectives of those being studied. Second, to be self-reflexive- that I seek to acknowledge

my own perspective and broader social considerations which affect my perception and reporting of reality. Third, to embrace polyvocality- which is to include the many voices of those who participated in the research, identifying both the diversity between them as well as points of similarity (Saukko, 2003).

To position myself, I am a white male in my mid 20's, with English as my first language. I grew up in the Canadian Prairies, and have lived in Alberta and Saskatchewan for most of my life. This may have facilitated in building rapport with the officers who were all demographically similar, although some officers were notably older than me. I have also done research with and worked with police in the past, which may have assisted in building relationships to the officers.

Regarding European Canadian Culture- which was shared between myself and the study participants- I was an "insider." My lack of experience doing the actual work of policing, however, meant that I was an "outsider" in the world of policing. This position means that while I may misunderstand or misinterpret certain things which I hear or see due to a lack of policing experience, I may also be better positioned to notice details which might be considered banal and unimportant to someone more familiar with the setting.

My previous work with police and BWV means that I have pre-existing thoughts and experience with these topics, although I have sought to set aside preconceived notions about these. I adopt a critical perspective, in that I am aware of other research and perspectives on BWV, IVV and visibility, although I do not blindly adopt these perspectives as my own. Instead, I seek to raise questions and identify similarities and differences between other works, my past experiences, and my current data. On the other hand, I do not adopt a radically critical perspective with this research in that I do not seriously question the validity of the law enforcement organization or

justice system more generally. This decision is coherent with my goal of discovering and reporting on the voices, experiences, and concerns of officers. My criticism and critique is primarily built off of officer perspectives which are generally not radically critical of the institutions which they have chosen to become actively involved in. Similarly, through this research I am hoping to build knowledge about existing institutions and technologies as these play an important role in the society I live in.

Findings

In this section I outline the findings of this thesis research, providing a set of responses to the guiding research question: *How do officers in Pierson Hill County, Canada, make sense of and use the new visibility created by BWV and IVV in the context of their work?* In brief, it seems that officers view video technologies primarily as empowering. They use these video technologies – at this point primarily IVV- to tackle a small number of common, highly salient problems. Meanwhile, officers also must work - sometimes unsuccessfully- to minimize a range of deleterious outcomes associated with video. Officers' ability to create both positive and negative outcomes by using video is contingent on legal, organizational, technological and social factors. These factors which are present in Pierson Hill interact to affect how video is used, the type of visibility which is created, as well as the outcomes which this visibility generates.

Benefits of video

> "It allows [our supervisor] to trust us because we can show him. We can show his boss. And then we can show them- the complainant… we can show them the video and they can make their determination to do whatever they want from here. But it's absolutely halves that process- the

> time it takes to get through those- it allows them to deal with frivolous, vexatious complaints quickly. Get rid of them" Officer Bowell

Officers face a recurring problem in Pierson Hill: frivolous and vexatious complaints. This was a particularly salient issue as officers rarely have other impartial witnesses present who could later confirm or deny allegations which might arise. This was seen as a social factor which simply had to be dealt with; officers estimated that the department would receive roughly one complaint a month. Officers explained that while fair complaints did exist, they also frequently had to contend with complaints that were made for vindictive purposes, or with the goal of undermining officer credibility[2]. One officer referred to certain complaints as attempts at "character assassination." A complaint could be made as a form of retaliation for the charge or charges the officer may have made against a person, or as a way to make an officer's submissions to the court seem less compelling.

[2] Not all complaints were considered frivolous or vexatious; nor was receiving complaints exclusively viewed as a bad thing. A number of officers mentioned having received some correction regarding their conduct based on a review of video footage which resulted from a complaint. Such correction was spoken about more in tones of professional development than punishment; the implication was that when complaints arose the officers were generally not far out of line, but that they could learn from their shortcomings. Fair complaints amounted to good learning opportunities, and all officers sought to behave professionally and do their jobs well. Despite the fact that the video could "get them in trouble," officers appreciated being able to get constructive feedback on what they could improve on in an interaction; similarly, they appreciated that video allowed them to be able to respond appropriately to genuine complaints.

The officers of Pierson Hill work in a social setting where they can receive complaints even based on interactions where the officer has done his job in a completely professional, respectful manner. Officers operate on the assumption that is it not a question of *if* they will receive a complaint, it is simply a matter of when. As the officers saw it, if you spend enough time writing tickets and laying charges, eventually you will come across someone who decides to take out their frustration on you in the form of a complaint; this was a social factor that defined the work environment which officers found themselves in. Describing another law enforcement agent, Officer Bowell said: "the amount of traffic stops he does, it's a numbers game. Somebody's gonna file a complaint. It's just gonna happen."

Of course, depending on the content of the complaint or accusation, there could conceivably be serious consequences for the officer. Because of this constant possibility, officers voiced worries about encountering situations in which they might be unable to disprove or dispel a complaint or allegation.

An organizational factor which amplified concern about the possible effects of complaints was the approach which PHPS took to patrol, which made officers feel at greater risk of being outnumbered when faced with allegations about their conduct. As noted earlier, PHPS generally operates with one officer per car across huge rural areas where backup can be slow to arrive and most potential impartial witnesses are driving past at 100 km/h, never to be seen again. This presents unique challenges for external reviewer trying to establish what exactly took place during any given police-citizen interaction. Without an external form of verification or an impartial witness, it typically comes down to the officer's word against the complainant's- and perhaps the friends of the complainant as well. As Officer Bowell explained,

> "The thing that scares me… is having a group of people say that I did something that I didn't do… We're one man officers, cars, whatever, and we're dealing with multiple subjects sometimes, and they can say whatever they want: what I did, my conduct. And I can say whatever I want [but] they can- if everybody can say the same thing- then it can look like I did something wrong."

A strong refrain exists in the literature which suggests law enforcement officers are privileged and often protected by other components of the justice system in investigations of officer actions (Brucato, 2015; Prenzler & Ronken, 2001; Wilson & Serissier, 2010). However, the participants in my study seemed to regularly consider the possible legal ramifications of merely making a mistake, or acting with the best of intentions but having their acts be misconstrued by an unsympathetic audience. Any use of force or detainment of an individual has the potential to be deemed unlawful depending on how an officer's actions are interpreted in court. While the officers in my study seemed to generally trust that if they acted in good faith they would be fine, there was always a degree of concern that they could end up on the receiving end of the justice system's punitive attentions.

While patrolling as one man units made this concern particularly pressing, officers were concerned about finding themselves in any type of situation where they did not have any means beyond their testimony to explain what their actions had been, and why such actions had been appropriate. The prospect of being accused of acts which they had not committed was a genuine concern, but worse yet was the possibility that such accusations might actually be considered by supervisors or judges to be factual.

In most cases, video footage of events from IVV or BWV provides a solution to this issue. As long as the footage or audio can provide a decent representation of the interaction, it may quickly allow an impartial observer to decide whether or not the accusations carry any weight. This has

two effects. First, if someone complains and explains they wish to make charges against the officer, it is often effective to invite them to come and watch the video of the interaction. This can be sufficient to discourage frivolous charges or complaints, as the person can see that their allegations are disproved by the video and would be unlikely to have results in court. If an unfounded complaint or allegation is made regardless, the video will often support the officer's narrative while conflicting with that of the accuser. The end result is that many complaints can be deterred, or more rapidly and conclusively addressed with video than without. As Officer Meighen explained, referring to his earlier days with a different law enforcement organization:

> "When I started, I, we didn't have any of these things, and when someone would call and say 'he gave me a booboo on the side of the road,' you know, it was my word against the persons, right? … there was no way to investigate it, other than to listen to what both parties say and make a judgement on what happened, right? Now 99% of that stuff is absolutely flushed because… the Sergeant goes back and pushes play and watches it…- I don't even worry about complaints anymore, they don't even bother me… Our supervisors, or whoever, whether it's us or the RCMP or whatever- with those [gestures to IVV] and with these [points to BWV], and with the audio that they capture, it's made our lives so much easier when it comes to public complaints."

By creating and making available such recordings, officers are able to provide an "objective" account of events. Audio or video footage, or a combination thereof, allow for portions of accounts provided by the various parties to be verified by an external observer. Because of this, officers actively sought to record most interactions they had with citizens.

Officer Bowell explained this role of video quite bluntly:

> Officer Bowell: ...I use it all the time. I see it as a CYA.

Researcher: What do you mean by that?

Officer Bowell: Cover your ass. That's what you do. That's kind of our job here because I mean, everything we do subject to somebody else's opinion of what they would have done in that situation, right?

I was present for an event where the CYA capacity of video came into play. One interaction I observed during a ride along resulted in a complaint. Further, the complainant initiated a private prosecution[3] against an officer. The interaction which generated the complaint occurred when a person was detained by a member of PHPS; this person had been stopped because of a visible driving infraction. Upon pulling the individual over, it became apparent that the individual had been driving illegally and would be charged criminally. As such, PHPS was required to detain the person until the RCMP could arrive, lay the criminal charges, and transport the individual to the RCMP station.

After the event, this person sought to lay a number of serious criminal charges against the PHPS officer who had detained him, based on his perception that the officer who detained him had done so unlawfully. This matter was also turned over to the RCMP.

This setting was hardly a worst case scenario for the officer as this had occurred in an atypical setting and there were numerous other officers present who could attest to many details of his conduct. However, shortly after the event, the officer under investigation expressed some comfort that the IVV system had recorded audio of the interaction, and also that a portion of their interaction had occurred in front of the camera and was therefore visible. In his view, the

[3] The aggrieved individual laid private charges against the officer. This is not to be confused with a recognized law enforcement official laying charges against the officer in question.

recording would allow the investigator to hear what had been said during the interaction. The contents of the conversation with the detained individual would be extremely helpful in verifying that he had detained the individual lawfully. The video would contain the stated basis on which he had detained this person, as well as how the officer had responded to the individual's protests. This information had the capacity to clarify the situation regarding most of the claims which the complainant made. He hoped that the recording would make his innocence completely evident and speed up the process of dismissing the charges.

Indeed, some time later, the matter was concluded without proceeding to court; the charges were not pursued. When we spoke again after he had been cleared, Officer Borden said "The video- it was just amazing how much that helped. It cleared us of everything." In other words, the video functioned effectively as a CYA.

It is also worth noting that the officer did not have to use video according to policy during this interaction, as he was not driving his vehicle when he pulled the individual over. He did voluntarily turn on his IVV unit with his remote when the situation became tense, as he anticipated it could potentially help him if complaints were made. This use of video by officers closely mirrors the actions of officers identified by Sandhu & Haggerty (2016) as having a "strategic advantage" orientation towards video technologies. Sandhu & Haggerty (2016) identified that concern about false complaints was also highly salient for officers in the three different policing organizations they collected data on. Officers with the strategic advantage orientation found that being able to contradict these accusations through video was valuable both in protecting their reputations and pre-empting time consuming, stressful investigations into the event. Their work also captured the perspective that many officers view a recording camera as a

partner of sorts; an additional source that could corroborate their version of events, a perspective also voiced by officers in Pierson Hill (Sandhu & Haggerty, 2016).

While the greatest perceived benefit of recording video footage was its capacity to assist in dismissing unfounded complaints- like in the earlier story- officers explained that they could use video for other valuable functions as well. Video footage can provide strong evidence for prosecuting certain offences, which can result in quick and decisive prosecutions. As Officer Meighen explained:

> "Whether it's somebody going through a stop sign, somebody swerving, passing on a double solid line... You'd be amazed at how many people fight tickets… we go to court and walk in with a video and go 'you might want to watch this before you go to trial."

The reason for the ease and success of prosecuting a subset of offences relates to the interaction of technological and legal factors. The first factor is that the burden of proof required for successful prosecution of certain regulatory offences can easily be met with video footage. Regulatory offences fall under the category of strict liability offences- a category of offence in which intent to offend need not be proven in order to secure a conviction. The accused can be found guilty so long as it can be determined in court that the accused committed a particular action which is prohibited by legislation (*R v Wholesale Travel Group Inc*, 1991). Failing to stop at a stop sign is a classic regulatory offence; it doesn't matter if a driver knowingly or intentionally proceeds through an intersection without stopping, they can be found guilty

regardless. As such, video footage which shows an individual committing a regulatory offence is often sufficient to ensure that the accused can be convicted of this offence.[4]

Due to technical factors, however, only certain offences are easily captured on and represented by video. The details relevant to the offence must be on a scale which is sufficient for video to clearly record. Offences which involve vehicles, which tend to occur in front of squad cars, and which do not require any type of specialized measurement are typically easily recorded and create footage which is easily understood by viewers. Officers indicated that running stop signs or red lights, unsafe passing, littering, and unsafely loaded vehicles were offences easily captured on film, and easily prosecuted if video footage existed.

In all of these cases, the offence may be clearly visible to the viewer even when viewed on a computer or television screen. The end result is that if such a charge goes to trial, there is little room for discussion in court about whether or not the given action occurred. Because of the nature of regulatory offences, this means that the success of the prosecution is nearly guaranteed when supported by clear video evidence. One officer also felt that prosecutions where video footage was used generally required less time spent in trial for these types of charges.

The officers felt that video evidence had significant prosecutorial value for a specific subset of regulatory offences. To be clear, however, video evidence does not provide indisputable evidence for all regulatory offences. Further, for other types of charges video may be much less effective in providing evidence which is of value to the prosecution or defense. The potential

[4] Defences for regulatory offences do exist. Successful defences typically show the accused took reasonable care to prevent the situation from occurring, and that it occurred despite the accused acting in a way which meets the standard of a reasonable person.

shortcomings of video evidence, both for regulatory and non-regulatory offences are discussed in a later section.

Officers also identified a number of other ways that video could improve their ability to compellingly present their perspectives. Video footage is a tool officers can use when preparing materials- and themselves- for court. Video footage was used for a number of preparatory purposes. First, officers are able to use video to their advantage shortly after an event occurs. If there are any details for their notes which the officer thinks will be particularly relevant which they wish to double check, they can immediately refer back to the video. This allows for more detailed notes which can help the officers' recall later, and improve the materials available to the prosecution. It also can help to ensure that documentation of the event is consistent with the content of the video. If there is any confusion about timelines, for instance, the video can assist an officer in confirming details as they fill out the paperwork. As Officer Tupper described:

> "there's no restriction for me to go back to the office or even back in the car, and look at something to confirm something. So that's a huge benefit to me, to be able to play something back and say 'hey, what's this?' Or, 'did I see that right?' … so that's great."

The attributes of the justice system also pose an issue that video helps to alleviate; court scheduling frequently leaves long periods between when the officer issues a charge and when the officer must provide testimony in court. Depending on the situation, months or even years may have elapsed between the date of the offence and when an officer's testimony is required. While officers also use other methods of recalling the incident, such as notes from their notebook, officers reported that they used video to help their recall of incidents, allowing for more accurate testimony. Officer Tupper explained:

> "…as I'm getting older too, my memory isn't always as, you know… I'll remember certain things and I'll forget about certain things, but then you watch the video and [think] 'oh yeah.' You know, it's a nice way of tweaking your memory."

Officers expressed increasing pressure to maintain testimony accurate down to the lesser details. This is important to ensure that the officer has testimony compatible with their own video footage or any citizen footage which might be used in court. Accurate testimony bolsters the officer's credibility and reduces opportunities to be cast as unprofessional, whether or not competing video footage might exist. As will be discussed further in a later section, having testimony or documentation that does not fully align with the video was perceived to reduce the officer's credibility.

Officers are not the only ones who create video, however. Officers operate on the assumption that some form of video could exist for any given incident. In the words of Officer Tupper:

> "I come to work every day and expect that everything is going to be somehow surveilled. That to me, is the most reasonable perspective for me to have about how things are going to be. And I would think that any officer that comes to work and has less than that is fooling himself…I would think an officer that gets involved in anything and thinks it's not being recorded by himself, by a co-worker or a member of the public is tragically uninformed and not prepared for what's going to happen."

Officers reported they are frequently subject to surveillance from citizens, both those they interact with directly during their duties, as well as passers-by. Despite frequently being filmed, however, officers did not report having had many encounters with citizen footage in court. Because officers did not feel they engaged in questionable behaviour, or even behaviour that

would easily look questionable, being filmed was not too threatening to them. However, this did not mean that being filmed was viewed as completely neutral. The general perception was that if citizen footage was to have any effect for them, it was more likely to be negative. One officer explained that he felt while many people film them at work, if nothing of interest such as violence or perceived misconduct occurs, people are unlikely to keep the footage or act on it in any way. This also means that officers see it as unlikely they would receive any supportive footage from citizens when they do their job correctly. On the other hand, if the person filming thinks the footage shows misconduct, the officers felt it may increase the likelihood of a complaint being made.

The concern this created was that if a complaint or allegation was made based on that footage that looked incriminating, one can easily appear untrustworthy or untruthful in attempting to challenge the allegations. There was uncertainty how officer testimony alone would stack up against claims which appeared to be supported by video. As such, officers having their own source of video was perceived to be a possible solution to this, as the officer could then show their own version of events which could potentially clarify the situation.

Despite the officer's lack of experiences being confronted by citizen video in court, there was a strong consensus that this could indeed happen; that they were filmed often; and that they operated in a system where certain individuals would be interested in capitalizing on opportunities to discredit officers. This consciousness of visibility is quite similar to the perspectives of officers in Sandhu & Haggerty (2016) and Brown (2015).

In sum, officers value video because it is seen as a tool which can help contend with the increasingly real possibility of encountering video from other sources in court. This changing

social factor- increasing citizen journalism- makes officers feel a need to have their own video both to confirm details, as well as to supplement their testimony. This speaks to both the findings of Sandhu & Haggerty (2016), and Brucato (2015) that video can serve to regain the footing of police in situations where citizens might otherwise co-opt the perceived objectivity of the medium to their own ends.

The capacity of video to convey a detailed, independent record of events has a number of other applications which officers valued. First, video footage may provide a valuable supplement to an officers' testimony even when it does not provide sufficient evidence to gain a conviction. For instance, footage may confirm that a particular individual was indeed driving a vehicle at the time of an offence, or allow the officer to show an irregular behaviour which justified the traffic stop which led to further charges. It was also seen as useful for giving the court a general idea about events, clarifying the overall situation. As Officer Tupper said:

> "It shows, uh, the courts, you know, and the circumstances of what happened. I mean it's a lot easier to view a video for a few seconds and get the gist of it than opposed to, you know, describing it, which would take a lot longer to do… I can describe a scene, but when a person can actually visually see the scene, it just makes it easier for that third person to understand what was going on."

This also had the upside of sometimes showing less than savory driver behaviour in response to the officer's intervention, which could contrast quite strongly with how the individual might present themselves while in court. As officer Laurier mentioned:

> "I've dealt with people where I didn't even recognize them when I went to court. All of a sudden they're…dressed up, they look nice, they're speaking without swearing every two seconds… it's

kinda nice because the courts and the prosecutor can see how they were reacting at the time of the offence, which is good as well."

Officers also used BWV and IVV to aid in resolving another issue commonly encountered in their work: identifying individuals not carrying identification. In the absence of ID, creating a video helped to reduce confusion in the courtroom in the event that citizens gave false information. Video potentially allows the court to decide whether or not the person before them in court is indeed the same one that appears in the video, which can be particularly important in cases where a person claims to be someone else or has falsified identification.

While the previous benefits of video are primarily professional considerations, video also played a number of roles that were more important on a personal level for officers. The first factor was protection of their personal and professional reputations. For all of the officers in the organization, law enforcement is their career. Anything that could compromise their professional potential and livelihood constitutes a serious personal concern. Reputational harm is one possible outcome which could arise from a complaint or allegation which could not be properly dealt with. To the officers of Pierson Hill, a good reputation was instrumental to doing their job well. The trust of those at court and in the community was valued extremely highly. And, as one officer explained,"Your credibility is like your virginity- once you lose it, it's gone." This was not an area where officers wanted to compromise, for fear of long-term consequences.

Officers seemed to have great motivation to be able to decisively dispel any suspicions of wrongdoing harboured against them. The personal importance officers placed on protecting their careers and reputations cannot be overstated. In the words of Officer Bowell "this is my

livelihood, this is how I pay my mortgage, pay for everything, right? And so protecting that is, you know… it's very important."

Video also met a personal need for officers if they were to be seriously injured or killed. This topic arose a number of times in interviews. Two officers referred to the murder of animal control officer Rod Lazenby as a frustrating and tragic event. Rod Lazenby- an animal control officer from the Albertan district of Foothills- was fatally assaulted while attending a call in a rural area (Graveland, 2014). The officers expressed frustration that even after the trial of the man who killed Lazenby, the only information officers had was "a little bit of what he's [the killer] had to say about it, and forensics, and the medical examiner, and the scene examination of the fighting." While this answered some basic questions about how Rod Lazenby died, it did not provide much detail that other officers could use to avoid a similar fate.

This was distressing to the officers who brought up this topic for a number of reasons. First, the scenario in which Rod Lazenby was killed hit close to home for them; he was someone working a comparable form of law enforcement in a rural area, and he was violently killed while doing his job. Secondly, while there was no question as to who killed Rod Lazenby, video could be instrumental in proving who committed the crime and ensuring their punishment for any comparable events which might occur in the future. Two different officers mentioned that if they were to be killed while doing their job, they wanted to ensure that the responsible party be convicted. If the officer was not alive to provide testimony about what occurred, video would increase the likelihood of the responsible party being found guilty.

Further, if they were to take part in any serious or fatal events, officers would want others to be able to see what happened to them in order to learn from it. The officers who spoke of Lazenby's

death expressed a desire to see footage, had it existed. As Officer Bowell said: "It woulda been nice to have video. …nobody else can tell us what happened, what actually happened... If he had a video… we would have had some other ability to see what happened, and been able to, you know, learn from it." Being able to see this type of event unfold on film can help them to prepare for or avoid similar situations in the future. While none of them wanted to experience serious bodily harm while working, all felt that it could happen. Greater opportunities to prepare against such possibilities were seen as valuable.

Up to this point, I have addressed the following benefits that the use of video brings for Officers in Pierson Hill: it helps officers to deal with vexatious complaints; it provides quick and easy prosecutions for a small number of regulatory offenses which officers frequently deal with, and it allows officers to double check details of interactions and provide more accurate notes and testimony. On a more personal level, it helps officers protect things which have great personal value- their reputations, livelihoods, and the hope that some good might come of any serious ills which could befall them while working.

In short, officers feel that the video they record can provide a number of benefits if used properly. It can be used to improve the overall coherence and presentation of evidence. It can support their statements, and can establish a great deal of detail about events, making certain claims very difficult to refute. It can also immediately discredit any non-compatible claims. As Officer Borden put it- "with the camera on you it's right there, and when it goes to court… they can watch the video and see exactly... So when they try to lie, or whatever, it'll either agree with what they're saying or agree with what we're saying."

The key source of value which video provides in all of these situations derives from the ways video assists officers in establishing a particular narrative of events which can be confirmed by others. Video is a means of both showing and telling that can be highly compelling of its own right, although it is always used in conjunction with officer's testimony. The medium has the benefit of being generally accepted as "a forensic exhibit, both objective and scientifically truthful" (Brucato, 2015, p. 460; Kahan, Hoffman & Braman, 2009). In short, video succeeds for officers when it assists them in communicating "what really happened," generally in the context of the courtroom or complaint investigation. These effects are both desirable and possible because of the interaction of a number of legal, organizational, technological and social factors.

Complications and Demands associated with video

Up to this point, I've argued that the effectiveness and value of video derives from officers' capacity to use it to powerfully communicate details about past events, and resolve contention about "what really happened". During the study, it became increasingly clear officers believed that while the video can at times be used to these ends, it cannot always fulfill its potential. IVV and BWV are not magical technologies which autonomously create perfect footage which will always serve all the needs of the courts, officers, and their supervisors. Both the technologies which create recordings and the recordings themselves have many limitations in terms of what can be contained and communicated. There were a number of problems associated with using video; the technologies can fail to capture or communicate details, and otherwise fail to conclusively support a narrative about past events. The maintenance and use of these technologies entails labour costs. Legal, organizational, technological and social factors can also potentially interact to create problematic outcomes, and increase the workload of officers who use video.

All of the benefits of video mentioned in the prior section assume that recorded video footage contains information which has bearing on a topic of interest. In practice, however, there is no guarantee that video footage contains all or any of the information required to gain clarity on what took place during a given interaction, even if video was recorded during said interaction. One way that this can occur is if there is a disconnect between the topic of contention and the content of footage. This type of disconnect can occur given that video portrays a finite amount of time and space from a finite number of angles. However, potential topics of contention about a video-recorded event are nearly endless. A given video may contain a great amount of relevant information about one topic of contention- say, whether or not a driver was verbally abusive. Perhaps the audio and video is completely clear, allowing a viewer to easily confirm what words were said by whom, in what context and in what tone, as well as the body language of all present. On the other hand, the same piece of footage may contain nearly no relevant information to conclusively show whether this same driver was inebriated or not at the time of filming. In other words, a given piece of video footage may be useful for providing clarity about certain questions, but only moderately useful (or completely useless) in answering others.

Alison Young (1996) points to this effect in association with the varying pieces of video footage which were associated with the highly publicized murder of James Bulger in 1993. This case involved a young boy who was separated from his mother at the mall and lured away across town by two other children who later murdered him. Footage taken by security cameras, presumably placed with the goal of helping to identify shoplifters, became the sole source of footage of James Bulger before his death. At the time of filming, these cameras were not recording with the goal of covering the movements of a young child on the way to the site of his death. As such, the video content they provide does a poor job of portraying the entirety of James

Bulger's movements through the city. Instead of a continuous, clear view of his journey, we have only disjointed snippets of video. The disparate video clips give some discrete information about specific places at specific times, while also inviting interpretation about events beyond the patches of visibility (Young, 1996).

The technical limitations of the cameras and video a medium also affect the type and fidelity of information which is recorded. These factors dictate in part what information will be available to viewers who wish to clarify what took place during a given interaction. A first technological factor is that cameras only record a given area in front of where the camera is pointing. If people or objects of interest do not pass within this angle of recording, they will not be visible in the video. As Officer Bowell said, the dash cam has a "stationary view. It cannot turn its head, bend around corners- it just shows what's in front of the car. It's not going to show the whole story." With any camera – IVV and BWV included- it may be unavoidable that something in the visual field obstructs the line of sight between the camera and the object, person, or event of interest. This could be a person who walks into a scene, a stationary vehicle or building that people move behind, or perhaps a leaf or piece of clothing that falls in front of the lens. Depending on the positioning and angle of the camera, critical events may not be captured.

IVV and BWV present their own difficulties for officers attempting to make sure that desired content is recorded clearly. For IVV, the camera records in one direction only. Even the best efforts of an officer to initially position the camera so that it will capture anticipated action can be insufficient. If the interaction moves away from the first location and out of the camera's cone of vision, the officer may be unable to reposition the camera in time to capture relevant details.

In the case of BWV, officers generally wear the camera on their chest, facing forwards. This means that any time their chest is not facing directly towards the event of interest, the viewer cannot see what is happening. If the officer walks beside, or turns away from a person or object of interest, the person or object will pass out of the field of vision of the camera. BWV is also susceptible to jostling. If the officer wearing the camera moves suddenly or erratically, or begins running, the body mounted camera will be in constant motion, moving up, down, and side to side. This can result in all footage amounting to a blur of unfocused colour. If anything is visible during vigorous movement, it is liable to pass in and out of the camera's cone of vision so quickly that it may be impossible to keep track of a clear train of events.

IVV and BWV will also capture only particular perspectives, predisposing them to exclude certain types of content. BWV is mounted on the officer's chest, so the officer's own actions are generally not in view during footage. On the other hand, IVV is always from the perspective of the vehicle, meaning it may be better for evaluating how an officer is positioned relative to other people. However it may be less likely to help determine the officer's perspective, and what the officer saw at a given time. Audio also has limitations, dependant on the technology. For instance, during the winter officers will often wear jackets over top of the IVV microphone, which limits the clarity of recorded audio.

These technological factors coexist with the fact that the officers in charge of filming also have limitations in their ability to focus the cameras on the most relevant events. Even an officer who has a vested interest in good quality footage and a desire to have clear video may encounter two key issues in getting useful footage. First, the filming officer may be highly occupied by whatever has taken them to this incident, and is therefore not focused on filming. In such cases, the officer may not have time to position a camera properly, or will simply forget that the camera

exists. Second, even an officer who is able to focus on taking footage may not correctly identify what content will be the focus of future contention. When an officer creates clear footage focusing on one point, by default other content is not filmed. In focusing on one area- such as a person or object they think is the most important - they may inadvertently create “bad” footage for the purposes which the video is eventually going to be used.

To illustrate this effect: an officer is patrolling in his vehicle. He sees a vehicle with no license plate, pulls in behind the vehicle and activates his emergency lights to signal the vehicle to pull over. The officer pulls in behind the vehicle, and knows the IVV is filming over the hood with a clear view of the vehicle ahead of him. He will likely have good footage of that car, and his interactions with anyone in it. However, if a bystander was to approach the officer from beside the police vehicle and outside of the field of view of the camera, and was to begin physically harassing the officer as he steps out of his car, this would go unseen due to the direction of the camera. If this bystander was to later lodge a complaint, the footage would be unlikely to show any worthwhile visual component of the interaction during the complaint review process.

The content of video is not only limited by what falls within its field of view. An additional technological factor is the quality of the recording itself. The BWV units used in Pierson Hill, for instance, have a default recording quality of 720p, and a maximum value of 1080p. This, combined with the sensor size and quality, mean that past a certain distance from the camera fine detail or distant objects are no longer discernible to a viewer. The cameras have only limited capacity to record in low light settings; the microphones on both units can be affected by wind, and have a limited sensitivity, meaning that only noises a certain distance from the microphone are audible. Any of these technological limitations mean that even though a camera is recording,

the resulting footage may not contain sufficient video or audio information to allow a viewer to understand key details of an event.

Offences where specialized measurement is required, or where the offence involves small objects or subtle movements, or which tend to occur outside of normal lines of sight, render footage nearly useless in proving a charge. The examples of this are much more numerous than can be listed here, though some noteworthy examples will follow. The first amongst these are speeding charges. While it may be possible to see a vehicle is moving quickly, or perhaps passing other vehicles, video footage alone cannot effectively prove that a vehicle is moving over the speed limit. In court, the officer's testimony about using a trustworthy speed measurement device is what will carry a case.

Video is similarly useless for over-weight vehicle charges, as visuals alone are rarely sufficient to prove a vehicle's weight. Video also tends to be useless for distracted driving charges, as officers are typically quite far from the offender when they notice the offence. The camera is typically not at an angle where the actual phone or distracting object can be easily seen from outside the car, and the necessary details (i.e. where eyes are pointing) are so small that, due to video quality limitations, the camera cannot convincingly register what the officer can readily see at most distances. In short, if the charge requires the use of specialized measurement technology other than the video camera itself, officers are unlikely to be able to use video footage of the event to any effect in court.

There are additional limitations to what video can convey to an audience. Video as a medium can only record and convey visual and audio content, which adds a further barrier to having viewers be able to understand the entirety of a situation. Any information such as smell, taste, touch, or

feel cannot be recorded or transmitted. However, the presence of such details to those present may be essential to explaining why people in the video may have acted the way they did. For instance, if an officer is handcuffing an individual who is seemingly under control, the officer may feel that the person suddenly begins to provide strong resistance to their hands being brought together. There may be little visible indication of why the officer changes his position suddenly and possibly violently, although the officer could be completely justified in doing so depending on the perceived threat and dangers. Alternately, an officer may smell alcohol on a driver's breath, justifying further investigative steps to be taken. However, the camera will have no evidence of this unless the officer verbalizes that he smells alcohol. Even in the event an officer provides verbal narration about non audio-visual stimuli, there is no guarantee that an audience will be certain about their existence. An officer can verbally claim to smell alcohol or drugs even when none exists. Based purely on the video, a viewer will never truly verify whether or not the smell of alcohol was truly present.

In addition to the technical reasons why video may not meet the needs of viewers, there are factors which arise from the mandate of the organization which also affect video content. While doing their job, officers must constantly consider their own safety, and the safety of others. There can often be a degree of incompatibility between trying to get good footage and being safe. With traffic stops, for instance, the officer may reasonably expect that most interactions of interest would happen in proximity to the car in front of him which he just pulled over. However, if the stopped car pulls over in a curve on the road, the camera in the officer's car will not align with the stopped car. The officer may be unable to safely put his vehicle into a position where it would align well. In more serious situations, an officer may not have time to carefully

contemplate where he will park his car, needing instead to exit the vehicle to quickly address a situation regardless of where the IVV may be pointing.

With BWV, an officer must consider where his torso is pointing, his distance from, and angle relative to obstructions of objects or people of interest in order to record optimal footage. Safety considerations also require the officer to think about body positioning and distance from people and objects. Quite often, the location that an officer would like to be for safety reasons are not the same locations that would yield the best footage. Officer Meighen, for instance, explained that when he stops a vehicle he walks up at an angle so that the driver's side column is between him and the driver. He does this so that there's an inconvenient angle and a physical object between him and the driver, which would make it more difficult for the driver or front seat passenger to cleanly or quickly attack the officer or aim a firearm at him. This column blocks a clear line of sight into the vehicle for BWV, giving poor BWV footage of the vehicle interior. Further, because officer Officer Meighen is tall, he often finds that his body camera records only the roof of the car when he stands next to most cars. He explained that in order to try and get better footage "I've caught myself, because of the camera, trying to take a step out so that I can, like, get my shoulder down a little bit or something." But as he also noted: "Tactically and officer safety wise, there's issues with that."

There are further issues: If an officer does find himself in a position where physical force is required, the distance between the BWV camera and the person on whom force is being used typically grows so small that many details of the physical interaction simply do not fit into the frame. Also, at that point- the moment when visibility would likely be the most valuable - the last thing an officer needs to be thinking about is where his body camera is pointing. A number of officers brought up the conflict between officer safety and camera operation. The general

consensus was that none of them would want to seriously compromise safety in order to get better video. They also acknowledged that it would almost inevitably be the moments that clear video would be most helpful that they were most likely to have to make the decision between clear footage and protecting themselves. Most of the officers prioritized safety, accepting that footage would likely be less clear. To them, it was more important to use distance and angles to maximize safety, than it was to get an optimal footage at all times. In regards to the sometimes incompatible nature of body positioning for tactical considerations and video quality, no officers were able to come up with a clear solution. Their organizational mandate meant that they would sometimes be in situations where a choice had to be made, and video quality would inevitably lose out to safety considerations.

Up to this point, I've established that there are social, technological, and organizational factors which can align to result in video footage not being able to clarify what happened during a given interaction. Depending on the circumstances, it may also be the case that video is not recorded at all, or is lost due to a hardware or software issue. This can happen for a number of reasons; perhaps an officer does not have the time to flick a switch; perhaps a memory card gets corrupted. Maybe a battery dies faster than usual in cold temperatures. While many of these scenarios can be prevented with attention and care, there are a range of reasonable scenarios where video is not available at all after an interaction, even if a camera was present. With so many moving parts, things reasonably can go wrong. Operating cameras is an additional cognitive burden on top of what can already be a complex and demanding job and footage can suffer as a result.

In short, due to technological factors alone, it is entirely possible for a camera to be present and recording during a given interaction, yet for the video to not contain details necessary to provide clarity about a point of contention.

Video failing to contain relevant information is potentially problematic for officers for a number of reasons. First, this may be a problem because in such instances of failure it cannot perform its intended functions. Perhaps the video will not allow the prosecution to secure a conviction, or cannot allow a supervisor to clarify what occurred during an event when a complaint was made. When video fails to perform the function officers wish it to, it is a problem insofar that they do not derive the benefits they expected to. However, when video fails, new problems can be also created that would not exist if officers had not used video technologies in the first place.

Of the problems that poor or nonexistent video can create, the first issue is one of credibility. Since the officer is responsible for filming the video, an absence of information could be seen to be a strategic decision on the part of the officer. For instance, officers expressed concern about the possible ramifications of receiving a complaint but having no video, or of having video that can neither confirm nor deny the complaint. If the video cannot provide clarity about whether or not the officer's behaviour was reasonable, a complainant could assert that officer intentionally averted or did not activate the camera to hide the alleged misconduct. Given that the officer is in charge of filming the video and is aware of how the camera works, one could argue officers could strategically exploit this. A savvy police officer who knows where his camera is filming could intentionally move away from the area being filmed in order to intimidate somebody without it being visible. Similarly, an officer who plans to be violent towards someone could intentionally move them out of the field of view of the camera. One can find many instances of such accusations being made of officers online (Grigg, 2015; Moreh, 2015).

Officers noted that in the event of technological failings, there is suddenly serious reason to doubt the person in charge of this technology. Officer Tupper explained that he was hesitant to adopt more video technologies because when a technology inevitably failed, he felt people would be inclined to

> "say that I intentionally caused it, for the visuals to not be there… there's room for people to make allegations that I intentionally didn't want something to be recorded. I think there's going to be room for that in the event of a failure of the equipment, a failure to activate [the camera], if the server it's stored on crashes and everything disappears, of course that'll somehow be my fault that I've created that error- destroyed it."

Given that there are many historic instances of police manipulating evidence, such concerns are not necessarily unfair- officers are in an optimal position to manipulate evidence (Brucato, 2015). However, officers who legitimately suffer technical difficulties or fail to activate a camera at the right moment run the risk of being suspected of seriously nefarious activities. Even though officers suggested that the likelihood of technological failures was fairly low, it was an eventuality that had to be considered. This becomes increasingly salient as more video technologies are put to use- every additional camera provides a new opportunity for failure. The more video technologies employed, the greater the likelihood that one may malfunction or provide bad footage at an inopportune moment. Similarly, if more than one camera is present but neither captures the event, it may appear even more suspicious.

One example which an officer shared illustrates of how a lack of information can lend credibility to allegations made against an officer. In this example, the officer's video contained insufficient information to support key details of the officer's version of events, while also supporting some

of the complainant's statements. However, the footage could not confirm key details in either narrative. In this type of circumstance, it was suggested that video could lend weight to claims being made against officers if a) the components of the complainant's claim which can be verified in the video are compatible with the video, and b) there is no visual or audio to actively contradict the claims.

In the officer's story, the complainant alleged that an officer physically threatened him during an interaction. However, the complainant indicated this intimidation occurred behind a structure which obscured the view of the camera. There was also loud noise in that area which drowned out the dash cam microphone. Since the officer was not wearing BWV at the time, there was no useable audio or visual evidence in the video of their interaction in the space where the intimidation allegedly occurred. The only footage which exists was taken from the dashcam, which shows the officer and complainant walking behind the structure, and remaining there for a number of minutes.

The complainant alleged that the officer intentionally went to this space in order to be able to intimidate the complainant without being caught on video. The complainant's testimony was coherent with what was visible in the video, which shows a polite interaction when video and audio was clear in front of the structure- followed by the unknown occurrences of when they move behind the building for several minutes where neither audio nor video allow the viewer to know what is happening. The officer accused of this felt the allegations were given additional weight because the accuser's testimony partially aligned with the video, although the video neither refuted nor proved them. The officer's credibility was further put into question when he indicated that he had taken a number of physical measurements to support his charge against the complainant. The complainant alleged that the officer never took any such measurements.

Problematically, the taking of measurements was not visible on film, although the officer insisted he had taken them off-camera.

Key claims which both parties made could not be confirmed by the video, but more doubt was cast on the officer as he was responsible for creating the video and would presumably know how to exploit it. Officer Bennett said: “this is the reason why a lot of guys would say 'well fuck this video. It's just making things worse…’ there's been some accusations that, um, we did something to the video to make it this way.”

This example raises the issue that depending on the content of the footage, multiple incompatible narratives about contentious events can coexist while being compatible with the same piece of footage. What made this particular video so problematic was that rather than supporting a single clear, verifiable narrative about a number of important points, the video instead provided a canvas on which a number of viable but contradictory narratives could exist. Rather than eliminating a “he said, she said” type situation, it merely fueled one which focused on different questions than would have perhaps existed without the video. The difficulty, however, is that the scales may be tipped against the officer. After all, the officer is in charge of making the footage. From interviews, officers expressed that the aforementioned situation was quite unusual- there were no similar issues experienced within the department which any of the officers could recollect.

On top of all of the other complications which can arise when trying to understand events captured on video, there is even room for different interpretations of the elements which are in plain sight. Officers brought this up a number of times about footage of police which had appeared in the news, such as the event with Dr. Tibu and Officer Behiels. They pointed out that

different viewers had widely differing opinions about whether the officer's use of force was appropriate or not. There was little question about whether or not there was a struggle between the Dr. Tibu and Officer Behiels, but online commenters couldn't seem to uniformly agree about who was justified in their actions.

Officers were aware that while video content quite often is considered to be self-evident, this is not necessarily the case (Brucato, 2015; Kahan, Hoffman & Braman, 2009). Two people watching the same video may come to very different conclusions about what they are seeing. As Officer Tupper said about the Gregory Brown shooting:

> "I'll guarantee that if Darren Wilson, the fellow who shot that idiot in Ferguson, would've recorded that entire interaction… and everybody reviewed it- and it was the grand jury that said he was justified in dealing with him as he did, uh, escalating the use of force to protect himself as he did, there's still going to be people saying well...[pause] Al Sharpton is still going to say that the white police officer targeted the black man and that's all there is to it, the video doesn't show anything different… people who want to believe it are going to jump all over it."

This effect is addressed in the literature on discourse analysis; understanding is mediated through cultural tools which can range from hard technologies such as books or video cameras, as well as semiotic tools like language and writing. These tools, in conjunction with community practices, make particular forms of understanding possible while precluding others in particular times, places, and social settings (Jones, 2011). As such, there is room for different interpretations about the same content in video- for instance, what constitutes reasonable force and what constitutes assault.

While video is often viewed as an objective source of information which describes all we need to understand a scene, narrative content which accompanies visuals can be extremely important in shaping what we see and understand. Alison Young suggests that we understand events through the combination of content-such as video- in conjunction with narratives which colour our understanding of the events which we see take place in the video. She highlights how many witnesses saw James Bulger and his two young murderers making their way to the railyard where James was killed. At the time, lacking additional detail, most witnesses simply assumed the boys were brothers on their way to a nondescript destination. The crying of James Bulger was interpreted at the time as the tears of an unhappy toddler, and little more. In light of additional narrative information provided to them later about the murder, the same tears would be retroactively re-interpreted as the distress of an abducted child. At the time, witnesses interpreted the boys leading James as two nondescript youth acting in largely unremarkable ways. Given additional information about the murder, the observers later re-interpreted their actions as suspicious and inhuman (Young, 1996).

Even without narrative information explicitly accompanying a video, different social backgrounds can affect how people interpret the same video content. Kahan, Hoffman & Braman (2009) found that a range of people watching the same footage of a high speed chase had strongly varying views on many details of police actions in the video. In short, there may be more than one conclusion to be drawn from the same set of visual facts which are presented.

This topic was also addressed by officers in this study, regarding possible interpretations of use of force. As Officer Meighen said:

> "us officers… realize that people that are watching these videos that have no law enforcement training, no martial arts training, no use of force training just look at it and optically it looks horrible, right?"

Officers were well aware that their actions have the potential to be judged by others who have a very different understanding of what is acceptable. This could result in serious outcomes for the officers if, for instance, somebody was motivated to press assault charges. While an officer may be doing what they feel is necessary in order to enforce the law or keep themselves and others safe, it is not guaranteed that someone watching a video of their actions would interpret them favorably as another officer might. Officers felt this was particularly likely to happen if the viewer is not knowledgable about policing or the realities of using force.

In a different vein, footage can also result in unforeseen difficulties in court. One unusual scenario enabled a particular defence to be used during a trial which would not have been possible without the existence of video footage. One officer had the experience of complaining to himself about a traffic stop which he conducted. This monologue was recorded by the officer's BWV. After pulling over the vehicle and getting the driver's information, the officer returned to his patrol car to write up the ticket. Out loud, to himself, he suggested that he would only have issued a warning for the observed violation if the driver had not been more pleasant during their roadside interaction.

In this case, while the IVV footage did show the driver committing a regulatory offence- which is theoretically of great value for the purposes of securing a conviction, there was also footage containing this monologue. Based on this footage, the defence was able to make the argument that the officer had made a professional determination that the violation was only worthy of a warning, but then had later decided to issue a ticket not because of the offence, but because of

the roadside interaction. The defence was successful. Nonetheless, this type of scenario was unusual in Pierson Hill. Officers explained that generally speaking video would not harm the prosecution's chances. Still, this case speaks to the potential that if an officer's behaviour on film is reviewed carefully and critically, that a defendant might well find fodder to support their case.

Video created some other concerns for officers as well. A number of officers noted that, over time, its presence changed expectations of how prosecutions would proceed. Generally speaking, the Crown would no longer pursue a charge of running a stop sign or red light in court if there was no video footage to support it. Not having footage in those situations could mean that a charge wouldn't be enforced, or that the crown would accept a plea bargain on a lesser offence.

Labour Costs of Video

Officers identified a further downside to using video: the work involved. There are several types of labour that officers must engage in, should they wish to use video during their work and reap the benefits discussed in the earlier section. The three broad categories of video related labour are: hardware/software management, street work, and court work. Some of this work is clearly "knowledge work" of the sort identified by Haggerty and Ericson (1997), in that it refers to explicit collection and dissemination of information- videos. Much of the other work relates to the logistics of ensuring that cameras are present and functioning where they need to be. This work differs slightly between BWV and IVV due to the hardware and software in use. However, both types of video technology require labour.

The first type of work which video technologies create is the labour associated with hardware and software management. Hardware management refers to the work that goes into ensuring the actual devices are maintained in functioning order. This work entails ensuring memory cards are

inserted and empty prior to shift, that the camera batteries are charged, that the dash cam is aligned properly, that the body cam is placed on the jacket prior to leaving the office, that the dash cam microphone is plugged in and charged, and that the BWV remote is accessible. These tasks must typically be completed daily. Software management refers to ensuring that memory cards are properly formatted, that the latest firmware is installed on the cameras, that the time and date stamp on the videos are correct, that the corresponding camera software on computers is up to date, that video files are properly uploaded, named, and stored. This also includes ensuring that files are properly copied and eventually deleted in accordance with legislation. All of this labour is essential to ensuring that officers avoid the pitfall of not being able to take a video when it might be expected, or of losing a video after it has been recorded. If officers make a mistake at the hardware stage of work, it may result in a camera that cannot function properly and cannot record. At the software stage of work, not doing all the necessary steps may mean that recorded footage cannot be retrieved, or that the camera may not record properly.

The second type of work is "street work": this consists of the actions that officers must take in order to record useable video while engaging with citizens and fulfilling their legislated duties. On the surface, camera-focused street work sounds simple, consisting of making sure to push a record button, and ensuring that the camera is aligned to capture whatever is of interest during an event. For IVV, this may mean swivelling the dash cam inside the car, or zooming in on a license plate or face. For BWV, this may mean tilting the body so that the camera faces and records a particular area. If officers fail at the level of street work, the camera may not be activated, meaning no footage is recorded. Alternately, if they officer does not position the camera properly, there may be little to no relevant information recorded.

Third, there is “court work.” This consists of the duties required when video footage is needed in court. Namely, burning DVDs of footage for the defence, for the crown, and for office records. Further, officers often review footage that may be presented in court, in addition to reviewing their notes, should they have to provide testimony to accompany the footage. Time spent in court watching video being presented as evidence would also be considered court video labour.

All of this work represents an “opportunity cost.” Officers cannot accomplish other tasks during time occupied with video related work. The value of time in the different settings, and the implications of the opportunity costs vary highly. At the level of “street work,” the amount of time taken to do the simple tasks- such as activating or orienting a camera, tilting a body, and the other small steps necessary to begin filming and ensure high quality footage- is minimal with consideration to the amount of seconds or minutes devoted to a task. However, officers pointed out that even milliseconds can be precious in this setting. Officers must be alert and ready to respond to unexpected and potentially dangerous situations. As has been mentioned in an earlier section, many of these tasks are not completely compatible with officer safety. This occasionally puts the officer in the unfortunate position of having to decide whether to prioritize filming, or protecting himself and those involved. Further, having to make these decisions at all potentially puts the officer at risk, either of bodily harm if he chooses to prioritize filming, or of reputational harm if the footage is nonexistent or of low quality. There is also the added complication that the officer cannot know at the time of filming which details will be of most importance in the future; even with the best of intent, making an intelligent estimation of how the footage will be used, the officer may focus on the “wrong” details. As mentioned earlier, all of the different types of work provide a notable cognitive load. With so much to keep track of in addition to the other burdens

of the job, officers expressed that it can be easy to fail to accomplish all of these small tasks in certain situations.

The other types of video labour also have an opportunity cost. The time put into hardware and software management, as well as court preparation, and also the time literally spent in court watching video, is all time that the officers are not spending on other aspects of their job. PHPS is paid in order to provide enforcement, and the more time that officers sit reviewing their own videos, the less time they are out enforcing the legislation they are tasked to uphold.

One added complication which officers must contend with is that a large portion of video related work which officers do is legally required. Officers do not have the option of filming something, and later deleting it because it does not seem useful. Officers are bound by data retention policies which require that once footage is taken, it is stored for a specified period. Similarly, when a case goes to court, the officer is pulled into a series of requirements dictated by laws surrounding evidentiary disclosure. My study found that officers spent a great deal of time dealing with administrative functions, which is in line with the findings of Ericson and Haggerty (1997) identifying that police work increasingly consists of the collection and dissemination of information.

As Officer Bowell, said:

> "…everything we do we report. A lot of our job is writing down what we've done. Creating files, doing paperwork. Showing that we're taking- we're making records of things we're doing. That's one of the most undervalued things that people can do in this line of work- is learning how to write reports. And it's easier to write a report or refresh your memory if you don't have a great memory of something that happened if you have a video of the event."

Video plays a dual role in relation to record-keeping and paperwork. As Officer Bowell described, it can potentially assist with some of the difficulties relating to record keeping, specifically, of ensuring that one's details are accurate. On the other hand, the footage itself is a record which requires "keeping", meaning that every video taken adds to the administrative burden on officers.

There are a number of factors which lead to the burden associated with video being basically inescapable once a video is recorded by an officer; the Supreme Court of Canada *R v Stinchcombe* decision is of particular relevance. This ruling dictates that police must provide to the defence any and all materials and evidence that could have relevance to the case. Other studies with police have noted that this legislation has resulted in an increase in paperwork burden for officers (Ericson & Haggerty, 1997). The effects of *Stinchcombe* extend to non-paper evidence as well. Due to *Stinchcombe*, Officers in Pierson Hill must prepare and submit all of the common sources of evidence which have relevance, such as related paperwork and the contents of their notebook; on top of this, they must submit all IVV/ BWV footage that may have been taken during the incident.

For every video of an event, officers must burn 4 DVDs- one for the prosecution, one for the defence, and two for their own records. Every additional video requires an additional four DVD's to be burned. For instance, in the event an officer has both a dash cam and a BWV unit recording, two videos will exist. The officer must then burn and submit eight DVDs. This burden does not only extend to videos taken by a single officer. The officer in charge of a given file is responsible for collecting and submitting any other video which has been taken by others relating to the same incident. If other officers with multiple cameras are also at the scene, the time spent on copying video footage can add up quickly.

In theory there are no exceptions to this burden. The ruling *Stinchcombe* indicates that the Crown must disclose all *relevant* information to the defense- not every single piece of information which an officer collects during an investigation. However, the bar for what is considered relevant is quite low. As such, officers explained they feel they should technically submit any video of an event even if they know that it shows nearly nothing of value to either the defence or the prosecution. Currently, however, PHPS is using a legal grey area to minimize the time required for court-related work. Rather than burning and submitting copies of the video to the defence in every case, they are simply stamping the disclosure package with a notice that indicates that video footage of the interaction may exist. This reduces work, but as Officer Tupper pointed out,

> "they're playing on the loophole and putting the ball back in the defence's court as to whether that's going to come out, and that's wrong, by the rules. It should be 'here it is, you watch it.' Not 'yeah, it exists if you want, but it's not gonna be given to you.' It should be 'here it is.' It's just part of what you're asked for, part of what you're entitled to. So they've pushed things there a little bit, and if push comes to shove the chief crown's rule will come in and everyone will be watching everything all the time. And the chief crowns rule is correct, it's not that he's being a... being awkward or difficult. We're being awkward and difficult by not providing it right out at the beginning. And we're being allowed to do that, and until push comes to shove we'll continue that. Yeah, we're getting away with it I guess, is the best way to put it."

In the short term, this is making the use of video less burdensome for PHPS, though it is unclear how long this may be possible. While some officers are able to save some time now given the looseness which the local prosecution is handling *Stinchcombe*, this is unlikely to endure in the long term. Haggerty and Ericson (1997) noted that many officers in their study were annoyed at

the additional workload that came from the *Stinchcombe* decision. While my study takes place over two decades after Haggerty and Ericson's work was published, it seems that police continue to be burdened by *Stinchcombe*, and that collecting additional sources evidence only increases the administrative burden which was already present in the 1990's. Further, it seems that- as Haggerty and Ericson identified- seeking to reduce administrative workload is something that officers continue to creatively pursue. Ultimately, increasing the amount of video which officers generate only adds to the "knowledge work" associated with policing.

Using video evidence entails knowledge work beyond that which is legally required, however. Officers feel the need to be aware of what they have disclosed, in the event that they have to testify about it in court. In order to make sure there isn't any content which they might have issues with the defence with, all officers indicated they would generally re-watch video before going to court. While not mandatory, none of the officers were comfortable about the idea of going into court "blind," and unprepared for questions they might encounter about the video content.

When there are multiple cameras and camera angles, officers must either spend a larger amount of time reviewing video, or must run the risk of having questions asked of them in court where their answers may appear to be contradicted by details in the video. Officers may either sacrifice their time, or risk their credibility and competence coming under question, in addition to potentially jeopardizing a case. While it might seem intuitive that a single viewing of a single video would suffice, there is the potential for seriously different content from different cameras. For instance, the BWV cameras are more likely to have clear audio of the conversation since it is always worn on the outside of the jacket, while the microphone for the dash cam is often underneath a jacket. Similarly, two BWV units at the same incident- say, a drunk driving stop-

may not capture the same highly relevant details. One officer and his camera may not lean into the car where open liquor bottles are visible, for instance, while the other is the only unit to capture the driver when he nearly loses his balance on the roadside.

Court preparation work is not the only thing that increases when more cameras exist and more footage is created. Every additional camera requires its own hardware and software work. When officers are given a tool, they are responsible for ensuring that it works properly and that it can be used, particularly when its use is dictated by policy. To fail to properly attend to hardware or software could result in videos never being made, or being lost once they are made- both which could seriously harm officer credibility. Because of the increase in work that comes with taking more video, several officers mentioned questioning whether they wanted to have both IVV and BWV operating at the same time. However, increases in visibility also bring benefits. This introduces a source of conflict when making decisions about filming; As Officer Laurier said,

> "One of the thoughts that came into mind, and also another officer [about BWV], is … I already have my camera on my car, so when I pull someone over, yes it is nice to have that different angle. But then I also have to produce that [BWV video] as well, when I go to court."

A point which officers could not entirely agree on - including those that did not directly use BWV- was the extent to which filming with more than one camera at a time would have benefits which outweighed the additional work which was required. Officers were reasonably satisfied with the balance of labour to benefits that they have had with IVV only, but were divided on how onerous the additional work of BWV was, as well as how valuable an additional video viewpoint might be.

Currently, BWV related office labour is greater than that associated with IVV. For instance, BWV is currently stored on officer's individual computers, meaning they are responsible for maintaining their BWV records- uploading, naming and organizing everything. Meanwhile the dash cam video is stored on a self-managed server. While dash cam footage is uploaded automatically, body worn video must be manually connected to a computer at the end of the shift. The additional work burden of BWV has increasingly been seen as a problem for one officer, who explained:

> "It's nice to have in some circumstances but when it comes to what you actually have to do extra for court and for the disclosure stuff and for turning it on and everything else, right now, it's, it's, I kinda, it's more of a... it's more hassle than it's worth I think. My opinion's changed, though. When we started this, I was one of the guys that was more uh, like, more, like, willing to take part and kind of see how it went. But it's the disclosure part of it. There's already so much stuff that we're getting ready for court and stuff that it just, having to do more now, to burn more disks and more videos... and play back videos in court, like it's... yeah, that side of it has, um, I think it's that side of it that's made me more of a pain for me I guess. I think it outweighs the good a little more." Officer Meighen

Regarding an optimal video to work ratio, the most common position at the end of the study was that it was most effective to have only one camera functioning at a time. Where IVV coverage was possible, officers would generally choose not to turn on their BWV. Where IVV did not cover, officers would be more comfortable with the BWV on. As Officer Tupper put it:

> "So when I'm not around my car, is it nice to have the body camera? Yes. Because you don't know what your interactions are going to be. So if I was going to do a patrol through our parks, I would like to have my body camera on, just so that if I had any interaction with a person, I could

> turn it on. You know, if it went sideways, again I have that evidence, or that story that I can show, right? So those are the times that, you know, I've been looking and wanting to wear it, as opposed to wearing it all the time with the traffic camera, just because like I say, the... the storage and then the introducing it for tickets would just be a, I think, right now kind of a nightmare… But eventually maybe we'll be mandated to do it and then we'll have a better way of storing it"

Nonetheless, officers recognized that while IVV provides video coverage for a proportion of their work, expanding video coverage through BWV would provide the benefits of video in a greater range of situations and potentially further reduce ambiguity in those where video coverage was already present. However, the current work burden associated with creating more video reduced officers' desire to constantly use two cameras simultaneously.

IVV, BWV, observed use, and officer choices

As mentioned earlier, BWV and IVV share significant overlap in function, yet vary somewhat in associated workload. Officer decisions to use one or both video technologies was clearly impacted by the presence of the other. Despite the generally positive opinions of BWV held by officers other than the one BWV abstainer, the observed use of BWV during the study was very low. Reported officer use was quite variable. One officer, as mentioned earlier, refused to wear a BWV unit at any point during the study. The supervisor at PHPS said that he liked the technology and would want to wear it if he spent more time "on the road." However, the bulk of his work was in an office role, meaning that he had few opportunities to actually use BWV while interacting with citizens in an enforcement role. This meant that of the 6 officers at PHPS, there were only four in a position to use the technology with any frequency. Of the four potential

users, I only observed two actually use BWV while working, although all took the BWV units along during at least one ride along.

Two of the officers tried different patterns of use but at the end of the study came to the conclusion that they wanted to use BWV primarily when IVV was not present. Both did say that they felt like there *could* be good reasons to have both IVV and BWV running together- for instance, for dealing with drunk drivers. In such a situation, officers were likely to be in their vehicle and therefore would already be using IVV, but the BWV could provide a view of drunken behaviours in a way IVV might not be able to. Both said they wanted to make sure they had BWV with them even when they were in the car, though they would not use it all the time.

One other officer came to the conclusion he would only ever use BWV if no IVV was present at all; he did not feel that having two cameras running at the same time would be worthwhile. For him, the additional workload seemed unlikely to be balanced out by the possible advantages of two videos of an event.

The last officer took many BWV videos early in the study period, but following a discussion with the crown prosecutor, drastically reduced his use. He said he liked the technology, but wanted more clarity in policy to ensure that he wouldn't encounter any unforeseen circumstances in court regarding his decision making to use or not use the BWV camera. In his words, at this stage there is still a need to "get everything figured out… what the crown wants, and uh, retention time and everything else. Once there's policy, yeah, you can wear it all the time and know there's something to back you up." However, he still generally brought BWV along with him while working.

All of the officers using BWV said that they had used the technology multiple times when they were away from their vehicle and felt that they might need to provide evidence about events later. In particular, the technology was seen as valuable for instances when officers were in people's houses or property, when serving documents, or while on boat or quad shifts. Although my observed use of BWV was quite low, all four officers using the technology recorded a number of BWV videos during the study period.

Based on observation, IVV use throughout the study period was basically unchanging despite the introduction of BWV. All officers used IVV according to policy while I was present, and I did witness several incidents where officers opted to turn on their cameras although it was not required. In interviews, none of the officers said that the adoption of BWV had changed how they viewed or used IVV to any significant degree. All officers acknowledged that IVV was an imperfect tool which created additional work for them but overall the officers were strong proponents of the system. In short, the officers felt that the benefits of IVV strongly outweighed the detractors of the technology. BWV, on the other hand, was seen to be useful in a smaller number of situations, and to require more work relating to hardware and software as well as street applications. BWV, if used in conjunction with IVV, would also noticeably increase the court related work required of officers.

Video in the long term

Officers were proponents of video visibility in the present, although they also addressed a number of higher-level concerns about how video might be used in the long term. First amongst these was the idea that both officers and the court system could become reliant on video evidence, which could produce further undesirable effects. A common refrain when discussing

this growing reliance was how now, in Pierson Hill, stop sign violations are very unlikely to be prosecuted unless there is dash cam footage of the offence occurring. On the one hand the officers appreciate that the footage makes it very easy to see whether or not the offence occurred. On the other, they are concerned by what they perceive as prosecutors who will no longer view officer testimony as sufficient evidence for these matters. As Officer Bowell explained: the "court system is increasingly relying on video. I think that's to the detriment to a lot of officers who don't use it, but also of detriment to our legal system. Because the word of officers is no longer taken as truth anymore."

For them, this is the first step towards devaluing an officer's testimony. Officer Tupper explained he felt that prosecutors taking this stance was like "saying that we want to believe him but we'd sure like to see it for ourselves too. Which by default is eroding [his] credibility."

The perceived danger of this comes from the fact that officers view the technology as a tool, not a necessity. They feel that charges should be able to be laid regardless of whether or not cameras are present. Officers should be able to do their job, and be trusted – as the officers suggest they always have been – to tell the truth. It would be a serious blow for officers to only be trusted when their words are supported by video; this would represent a serious symbolic and practical demotion which would affect their ability to fulfill their historical role in the justice process.

Officers' perceptions and concerns about the value of unsupported officer testimony could be related to a broader social shift which has been dubbed "the CSI effect" in the media, and addressed in a more refined form academically under the term the "tech effect." The effect describes that today's juries- which theoretically represent the everyperson- increasingly expect the prosecution "will use the advantages of modern science and technology to help meet their

burden of proving guilt" (Shelton, Barak & Kim, 2006, p. 364). While there is disagreement as to whether the expectations of the public about the efficacy of recently developed technologies are accurate, several studies have shown great importance being placed on the use of new technologies as sources of evidence (Shelton, Barak & Kim, 2006; Shelton, Barak & Kim, 2009; Cole & Dioso-Villa, 2009). In other words, officers in Pierson Hill may be quite justified in their concerns that video technologies are one of many other technological advances which are serving to reduce the relative value of officer testimony in the eyes of the public.

A further concern expressed by officers is that law enforcement leadership could potentially abuse the footage in order to either 'throw officers under the bus' or to 'dispose' of officers by digging through footage to find a series of minor mishaps to justify dismissal. Officers said that this sort of behaviour does not occur in their organization, but that if such policies were to be implemented, it would be very destructive to trust and a positive work environment for officers. All agreed that in the case of complaints, officers should be held accountable for their actions, however, they would be very uncomfortable with somebody skimming through past videos to try and find mistakes.

Finally, if expectations for video evidence continued to increase, officers voiced concerns that the harm to credibility that could be done if video was poor or non-existent would become more pronounced. Similarly, as the number of cameras officers are expected to use increase, the workload associated with the use of video is only going to mount. The probability of technical failures, or mistakes leading to footage not being taken when it is expected, would also rise.

Discussion

Throughout the entire study period, the officers of PHPS were proponents of recording video of their work. These officers actively seek to create video visibility for themselves to an extent that is efficient. While they acknowledge that video can both help and harm them, they feel that video they record is much more likely to play a helpful role in their work, aligning these officers primarily with the strategic advantage orientation identified by Sandhu & Haggerty (2016).

I suggest that many of the benefits which officers derive from video technologies relate to improved officer account ability. I further suggest that we can understand this account ability as arising through the interplay of social, legal, organizational and technological factors present in Pierson Hill during the study period. An initial social factor which adds to the account ability of officers is that video is viewed as being highly credible due to the perceived objectivity of the medium (Brucato, 2015). As such, being able to support an officer's narrative with video may lend the officer's perspective additional credibility and render any corroborated details nearly uncontestable. There's also the organizational factor which enables particular types of preparation assisted by video; officers are empowered by organizational policy to support their narrative with documents which were created while viewing the video. Policy in place at PHPS means that officers also have the ability to return to and re-watch video when they please to ensure they can speak to it effectively when testimony is required. This ensures a close fit between documentation, officer testimony, and video. Officers reported that mutually reinforcing evidence sources create a more credible narrative in court. Equally as importantly, conflicts between the various sources can be avoided.

As addressed earlier, another critical point in the interpretation of any message or media is the background of the observer. Interpretation of the content of video may vary along cultural and ideological lines, meaning that even clearly visible content may be interpreted differently by different people (Kahan, Hoffman & Braman, 2009). I suggest that the social attributes of video viewers in Pierson Hill are likely to work in favor of officers. The background and perspectives of members of the viewing audience who are in a position to act on the content of the video footage are likely to be highly compatible with those of law enforcement officers. Judges, prosecutors, and law enforcement supervisors are likely familiar and sympathetic to the realities of policing. Their frames of reference as to what is "reasonable" are already shaped by constant exposure to justice system proceedings, and prior cases.

Similarly, the two most common settings for video to be viewed- the supervisor's officer and the courtroom- are designed to allow an officer's voice to be heard. These organizational and legal factors ensure that officers are able to assist in contextualizing and shaping the understanding of viewers. As discussed earlier, external narrative aids can be highly influential in how visual content will be interpreted (Young, 1996). Of course, a complainant or defendant also has the ability to add their narrative in both of these settings. However, officers have the advantage in that their accounts can be further supplemented with documentation from the event, and preparation through viewing the video. Officers in Pierson Hill have been using video evidence for years, and are well aware how to do so effectively in these particular contexts and social settings.

Finally, there are technological factors working in the officer's favor as well. While officers acknowledge that the hardware of both IVV and BWV can be problematic for them, IVV is generally regarded to be reliable. Officers have used it for years, and are very familiar with its

function. They have a vested interest in using it to the best of their abilities, and know how to use it in a way that is reasonably likely to create useful footage. Although unexpected circumstances can arise, a huge amount of officers' interactions with the public occur during vehicle stops for which IVV is very well suited to record the most relevant details of an exchange. BWV is less convenient, yet officers are able to use it when they feel it will be useful to them. These technological factors mean that video footage is most often going to function as officers expect it to.

Further, video in Pierson Hill is used most often in roles where the officer is not the subject of scrutiny. When video is used by the prosecution for charges laid by the officer, the officer is unlikely to suffer from the presence of video. At worst, poor quality video may result in the prosecution being undermined or dropped, but the officer is not likely to be singled out for punishment. In the rarer event that the video is used based on a complaint about the officer, the officers are generally confident that their conduct was appropriate and trust that video will almost always show them in a reasonably good light. Further, in these cases, the officer generally has the opportunity to supplement any uncertainties about their conduct with testimony. In the eyes of officers who have little concern about their conduct, the threat of spurious complaints being taken seriously by investigators in the absence of video is much greater than the threat of being caught on camera doing something seriously wrong. The coexistence of these social, organizational, technological, and legal factors in Pierson Hill mean that officers are positioned to benefit far more often than not by using video technologies. These same factors shape how officers can convey messages about their actions, and their cumulative effects enable the increased account ability of officers.

The only consistently negative element of video is the labour it requires. Officers are largely unable to ignore this video-focused labour should they wish to derive the maximum benefit from video, while minimizing the likelihood of facing the aforementioned detrimental outcomes associated with video. Labour, however, is a relatively low stakes detractor for officers. The higher-stakes problems which can arise are relatively infrequent. From a technical perspective, the current version of IVV makes it unlikely that officers will not have video when it is mandated by policy, and low quality footage will only create issues a fraction of the time. This aligns with the organizational and legal realities that a small minority of interactions which are recorded actually end up resulting in a complaint, or having the footage used in court. Further, officers in Pierson Hill are rarely involved with many more serious offences which would result in criminal prosecutions, as they are tasked only to enforce provincial and municipal legislation. Being caught on technicalities which a viewer might find in the video is also very rare, as is having video that will cleanly support multiple conflicting narratives about a topic of contention. Perhaps the most pressing issue facing officers would be the potential to appear untrustworthy if video footage is lost, and even this is quite unlikely with the current hardware and software in use.

The larger effects of video- that it might be devaluing officer testimony, or that it might someday be used for extremely close review of officer conduct- appear to be secondary concerns. For the supervisor, the benefits to using cameras seem obvious, particularly when he has no intent to use the cameras in a way his officers would find detrimental. The ability to defuse complaints and secure some quick prosecutions for common offenses is immediately valuable to the organization. On the other hand, it is not immediately clear to what extent video is contributing to a broader cultural shift labeled the “tech effect.” Indeed, if this cultural shift is happening

regardless of whether or not police produce video evidence, it would be wise of police to adapt so that they can provide evidence that meets the expectations of the public. While the supervisor is also well aware of some of the possible risks associated with adopting video, he also feels that not having any video is inviting risk for his officers.

These same factors explain the positivity towards BWV, but its infrequent use. Officers are interested in maximizing their visibility while minimizing associated work. From a technological and organizational perspective, the primacy of IVV in Pierson Hill means that BWV is only able increase the volume of video taken in most situations. The legal requirements resulting from the *Stinchcombe* decision mean that the act of taking video entails a significant volume of labour preparing said video for court. By taking more video, officers create more work. Further, BWV hardware is also not as simple to activate, and is more easily forgotten, which means that it is more likely to fail to take video altogether. There is still less clarity from a policy perspective and from the crown's office as to how it should be used. In short, the simultaneous use of IVV and BWV does not significantly increase the account ability of officers compared to the use of a single technology. However, using more cameras does entail greater video related labour, and introduces greater possibility of technical issues.

This is not to say that BWV was seen as a waste; officers valued having BWV in settings where IVV is unable to record. By using BWV primarily in settings where IVV could not go, the volume of video related labour is reduced while still giving officers the ability to have video for interactions nearly anywhere and to be able to leverage the benefits associated with having video. This allows the officers to proactively prepare themselves for the realities of work where complaints are a reality of work and reliable witnesses are rare.

Unless a significant shift occurs in how video is stored and who has access to it, it would seem that video evidence has a net effect of improving the account ability of the officers of PHPS, and their control of narratives in the courtroom and before supervisors. It improves their ability to protect their credibility and jobs. However, officers identified a range of negative effects which video can create. This emphasizes that visibility is a double edged sword. This is supports the perspective that visibility is not inherently empowering or disempowering (Brighenti, 2007; Sandhu & Haggerty, 2016).

Video should be seen as a possible threat to officers and policing organizations insofar that footage can be viewed with different goals, from different perspectives, by different viewers. Footage recorded for one purpose can have alternative interpretations and narratives attached, to be used to different ends. Just as officers can use video to improve their account ability in the context of Pierson Hill, others could use video with alternative arrangements of technological, social, legal and organizational factors to support alternate accounts and create different outcomes.

By adopting video technologies, police are creating a massive backlog of visibility which could theoretically appear before different audiences than currently anticipated. While BWV and IVV footage is not easily accessible to most audiences currently, this may not always be the case. Audiences in the future could range from malicious supervisors to citizens with very different conceptions of how policing should look. The actions that alternate audiences might take based on video footage, or the conclusions they might draw about its content are unknown. While the current arrangement of technological, social, legal and organizational factors in Pierson Hill result in largely positive outcomes for officers who record their work, changes in any one of these areas could prove helpful or harmful for officers. Organizations considering the adoption of

video technologies must consider not only the merits of a technology, but the larger context in which it will be used.

Conclusion

Officers in Pierson Hill are generally proponents of IVV and BWV. This positive outlook towards recording video of their work is contingent on the various means by which video can help them. Video can allow them to communicate in new ways with their audiences, providing unprecedented clarity and certainty about particular types of situations. This can allow an officer to appear more credible, either by supporting an officer's testimony and other documentation, or by discrediting competing narratives. However, officers also acknowledged a range of ways video can create issues, supported by problematic occurrences they had experienced. Video can allow for new defences to be implemented; it can create new types of ambiguity; technical failures or incomplete footage can bring an officer's intent and character into question.

Using video technologies necessarily creates work for the officers. Particular technological demands arise from the hardware and software. There are challenges in decision-making and safety on the street level. There are also the legally and organizationally required tasks surrounding data management, as well as court preparation and attendance. These various tasks and challenges are part of the cost that must be paid in order to derive the benefits which video can offer. This work is also essential to anticipating or mitigating- as much as may be possible- various detrimental outcomes for officers which can arise through video use.

With the exception of the work created, the variety of ways in which video can help or harm officers relate to how video changes the narratives which can be credibly told about events. Video changes the account ability of officers, prosecutors, accused parties, and anyone else who

wishes to make claims about what really happened while the film was being recorded. A film shows a selective audio/visual representation of events. In order to appear credible, all parties must be able to reconcile their account of events with the details portrayed on film. In many ways, this restricts the range of accounts which can be entertained as credible. Alternately, accounts which are strongly supported by the video content gain credibility. These effects can either work for or against officers, depending on the video content.

The mere presence of video is not the only factor which affects account ability. As Ericson (1995) identified, account ability is contingent on a myriad of situational factors which affect how the involved parties are able to communicate and understand the claims one another make. A video does not exist in a vacuum or contain a single, unambiguous meaning. Account ability is negotiated in any particular setting; my research suggests that in Pierson Hill, technological, social, legal and organizational factors are particularly important in shaping the possible outcomes associated with video recorded by IVV or BWV. These factors define where and how stories about reality can be told; who can tell these stories using what means, who can listen, and how those listening are equipped to interpret the message. I suggest that the generally positive outcomes which PHPS officers associate with video are contingent on the current arrangement of these factors in Pierson Hill. These factors typically align to improve officers' account ability when they have video evidence.

In sum, officers use IVV and BWV with a full awareness of means by which the technologies can both help and complicate their work. Officer use of both IVV and BWV reflected a desire to maximize the possible benefits while minimizing the possible detrimental effects and work associated with their use. While the current arrangement of social, legal, technological and organizational factors renders the use of video technologies primarily beneficial to the officers of

PHPS, future shifts in the above areas could strongly affect the function and value of video for individual officers.

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Appendix A: Ethics Clearance

Date:	August 27, 2014
Study ID:	Pro00050131
Principal Investigator:	Neil Topinka
Study Supervisor:	Kevin Haggerty
Study Title:	Any body could be watching: Policing with body worn video cameras in a Canadian prairie city.
Approval Expiry Date:	August 26, 2015

Approved Consent Form:	Approval Date	Approved Document
	8/27/2014	Consent Form

Thank you for submitting the above study to the Research Ethics Board 1. Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,

William Dunn, PhD
Chair, Research Ethics Board 1