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A Study of the Influence of Video Surveillance Images on Institutional Crime Prevention and Criminal Justice Practices

Blair Wilkinson
University of Windsor

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**A Study of the Influence of Video Surveillance Images on Institutional Crime
Prevention and Criminal Justice Practices**

By

Blair Wilkinson

A Thesis

Submitted to the Faculty of Graduate Studies

Through the Department of Sociology, Anthropology and Criminology

In Partial Fulfillment of the Requirements for

The Degree of Master of Arts at the

University of Windsor

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2010

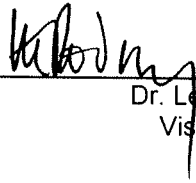
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A Study of the Influence of Video Surveillance Images on Institutional Crime Prevention and Criminal Justice Practices

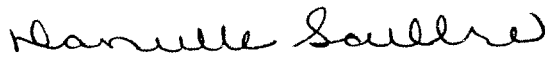
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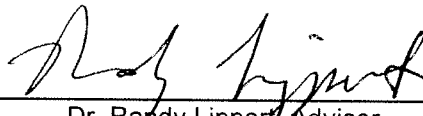
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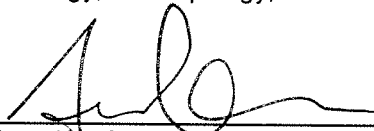
Dr. Lee Rodney
Visual Arts



Dr. Danielle Soulliere
Department of Sociology, Anthropology & Criminology



Dr. Randy Lipper, Advisor
Department of Sociology, Anthropology, & Criminology



Dr. Jane Ku, Chair of Defence
Department of Sociology, Anthropology, & Criminology

April 7, 2010

AUTHOR'S DECLARATION OF ORIGINALITY

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ABSTRACT

This thesis examines the influence of video surveillance images on institutional practices. The three institutions examined are police, private businesses and the courts. The research is theoretically grounded by the orienting concept of the surveillant assemblage. The research found that the three institutions are influenced by the availability of video surveillance images. Impacts included changes in workload and institutional restructuring. Furthermore, institutions external to those examined also influenced the use of video surveillance images. Each institution was found to use the video surveillance images for various purposes and to represent the images in particular ways to make use of the information provided. The research has also contributed to the refinement of the concepts of the surveillant assemblage, data-double, and function creep.

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I would also like to thank all of my amazing friends for their unwavering support through the years. A special thanks goes to Aaron D'Onofrio-Jones whose support, to say nothing of our friendly competition, has been instrumental in both my academic success and personal growth.

DEDICATION

To my parents,

For your unconditional love and support.

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1. INTRODUCTION

Within Western nations, video surveillance cameras¹ have increasingly been deployed by both private organizations and government bodies to monitor a vast array of domains, including apartment complexes, retail establishments and public spaces (see Walby, 2005a; Webster, 2009). The surveillance images² created by video surveillance are visual and shape our understandings and engagement with crime, control, and social order (Greer et al., 2007: 5). Video surveillance images not only shape our understandings and engagement with crime but, as this research discusses, surveillance images also inform institutional practices.

This research seeks to contribute to understanding video surveillance and the surveillant assemblage. Its purpose is to answer the overarching question: How do surveillance images, as visual information, influence institutional practices? Three institutions that use surveillance images were examined: businesses, police and the courts. Interviews conducted with persons working within each institution and publicly available documents, including case law, municipal police budgets, Toronto Police press releases and video obtained from the *Toronto Crime Stoppers YouTube* channel were analyzed in this research. This research project is important to help us better understand how surveillance images influence the practices of various institutions. The orienting concept of the surveillant assemblage is used to theoretically ground the research (see Haggerty and Ericson, 2000; Hier, 2003; Ericson, 2007; Bogard, 2006; Hier and Greenberg, 2009; Lippert, 2009). Multiple perspectives on information, knowledge and

¹ Video surveillance cameras refer to a system that captures images and transfers these images to a location, or locations, where the images are accessed (in real-time and/or for future viewing).

² 'Surveillance image' refers to both still photographs and rolling video.

representation (see Tagg, 1988; Hayles, 1999; Brachman and Levesque, 2004) are also drawn upon in the research.

2. THEORETICAL FRAMEWORK

The Surveillant Assemblage

Haggerty and Ericson (2000: 607) developed the orienting concept of the surveillant assemblage, using analytical tools created by Deleuze and Guattari (1987), to move beyond the concepts developed by Orwell (i.e., Big Brother) and Foucault (i.e., the panopticon) and expanded on by other researchers and theorists. The surveillant assemblage works through a process of abstracting human bodies from their location and separating them into discrete flows of information that are then reassembled into data-doubles. Later, these data-doubles may become targets of intervention (Haggerty and Ericson, 2000: 604). Assemblages consist of an endless number of phenomena including, but not limited to, information and institutions (Haggerty and Ericson, 2000: 608).

Drawing from Deleuze and Guattari, the growth of the surveillant assemblage is described as rhizomatic. This metaphor emphasizes the rapid growth of the surveillant assemblage and the leveling of hierarchies (Haggerty and Ericson, 2000: 614). The growth of rhizomes occurs “across a series of interconnected roots which throw up shoots in different locations” (Haggerty and Ericson, 2000: 614). As opposed to hierarchical surveillance, this rhizomatic growth of surveillance allows for both those with and those without power to be scrutinized by institutions and the general public (Haggerty and Ericson, 2000: 617). Mathiesen (1997) asserts that we live in the viewer society in which, through the process of synopticism, the many watch the few. Synopticism does not create a complete leveling of the surveillance hierarchy, however, it highlights the point that no groups stand “above or outside of the surveillant assemblage” (Haggerty and Ericson, 2000: 618).

Ericson (2007: 2) states that most crimes are not reported to police and that other institutions have the primary role of crime prevention. These institutions rely on a precautionary logic, which is “the logic of uncertainty” (Ericson, 2007: 22). The precautionary logic fuels suspicion and has enabled uncertainty to become a reason for preemptive measures that hold responsible, monitor and sanction designated persons (Ericson, 2007: 23). The use of precautionary logic leads to criminalization through two types of counter-law: laws against law and the surveillant assemblage. Both types of counter-law erode the traditional principles, standards and procedures of criminal law as a response to uncertainty (Ericson, 2007: 24-30). That institutions external to the state have the primary role of crime prevention, using data-gathering technologies such as video surveillance, highlights the problems with both Foucaultian and Orwellian imagery which focus on these technologies within the state’s control (Hier and Greenberg, 2009: 19). Another consequence of the surveillant assemblage is function creep, which is the use of surveillance technologies “for purposes that were not originally intended” (Monahan, 2007: 378).

Images, Information, Knowledge, and Representation

To understand the processes involved in using surveillance images, and the ability of the surveillances image to influence institutional practices in this thesis I first distinguish among information, knowledge and representation. Information is raw data that in its technical form has no meaning (Hayles, 1999: 32). Prior to it being examined (e.g., to monitor a suspected shoplifter, to be investigated by police) the surveillance image is information. When the surveillance image is studied or experienced and ideas are inferred or read into the image it becomes part of a knowledge base. Knowledge is

the relation between a knower and a proposition (Brachman and Levesque, 2004: 2-3). For example, *a police officer* [the knower] knows that an *assault was committed at a local pub* [the proposition]. Representation is the relationship between two domains. The first domain symbolizes or replaces the other (Brachman and Levesque, 2004: 3-4). The surveillance image, including other knowledge attached to it, comes to stand for the criminal event (see for example Hay, 1995). According to Tagg (1988: 4), “that a photograph can come to stand as *evidence*, for example, rests not on a natural or existential fact, but on a social, semiotic process” (*emphasis in original*). In other words the value of the information provided by the surveillance image as evidence rests upon the representations of the image through a social process. Ericson and Haggerty (1997: 83-84) state that information and knowledge³ is that “which is objectified in institutional *representations*, a property and resource that provides a capacity for action” (Ericson and Haggerty, 1997: 83-84, *emphasis added*). For action to be taken the image must come to stand for an event, person or object.

The primary form of information that is under consideration is the surveillance image. According to Barthes (1981) we look at a photograph to see something else; we do not look at it for its own sake (see Biber, 2007). The surveillance image, therefore, is not simply viewed for the sake of viewing but rather it is viewed to discover other information (e.g., a murder weapon or suspect’s clothing). The surveillance camera merely “mechanically – unflinchingly – captures unguarded moments” (Biber, 2007: 21). However, through being developed, examined and scrutinized the images can be assembled into “an album of disorder and deviance” (Biber, 2007: 21). These images

³ For the purposes of this paper, information and knowledge are taken as separate concepts.

provide only the most obvious information, being what a particular subject looked like in a certain location at one given time. All “other information needs to be coaxed out of them - or read into them”; the photograph is merely a tool that when used implies a variety of assumptions and philosophies (Phillips, 1997: 29). These assumptions and philosophies inform how the surveillance images are represented. The knowledge that is gained from surveillance images, and images in general, is “a knowledge at bargain prices – a semblance of knowledge, a semblance of wisdom; as the act of taking pictures is a semblance of appropriation” (Sontag, 2001: 24).

3. LITERATURE REVIEW

Previous research on video surveillance focused on public, or open-street, programs. In particular, previous studies have examined the establishment of these programs (Hier et al., 2007; Walby, 2005b), the effectiveness of video surveillance programs (see, Brown, 1995; Welsh and Farrington, 2003; Gill and Spriggs 2005; Farrington, Gill, and Waples, 2007; Waples, Gill and Fisher, 2009) and privacy issues (for example see Ryberg, 2007; Lever, 2008; Goold, 2008; Ryberg, 2008). Studies of open-street video surveillance are important due to both the amount of government funding given to these projects and the privacy concerns arising from their implementation. However, the examination of open-street video surveillance has been to the detriment of research on privately operated video surveillance. Therefore, to address the gap in the literature, this current research focuses on privately owned and operated video surveillance and how surveillance images influence institutional practices, in particular how the implementation of private video surveillance has influenced the practices of businesses, police and the courts.

One institution that uses surveillance images and has been studied is the mass media. Surveillance images of two-year-old James Bulger being lead away by two ten-year-olds, who would later murder James, were used by the media to frame James' abduction. The surveillance images provided visual evidence that was important to the media's portrayal of moral and social disintegration in the United Kingdom (Hay, 1995). The media have also used surveillance images in 'reality' programs such as *Video Justice: Crime Caught on Tape* (Biressi and Nunn, 2003). Surveillance images have been used in the media-based program *Crime Stoppers* (Carriere and Ericson, 1989;

Lippert 2002; Lippert and Wilkinson, 2009). This previous research demonstrates the importance of surveillance images in depicting crime to the general public; however, the current research examines how surveillance images influence practices that are often hidden from public view, such as the practices of the police and businesses.

Video surveillance has been used in semi-private locations such as convenience stores, malls and banks since the early 1980s (Whitson, Doyle and Walby, 2009). Despite this, very little attention has been given to video surveillance of these spaces. Research on video surveillance in these locations has focused primarily on the day-to-day operations of security officers in video surveillance control rooms (see, Helten and Fischer, 2004; Lomell, 2004; Smith, 2004; Walby, 2005a; 2006). Thus, video surveillance is monitored in control rooms where operators scan the images captured by the cameras for anything “out of the ordinary” (Lomell, 2004: 350). From here persons are targeted and security officers may be deployed to deal with those who disrupt the normal scene. The majority of exclusions are based on categorical suspicions and criminal behaviour (Lomell, 2004). These findings appear to indicate that exclusionary practices are assisted by surveillance images. Video surveillance images are deployed as visual information that assists in carrying out institutional practices, such as preventing ‘undesirables’ from tarnishing the reputation of a mall (Lomell, 2004: 354). In his institutional ethnography of a shopping mall video surveillance control room, Walby (2005a) examined how surveillance images construct reality. The videos are viewed in real time and given meaning by the operators. The information from the images is used to make citizen’s arrests and is distributed to other agencies such as the police, social services and the courts, including the Crown Counsel and defense attorney for use as

evidence in court (Walby, 2005a). Walby (2006) recognized the limits of his study of campus and apartment video surveillance security work and encouraged a further examination of how surveillance images constitute social and work relations. This research responds to this call and other gaps in the literature by examining how the use of surveillance images influences institutional practices.

An examination of police use of images is vital as the police are in a unique position of authority to be able to “legitimately see, constitute, and articulate ... events”, such as the Rodney King assault (Goodwin, 1994: 626). This position of authority also enables the police to constitute events captured in surveillance images. Despite increased use of surveillance images by the police, how surveillance images influence police institutional practices has been overlooked in past research. Previous research has not addressed how the police acquire and deploy surveillance images from businesses and how these images inform police practices. Walby (2009) examined how images and video produced by police surveillance of male-with-male sex in public bathrooms were used to create perceptions of the truth about these events. While this research examined the use of the surveillance images, it focused on police surveillance as opposed to private surveillance. Other research on the police use of surveillance images has examined open-street surveillance and its influence on policing (see Goold, 2003). This research will address the gaps in the literature by examining how surveillance images obtained from private sources influence police institutional practices.

The final institution examined is the criminal courts. The images that are produced by video surveillance are presented as evidence in the criminal courts. Murphy (1999) argues that in the United Kingdom visual recordings have been accepted as

evidence by the courts. The Supreme Court of Canada has ruled, in *R. v. Nikolovski*, that video produced by video surveillance is “admissible and relevant evidence” as long as it is demonstrated that the video has not been altered or changed and that judges can make a determination that it is the accused pictured in the surveillance image. Images are now allowed to ‘speak for themselves’, having shifted from being illustrative to demonstrative evidence, in court and do not act solely as aids for human testimony (Valverde, 2006: 157). The identification of suspects in surveillance images is highly prone to error (see Henderson, Bruce and Burton, 2001; Davis and Valentine, 2008) making it important to examine how the surveillance image as a type of visual information influence those involved in the judicial system. Despite the use of video surveillance evidence in courts no criminological research has examined how surveillance images influence court practices while engaging with contemporary surveillance theories. This research will examine the use of surveillance images in court while engaging with the orienting concept of the surveillant assemblage.

Previous research has examined various components of the surveillant assemblage. These works include the study of video surveillance signage (Lippert, 2009), and public vigilance campaigns (Larsen and Piché, 2009). Furthermore, Ericson (2007: 2-3) claims that to understand criminalization as a response to risk and uncertainty the uses of the surveillant assemblage by various institutions must be examined. No previous research on the surveillant assemblage has focused on how surveillance images influence institutional practices.

The use of video surveillance and the images produced is a form of photography. Regarding still photography, Sontag (2001: 21-24) states that the photograph was

enrolled by the police, an institution of control, and used as a symbolic object and information. Tagg (1988: 5) claims that the new techniques of representation and regulation, including photographs, were crucial to the restructuring of the state and the development of disciplinary networks, including the police. While the transformations enabled by the photograph in the 19th Century have previously been explored, this research seeks to explore how surveillance images have influenced various institutions in the late 20th Century and the 21st Century.

The research conducted on the uses of video surveillance has been wide-ranging, but has not addressed the influence of surveillance images on institutional practices. With the proliferation of video surveillance in Western societies, including Canada, it is important to engage in an examination of how surveillance images as visual information influence institutional practices at and beyond its place of creation. The main research question that will be answered by this research is: How do surveillance images, as visual information, influence institutional practices? Several additional research questions stemming from the main research question will be explored. What influence do the surveillance image-informed practices of one of the institutions have on the others (e.g., how a businesses video surveillance system is set up; influence of police preparation of video on court presentation)? How does the image transfer influence the relationships between institutions? How does surveillance image-informed institutional practices influence those whose data are captured in surveillance images (e.g., implications at plea bargaining; clearance of suspects by police)? Is the information from visual media (i.e., surveillance images) unique in its influences compared to information not gathered from visual media (e.g., oral statements given by eyewitnesses) used by the institutions for

similar purposes? And lastly, how has the practice of using surveillance images in these institutions contributed to the further expansion of surveillance?

4. METHODOLOGY AND RESEARCH PROCEDURES

Several research procedures were used in this research. Interviews were conducted with subjects drawn from the three institutions of interest (i.e., business, police and the courts). Interview subjects were selected using a combination of purposive and snowball sampling (Berg, 2007: 44). Using contact information obtained from a search of relevant websites (e.g., police, legal offices, etc.) potential interview subjects were contacted and asked to participate in the research. If those contacted were unwilling or unable to participate, snowball sampling was used and the subject was asked if they could provide a referral to another potential interview subject. Snowball sampling was also used to recruit research subjects by asking interviewees to forward my contact information to other potential interviewees. A total of fifteen (15) interviews were conducted between October 2009 and December 2009.

Interview subjects were drawn from numerous Ontario communities ranging in size from approximately 25000 to 600000 citizens. Police interviews included one forensic identification officer (detective constable) (Police 1), an inspector (Police 2), four staff/detective sergeants (Police 3, 5-7), and a civilian forensic video analyst (Police 4). Each police employee (i.e., sworn officer or civilian member) was employed by a different police service. The lawyer and business interviews overlapped with the policing communities. Four defence lawyers, from the policing communities, were interviewed. An attempt was made to interview Ontario Crown Attorney's offices, however, these requests were denied. Business interviewees included a restaurant and bar owner in a Southwestern Ontario city (Business 1), a video surveillance salesperson who worked in various Ontario communities (Business 2), a loss prevention manager for a chain of retail

stores and gas-bars throughout Ontario (Business 3), and a loss prevention director for a national retailer (Business 4). Lawyer 3 was also interviewed about his law office's video surveillance⁴.

The interviews were conducted using multiple semi-structured (or semi-standardized) interview schedules (Appendices A, B, C) due to the different institutions being examined in this research. These interviews allowed probing for answers beyond the prepared questions (Berg, 2007: 95) and assisted in yielding a more detailed understanding of the research topic. The ability to probe and ask questions out of sequence also allowed for natural conversation to occur.

External documents were obtained including Toronto Police Service media releases, relevant case law, municipal budgets and video from the *Toronto Crime Stoppers YouTube* channel. Toronto Police Service media releases were examined to further explore the claims made by various interview subjects as well as to explore aspects of surveillance images. These documents supplemented the interview data.

The data, including transcribed interviews, were entered into qualitative analysis software for content analysis. Content analysis assists in finding themes, patterns, biases and meanings through detailed, careful and systematic examination and interpretation of the material (Berg, 2007: 303-304). Coding searched for themes related to the surveillant assemblage, institutional practices and other themes revealed in the data.

⁴ Additional business interviews were sought, however, several small businesses expressed they were either too busy or claimed inadequate knowledge to assist in my inquiry and some major retailers refused to participate in the research due to the sensitive nature of the information being sought. Unfortunately, due to this response from the business community, practices related to the use of surveillance images by business could only be glimpsed through this research. Future research using different methodologies should be initiated to better bring these practices into view.

5. RESULTS AND ANALYSIS

The research revealed that the surveillance images, as visual information, influence the practices of each institution studied. The video surveillance practices of one influence the practices of others (e.g., the quality of video surveillance deployed by businesses influences how police work with the image). The use of surveillance images in the institutions examined revealed the expansion of video surveillance, including through function creep and the enrollment of new technologies into the surveillant assemblage. The information from visual media (i.e., surveillance images) is unique in its influences on institutional practices compared to other kinds of information used by the institutions for similar purposes. Lastly, the research contributes to the orienting concept surveillant assemblage by examining and refining key components of the surveillant assemblage including function creep, the data-double and the precautionary logic.

Video Surveillance Expansion

Through the interviews it was discovered that, despite being less prevalent than business use of video surveillance, private citizens were increasingly using video surveillance to protect themselves and their property (Business 2; Lawyer 3; Police 2-6). The use of video surveillance by private citizens reveals the expansion of the surveillant assemblage into areas previously untouched by video surveillance. The use of video surveillance by private citizens is discussed in what follows; however, interviews were not conducted with private citizens due to methodological constraints (e.g., locating private citizens using video surveillance).

Popular cultural representations of crime including television shows (e.g., *CSI*, *Law & Order*) are one reason for the increased production of surveillance images. The *CSI Effect* refers to the rise in expectations, due to watching *CSI: Crime Scene Investigation (CSI)* and similar crime dramas, of crime victims and jurors with respect to forensic evidence, including surveillance images (see Dowler, Fleming and Muzzatti, 2006; Schweitzer and Saks, 2007). This effect places a greater burden on the prosecution to provide better forensic evidence as viewers of *CSI* and other crime dramas find their forensic evidence presented less convincing (Schweitzer and Saks, 2007). Although the influences of popular cultural representations of video surveillance on the public were not directly explored, the interviews revealed the influence of these popular cultural representations on institutional practices and the expansion of surveillance. Those interviewed believed popular culture representations influenced other's beliefs about the effectiveness of surveillance images. Moreover, popular cultural representations of surveillance images create a disjunction between commonly held beliefs and what can be accomplished with surveillance images (e.g., image enhancement, time-frame of investigation) (Business 2; Police 1-7). The *CSI Effect* does not only influence the beliefs of the general public. Police officers and lawyers are also influenced by these representations (Business 2; Lawyer 2). For example, a video of one lawyer's client was disclosed to him that allegedly showed the client striking a pedestrian with his vehicle. However, the lawyer could not make out this event and remarked that the police possibly had a method of cleaning up the image (Lawyer 2), a belief possibly influenced by crime dramas. The *CSI Effect* creates an unrealistic expectation of what can be done with video surveillance and may contribute to the expansion of surveillance as the demand for

surveillance images increases the need to produce high quality images in greater numbers so that the images can effectively be used in police investigations.

Video Surveillance Rationales: The Precautionary Logic

The precautionary logic fuels the use of video surveillance and surveillance images and is evinced in the myriad rationales for deploying video surveillance in businesses. One of the main rationales of video surveillance systems was found to be crime prevention, primarily theft (including employee theft) or robbery prevention, or to capture images of crimes that can be used by police for investigative purposes (Business 1-4). Related to crime prevention, video surveillance rationales included protecting employees from victimization (Business 4; Lawyer 3). Other video surveillance rationales include the prevention and contention of liability claims (Business 1-4), monitoring of business operations, including restaurant management (Business 1) and accident prevention, such as monitoring for health and safety violations (Business 3; Police 4). Images are transferred to the police for non-criminal investigations, for example in missing persons cases (Police 3). Moreover, consistent with the precautionary logic businesses may deploy dummy cameras (i.e., a non-functioning camera box or dome) in an attempt to prevent future harms. Although these dummy cameras are deployed with rationales consistent with the precautionary logic they rely on a false assumption about the deterrence value of cameras and are ineffective in providing evidence and therefore are ineffective in preventing all imaginable harms or recovering from a loss (Police 1). The ability of the video surveillance system to create and store images is as important as the implementation of the system. Without the ability to make

images the video surveillance system is unable to accomplish many of the stated purposes for implementing the system (e.g., contesting liability claims, investigating crime).

The end product of video surveillance, the image, is enrolled in a system that relies on the precautionary logic to fuel information transfer. A business may distribute the surveillance image, or information gathered from a surveillance image, to mobilize employees to be vigilant against a possible criminal threat (Business 3). Police release information to the media to locate a suspect that may be a danger to the public or to “help in finding a person that we feel is in jeopardy or danger” (Police 3). These rationales appeal to the precautionary logic of preventing all imaginable harms. When the precautionary logic is used to justify video surveillance only those harms that support the video surveillance implementation are mentioned. The harms appealed to include crime, harms related to insurance claims (Business 1-3), workplace injuries (Business 3) and the loss of business (Business 1, 3). However, harms that may result from the use of video surveillance are often ignored in the stated rationales. These harms include a loss of privacy as well as a potential loss of dignity for victims or wrongful accusations of guilt if the surveillance image is improperly distributed (see Lippert and Wilkinson, 2009). This reveals the irony of appealing to the precautionary logic, as a full accounting of possible future harms is impossible. Therefore, in attempting to prevent a particular set of future harms (e.g., crime, insurance fraud) through the use of video surveillance, new harms are created or exacerbated (e.g., loss of privacy, wrongful accusations of guilt).

Function Creep

Function creep is the use of surveillance technologies “for purposes that were not originally intended” (Monahan, 2007: 378). It has arisen because the surveillance images

are readily available to be used to influence institutional practices beyond crime prevention and detection. Function creep occurs with business video surveillance in multiple ways discussed below.

Function creep is evinced in an analysis of the privacy policy of *Future Shop*, a Canadian electronics chain store. *Future Shop's* privacy policy states that video surveillance is used for the purpose of “safety and loss prevention ... [and] There may also be occasion where video footage is used for general demographic or traffic flow analysis” (Future Shop, 2009). This is indicative of a system that was designed for loss prevention, which includes crime prevention, being used for a new purpose, that is, the gathering of demographic and traffic flow information. Function creep occurs with video surveillance initially implemented to monitor the gasoline pumps at gas stations. The original rationale for video surveillance was to monitor gasoline spills and other safety violations, such as a customer using a pop can to hold the nozzle of the gasoline pump open (Police 4). However, with rising gasoline prices and increased incidences of pump-and-go thefts, the surveillance images are now being used as evidence in criminal investigations (Business 3; Police 4). Using surveillance images originally designed to monitor internal crime to investigate external crime (e.g., robbery) is another example. This function creep may lead to a further expansion of surveillance if the business installs additional video surveillance to capture future external crime such as robberies.

The use of video surveillance to monitor a new range of activities as well as the addition of additional video surveillance cameras both contribute to function creep and the expansion of surveillance. As new rationales for using video surveillance are

developed the amount of surveillance increases. Video surveillance starts with one rationale for monitoring a certain area or activity and snowballs to monitor a greater number of areas and activities. This expansion of video surveillance is evinced in the following quotation:

[Video surveillance] starts off with the entrances ... for break and enter. Secondly, you put the second one on cash registers and bars, for theft. By employees and customers too ... Thirdly you go on to all stairwells and that's for slip and falls and insurance, preventative measures because that way you can see them. And then fourth would be the actual restaurant itself ... So you are looking at the aspect of if there are mistakes in service or customer issues you can monitor those as well (Business 1).

Video surveillance may begin as a response to one problem and, combined with an appeal to the precautionary logic, leads to a growth in video surveillance systems and the images they produce. The presence of function creep highlights Hier's (2003: 405) claim that surveillance is both "a cause as well as an effect of intensified practices of social monitoring and information gathering".

Other technologies are enrolled in the surveillant assemblage when they are used for video surveillance purposes or combined with the surveillance image. Cellular phones are used to access the surveillance images via the Internet (Business 1). Cellular phone call records (Police 6) and point-of-sale/transaction records (Business 2, 3) are also enrolled in the surveillant assemblage contributing to one's data-double. The enrollment of new technologies, previously unrelated to video surveillance, demonstrates another way that function creep contributes the expansion of the surveillant assemblage.

Data-Doubles

When a person is caught on video surveillance that person's information is abstracted into a data-double through a process that transfers the information for viewing

and/or storage. The image and other information comprising the data-double may come to represent both the person and the event. The camera indiscriminately collects information all those who enter its gaze. Data-doubles are available for intervention immediately to those monitoring the system or to other parties (e.g., business owners, police, lawyers) or for later intervention (Haggerty and Ericson, 2000: 604). If monitoring⁵ is occurring the intervention can be immediate (e.g., detaining the suspect) rather than reactive (e.g., transferring the information to the police to investigate the crime and arrest the subject) (Business 1, 3, 4; Lawyer 3). Interventions are not limited to allegedly criminal matters. Interventions on non-criminal matters include using the surveillance system to manage a restaurant (Business 1); transferring images to an insurance agency to settle liability claims (Business 1, 2); and preventing health and safety violations (Business 3).

Additional information is incorporated into the data-double along with the surveillance image. This includes information gathered from eyewitnesses, such as how the suspect spoke (e.g., accent, specific phrases) (Police 1, 5), and information from technologies enrolled in the surveillant assemblage through function creep, such as point-of-sale/transaction records (Business 2, 3) and cellular phone records (Police 6). Although this information is generally of no interest to the police, when a crime is reported, the data-doubles the police gather the information so that an intervention can be made.

To reconstitute the abstracted data-double into a suspect, for intervention, investigators rely on the other evidence gathered during the investigation (e.g., clothes,

⁵ Monitoring practices varied across businesses (see below).

fingerprints). This information can then be used to link a suspect with information from other crimes to charge the suspect with multiple offences. For example, one interview subject referred to the outfits worn by robbery suspects as a “robbery costume” and described the multiple captures of one suspect’s data-double:

So I had video of him arriving at the apartment building dressed one way, leaving ten minutes later in his robbery outfit. Then we have video of him committing the robbery and then we have video of him coming into the building in the same clothes and then leaving after having changed (Police 4).

The multiple captures of one’s data-double does not automatically reveal the identity of the suspect. It is through additional work, including the gathering of physical evidence, that the data-double is linked to its real-world counterpart.

Information gathered in the course of an investigation may cause the police to seek out surveillance images from multiple locations. When this information is compiled it is added to the data-double. In one case a video of a suspect entering an apartment building after a sexual assault assisted police in locating the suspect (Police 4). When questioned the suspect claimed that at the supposed time of the assault he was on a train to visit his girlfriend. He also denied having a goatee like the victim had reported. The forensic video analyst retrieved video from the train station showing the suspect missing the train and leaving the station. This video did not provide a clear image of the suspect’s face making it difficult to determine whether or not the suspect had a goatee. Another surveillance image of the suspect walking into an apartment showed him carrying a case of beer. Although this surveillance image also could not clearly show the suspect’s facial hair (or lack thereof) it led the analyst to retrieve video from a *Beer Store*. The *Beer Store* surveillance image showed the suspect with a goatee on the day of the attack. The

video evidence was enough to contradict the suspect's alibi and he was charged by the police and eventually convicted (Police 4)⁶. This demonstrates the number of times in a day that a person's image is abstracted into flows of information that are collected and assembled into a data-double and demonstrates that while video surveillance may automatically abstract information, however, the assembly of images into a complete data-double is not an automatic process. Abstracting various pieces of information into data-doubles requires additional work on the part of the investigator(s). As this case demonstrates, a person may change their appearance in an attempt to avoid capture by the police. The longer the period between commission of the act and the apprehension of the suspect the more time the suspect has to change his or her appearance. This may increase the amount of work required by police to re-assemble the data-double to match a suspect. Contrary to its depiction in previous research, the surveillant assemblage is not a well-oiled machine that operates effortlessly; rather it is like a rusty wheel that requires a great deal of effort to make it turn to accomplish the desired result.

The data-double may also be deconstructed to prevent potential legal problems, such as privacy violations. When the retail/gas-bar chain studied wishes to put their staff on alert due to a string of robberies or other crimes, a bulletin describing the physical attributes and modus operandi of the suspect will be distributed. The bulletin does not contain the image of the suspect (Business 4). Therefore, some information from the data-double is removed to protect the presumed innocence of the suspect as well as the company from any privacy complaints or lawsuits. However, the bulletin becomes part of the target's data-double, as this information can still be used for intervention (e.g., a

⁶ It is unknown what other evidence, if any, was available to assist in securing the conviction.

call to police, sounding a silent alarm, etc.) against the subject. This technique of removing valuable personal information from one's data-double is done so that the information can be distributed to assist businesses with their crime prevention goals while protecting the privacy rights of an individual captured on video surveillance consistent with the *Personal Information Protection and Electronic Documents Act (PIPEDA)*.

The life span of one's data-double is dependent on the retention schedule of those collecting the data. Police retention schedules are dependent on the type of crime and whether or not the crime has been solved⁷ (see Police 1-5, 7). Although original copies are kept on file, with respect to the retention schedule, working copies may be removed from separate systems when no longer required (Police 4). Retention of surveillance images from businesses is dependent on the storage capacity of their video surveillance systems (Business 1-3). The businesses may also retain an original copy if the video is used for investigative purposes (Business 1, 3; Lawyer 3). With the current data-storage capabilities "if there is no reason to get rid of them [the images] we [the police] don't get rid of them. Simple as that because it's CD's now it is so easy just to keep it in the case file" (Police 5). The ability to store vast amounts of information allows businesses such as the retail/gas-bar chain store examined to create and store data-doubles for each incident that include surveillance images and other information so that they may be accessed, for intervention, at a later time (Business 3). Although thousands of CDs or DVDs may cause physical storage issues in the future the ever-decreasing physical size of digital storage devices may negate storage concerns. For example the next generation SDXC card will hold up to 2 terabytes of data which equals twenty days of high

⁷ The police retention schedules apply to all evidence, not only surveillance images.

definition video (SD Card Association, n.d.). The ability to store vast amounts of data could lead to increased workload due to the amount of information that may have to be searched through for each case. Through the availability of technologies with the capacity to store a great amount of data the surveillant assemblage will expand while requiring less physical space but ironically potentially more human intervention.

BUSINESSES

Business interviews revealed the use of video surveillance by businesses has influenced businesses practices. Business video surveillance arrangements differed among the five businesses examined. For several reasons, including camera-types (e.g., point-tilt-zoom, infra-red, wide-angle, fixed lens, etc.), the number of cameras, monitoring arrangements (e.g., 24/7, infrequent, review only), staffing and storage device type (e.g., VHS, hard-drive) it can be claimed that there is no such thing as a normal video surveillance system.

Cost, Quality and Vantage Point

The cost of the video surveillance system influences both the quality and vantage point of the images (Business 2). The system cost affects both small family-run and larger businesses. Whereas the difference between a lower end model and the top end model for a small business may be a few hundred dollars the cost for a larger business to make a jump in quality and number of cameras can be in excess of ten thousand dollars (Business 2). If the business chooses to purchase the lower cost and inferior equipment they sacrifice both quality and vantage point that can have an impact on the capacity of the surveillance image to be used as evidence for police investigations and court presentation (see below). Police may make recommendations on video surveillance

placement and number of cameras but they cannot recommend specific software or hardware to use (Police 3-6). Thus, businesses may not realize they are sacrificing image quality for cost savings. The police's inability to effectively influence business video surveillance creates a point of resistance that reduces the ability of the surveillant assemblage to produce the desired effects (i.e., locating suspects, securing criminal convictions).

Privacy

Interview subjects often appealed to the public nature of the video surveillance when discussing the possibility of privacy issues arising from image use (Business 2; Lawyer 3; Police 1-3). Since video surveillance exists in areas considered open to public scrutiny the expectation of privacy is diminished. Unless video surveillance is undertaken in an area where there is a reasonable expectation of privacy such as a private residence (Police 3) or changing room (Lawyer 3) business video surveillance was not considered to be violating one's privacy. With respect to businesses if you decide to enter the premises then the rights of the business owner "supersede yours. He [the business owner] can put whatever he wants in there to record. You don't want to be on camera, don't go in there" (Business 2). However, one interviewee stated that for his business some areas, such as bathrooms and employee break rooms, were off limits to camera surveillance (Business 4). Consumers also retain the right to be notified of the collection of their personal information and to not have that information disclosed for purposes other than those that it was collected for (*PIPEDA* 2000). The research revealed that care is typically taken in the transfer of the images to protect personal information. Thus, the transfers are compliant with *PIPEDA*. Precautions taken include

not allowing public access to the images (Business 1, 3), limited staff access to surveillance images (Business 3) and obtaining assurances from the police that third parties will not be identified in subsequent data transfers (Police 6).

Legislation governing the collection of data by video surveillance and the Office of the Privacy Commissioner of Canada (OPC) are enrolled in the surveillant assemblage through business use of video surveillance. However, the influence of these two shoots of the surveillant assemblage on businesses may be much less powerful than the surveillance technology. Businesses may either be unaware of the legislation governing the protection of personal information (Business 1) or be dismissive of the OPC's legal power (Business 2). Even in cases where the recommendations of the OPC are followed this may be more of a case of the technology influencing the business practices than the OPC influencing the practices. For example, the OPC guidelines for the use of video surveillance by businesses states: "Recordings should only be kept as long as necessary to fulfill the purpose of the video surveillance. Recordings no longer required should be destroyed" (OPC 2008). If no crime is reported, or the image is not needed for some other purpose, the recording is deleted consistent with the guidelines (Business 1-4). However, the deletion of the images is dictated by the video surveillance system since some automatically overwrite the information once storage capacity is reached. It is quite possible that once more storage space is available businesses will cease to be in compliance with the OPC recommendations, demonstrating the power of the technology over its regulators in the surveillant assemblage.

Monitoring

Business video surveillance monitoring arrangements varied demonstrating that even in similar institutions, the various shoots of the surveillant assemblage operate in vastly different ways. Business practices are informed in different ways by the varied monitoring arrangements. No monitoring was undertaken at the offices of the video surveillance salesman who was interviewed (Business 2). Active monitoring was generally not undertaken at the restaurant or law office examined (Business 1; Lawyer 3). However, the owner of the restaurant could monitor the video surveillance via his iPhone (Business 1) and the law offices had viewing screens set up so the staff could monitor the parking lot for any suspicious or potentially dangerous activity prior to exiting the building (Lawyer 3). For the restaurant owner the monitoring arrangement allowed him to manage his restaurant from home. It also enabled him to assist police in searching the building and ensuring everything was in order after an alarm was sounded and he could not attend the restaurant due to being unable to drive at the time (Business 1). The retail/gas-bar chain actively monitored the stores through a central location and loss prevention management could also monitor the video surveillance images from their laptop computers (Business 3). This system allowed the business to monitor both criminal activity and unsafe employee activity (e.g., standing on a milk crate) or other undesirable employee actions (e.g., wearing improper uniform attire). Loss prevention could respond to any employee alarms and notify the proper police service (Business 3). The other retail chain examined contracted third party security officers to monitor video surveillance in high-risk stores (Business 4). This allowed for monitoring of stores that

are high-risk while avoiding the need to employ unneeded staff when stores did not require the extra security.

That the shoots of the surveillant assemblage can operate in various ways allows businesses to minimize labour costs by tailoring the operation of the system to their specific needs, such as only using additional security and video surveillance monitoring at high-risk stores or by centralizing the video control room for all the stores across a chain. A lack of monitoring requires no additional staff. This maintains low labour costs while attempting to prevent crime. Businesses have the primary role of preventing crimes in their stores (see Ericson, 2007: 4), however, this leads to an increased workload for police when the surveillant assemblage fails to prevent crime and instead the police services who must absorb the cases and the surveillance images produced as evidence (see below).

Business Surveillance Image Representation

The surveillance images represent, or stand for, both activities and the persons engaged in these activities. What the surveillance image comes to represent is dependent on information not available in the image. What may be seemingly obvious to someone in the business conducting the video surveillance may not be obvious to someone outside of the institution. A business owner may believe that an image shows a theft has occurred, however if the images are shown to an objective third party, the third party may not be able to draw the same conclusions as the business owner (Business 2). In this case the surveillance image may not be capable of representing the criminal event unless other information is available to the third party. This demonstrates that the surveillance image does not work in isolation. Instead other evidence, gathered through the various

mechanisms of the surveillant assemblage, is required so that the image may be capable of relaying all of the necessary information to the viewer.

POLICE

The smallest police service (approx. population served 25000) did not have dedicated staff to work with the surveillance images (Police 1). The other services, ranging in size of population served from approximately 49000 to 600000, had some level of staff dedicated to this purpose in either stand-alone video services units or another unit (e.g., IT Services). One service had implemented non-networked computers in their various policing units to increase their ability to process surveillance images (Police 5).

Workload

Despite its status as “sophisticated information technology”, using surveillance images can require a significant amount of human labour (see Lippert, 2009; 513). A forensic video analyst for a policing community of approximately 600000 citizens works with thousands of images and about four hundred cases a year⁸ (Police 4). Increased workload is related to the staffing of the video services unit (Police 3-5) which leads to the need to prioritize investigations, to the detriment of the investigation of less serious crimes, or other institutional changes, such as the downloading of surveillance image-related work to other staff, who may be less qualified in surveillance image processing, within the police service (Police 5). The less serious cases downgraded onto individual officers, as opposed to a forensic video analyst, results in images being handled by officers who may be under-qualified to analyze or enhance the image. Downgrading may

⁸ This service also has a backlog of images that are not processed by the forensic video analyst.

also shift the priorities of those officers whose efforts may be better used elsewhere (e.g., interviewing witnesses, conducting field investigations). The amount of time an officer who is not familiar with image analysis software, due to a lack of training or on the job experience, will likely be greater than the time required for a forensic video analyst to do the same work. Therefore, the police may well not be working as efficiently as they may be if these images were not flooding the services and increasing workloads. As more surveillance images are made available to the police for investigative purposes the police's ability to process these images is lessened and the surveillant assemblage does not operate efficiently. Despite the growth of the surveillant assemblage and the proliferation of video surveillance, the ability to act on the information from the surveillant assemblage has not increased at the same rate.

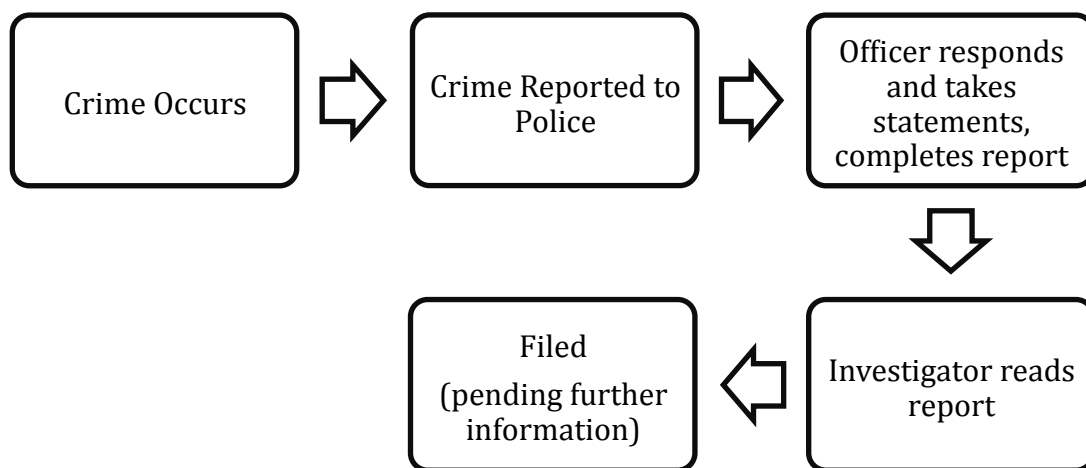
Prior to the proliferation of business video surveillance police officers would canvas the scene for eyewitnesses to get an account of the events that occurred. Now, in addition to canvassing the scene this way, the police must also assess whether the crime was captured on video surveillance (Police 4). This includes canvassing other businesses in the area for additional surveillance images that may show the suspect (Police 3, 4, 6, 7). After talking to the eyewitness, and taking a statement, it is now a 'best practice' for the police officer and witness to watch the video together during which the police officer takes notes and compares the eyewitness' claims with what is shown in the surveillance images (Police 1). This also ensures that the date and time on the system corresponded with the timeframe of the alleged occurrence and any discrepancies are accounted for (Police 4). If appropriate the video is then taken as evidence for use in the subsequent investigation (see below).

The business video surveillance system set-up also influences police workload. Police collection of the surveillance images for evidence can be as simple as the removal of a VHS tape or making a copy of the digital files. However, the process often can be more complicated and require the video surveillance system installer to attend the scene to copy the images (Business 2; Police 3). The technical knowledge or ability of a business owner or employee operating the system determines whether or not the system installer or a more qualified employee needs called (Business 2, 3). A video surveillance installer estimated he was needed in sixty to seventy percent of the cases where image retrieval was necessary from his systems (Business 2). Moreover, some ‘big box’ retailers transfer their images to a central repository that may increase the time before police access the images (Police 2). To obtain the best quality evidence it may be necessary for the police to duplicate the hard-drive of the video surveillance system. This requires the system to be off-line for a period of time (Police 7). This has an impact on both police, as they must take the time necessary to copy the hard drive, and the business whose system is out of order for up to several hours⁹. This is ironic as the ability for the police to obtain the greatest surveillance image, for evidence, creates a situation where the system must be shut down, thereby eliminating the system’s ability to create video surveillance evidence if a crime were to occur. As one shoot of the surveillant assemblage is extended, another is temporarily hacked off. The time required for retrieving surveillance images may delay an investigation, or response times to other low priority crimes.

⁹ This practice may change as a Quebec Superior Court judgment held that the hard-drive need not be directly copied, and that a loss of information (i.e., date, time, camera-number, other watermarks) did not constitute “an altered or changed video recording” (*R. c. MacNeil, 2008*). However, police may still choose to copy the hard drive to maintain the best video footage for investigative purposes.

Workload increases due to the growth of the surveillant assemblage are best exemplified by the comparison of two hypothetical cases brought up by a police interviewee (Police 3). The hypothetical has been expanded to include information obtained in the other interviews. In the first case no surveillance images were available as evidence, whereas in the second the suspect was captured in a surveillance image¹⁰. The case described involves a convenience store theft and the only thing the clerk, the sole eyewitness, saw was the perpetrator leaving the store after stealing an item. The eyewitness did not witness any useful identifiers of the suspect. After the police officer responds to the incident and takes eyewitness statements, an incident report is completed and passed to a police investigator responsible for the case. Without the surveillance image the case would be filed until more information, such as a link to another crime, is obtained. In this scenario, with no investigative leads, the case “would be quickly filed within a matter of seconds of the first investigator reading that report” (Police 3).

Figure 1: Theft Not Captured in Surveillance Image



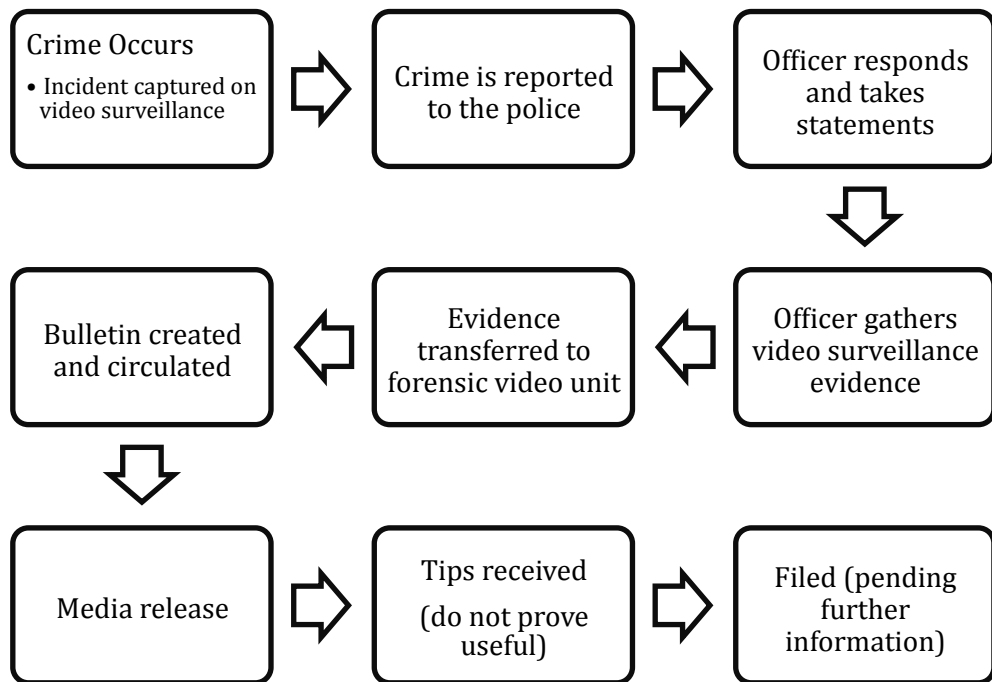
¹⁰ Both hypothetical situations assume that no other evidence (e.g., fingerprints), beyond the eyewitness account, was available. This situation is plausible due to the care that is often taken by a robbery suspect to conceal their identity by using a disguise and/or wearing gloves to conceal fingerprints.

In the second scenario the suspect is captured on video surveillance and more work is required. As in the first scenario the officer attends the scene and interviews the eyewitness. The officer must then seize the surveillance images for evidence. The time required to obtain the surveillance images may be exacerbated by several factors (see above). An incident report is created the case is assigned to an investigator, who realizes that the surveillance images are in a multiplexed format¹¹. The surveillance images are transferred to a forensic video analyst who converts the images so they can be reviewed. If no forensic video unit is in place the images may be transferred to another service to get the images out of the multiplexed format (Police 1). In this scenario the theft is shown in the image, however, the angle and quality of the surveillance image make it difficult to identify the suspect. At this point the forensic video analyst or other investigators may do additional work such as returning to the scene to take measurements to assist in obtaining the height of the suspect (Police 4). Using the data-double that has been created, a bulletin is made and distributed within the police service in an attempt to get another police officer to make an identification based on information they may possess. A media release is also created to get tips from the public. The release of the surveillance image and other case information to the news media and *Crime Stoppers* leads to the police receiving a few tips and these are investigated. The investigation into the tips received may lead to additional work such as covert surveillance by the police (Police 6). If no suspect is located after investigating the tips the police may send a bulletin to other police services (Police 6). These police services are then able to cross-reference the case data-doubles located in the other service's files. After all of the extra

¹¹ A multiplexed system captures various camera feeds onto a single storage device, alternating the feed that is being stored.

work associated with the image, if no suspect is located, the case ends up being filed pending further information (Police 3). If there is no suspect to charge the resolution (or lack thereof) of both hypothetical situations is the same, with both cases being filed pending further information. However, the amount of work put into the investigation has increased by forty to sixty-hours (Police 3)¹².

Figure 2: Theft Captured in Surveillance Image(s)



The officer noted that despite the availability of surveillance images there is only a minor improvement over those cases not involving surveillance images. The lack of a resolution to cases involving surveillance images demonstrates a disconnection between what is believed can be accomplished, through the surveillant assemblage, with the images and reality. For example, one businessman espoused a belief that “the conviction

¹² This estimate only takes into account the work done in the hypothetical originally presented by Police 3. The additional steps mentioned in other interviews could drastically affect the number of additional hours invested in the surveillance image.

rate in a camera covered area is 100 percent” (Business 1). With the police claiming that there is only a slight improvement in the resolution of cases with surveillance images this belief is shown to be false. While there may well be a slight improvement in the clearance rate of thefts it comes “at a huge cost. That now we [the police] have had to add more investigators to handle the same amount of crime that we had in the past because there is more evidence [and] there is more data” (Police 3). The increased workload highlights that the video surveillance provides an image that is “a mile wide but only an inch deep because it does not in itself provide detailed knowledge about the person whose behavior is being momentarily captured and made visible” (Ericson, 2007: 52). Ericson (2007: 52) claims that it is through the combination of the video surveillance system with other technologies that the “depth and intensity of surveillance are achieved.” However, as the preceding has demonstrated, a depth of surveillance, accomplished through a drastic increase both in the amount of data collected and in the workload of the police, does not guarantee the resolution of a case.

Despite the workload increases associated with the expansion of the surveillant assemblage mention above, the presence of the photographic evidence may, in some instances, decrease the workload of police in other instances where it is used to show that a false crime report was given. The surveillance image may show that the person whom reported the crime was attempting to cover-up an offence by making the false report.

I mean if you have a victim saying that, you know, ‘he came in he pointed a gun to my head and I gave him all the money’ ... Then all of a sudden you see the video, the person comes in, buys a pack of cigarettes and leaves. You know what I mean, and the next thing you know they [the employee] are just ripping the money (Police 5).

Another interviewee reported a case where a woman reported being robbed as she was leaving a casino, however, the video evidence proved there was no crime committed and she was later charged with Public Mischief, for causing the police to commence an unnecessary investigation (Police 3). In both instances the police were saved the work associated with entering into investigative work that would have been unnecessary given that the reported crime had not committed. Moreover, the images would have provided evidence to allow the police to charge the original complainant in each case.

News Media and Crime Stoppers Transfer

During the course of an investigation the 'data-double' including surveillance images may be released to third parties such as the news media and *Crime Stoppers*. Police make several considerations when releasing this information to the public. The quality of the image is important because the police are interested in obtaining a positive identification of the suspect and do not want to receive tips that may lead to an innocent person being questioned (Police 3). The types of crimes depicted in images that are given to the newspapers and *Crime Stoppers* are also considered as the police do not want the public to become desensitized to the images due to overexposure of certain types of minor offences and therefore less likely to pay attention to the content and submit tips (Police 3). This may not always be the case as some police services distribute a narrow range of crimes depicted in surveillance images to *Crime Stoppers* (see Lippert and Wilkinson, 2009).

Some consideration is also given to victims of crime with respect to the release of surveillance images. The police will attempt to get the consent of the victim to release the photographs, but may do so without consent if the crime is of great public interest

(Police 2). In those instances that the images are released to the media it was stated that care is taken to remove the victim from the image by cropping the photograph or digitally distorting the victims face (Police 1, 3-7). However, despite best efforts to distort the victim or other third parties, errors or omissions occur. Care was taken to remove third parties from the Toronto Police media releases. However, in one instance two employees were shown in a video (Toronto Police Service 2009f). This video demonstrates an inconsistent removal of third parties, as one customer was obscured but the employees were not.

Quality, Vantage Point and Content

The ability of police to successfully use surveillance images to identify a suspect depends on both the image quality and vantage point of the video surveillance. The placement of cameras, camera quality, and recording device quality are the responsibility of the business that implements the system. Together the vantage point and quality of the systems contributes to the content of the images. The content includes not only what is shown (e.g., the crime in progress) but also what may not be shown (e.g., the suspect's face). Without clear images of the suspect and the crime the police face a greater challenge to locate and charge a suspect. For example, if the video surveillance is deployed to deter or catch employee's stealing from the cash register than the camera may be set up with a vantage point that will not capture other crimes that occur. The cameras "will look at the cash register but won't show the door. So they [the business] will be the victim of a robbery and all we see is hands going into a till and leaving and again it captures no evidence that we [the police], or the courts can use" (Police 3). Due to the vantage point of the cameras the only information available in the images is that a

third party (i.e., not the cashier) was stealing the money. Although this may prevent false accusations being leveled against the employee it will not assist in locating a suspect or securing a conviction.

When low quality systems are used the police have a greater difficulty identifying the suspect. Additional work is often required to make up for the lack of image quality. For example, an investigator may return to the scene of the crime and re-photograph clothing seized from a suspect under the same lighting conditions and using the same video surveillance cameras that initially caught the suspect's image or use a "height stick which is just a board marked in feet and inches" to determine if any distortion of the suspect occurred in the photograph (Police 4). This additional work is a result of the poor image quality and the decisions made by businesses with respect to the video surveillance set-up. The low quality systems deployed by some businesses, due to cost or ignorance, may create an inequality between businesses. Those businesses that do not have the resources (e.g., money, knowledge of what systems work best) may find that the police are unable to adequately solve crimes committed against them.

Compounding the difficulties associated with poor image quality is public belief, possibly due to the *CSI Effect* (see above), that a poor image can be digitally manipulated or enhanced. The police must contend with the "unreasonable expectation that we have this massive computer that we can take this CCTV image, put it in and then it does some holographic view of the facial features and determines that it is [name retracted] who lives down the street" (Police 2). Due to popular culture representations the public have a belief that since someone has "captured it [the crime] on videotape, that now it is going to

solve everything" (Police 3). However, the following analogy demonstrates the reality of working with video surveillance images:

Take a look at a cartoon in a newspaper. You look at it and it looks great. Now take a magnifying glass and zoom in on that comic strip. It doesn't make it clear, it makes it more blurry. You realize it is just a bunch of dots and the more you zoom in the less of an idea you have of what the image is. And that is what the video is (Police 3).

These misconceptions affect more than just the general public. In one instance a police officer had asked one interview subject to; "Do me a favour. See that guy in the background, bring him up full screen and clean him up" (Business 2). If the image is of poor quality or the vantage point does not accurately capture the suspect there is little the police can improve it (see above). The police attempt to counteract these misconceptions through public education (Police 5). However, due to the popularity of these television programs it is possible these attempts at education will have little influence in altering current perceptions. As workloads increase and the police are unable to address minor crimes despite the public believing the surveillance images will make a case the fact that the police are ill equipped to solve minor crimes is highlighted.

Budget Constraints

The influence that surveillance images being gathered by police has on police workload may be further exacerbated by budgetary limitations. Thus, another institution, municipal government, is enrolled in the surveillant assemblage and influences how the police work with the images. Budget constraints may exacerbate the problems arising from increased workloads. As one interviewee relayed;

But because of the fiscal constraints that are there now, we can't just keep putting more people at the problem. The public is going to have to live with the new reality and the fact that even though a minor crime was captured on video, we might get to a point where it was a minor theft, less

than 50 or 100 dollars that we can't put those kind of resources into it, that we can't even look at it. Even though we have collected the data it might just be filed or stored where we don't do anything with it, because we don't have the manpower to do anything with it (Police 3).

As the preceding quotation suggests those crimes deemed to be minor might not be investigated due to a lack of personnel available to handle the images. This is currently a concern for the police, as backlogs already exist in the processing of surveillance images (Police 3-5). An attempt was made to determine the actual dollar-value associated with the influence of surveillance images on police budgets by reviewing the various budgets of Ontario municipalities. However, this information could not be located due to how the budgets were itemized (i.e., budgets did not list video services units)¹³. As demonstrated by the influence of municipal budgets on policing, and the ability to process surveillance images, the surveillant assemblage depends not only on the technology and people to process the information gleaned from the technology, but other institutions also influence the operation of the surveillant assemblage in ways that may not be immediately apparent.

Institutional Restructuring

The institutional restructuring influenced by surveillance images varies across police services. New units have been created to deal with forensic image processing which results in the reorganization of police service's organizational structure (Police 3). This also leads to personnel additions, including forensic video analysts (Police 3, 4, 7). The increasing number of images in concert with other internal and external pressures,

¹³ The budget of one police service was more detailed prior to the implementation of the video services unit. This made it even more difficult to assess a possible dollar-value associated with the influences of surveillance images on police budgets.

such as budget constraints (Police 3), has caused stresses on the ability of the video analysts to process the images. One police service is facing a situation where:

Our [the police] capacity to handle the amount of data and images that is coming in is greater than our ability to handle them at this point. Because the time lag is growing. When we first created the unit we were able to keep up with the amount of images that were coming in but now there is so much coming in, the length of time between seizure and analysis has grown from weeks to months to now I think we are in the non-emergency type case almost three to six months behind because of the amount of data the population is collecting (Police 3).

Moreover, charges for summary offences can only be laid for six months after the crime at which time the offence can no longer be acted upon. Since summary offence cases are only open for six months these crimes may not have the images processed, due to the backlog, prior to the case being closed. This demonstrates another instance where the ability of the surveillant assemblage to resolve a case comes to a grinding halt due in part to external factors. Stresses associated with increased workloads have caused other police services to implement policy changes. One police service recently implemented a policy that dictates that only images from the most serious crimes (e.g., homicide, sexual assault, armed robbery) will be transferred to the lone video analyst, who works on 400 cases a year, for analysis (Police 4). The policy makes it the responsibility of the investigating officer to do additional analysis of the images, however the officer may go to the analyst for assistance (Police 4). These issues also affect the victims of minor crimes who might have fewer resources given to their case. Responding to the increased workload on their video technician, another police service completed a pilot program in which a non-networked computer was placed in the break-and-enter unit so that the unit could conduct their own video analysis. Due to its success this program has since expanded to the other units within the department (Police 5). When questioned as to how

the availability of these images would continue to influence the police service one interviewee stated:

Stresses in any environment force adaptation, force evolution. We are going to have to evolve, we are going to have to adapt to accommodate the preponderance of this type of data that video surveillance imagery, the amount that is coming in, we have to evolve and change to adapt (Police 3).

The institutional changes brought on by surveillance images are significant and demonstrate how new technologies within the surveillant assemblage have drastic implications for the institutions enlisted in the assemblage.

Victims of Police Misconduct

The leveling of surveillance hierarchies was evinced in two of the interviews. Two lawyers discussed cases in which their clients had been charged with offences but later due to the availability of pertinent surveillance images their clients were shown to be the victims of police misconduct¹⁴. One case involved the assault of a former professional athlete who was assaulted by police at his private residence¹⁵. On the advice of his lawyer, he had installed a video surveillance system that was activated by motion sensors. The surveillance images showed several police officers taking the client down and placing him in handcuffs. However, in the police reports it was alleged that the suspect took a fighting stance and moved towards the officers. After reviewing the videotape of the incident the prosecution dropped all charges against the client (Lawyer 3). Without the video evidence this man may have been convicted of the charges laid against him and sentenced despite being the victim of police misconduct. In another

¹⁴ The charges against the client of Lawyer 2 were still pending at the time of the interview and the case was also being investigated by the Ontario Special Investigations Unit (SIU). The charges against Lawyer 3's client were dropped and no SIU investigation or civil lawsuits were instigated.

¹⁵ Although this case does not involve surveillance images from business cameras it demonstrates how private surveillance images influence police practices.

instance a man was taking food to his brother, a drug addict, in a motel at the same time the police were conducting a drug bust. The police proceeded to use force against the brother of the client, who was left with possible brain damage. The police located trace amounts of crack cocaine and charged both the client and his brother with possession. The charges are still pending at this time, however the video surveillance taken by the motel allowed the suspect to pursue the case with the Ontario Special Investigations Unit (Lawyer 2).

These two examples demonstrate another way that police practices are influenced by surveillance images and how this information can be used to prove allegations against the police and simultaneously disprove false criminal allegations against a suspect. The cases also demonstrate how video surveillance in certain locations may be used to help level social hierarchies. The locations of these incidents, a private residence (Lawyer 3) and a “seedy motel” (Lawyer 2) may have caused the police to act in a manner they would not have if they suspected video surveillance would capture their actions and they would be open to public scrutiny. In the age of professional policing, police officers “are told and should remember; ‘conduct yourself as if you are always on video’... You are professional you want people to perceive you as professional and you should be ...” (Police 1). Despite this mantra, it is evident that the threat of capture alone is often not enough and that the presence of the image has greater influences on the police than the threat of being captured on video.

Representing Criminal Images

As noted above, digital information that contributes to the data-double includes point-of-sale (POS) information (Business 2, 3), and cellular phone records (Police 6).

After seeking assistance from other police services, police in one community were able to combine surveillance images of bank robbery suspects; the information received from another police service and the cellular phone records of the suspects to lay charges. The data-double of the suspect that allowed intervention, included information obtained from a cellular phone company, showing that the suspect's cellular phone was using cell towers in the community at the time the robberies were committed (Police 6). Combining this information with the surveillance images created a data-double that was useful for laying the charges. The use of cellular phone records also demonstrates how technologies enrolled in the surveillant assemblage through function creep contribute to the data-double. The need for additional sources of information demonstrates that the images sometimes are incapable of relaying enough information to make an accurate representation of the events or the suspect. The amount of information needed to constitute the surveillant assemblage is greater than what is provided by just one technology. The surveillant assemblage relies on its various parts to create data-doubles that can be successfully acted upon.

Within the news releases that were examined the images come to represent the criminal actor, although they may not come to represent the criminal event itself. Only one of the press releases was accompanied by video that showed a representation of the criminal event (Toronto Police Service 2009f). The remaining releases only represented the suspects. The press releases represent the persons pictured as suspects that are alleged (Toronto Police Service 2009a) or reported (Toronto Police Service 2009b; 2009c; 2009d; 2009e; 2009f) to have committed certain criminal acts. These representations are used in an attempt to gather information from the public, via the

representations being distributed by the media, to assist with locating a suspect. Similarly, surveillance images have been used to represent cases of child abduction such as that of James Bulger in Britain (see Hay 1995). The case of Tori Stafford an eight-year old from Woodstock, Ontario, whose ‘abduction’ was captured on video surveillance, demonstrates how the meanings of surveillance images can be represented. Originally, the video was represented as Tori walking away willingly with a woman, however, later the police would classify the case as an abduction (YouTube 2009)¹⁶, and the representations of the video transformed along with the change in classification. Due to new information (e.g., tips, other evidence) being applied to the images, no longer were the images representing Tori walking away willingly but rather her being abducted.

COURT

As previously noted, Crown attorneys would not participate in this research so the following analysis relies on defence lawyer, business and police interview data. From the data it was evident that surveillance images influence lawyers and the criminal court process in ways that other evidence may not. The surveillance images influence plea-bargaining, jury trials and non-jury trial processes. The surveillance image is a new tool that lawyers use when arguing their case.

The surveillance image may be able to captivate the attention of a judge or jury more easily than other forensic evidence (e.g., fingerprint analysis). This is especially true for evidence that allegedly portrays a violent offence:

¹⁶ Global News originally broadcasted this information on its nightly newscast, however the video was accessed through Toronto Police’s YouTube channel. The appropriation of the video demonstrates how surveillance images, once in the public domain, can be accessed, stored and rebroadcast by those who were not the original recipient.

The evidence of that vicious attack will speak to a jury more because they will actually be able to see what has happened... [The offence] can be very hard to visualize. People can explain it they can show the after photos. They can show the fingerprint on the weapon. But when it comes down to it they are just words and lots of jurors tend to zone out. But if you have that visual punch from some type of closed-circuit television image their attention is caught (Police 1).

This was reiterated by a lawyer who stated “if it [the video] has such a significant visceral effect that would be against me, I have probably made a deal and am not in front of that judge” (Lawyer 3). The visceral effect of the images combined with the potential power of the images on juror’s opinions has influenced the work of lawyers as it plea-bargaining may be encouraged. The ability of video surveillance images to encourage plea-bargaining could decrease the number of cases that come before the courts, and less time and resources would be required to prosecute suspects.

R. v. Nikolovski: The Influence of Video Surveillance Images on Case Law and the Courts

The Supreme Court of Canada in their ruling on *R. v. Nikolovski* stated that a judge is able to determine whether or not the accused is the person pictured in a surveillance image. As opposed to an eyewitness statement about the identity of suspect:

When a judge says that [the accused is the person pictured], we first of all don't hear the judge say that until the case is over. Because the judge doesn't have to speak a word until all the evidence is in. You don't get to cross-examine the judge. You don't get to challenge the judge on what they think. You don't even get to argue that ‘you are wrong your honour, because look the height is different the weight is different, the facial features are different. Take a look at this.’ We don't get to do that. The judge delivers that in the courts judgment at the end. So there is no way to challenge that (Lawyer 3).

This decision by the Supreme Court of Canada can influence both the decisions of the prosecution and the defence to proceed to trial, and also the accused person’s chance of acquittal. A decision may be made to plea bargain in a case where there is not additional

evidence and the judge would be required to make a determination about the identity of the accused based on their viewing of the surveillance image. Since psychological studies have demonstrated the unreliability of identification based upon surveillance images (see Henderson, Bruce and Burton, 2001; Davis and Valentine, 2008) there is a possibility that the accused will be misidentified. However, this case law can also benefit a defence lawyer and their client. If the video is detrimental to the Crown's case against the accused the defence can argue *Nikolovski* by stating: "your honour, here's a judge who looked at the video and made the determination, that's the guy, you can do the same" (Lawyer 3). This assists the defence lawyer by allowing the lawyer to encourage the judge to make such a determination in a case where the defence lawyer believes the judge will not identify the client as the person in the surveillance images. This case demonstrates how the availability of surveillance images can influence a court case by allowing the judge to make a determination of identity. This case law may also influence the accused in deciding whether or not to plea-bargain. One lawyer expressed how *R. v. Nikolovski* increases the speed at which a case may be cleared due to plea-bargaining:

I recently did a case of a guy charged with some convenience store robberies. There were some photographic images that were taken of him and you show him the image and you say 'do you think a judge is going to think this is you?' And I think that it is a motivator in moving the case along... (Lawyer 4).

The preceding quotations demonstrates how the surveillance image and Supreme Court decisions work in conjunction within the surveillant assemblage to influence the choices that lawyers and their clients make with respect to plea-bargaining or taking a case to trial.

The lawyers who were interviewed did not show awareness of a British Columbia Court of Appeal ruling that allowed a re-trial based on the fact that the trial judge failed to allow the defence to make further submissions that would have called the quality or content of the image into question¹⁷. *R. v. Nikolovski* allows the judge to make a determination of identity of the accused without being cross-examined by the defence, however, the defence still has the right to call image quality and content into question (*R v. T.A.K., 2006*). This ruling, in upholding *R. v. Nikolovski*, may be beneficial to lawyers whose clients stand accused of a crime in which video surveillance evidence is available, but the quality of the evidence can instill reasonable doubt about a suspect's guilt, upholding the right to a fair trial.

Images versus Eyewitness Testimony

The surveillance image also influences the work of a lawyer because the lawyer does not have to rely on eyewitness testimony for a description of events. Compared to having eyewitnesses “the thing that is nice about video is . . . you don't need five witnesses. You only need the recording, if it is good enough, its slam-dunk” (Lawyer 1). The surveillance image, provided it is of good quality, may influence the case as the lawyer has additional evidence to rely on, in addition to or to contradict eyewitness testimony. The surveillance image can be especially damaging to eyewitnesses' statements if they do not know that the incident was captured on video surveillance. One lawyer described multiple cases in which he had the eyewitness testify about the events

¹⁷ Although this case law and *R. c. MacNeil* (2008), see below, were not mentioned in the interviews it is possible that lawyers would attempt to locate and consult this information when defending a client captured in surveillance images.

on the stand¹⁸. The lawyer then described to the witness a second account of the events. The eyewitness in each case contested the lawyer's version of the events until the surveillance images were shown and demonstrated what the lawyer had just stated to the eyewitness was what was pictured in the surveillance images (Lawyer 3). In these cases the growth of information provided by the surveillant assemblage, in particular video surveillance, has enabled the lawyer to represent the events using the surveillance images and to counter the testimony of the eyewitnesses and support his client's claims.

Context and Representation

As previously mentioned the image only provides basic information, that is, what the subject(s) of the image looked like at a given point in time. To fully understand what is occurring in the images knowledge must be read into or applied to the image (see Phillips 1997: 29). This knowledge provides context for what is shown in the video. Lawyers can use this to their advantage when preparing their case. For example, one lawyer described a case where video surveillance showed his client in a location known to be an illegal gaming house¹⁹. Although the lawyer could not argue that his client was not in the illegal gaming house, he could make claims about the level of involvement his client had in the activities, or that the activities were not games of luck, but rather skill (Lawyer 2). Although the client was in the surveillance images, this contextualization allows the defence lawyer to mount a defence.

Relying on the surveillance image may create an appearance of knowing who the suspect is, however, the possibility of false accusations are possible since knowledge

¹⁸ One case involved surveillance images obtained from a business and the other case involved surveillance images from the booking area at a police service. Despite the second images being from non-business video surveillance, both cases demonstrate how surveillance images can be defended against in court.

¹⁹ Police carried out the covert video surveillance in this case. However, this case still demonstrates how video surveillance can be defended against regardless of the party who implemented it.

from images is “knowledge at bargain prices – a semblance of knowledge, a semblance of wisdom...” (Sontag, 2001: 24). Although one may believe that they know the identity of the person pictured, false accusations are possible. In one case the police showed a surveillance image to a suspect’s parents who agreed that the image could pass as their child. However, the parents stated that their child could not be the one pictured as he was at work. When the police attended the suspect’s workplace they were able to clear the suspect due to surveillance images from his workplace that showed he was working at the time of the incidents (Police 6). This example demonstrates the fallibility of the surveillance image and the information and knowledge attached to it and the inaccuracy of identification based solely upon video surveillance. Had the suspect in this case not been cleared by a second source of video evidence that provided him with an alibi, the outcome of the case could have been significantly altered. Since the suspects’ parents could make out their son in the image it is plausible that a judge, relying on the ruling in *R. v. Nikolovski*, would have made a similar false identification of the suspect.

Digital Watermarks

Digital watermarks, information overlaid on an image or hidden on the data-file, are often produced on digital images. These watermarks contain information such as the date and time the image was made or the camera the image was made from. These watermarks may assist in determining the time the crime occurred but are not necessary for court presentation. In a *Nikolovski* hearing of the Criminal Division of the Superior Court of Quebec surveillance images (i.e., video) that had the watermarks removed, due to the technical limitations of the system, could still be used as evidence since other

reference points to the time the video was captured (i.e., cellular phone records²⁰, time reference on still images). The Crown was not required to provide watermarked copies to meet its burden of proof (*R. c. MacNeil, 2008*). This ruling has potential to influence all three institutions examined. Businesses may not be required to shut down their systems while the police duplicate the hard drive to obtain a watermarked copy of the images. The police may not have to go through the time-consuming process of duplicating the hard drive, thus freeing up valuable police resources for other tasks. Finally, defence lawyers may have one less way to call into question the authenticity of the video. These influences may occur, however, as of the writing of this thesis, the influences of this decision have not been determined with any certainty.

²⁰ This case also demonstrates how various methods of surveillance compose a ‘data-double’.

6. CONCLUSION

This research has contributed both theoretically and substantively to surveillance studies. The research has examined the influence of surveillance images on businesses, police and the courts. It has also contributed to the further understanding of the operation of the surveillant assemblage, including its expansion through function creep; the invocation of the precautionary logic, and the creation and use of data-doubles. Through the investigation of the use of surveillance images by various institutions this research has helped to refine the orienting concept of the surveillant assemblage.

This research examined the influences of surveillance images on various institutions and found that the images do in fact influence the three institutions under study in various ways. Businesses were found to use video surveillance to prevent loss. The use of video surveillance allowed businesses to set-up various ways to monitor for criminal or other unwanted behaviour and influenced how and whether labour was deployed to monitor these behaviours. The use of video surveillance by businesses had a drastic impact on police practices. Police services have undergone institutional restructuring in response to the increased amount of information being provided in the form of surveillance images. The surveillance images have increased the workload of the police to the point where there is evidence of serious delays in the processing of images. Finally, the courts have been influenced by the availability of surveillance images. The courts no longer have to rely solely on eyewitness testimony, as the surveillance image is able to illustrate the events that would have previously been described by eyewitnesses. The surveillance images may also reduce strain on the courts since accused persons may be encouraged to plea-bargain if they believe a judge or jury will identify them in the

surveillance images. Future research should examine the influence of video surveillance on other institutional practices, for example the influence of surveillance images on settling insurance claims or in civil law cases.

The surveillant assemblage has expanded through the use of video. However, this research has found that the expansion of the surveillant assemblage is more nuanced than originally proposed and that there are barriers to the expansion of the assemblage. The operation of the surveillant assemblage may be hindered because “there are hundreds of images every single day, it is almost like car alarms, that people start to tune out because they hear it so often” (Police 3). Although the video surveillance is still capturing the images, the number of people surveying the information gathered from the video surveillance may not be as great as expected and needed to give meaning to the contents of the images. Ironically the expansion of surveillance may lead to a decrease in the number of people paying a great deal of attention to the information created. The operation and expansion of the surveillant assemblage is slowed by the inability of institutions to effectively manage the amount of information that is produced. This research has demonstrated an expansion of the amount of data collected by video surveillance but it has also shown that an increase in the amount of information gathered does not always translate to an increase in the amount of information that can be processed.

Although the research originally sought to examine the influence of one technology (i.e., video surveillance and surveillance images) on three institutions (i.e., police, businesses and the courts) additional institutions were discovered operating in, or on the fringes of, the surveillant assemblage. These institutions included the media who

receive video surveillance images from the police to gather tips from the public. The public is also part of the surveillant assemblage when they begin to gather their own surveillance images to capture those committing crimes against personal property. Multiple levels of government influence the operation of the surveillant assemblage. Municipal government sets police budgets, which may impact how video surveillance images are processed. The federal government is also enrolled in the assemblage through enacting laws that influence how video surveillance images are collected and stored. Each institution is enrolled in the surveillant assemblage in a different way. Some institutions have a direct role in the surveillant assemblage, such as businesses that deploy and monitor the systems, whereas other institutions are enrolled in the assemblage only through their indirect influences. The influences of various institutions on the surveillant assemblage should be explored in future research.

Surveillance images only come to represent persons and actions when institutional knowledge is applied to them. The meaning of these images can be specific to the institution examining the images. When institutional knowledge is applied to the image the meaning may change. The surveillant assemblage is only able to function through the application of institutional knowledge to the information that is gathered. Without human intervention the information cannot be transformed to inform institutional practices and perceptions of video surveillance. Future research should closely examine other image transfer between institutions that obtain the surveillance images and how the meaning of surveillance images is transformed through the application of institutional knowledge.

Consistent with Ericson's (2007: 2) claim that institutions external to the police have the primary role of crime prevention, this research found that businesses have the primary responsibility for preventing crimes committed against their interests. One way this is done is through the use of video surveillance. As this research has shown, while businesses have the primary task of preventing crime, and use video surveillance in an attempt to accomplish this, when video surveillance fails to prevent crime it is the police who are given the job of using the images produced by the video surveillance to locate and charge a suspect. The precautionary logic provides a rationale for video surveillance and as the video surveillance images are transferred from their point of creation (e.g., business) to external institutions the surveillant assemblage expands its reach. Future research should examine how relying on the precautionary logic to devise crime prevention methods influences institutions external to where crime prevention method is deployed.

Despite the adoption of video surveillance by businesses and the public the hierarchies of surveillance have not been completely leveled. While video surveillance may implicate those with power (e.g., police misconduct), video surveillance is still primarily focused on those without it. Business initiated video surveillance may capture the conduct of those with power, for example police misconduct, however, video surveillance is primarily instituted to deter and detect street-level crime and to protect businesses from other losses (e.g., insurance fraud). While the surveillant assemblage is, in theory, capable of leveling social hierarchies, in practice, especially in relation to video surveillance, the surveillant assemblage has not been successful in accomplishing this

feat. Future research should examine how other surveillance technologies are used to either maintain or disrupt the current social hierarchies.

The various surveillance image-informed institutional practices influence those whose data are captured in the images. Those influenced include the police, victims and third parties (see above). Future research should further examine these influences. For example, research should examine individual police officers views on being subject to the scrutiny of video surveillance and other components of the surveillant assemblage (e.g., cell-phone cameras). This research would provide a greater understanding of the influences of images on institutional practices and expand on the findings of the current research.

It is still perceived that video surveillance is an effective crime prevention and investigative tool. However, as this research has shown, video surveillance often does not prevent crime, and the surveillance images may also not lead to the resolution of a case. One reason the perceptions of video surveillance effectiveness may be perpetuated by popular culture representations of video surveillance as an effective crime prevention and investigative tool. Further empirical evidence is needed to determine the exact reasons why these perceptions continue to exist in the absence of substantial evidence to support the effectiveness of video surveillance.

This research found that information from surveillance images is unique in its influence compared to other information used by the institutions for similar purposes. For example, the research found that compared to other evidence, surveillance images are unique as they are often more powerful than eyewitness statements or fingerprints in influencing those involved in the court process (see above). Future research should

examine what other influences surveillance images have that differ from other information used by institutions.

Although it would be an impossible task for one research project to examine all the aspects of the surveillant assemblage it is possible to choose various aspects of surveillance to explore the connections within the assemblage. Relying on the surveillant assemblage to inform surveillance studies allows the researcher to develop a greater understanding of particular aspects (e.g., technologies, institutions) while not ignoring the fact that surveillance is not isolated to particular locations. While this research focused on a particular technology (i.e., video surveillance), the information that this technology creates (i.e., surveillance images) and three institutions (i.e., businesses, police and the courts), the surveillant assemblage entails a much greater range of technologies, information and institutions. Future research should build upon the current refinements to the surveillant assemblage and explore how information from other surveillance technologies (e.g., biometrics, customer loyalty cards, etc.) influences institutional practices. Moreover, future research should explore how other institutions, including those discussed but not thoroughly examined in this research (i.e., The Office of the Privacy Commissioner, the media) influence the practices of other institutions as it relates to surveillance.

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Appendix A: Police Interview Schedule

Could you provide some background on the use of CCTV images by your police service?

Probe – how old is the video services unit, number of images processed, staff, etc.

Are there any particular cases where you had difficulty accessing videos from private sources?

Probe.

Do you work with businesses to develop video surveillance plans for crime prevention?

Probe.

How are the images collected with respect to evidence gathering practices?

Probes: How is the image handled - recording of information, transferring to different media formats etc?

Are there any differences between the handling of video evidence and other forms of forensic evidence (e.g. fingerprints)?

Probe.

What identifiers are used when pinpointing a suspect? - clothes, face, walk, etc?

Probe.

What is required of the video to be admissible as evidence?

Probes: Are there standards for date/time stamps?
Length of video - is the act itself only required or is more context needed?

Are the videos prepared by you, or others, for alternative uses such as news releases or Crimestoppers?

Probe.

Could you describe the flow of the video (or a particular case) through the court system - from being recorded to being used in the case?

Probe Transfer of image to prosecution and defense.

Do business practices related to CCTV images effect how you work with the image?

Probe.

Do the prosecution or defense make particular requests that have any impact on how you process the images?

Probe: How do you work with the prosecutor and/or defense lawyers in compiling the video?

What is your role in the court proceedings?

Probe.

What is the role of other officers in the court case with respect to presenting the CCTV evidence?

Probe.

Approximately how many images do you process, compared to how many make it to being presented in court cases?

Probe.

How long are images retained?

Probe.

What do the images generally identify - witness, suspect, victim etc - how is each different element helpful in creating the narrative of the case?

Probe.

What type of crimes do the images generally depict (murder cases, violence, theft, etc)?

Probe: Does the type of crime affect how the video is prepared, transferred (e.g., to media)?

Could you describe how the video evidence affects a case, compared to relying on eyewitness accounts?

Probe.

How has the availability of CCTV images affected police work?

Probe (i.e., policy changes, personnel changes, technology changes)?

What has been the biggest success of using CCTV images?

Probe.

What has been the biggest failure of using CCTV images?

Probe.

To what extent does the vantage point and quality of the image effect the reading of the image?

Probe.

Do popular culture representations of CCTV images effect how others expect you to do your job?

Probe.

Clarify any additional issues raised during the interview.

Thank interviewee for participation and ensure any concerns of interviewee have been addressed.

Appendix B: Court (Lawyer/Judge) Interview Schedule

Could you describe the transfer of CCTV images and any special consideration that is given in the process of disclosure by police?

Probe.

Are there any requirements that you have for CCTV image presentation in court that affects the police processing of images or collection of images by private businesses?

Probe.

Have you seen a rise in the use of CCTV images?

Probe.

Do other institutions (i.e., businesses and police) effect your use of the CCTV image?

Probe.

What types of cases have you found involve CCTV evidence?

Probe.

What effect does the CCTV image have on your job?

Probe.

Does the CCTV image affect guilty pleas and plea-bargaining?

Probe.

Does the CCTV image appear to have any affect on juries?

Probe (i.e., popular culture representations of the image)

Does the vantage point or quality of the image play a role in the presentation and effectiveness of the CCTV image?

Probe.

Is there any case law/legislation that you are cognizant of when dealing with video evidence from surveillance cameras?

Probe.

Could you describe how the video evidence affects a prosecution and/or defense, compared to relying on eyewitness accounts?

Probe.

Are there any legal arguments against the inclusion of CCTV evidence in courts that have been tried, and are effective in discounting the evidence?

Probe.

What is your biggest success in using CCTV images in court?

Probe.

What is your biggest failure in using CCTV images in court?
Probe.

Clarify any additional issues raised during the interview.

Thank interviewee for participation and ensure any concerns of interviewee have been addressed.

Appendix C: Business Interview Schedule

Could you describe your businesses Closed-circuit television arrangement?

Probe – technical aspects (i.e., digital, analog), monitoring, staffing.

Are the cameras linked to any other monitoring software/hardware (special features i.e. cash transaction readout)?

Probe.

Could you describe the requirements for monitoring once a person of interest is identified? (Real-time monitoring only).

Probe: Is there a need to continue monitoring the suspect until they leave the store to prove they have committed the crime? Are the images used to support this, or is physical surveillance enough?

Is there a need to produce the image in order to prove that a crime has occurred (non-real time monitoring)?

Probe.

Are log-books kept of suspicious activity/police contact/etc?

Probe.

What are the reasons behind implementing the system?

Probe – changes over time.

Does the system provide any cost savings?

Probe (theft reduction, insurance)

Are there any legal issues that are taken into consideration with regards to this security arrangement?

Do you have signage in place (where, what)?

What is the primary function of the cameras?

Probe (employee theft, shoplifting, vandalism, etc.)

Do all images captured of criminal behaviour get transferred to the police?

Probe.

Are there concerns about transferring images to the police, or conflicts that arise during transfer?

Probe (i.e., no transfer due to violation on part of the business)

Do the police or legal decisions have any impact on how you conduct CCTV monitoring?

Probe.

Could you describe the transfer process for me please?

Probe (DVD transfer, image print off, etc.)

Do you retain a copy of the images/video that are transferred?

Probe.

What is done with those that are not transferred?

Probe.

Does your insurance provider outline specific guidelines for your CCTV use?

Probe.

Is there a push from outside agencies (i.e., police, courts, etc) to implement more cameras or improved systems?

Probe.

Do images get transferred to other institutions, such as your insurance agency, other businesses or the media?

Probe.

What role do you (or other loss prevention/security staff) play in court?

Probe.

Clarify any additional issues raised during the interview.

Thank interviewee for participation and ensure any concerns of interviewee have been addressed.

APPENDIX D: Ethics Application

REB # _____

UNIVERSITY OF WINDSOR APPLICATION TO INVOLVE HUMAN SUBJECTS IN RESEARCH FOR STUDENT RESEARCHERS

Please complete, print, and submit **five (5) copies (original plus four (4) copies)** of this form to the
Research Ethics Coordinator, Assumption, Room 301

CHECKLIST

Title of Project: A Study of the Impact of Closed-Circuit Television Images on Institutional Practices

Student Investigator: Blair Wilkinson

Faculty Supervisor: Dr. Randy Lippert

Please attach the following items, if applicable, in the following order at the back of the Application.

- Decisions Needed From Other REB Boards
- B.3.c.i. Questionnaires and Test Instruments
- B.3.d. Deception (If deception is going to be used, your application will go to Full Review)
- B.3.e. Debriefing Letter - Needed only if deception is used in the study. If submitted, application will go the Full Review.
- B.6.b. Letters of Permission Allowing Research to Take Place on Site
- B.6.d. Recruitment Materials: Advertisements, Posters, Letters, etc.
- E.1. Consent Form
- E.2. Letter of Information
- E.4. Parental/Guardian Information and Consent Form
- E.5. Assent Form
- F.2. Consent for Audio/Visual Taping Form
- Certificate of completion of on-line ethics tutorial (MUST BE COMPLETED BY ALL STUDENTS)

** Please make sure that all necessary signatures have been provided and that you are using the most recent version of this form (see www.uwindsor.ca/reb).

**UNIVERSITY OF WINDSOR
APPLICATION TO INVOLVE HUMAN SUBJECTS IN RESEARCH
FOR STUDENT RESEARCHERS**

Please complete, print, and submit the **original plus four (4) copies** of this form to the
Ethics and Grants Coordinator, Assumption, Room 301

Date: August 17, 2009

Title of Research Project: A Study of the Impact of Closed-Circuit Television Images on Institutional Practices

Projected start date of the project: September 2009 **Projected completion date:** April 2009

	Name	Dept./Address	Phone/Ext.	E-mail
Student Investigator¹	Blair Wilkinson	Sociology/Anthropology/Criminology	519-966-6445	wilkinr@uwindsor.ca
Co-Investigator(s)	N/A	N/A	N/A	N/A
Faculty Supervisor²	Randy Lippert	Sociology/Anthropology/Criminology	519-253-3000 ext 3495	lippert@uwindsor.ca

Researchers from another institution who are a part of a research team, irrespective of their role, must seek clarification from their institutional REB as to the requirement for review and clearance. For each researcher, please indicate if REB clearance is required or briefly provide the rationale for why it is not required:

REVIEW FROM ANOTHER INSTITUTION

1. Has this application been submitted to another university REB or a hospital REB? Yes No

2. Has this application been reviewed, or will this application be reviewed, by another person or a committee for human research ethics in another organization, such as a school board?
 Yes No

If **YES to either 1 or 2 above**,

- a. provide the name of the board:
 - b. provide the date of submission:
 - c. provide the decision and attach a copy of the approval document: Approved
-

¹ STUDENT INVESTIGATOR ASSURANCE

I certify that the information provided in this application is complete and correct.

I understand that as Student Investigator, I have responsibility for the conduct of the study, the ethics performance of the project and the protection of the rights and welfare of human participants.

I agree to comply with the Tri-Council Policy Statement and all University of Windsor policies and procedures, governing the protection of human subjects in research.

Signature of Student Investigator: _____ Date: _____

² FACULTY SUPERVISOR ASSURANCE

Title of Research Project: A Study of the Impact of Closed-Circuit Television Images on Institutional Practices

Student Investigator: Blair Wilkinson

I certify that the information provided in this application is complete and correct.

I understand that as principal Faculty Supervisor, I have ultimate responsibility for the conduct of the study, the ethical performance of the project and the protection of the rights and welfare of human participants.

I agree to comply with the Tri-Council Policy Statement and all University of Windsor policies and procedures, governing the protection of human subjects in research, including, but not limited to, the following:

- \$ performing the project by qualified and appropriately trained personnel in accordance with REB protocol;
- \$ implementing no changes to the REB approved protocol or consent form/statement without notification to the REB of the proposed changes and their subsequent approval of the REB;
- \$ reporting promptly significant adverse effects to the REB within five (5) working days of occurrence; and
- \$ submitting, at minimum, a progress report annually or in accordance with the terms of certification.

Signature of Faculty Supervisor: _____ Date: _____

A. PROJECT DETAILS

A.1. Level of Project

- Ph.D. Masters Undergraduate
 Post Doctoral
 Other (specify):

Is this research project related to a graduate course?

- Yes No
or to your thesis/dissertation?
 Yes No

If yes, please indicate the course number:

Please explain how this research project is related to your graduate course.

A.2. Funding Status

Is this project currently funded?

- Yes No

If **NO**, is funding to be sought?

- Yes No

A.3. Details of Funding (Funded or Applied for)

Agency:

NSERC ORS Application Number:

SSHRC ORS Application Number:

Other (specify):

ORS Application Number:

Period of funding: From: To:

Type of funding:

- Grant Contract Research Agreement

B. SUMMARY OF PROPOSED RESEARCH

B.1. Describe the purpose and background rationale for the proposed project.

Within Western nations, closed-circuit television (CCTV²¹) surveillance has increasingly been deployed by both private organizations and government bodies to monitor a vast array of domains, including apartment complexes, retail establishments and public spaces (see Walby, 2005a; Webster,

²¹ 'CCTV' is a system of surveillance, intended to prevent or respond to unwanted behaviour, that captures images and transfers these images over a closed-system (wired or wireless) to a centralized location where they are accessed (either in real-time or for future viewing).

2009). The images²² created by CCTV cameras constitute a type of visual information. According to Greer, Ferrell and Jewkes (2007: 5) the visual “constitutes perhaps the central medium through which the meanings and emotions of crime are captured and conveyed to audiences.” Both our understandings and engagement with crime, control and social order are shaped by the visual (Greer et al., 2007: 5). The purpose of this thesis research is to answer the research question: How do CCTV images, as visual information about crimes and anti-social behaviour, inform institutional practices? Previous research has primarily addressed open-street CCTV surveillance. This research has focused on the establishment of these systems (Hier et al., 2007; Walby, 2005b), the effectiveness of various CCTV programs (see, Brown, 1995; Welsh and Farrington, 2003; Gill and Spriggs 2005; Farrington, Gill, and Waples, 2007; Waples, Gill and Fisher, 2009) and privacy issues (for a discussion of the privacy implications of state surveillance see Ryberg, 2007; Lever, 2008; Goold, 2008; Ryberg, 2008). The study of open-street CCTV surveillance is important due to the amount of government funding and privacy concerns related to these systems. However, the examination of open-street surveillance has been to the detriment of research on private surveillance and how CCTV images inform institutional practices.

The research draws upon the theory of the surveillant assemblage. The surveillant assemblage works through a process of abstracting human bodies from their location and separating them into discrete flows that are then reassembled into ‘data-doubles’. These ‘data-doubles’ may later become targets of intervention (Haggerty and Ericson, 2000: 604). Assemblages consist of an endless number of phenomena including information and institutions (Haggerty and Ericson, 2000: 608). The institutions of the surveillant assemblage will be examined to find out the role of CCTV images in affecting practices in and across the institutions.

B.2. Describe the hypothesis(es)/research questions to be examined.

The main research question that will be answered by this research is: how do CCTV images, as visual information about crimes and anti-social behaviour, inform institutional practices. Several additional research questions related to the main research question will be explored.

What impacts do the CCTV image informed practices of one of the institutions have on any of the other two institutions (i.e., businesses erasing videos to prevent police access, police preparation of video effects on court presentation)? How does the image transfer affect the relationships between institutions?

How do the various CCTV image informed institutional practices affect those whose data are captured in CCTV images (i.e., implications at plea bargaining, clearing of suspects)?

Is visual information (i.e., CCTV images) unique from non-visual information used by the institutions for similar purposes?

And lastly, how has the practice of using CCTV images in these institutions contributed to the further expansion of surveillance?

B.3. Methodology/Procedures

B.3.a. Do any of the procedures involve invasion of the body (e.g. touching, contact, attachment to instruments, withdrawal of specimens)?
 Yes No

B.3.b. Does the study involve the administration of prescribed or proscribed drugs?
 Yes No

B.3.c.i. Specify in a step-by-step outline exactly what the subject(s) will be asked to do. Attach a copy of any questionnaires or test instruments.

²²‘Image’ refers to both still photographs and rolling video.

Subjects will be asked to participate in one or more audio-recorded semi-structured interviews lasting approximately 45 minutes to 1 hour in duration. See interview schedules (appendix A-C).

B.3.c.ii. What is the rationale for the use of this methodology? Please discuss briefly.

Semi-structured interviews allow for a deeper understanding of the topic by engaging the interviewee and probing beyond the initial question (Berg, 2007: 95).

B.3.d. Will deception be used in this study?

Yes No

If **YES**, please describe and justify the need for deception.

B.3.e. Explain the debriefing procedures to be used and attach a copy of the written debriefing

There will be no written debrief.

B.4. Cite your experience with this kind of research. Use no more than 300 words for each research.

I have conducted interviews as a research assistant for Dr. Randy Lippert's 'The New Urban Governance and Security' project. I have also conducted interviews as part of Qualitative Methodology I (48-506).

B.5. Subjects Involved in the Study

Describe in detail the sample to be recruited including:

B.5.a. the number of subjects

Minimum 5/Maximum 10 subjects from police services
Minimum 5/Maximum 10 subjects drawn from lawyers and the judiciary
Minimum 5/Maximum 10 subjects drawn from the business community

B.5.b. age range

All subjects will be over the age of 18

B.5.c. any special characteristics

Interviewees will be members of the business community (including loss prevention officers, management and owners), police officers (including civilian members of police services), lawyers and judges.

B.5.d. institutional affiliation or where located

Business members will be drawn from various businesses throughout Ontario. Members of the police will be drawn from police services throughout Ontario. Lawyers and judges will be from law offices (including the Crown Attorney's office) and judiciary throughout Ontario.

B.6. Recruitment Process

B.6.a. Describe how and from what sources the subjects will be recruited.

Interview subjects will be selected using a combination of purposive and snowball sampling (Berg, 2007: 44). Using contact information obtained from a search of relevant websites (police, legal offices, etc.) potential interview subjects will be contacted and asked to participate in the research. If those contacted are unwilling or unable to participate, snowball sampling will be used and the subject will be asked if they could provide forward information to another potential interview subject. Snowball sampling will also be used during the interview process in order to seek other potential interviewees.

B.6.b. Indicate where the study will take place. If applicable, attach letter(s) of permission from organizations where research is to take place.

The interviews will take place in locations mutually agreed upon by both myself and the research subject. Interviews may also be conducted over the telephone. If telephone interviews are conducted, I will conduct the interview in a private location to ensure confidentiality.

B.6.c. Describe any possible relationship between investigator(s) and subjects(s) (e.g. instructor - student; manager - employee).

N/A

B.6.d. Copies of any poster(s), advertisement(s) or letter(s) to be used for recruitment are attached. Yes No

B.7. Compensation of Subjects

B.7.a. Will subjects receive compensation for participation?
 Yes No

If **YES**, please provide details.

B.7.b. If subjects (s) choose to withdraw, how will you deal with compensation?

B.8. Feedback to Subjects

Findings will be provided to the REB for inclusion on their website. Results will be available, in the form of a user-friendly brief research summary of the initial study findings, at the completion of the thesis, no later than August 2010.

C. POTENTIAL BENEFITS FROM THE STUDY

C.1. Discuss any potential direct benefits to subjects from their involvement in the project.

Subjects will not personally benefit from their involvement in this project.

C.2. Comment on the (potential) benefits to (the scientific community)/society that would justify involvement of subjects in this study.

This project will benefit the scientific community by adding to a body of substantial and theoretical knowledge

D. POTENTIAL RISKS OF THE STUDY

- D.1.** Are there any psychological risks/harm?
(Might a subject feel demeaned, embarrassed, worried or upset?)
 Yes No
- D.2.** Are there any physical risks/harm?
 Yes No
- D.3.** Are there any social risks/harm? (Possible loss of status, privacy, and/or reputation?)
 Yes No
- D.4.** Describe the known and anticipated risks of the proposed research, specifying the particular risk(s)/harm associated with each procedure or task. Consider physical, psychological, emotional, and social risks/harm.

Subjects will be given the opportunity to opt to be interviewed in their official capacity or

- D.5.** Describe how the potential risks to the subjects will be minimized.

It is particularly important that the communities and agencies of participants are not disclosed. I will ensure both that the transcript and that any oral or written report uses generic pseudonyms, not only for the research subject, but also for the community and agencies.

E. INFORMATION AND CONSENT PROCESS

If different groups of subjects are going to be asked to do different things during the course of the research, more than one consent may be necessary (i.e. if the research can be seen as having Phase I and Phase II).

- E.1.** Is a copy of a **separate Consent Form** attached to this application?
 Yes No
- E.2.** Is a copy of a **separate Letter of Information** attached to this application?
 Yes No

If written consent WILL NOT/CANNOT be obtained or is considered inadvisable, justify this and outline the process to be used to otherwise fully inform participants.

- E.3.** Are subjects competent to consent?
 Yes No

If not, describe the process to be used to obtain permission of parent or guardian.

- E.4.** Is a **Parental/Guardian Information and Consent Form** attached?
 Yes No

E.5. Is an **Assent Form** attached?
 Yes No

E.6. Withdrawal from Study

E.6.a. Do subjects have the right to withdraw at any time during and after the research project?
 Yes No

E.6.b. Are subjects to be informed of this right?
 Yes No

E.6.c. Describe the process to be used to inform subjects of their withdrawal right.

The right to withdraw will be stated on the Consent Form.

F. CONFIDENTIALITY

Definitions: **Anonymity** - when the subject cannot be identified, even by the researcher.
Confidentiality - must be provided when the subject can be identified, even if only by the researcher.

F.1. Describe the procedures to be used to ensure anonymity of subjects and confidentiality of data. Explain how written records, video/audio tapes and questionnaires will be secured, and provide details of their final disposal.

The identity of the research subject will be limited to the researchers in the project but I will not disclose the identity of the research subject in any written or oral context, and will take specific measures to safeguard confidentiality. I will audio record the interview and transcribe the data taking care to delete or change any identifying names of individuals, agencies, or places. I will retain the original audio recording (and a password protected copy of the recording on my hard drive, in my private residence) only as long as is necessary to review and verify the transcript during initial phases of analysis, and will not allow any other person to listen to the recording. No later than the end of the thesis defence, I will securely delete the recording, and will attach a statement verifying that the audio has been deleted to my final report on the research process.

I will retain the cleaned of all identifiers transcribed version of the interview for possible inclusion in future research. I will retain the signed consent form in a sealed envelope for 2 years. This sealed and dated envelope will identify the research project and me, as student investigator, but it will not identify the research subject.

F.2. Is a **Consent for Audio/Video Taping Form** attached?
 Yes No

F.3. Specify if an assurance of anonymity or confidentiality is being given during:

F.3.a. Conduct of research
 Yes No

F.3.b. Release of findings
 Yes No

- F.3.c.** Details of final disposal
 Yes No

G. REB REVIEW OF ONGOING RESEARCH

- G.1.** Are there any specific characteristics of this research which requires additional review by the REB when the research is ongoing?
 Yes No

If **YES**, please explain.

- G.2.** Will the results of this research be used in a way to create financial gain for the researcher?
 Yes No

If **YES**, please explain.

- G.3.** Is there an actual or potential conflict of interest?
 Yes No

If **YES**, please explain for researchers who are involved.

- G.4.** Please propose a continuing review process (beyond the annual **Progress Report**) you deem to be appropriate for this research project/program.

n/a

Please note that a **Progress Report** must be submitted to the Research Ethics Coordinator if your research extends beyond one year from the clearance date. A **Final Report** must be submitted when the project is completed. Forms are available at www.uwindsor.ca/reb.

H. SUBSEQUENT USE OF DATA

Generally, but not always, the possibility should be kept open for re-using the data obtained from research subjects.

Will, or might, the data obtained from the subjects of this research project be used in subsequent research studies?

- Yes No

If **YES**, please indicate on the Consent Form that the data may be used in other research studies.

I. CONSENT FORM

If a Consent Form is required for your research, please use the following sample **Consent Form** template. If you wish to deviate from this format, please provide the rationale. Print out the **Consent Form** with the University of Windsor logo. The information in the Consent Form **must** be written/presented in language that is clear and understandable for the intended target audience.

J. LETTER OF INFORMATION

If a Letter of Information is required for your research, please use the following sample **Letter of Information** template. If you wish to deviate from this format, please provide the rationale. Print out the **Letter of Information** with the University of Windsor logo. The Letter of Information **must** be written/presented in language that is clear and understandable for the intended target audience.



CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: A Study of the Impact of Closed-Circuit Television (CCTV) Images on Institutional Practices

You are asked to participate in a Master's thesis research study conducted by Blair Wilkinson, from the Department of Sociology, Anthropology and Criminology at the University of Windsor.

If you have any questions or concerns about the research, please feel to contact my faculty Randy Lippert, (519)-253-3000 ext 3495.

PURPOSE OF THE STUDY

The purpose of this study is to understand the impact of CCTV images on institutional practices.

PROCEDURES

Participate in a semi-structured interview of approximately 45 minutes to 1 hour in length where you will be asked to speak about CCTV and institutional practices.

POTENTIAL RISKS AND DISCOMFORTS

There is no wish to expose you to any risks, discomforts, or inconveniences, whether, psychological, emotional, financial or social.

To reduce the risk to you, both the transcript and any oral or written report uses generic pseudonyms, not only for the participant but also their community and agency/business.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Although you will not personally benefit from this study your participation will contribute knowledge to the greater community and assist in the development of my knowledge and skill as researcher.

PAYMENT FOR PARTICIPATION

There is no payment for participation.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Your identity will be limited to the researchers in the project. However, your identity will not be disclosed in any written or oral context. The interview will be audio-recorded. After the interview, the audio-recording will be transcribed by the researcher, and care will be taken to delete or change any identifying names of individuals, agencies, or places so as to safeguard your identity. A copy of the audio recording will be retained to review as the data is analyzed during the research project. However, I will not allow any

other person to listen to the audio recording. At the end of the term, the audio-recording will be destroyed (no later than August 1, 2010).

Your signed consent form will be safeguarded, by placing it in a sealed envelope for 2 years. The transcribed interview data will be retained, for possible use in my future research.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE SUBJECTS

Results will be provided to the REB for inclusion on their website. Results will be available at the completion of the thesis, no later than August 2010.

Web address: www.uwindsor.ca/reb

Date when results are available: August 2010

SUBSEQUENT USE OF DATA

This data will be used in subsequent studies.

RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE

I understand the information provided for the study "A Study of the Impact of Closed-Circuit Television Images on Institutional Practices" as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Subject

Signature of Subject

Date

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

Revised April 2009



LETTER OF INFORMATION FOR CONSENT TO PARTICIPATE IN RESEARCH

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Although you will not personally benefit from this study your participation will contribute knowledge to the greater community and assist in the development of my knowledge and skill as researcher.

PAYMENT FOR PARTICIPATION

There is no payment for participation.

CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Your identity will be limited to the researchers in the project. However, your identity will not be disclosed in any written or oral context. The interview will be audio-recorded. After the interview, the audio-recording will be transcribed by the researcher, and care will be taken to delete or change any identifying names of individuals, agencies, or places so as to safeguard your identity. A copy of the audio recording will be retained to review as the data is analyzed during the research project. However, I will not allow any

other person to listen to the audio recording. At the end of the term, the audio-recording will be destroyed (no later than August 1, 2010).

Your signed consent form will be safeguarded, by placing it in a sealed envelope for 2 years. The transcribed interview data will be retained, for possible use in my future research.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

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Web address: www.uwindsor.ca/reb

Date when results are available: August 2010

SUBSEQUENT USE OF DATA

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You may withdraw your consent at any time and discontinue participation without penalty. If you have questions regarding your rights as a research subject, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

Signature of Investigator

Date

Revised April 2009



CONSENT FOR AUDIO RECORDING

Research Subject Name:

Title of the Project: A Study of the Impact of Closed-Circuit Television Images on Institutional Practices

I consent to the audio-recording of my interview.

I understand these are voluntary procedures and that I am free to withdraw at any time by requesting that the recording be stopped. I also understand that my name will not be revealed to anyone and that taping will be kept confidential. Recordings are filed by number only and are password protected. No later than the end of the thesis defence, the recording will be deleted, and a statement verifying that the audio has been deleted will be attached to the final report on the research process.

I understand that confidentiality will be respected and that the digital recording will be for professional use only.

(Signature of Research Subject)

(Date)

Recruitment Letter (purposive)

Hello First name, last name:

I am a graduate student at the University of Windsor, in the Department of Sociology, Anthropology and Criminology, conducting research on the use of Closed Circuit Television (CCTV) images in various institutions, including **(insert one of: the courts, private business, the police)**. Due to your position I believe you may have specialized knowledge that is crucial to the success of the research and I would very much like to speak with you.

To this end, would you possibly be willing and available to speak with me in person or by telephone sometime between **(insert dates)** at a day and time of your convenience? The interview would only take about 45 minutes to an hour, and is confidential. You will be asked to speak about your knowledge of CCTV images and institutional practices. I will also make available to you a summary report of the research upon its completion.

If you are willing to speak to me, or if you have any questions, please let me know via e-mail or at the number below and what day and time would be convenient for you. If you do not believe you are the best person to fulfill my request, it would be greatly appreciated if you could forward my information on to another person who may be able to assist me. If I do not hear from you I will call you at your office number next week to inquire about a response to my request. Thank you very much for your help with my research and for considering this request.

Sincerely,

Blair Wilkinson, M.A. Candidate
University of Windsor,
Department of Sociology, Anthropology and Criminology
wilkinr@uwindsor.ca
(519) 253-3000 x 3495

Recruitment Letter (purposive – generic e-mail address)

Hello,

I am a graduate student at the University of Windsor, in the Department of Sociology, Anthropology and Criminology, conducting research on the use of Closed Circuit Television (CCTV) images by various institutions, including **(insert one of: the courts, private business, the police)**. I believe you, or someone within your organization, may have specialized knowledge that is crucial to the success of the research and I would very much like to have the opportunity to speak with you. If you do not believe you are the best person to fulfill my request, it would be greatly appreciated if you could forward my contact information and the details provided in this e-mail to another person, such as a **(insert job titles: e.g. video analyst, loss prevention officer, criminal lawyer, colleague, etc.)**, who may be able to assist me.

The interview would be conducted in person or over the phone and only take about 45 minutes to an hour, and is confidential. Questions will be asked about CCTV images and institutional practices. I will also make available a summary report of the research upon its completion.

If you are willing to speak to me, or if you have any questions, please let me know via e-mail or at the number below and what day and time would be convenient for you. If I do not hear from you I will call you at your office number next week to inquire about a response to my request. Thank you very much for your help with my research and for considering this request.

Sincerely,

Blair Wilkinson, M.A. Candidate
University of Windsor,
Department of Sociology, Anthropology and Criminology
wilkinr@uwindsor.ca
(519) 253-3000 x 3495

Recruitment Letter (snowball)

Hello,

I am a graduate student at the University of Windsor, in the Department of Sociology, Anthropology and Criminology, conducting research on the use of Closed Circuit Television (CCTV) images in various institutions. You have been recommended to participate in my research due to your position. Due to your position I believe you may have specialized knowledge that is crucial to the success of the research and I would very much like to speak with you.

To this end, would you possibly be willing and available to speak with me in person or by telephone sometime between **(insert dates)** at a day and time of your convenience? The interview would only take about 45 minutes to an hour, and is confidential. You will be asked to speak about your knowledge of CCTV images and institutional practices. I will also make available to you a summary report of the research upon its completion.

If you are willing to speak to me, or if you have any questions, please let me know via e-mail or at the number below and what day and time would be convenient for you. Thank you very much for your help with my research and for considering this request.

Sincerely,

Blair Wilkinson, M.A. Candidate
University of Windsor,
Department of Sociology, Anthropology and Criminology
wilkinr@uwindsor.ca
(519) 253-3000 x 3495

Appendix E: Ethics Approval Letter

Office of the Research Ethics Board



Today's Date: September 28, 2009
Principal Investigator: Blair Wilkinson
Department/School: Criminology
REB Number: 09-189
Research Project Title: A Study of the Impact of Closed-Circuit Television Images on Institutional Practices
Clearance Date: September 28, 2009
Project End Date: April 30, 2010

Progress Report Due:
Final Report Due: April 30, 2010

This is to inform you that the University of Windsor Research Ethics Board (REB), which is organized and operated according to the *Tri-Council Policy Statement* and the University of Windsor *Guidelines for Research Involving Human Subjects*, has granted approval to your research project on the date noted above. This approval is valid only until the Project End Date.

A Progress Report or Final Report is due by the date noted above. The REB may ask for monitoring information at some time during the project's approval period.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the REB. Minor change(s) in ongoing studies will be considered when submitted on the Request to Revise form.

Investigators must also report promptly to the REB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

Forms for submissions, notifications, or changes are available on the REB website: www.uwindsor.ca/reb. If your data is going to be used for another project, it is necessary to submit another application to the REB.

We wish you every success in your research.

Pierre Boulos, Ph.D.
Chair, Research Ethics Board

cc: Dr. Randy Lippert, Sociology & Anthropology
Mark Curran, Research Ethics Coordinator

This is an official document. Please retain the original in your files.



VITA AUCTORIS

Blair Wilkinson was born in Owen Sound, Ontario in 1986. He graduated from Vincent Massey Secondary School in Windsor, Ontario in 2004. He obtained his BA[H] Criminology, with a minor in Psychology, from the University of Windsor in 2004. He is currently a candidate for the Master's degree in Criminology at the University of Windsor and hopes to graduate in Winter 2010.