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CCTV: Literature Review and Bibliography



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by

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Executive Summary

Faced with the demand that they develop more efficacious security measures and find more cost-effective crime prevention strategies, law enforcement agencies around the globe are, now more than ever, turning toward technological systems to enhance operational capacities, extend their reach and reduce costs. In this context, CCTV surveillance systems have been adopted for use in public spaces in many countries. While these systems were originally embraced for their deterrent effect on crime and touted for their salutary effects on public fear, the fact is that no body of scientific evidence actually existed at the time they were adopted that could either support or refute claims to such effects. Today, the situation is different: there is a significant body of research on CCTV, though it must be acknowledged that the literature is still in its nascency and hence, that many questions are left unanswered. Notwithstanding this caveat, it is quite clear that there is a need for an independent assessment of the record of evidence in order to determine what we know about the effects of CCTV. This review is a response to that need and describes what we know about the impact of CCTV on crime and crime prevention; on the criminal justice system more generally; and, on the public's feeling of safety.

The review shows that the effects of CCTV on crime are both quite variable and fairly unpredictable. Deterrence effects of CCTV are not constant over time and they vary across crime categories. For example, CCTV systems appear to have the least effect upon public disorder offences. The magnitude of deterrence effects appears to depend on location: the greatest effect appears to occur in car parks. Furthermore, the cameras do not need to be operational for deterrence effects to be observed. The deterrence effects of CCTV are highest when it is used in conjunction with other crime reduction measures and when tailored to the local setting. Finally, while deterrence effects have been shown before the cameras are operational, continuing publicity is required to maintain the effects.

The studies describe a number of aspects of CCTV at the level of operations that are problematic in terms of the broader aims and constraints placed on the criminal justice system. To be more

specific: CCTV monitoring is discriminatory and the use of CCTV systems raises a plethora of profiling issues. In addition, contrary to common supposition, there is no simple correspondence between the discovery of a criminal activity and the resulting deployment and arrest.

Furthermore, there is little evidence to support/contradict claims of increased conviction rates. Finally, a paucity of research on impact of CCTV in criminal justice proceedings

Finally, the research on the impact of CCTV in the public sphere shows that CCTV generally increases feelings of safety and that it also reduces fear of victimization. While the public is generally supportive of CCTV are not concerned about the impact of CCTV on privacy, some evidence suggests there are concerns about profiling.

Introduction

In the course of their evolution, western societies have developed and employed a diverse array of technologies to facilitate and co-ordinate activities, to produce and distribute goods, and to organize and administer their affairs. Modern societies have consequently come to be characterized by considerable technological complexity. Automated surveillance systems and remote monitoring devices now constitute an integral part of the prevailing technological infrastructure, enabling modes of transportation, education, government and commerce that would otherwise be unthinkable. CCTV systems, in particular, have increasingly become part of these larger infrastructures and are now ubiquitous in many urban centers.

Until the mid-eighties, the deployment of CCTV systems had largely been limited to private spaces (Hempel 2001). The appearance of these systems in settings typically considered ‘public’¹ is a more recent phenomenon; and, it is one which occurred with considerable alacrity in many countries². A diverse array of aims and objectives have motivated the introduction of CCTV into public spaces including: public safety, deterrence, enhanced detection and increased response times. In the contemporary context, the predominant uses of CCTV in public spaces are in the management of risks, traffic jams, fire, accidents and crime prevention (Hempel 2001).

Some have welcomed the appearance of CCTV in the public sphere. Indeed, enthusiasts of such systems cite a wide variety of direct and spin-off benefits including: a safer environment, reduced fear, raised property values, lower insurance premiums, enhanced visitor experience, true community partnerships, and a common community purpose. Others, however, are far less sanguine. Privacy advocates worry that the proliferation of such systems in public space will lead to the disappearance of privacy. Libertarians, on both the Left and Right, have seen such

¹ It is important to acknowledge the degree to which the distinction between public/private spaces is increasingly becoming blurred.

² Hempel and Topfer’s (2001) study provides an excellent overview of the history of CCTV and current state of its proliferation internationally.

systems as another step toward an Orwellian system of centralized state social control. Human rights advocates contend that such systems may intensify an already problematic proclivity toward racial and ethnic profiling in law enforcement and argue that they are an affront to privacy. Questions from other quarters have been more utilitarian, but no less trenchant: many worry that the cameras merely displace³, rather than suppress, criminal activity. Still others suspect that the effects of the systems will dissipate after a couple of years⁴.

Because initial discussions about the effects of CCTV occurred largely in the absence of scientific evidence that could support or refute the claims, early debates over CCTV seldom progressed beyond mere imputation and conjecture. With the development of a growing body of scientific research on CCTV, however, the effects of such systems are beginning to be known and the case for or against CCTV can now be more clearly assessed. Such a task is particularly *à propos* in the Canadian context: in the wake of the events of 9/11, there is mounting pressure to step-up surveillance and increase the monitoring of public spaces.

Ultimately, of course, decisions about whether to deploy CCTV systems on a wider scale cannot be based solely on the evidence about their efficacy in relation to intended objectives: a more extensive set of normative issues must also be considered and questions about the desirability of such systems must be grounded in a broader conception of quality of life. This is a broader task, however, and one that stands beyond the scope of the current study.

³ There are a variety of concerns about displacement. In this particular case, the worry is that the introduction of CCTV into one area may well block opportunities for crime in that area, but that offenders may, as a consequence, simply target another area without coverage. In other words, crime is *moved*, not *reduced*. Others suggest that there may, in fact, be a 'diffusion' effect: surrounding areas (not covered by CCTV) may enjoy reductions in crime.

⁴ Armitage's lengthy review of the literature concludes with the assertion that "very little substantive research evidence' suggests that CCTV works"(2002).

Overview

Aim and Objectives

Effective decision making at the level of policy formation depends upon an adequate stock of valid and reliable factual information about the potential effects associated with a given initiative, instrument or program. At the broadest level, the aim of this review is to give a clear sense of what can reliably be believed to be true about the effects of CCTV systems based on the existing evidence, to link these findings to a wider set of questions and considerations at the level of policy, and to highlight outstanding issues and areas where further research is needed.

The specific objectives of this review follow closely from this broader aim. To be more precise, the objectives of the review are threefold: (1) to survey the existing research on CCTV systems, (2) to assess the findings presented in existing studies in relation to questions of reliability and validity; and finally, (3) to organize findings about CCTV in four areas:

CCTV & Crime

Findings about the effects of CCTV systems on crime, including: evidence of deterrence, displacement and/or diffusion effects across crime categories; evidence of differential effects according to crime category.

CCTV & Justice

Findings about the effects of CCTV systems in the Criminal Justice system, including: evidence of effect on detection levels; evidence of effect on response times; evidence of effect on apprehension rates; evidence of effect on conviction rates.

CCTV & Public

Findings about the effect of CCTV on the public, including: evidence of effects of

CCTV's on feelings of safety in public; evidence of the effects of CCTV's on fear of victimization.

CCTV & Policy

What approaches have various governments taken to the CCTV question? What kinds of regulatory schemes have been put in place?

Terms of Reference

CCTV

In this study, CCTV, or Closed Circuit Television, refers to *electronic monitoring systems which make use of video cameras, connected by means of a 'closed' (or non-broadcast) circuit, to capture, collect, record, and/or relay visual information about the event-status of a given space over time*. The broad sweep of this definition is attractive for our purposes in so far as it allows us to bring together for consideration a wide range of studies which have queried the effects of various CCTV systems⁵. However, it needs to be emphasized that the CCTV systems addressed in each of the studies under consideration were, in certain respects, unique. Hence, allowances must be made for the fact that the impact of CCTV systems will vary with the technical capacities (i.e. pan, tilt, zoom, multiplexing, etc) , operational characteristics (i.e. 24 hour monitoring, staffing etc) and actual physical configuration of each system⁶ (i.e. # of cameras, lighting in the area etc.). It also needs to be understood that these systems are not static – they can be modified, upgraded, etc. There is also some evidence to suggest that the effect of a given system will be influenced by the approach taken to its installation: if a high profile, public campaign accompanies installation the effects are often more dramatic.

Surveillance

In this study surveillance is broadly defined as 'the observation of persons, vehicles, or activity taking place at some given location for the purposes of obtaining information regarding the

⁵ It is noteworthy that few of the studies recognize the issue of operationalization as a problematic one.

⁶ For example, it seems quite reasonable to expect that high-end CCTV systems, equipped with night vision and high resolution zoom capacity, will have greater detection rates and that greater detection rates may, over time, result in a greater levels of general deterrence.

activities and identities of the persons (Lyon 1997; Taylor 1999). Direct surveillance is taken to involve the physical presence and senses of a human surveillant, whereas electronic surveillance (of which CCTV is only one type) involves mediation and, typically (though not necessarily) distance from the object or context observed. Further distinctions can be drawn between different types of surveillance: visual, auditory and olfactory.

Scope

Sources consulted in the initial data compilation search stage included scholarly contacts, online databases of scholarly journals, World Wide Web search engines, and the electronic catalogue of holdings at both Carleton University and the University of Ottawa. The search produced a wide range of materials. These materials were subsequently divided into primary and secondary categories⁷ according to considerations of source, reliability and validity. Materials from scholarly journals and government publications were assigned to the primary category and annotated. Secondary sources including newspapers, magazine articles, and web sites were indexed for the purposes of reference.

In the process of surveying the literature, studies which raised normative issues or ethical concerns about the social and political ramifications associated with the use of CCTV in public spaces were noted and referenced for subsequent consideration. The primary focus of this review is on work which presents theoretical accounts and empirical findings about the effects of CCTV on potential perpetrators, on criminal justice processes and outcomes, and on the public.

Method

The characteristics of the literature review as a method of research are well documented. The literature review does not contribute any new empirical evidence, and hence cannot go beyond what the literature itself says. Its strength lies in the fact that it assesses the strengths and shortcomings existing evidence in a comprehensive and critical fashion. Hence, the findings as advanced by each study examined here are not treated *holus-bolus*. Rather the studies were reviewed in order to weigh the reliability of their procedures and assess the validity of their

⁷ A comprehensive listing of both primary and secondary sources is provided in Annex A.

conclusions in terms of a larger set of criterion.

That much said, some common shortcomings shared by almost all studies of CCTV at the level of research design and methodology identified by Armitage (2002) include:

- inadequate pre and post CCTV time periods in which data are collected
- no account taken of seasonal variations
- no control areas for comparison
- little discussion of displacement or diffusion of benefits
- size of the sample was not specified
- lack of independent evaluation

For the purposes of this review, the primary literature was the central focus. At the initial analysis stage, the material was broken down into sixteen thematic areas serviceable to the objectives of the review. Some key thematic categories in relation to CCTV are: crime prevention, theoretical and conceptual issues, public and community sentiment/response, the policing relationship, and policy issues.

Description of the Literature

The research on CCTV is, in many respects, still at an embryonic stage of development. Very little of our existing knowledge about CCTV is sufficient to answer questions at the level of cause and effect. While the literature is of a sufficient breadth to allow for an exploration of the central issues raised by CCTV systems, many questions about the impact of CCTV can only be addressed inferentially. Significant primary research is needed in a variety of areas, and a much larger body of experimental or quasi-experimental research will have to develop before it will be possible to talk definitively about the effect of CCTV systems.

Second, significant variances in the social and cultural attitudes toward CCTV need to be acknowledged. Public attitudes toward CCTV have a great impact on the degree to which such

systems are accepted and effective. The bulk of research has been conducted in the UK because that is where CCTV systems are most prolific.

CCTV and the Theory of Deterrence

The promise of CCTV lies in the expectation of deterrence. Deterrence approaches, and of crime prevention strategies in particular, aim to put into place practices or conditions that ‘convince criminals to desist from criminal activities, delay their actions, or avoid a particular target’ (Siegel 1992:133). These approaches are premised on a number of behavioral expectations - and some submerged assumptions about the cognitive processes, motivational impulses, and empirical experiences of potential offenders. To the extent that efficacy of CCTV as a deterrence tactic depends, at least in part, on the degree to which these expectations and assumptions hold true, a reconstructive explication of the chain of expectations and assumptions is necessary.

Hence, the deterrent effect of CCTV will obtain if:

- 1) A potential perpetrator enters a space monitored by CCTV and is either already aware of the fact of monitoring or somehow become aware of the fact.
- 2) The potential perpetrators either: a) already holds the belief that a crime committed in a space monitored by CCTV is more likely to be detected or b) the potential perpetrator somehow comes to that conclusion once they observe the cameras in operation. The submerged assumption here is that potential perpetrators are motivated to avoid detection.
- 3) The potential perpetrator either: a) already holds the belief that they are more likely to be identified if they commit a crime in a space monitored by CCTV or b) the potential perpetrator comes to that conclusion once they observe the cameras in operation. The submerged assumption here is that the potential perpetrators are motivated to avoid identification.
- 4) The potential perpetrators either: a) already hold the belief that they are more

likely to be apprehended if they commit a crime in a space monitored by CCTV or b) to come to that conclusion once they observe the cameras in operation. The submerged assumption here is that the potential perpetrator is motivated to avoid apprehension.

- 5) The potential perpetrator engages in a calculation, in which s/he weighs the potential gains and against the following motivations: a) not to have their crime detected b) not to be identified c) not to be apprehended
- 6) The potential perpetrator concludes, as a result of this recalculation, that not having their crime detected, not being identified, not being apprehended or any combination outweighs the potential gains associated with going ahead and committing the crime anyway.
- 7) The potential perpetrator, in the face of this conclusion, makes the decision not to commit a crime.
- 8) The potential perpetrator abides by this decision. The submerged assumption is that the potential perpetrator is actually in control or himself or herself to the degree that s/he is capable of obeying reason rather than impulse.

To the extent that the assumptions or expectations do not obtain with respect to particular potential perpetrator, we can expect the probabilities to decline proportionally

CCTV and Crime

In assessing the findings about the effects of CCTV on crime, three caveats must be acknowledged. First, CCTV systems are often only one part of a larger crime control or prevention strategy, making it impossible to determine whether observed changes in crime rates following installation are casually connected to, or even in any way a consequence of,

CCTV coverage. While the problem of conflation⁸ militates against the validity of causal inference, we need not dismiss the data derived from such cases *tout court*. After all, in its naturalistic setting, CCTV will typically be employed in conjunction with a variety of other strategies. Second, we cannot forget that changes in crime rates may not be a reliable measure of changes in actual incidence. Third, as emphasized at the outset, there are methodological complications associated with comparing individual CCTV system because each system is different and so are the procedures for monitoring.

That much said by way of qualification, the evidence about the effect of CCTV on crime is mixed, conflicting, and sometimes quite contradictory. The only thing the literature does show, quite unambiguously, is that CCTV systems do not have uniform effects across crime categories. It follows that, when investigating questions about prevention, crime cannot be operationalized as an omnibus. For the purposes of analysis, then, a more discrete set of categories that distinguishes between crime types will be employed.

Property Crime

Some studies suggest that CCTV is most effective in reducing property crime. Some reductions in the commission of certain types of property crime do appear to be correlated with CCTV⁹ coverage.

Car Crime as An Aggregate Category

In his study of six crime prevention initiatives, Tilly found that car parks with CCTV installed had lower rates of car crime (defined as an aggregate) as compared to both the period prior to installation and control group areas without CCTV (1993)¹⁰. Short and Ditton (1996) too, saw reductions in vehicle crime. Armitage also found significant decreases in car crime following installation. Finally, in his evaluation of the impact of

⁸ The UK Home Office review excludes studies which do not employ before and after measures and a control group to avert this conundrum. They found that there was no statistically significant effect in reducing crime. I have not followed this standard here.

⁹ In one of the three study areas, however, the evidence was less positive (Brown 1995)

¹⁰ The effects appeared to be more positive for theft of as opposed to theft from vehicles.

the installation of CCTV within Doncaster city centre, Shins also found a reduction in vehicle crime (1998).

Theft From Vehicles

While Brown (1995) found that thefts from vehicles increased, Poyner (1992) found significant decreases in the level of thefts from vehicles was found to result from the use of CCTV

Grand Theft Auto

Brown (1995) found a reduction in theft of vehicles, while the effect upon theft of vehicles was uncertain (Poyner 1992a)

Burglary

Chatterton found that the use of CCTV in a sheltered housing scheme was effective in reducing burglary within (1994). Armitage also found diminishing burglary rates (1999). Short and Ditton (1996) found reduction in burglary rates in Airdrie. However, Squires (1998) and Skinns (1998) did not. Brown found a 'containment' of burglary of shops offences coincided with the introduction of other measures (1995).

Stolen Goods

Armitage *et al.* found decreases in the handling stolen goods. No other research to date has addressed this issue.

Criminal Damage

Decreases in criminal damage (Armitage 1999; Squires 1998). Others found that criminal damage increased (Brown 1995). Skinns, criminal damage did not decline (1998). In another case, the impact of CCTV on rates of criminal damage to vehicles was uncertain. (Poyner 1992a). Poyner found that CCTV reduced vandalism on buses. (1992b). Grandmassion (1997) found no overall impact on the behavior of offenders.

Shoplifting

In Airdrie Town Centre, Short and Ditton (1996) found a reduction in shoplifting. Squires found a shoplifting remained constant (1998). Skinns found shoplifting did not decline (1998).

Arson

Short and Ditton (1996) found in reduction arson. In their study of Montreal's underground subway network, Grandmassion (1997) found no overall impact on the behavior of offenders. Controlling for kinds of crime or for specific areas made no difference.

Crimes Involving People

There is some evidence to support a positive effect of CCTV on crimes that involve people – but also contradictory findings.

Assault

In larger metropolitan districts, CCTV had less impact upon personal crime (Brown 1995). Within smaller market towns, the number of assaults declined (Brown 1995). Violence in Burnley town centre underwent significant reductions in the area covered by CCTV (Armitage 1999). However, Skinns found that CCTV appeared to have no effect on the personal crime offences such as assault (1998).

Robbery

Webb and Laycock found decreases in incidences of robbery in London Underground Stations that were smaller and less complex in their layout (Webb and Laycock 1992). The Ilford study revealed a reduction in robbery and theft from the person offences.

Drug Offences

Burnley underwent significant reductions in the area covered by CCTV (Armitage *et al.* 1999). Squires found no such reduction in drug-related offences (1998).

Displacement versus Diffusion

The presence of CCTV systems in one area may have consequences for proximate, and even non-proximate, areas which do not have coverage. Generally speaking, criminal activities may 1) be displaced to non-coverage areas 2) the benefits are diffused to surrounding areas (Armitage 2002). There is insufficient data to form any clear conclusions about this issue.

There was no evidence of displacement and some evidence of a diffusion of benefits in the evaluation of CCTV in Burnley Town Centre. (Armitage 1999). Brown found evidence of a diffusion of benefits for property offences (1995). However, for personal crime (theft, robbery) he found evidence of geographical displacement to other areas of the city centre not covered (Brown 1995). Skinns found diffusion effects in the areas 'buffering' those covered by the CCTV, but there was a displacement of crime to outlying areas. (1998). An evaluation of two parking facilities found that an adjacent car park, which was not covered by the CCTV system, also showed reductions in crime. (Poyner 1992a). Poyner (1992b) also found evidence for a diffusion of benefits when studying the effects of video cameras fitted to buses.

The research does show that CCTV systems have a life cycle (Berry and Carter's 1992). According to Brown (1995) the cameras need not even be operational to have deterrence effects. Burnley's (1999) work suggests that even publicity of the plan to install CCTV's can have a deterrence effect.

To the extent that the publicity surrounding a given initiative may exhaust itself, close monitoring is essential to continuing success (Armitage 2002). The length of time for which a particular initiative can reduce crime without the crime reduction effects 'bottoming out' has clear implications for those managing such initiatives. Several CCTV evaluations have revealed that the initial reductions in crime and disorder following the installation of CCTV can fade if publicity is not maintained (Norris 1997). For example, Webb and Laycock found that the effectiveness of CCTV within London Underground stations declined after approximately 12 months (1992). Brown found that CCTV effects on vehicle crime and criminal damage began to diminish within eight months (1995). Tilly's work suggests that the crime prevention benefits of

CCTV begin to fade unless publicity relating to successes was maintained (1993). Similarly, in the Burnley Town Centre study, Armitage (1999) found a definite life cycle, after which the positive results began to fade.

CCTV and Criminal Justice

All in all, we have very little information about what impact CCTV has on the detection, arrest and conviction of offender. There seems to be little debate about the idea that CCTV increases detection rates. However, this claim proves quite difficult to substantiate. Few studies that have examined the relationship between CCTV and detection have used a control group. The claim that detection increases the likelihood of apprehension needs to be questioned.

Issues of admissibility need to be considered where CCTV evidence is introduced into court proceedings (Sharpe 2000). There are cases when the admission of such evidence may be seen as adverse to the rights of the accused. This is particularly likely to occur in cases where it can be shown that the collection of the evidence was the result of racial profiling or stereotyping. In point of fact, there is a growing body of evidence to suggest that CCTV operators do engage in racial and socio-economic profiling (Norris 2000). Norris and Armstrong argue that the target selection of CCTV operators can be massively discriminatory towards males, particularly Black males (1999). Those monitoring CCTV have been found to adopt police categories of suspicion when viewing the screens Ditton (1999).

When certain sections of the community are disproportionately monitored, this not only acts to portray an impression of criminality amongst these groups (certain acts are noticed whilst other groups may be carrying out the same acts unmonitored and unnoticed), it also conveys a message to these individuals that they are not trusted.

In the Canadian context, in particular, it needs to be remembered that the Supreme Court has opted for a high standard of exclusion in favor of protecting Charter rights – especially where the possibility of discrimination is at issue.

CCTV and Fear of Crime

The ways in which CCTV will affect public space is determined, to a larger degree, by public response to the presence of the cameras. Most studies show a considerable degree of public support for CCTV systems. For example, Tilley found that 67% of those interviewed 'did not mind' being observed by street cameras (1999). A full 79% of those interviewed thought they would make people feel less likely that they would become victims of crime (Tilley 1999). Other studies have shown that even those who are profiled by the cameras are supportive.

A number of researchers have found that CCTV reduced levels of fear of crime (Chatterton and Frenz 1994; Brown 1995; Mahalingham 1996; and Sarno 1996). Armitage suggests that the methodology utilized to ascertain fear of crime levels should be questioned¹¹ before conclusions are made (2002). The installation of CCTV did not effect avoidance behavior - the proportion of those avoid 'dangerous' part of the city. However, small reductions in fear of victimization were apparent (Tilley 1999). In Glasgow, Tilly found that 72% of all those interviewed believed CCTV cameras would prevent crime and disorder.

Legality, Policy Formation and the Regulation of CCTV

Legality

While there are a number of factors that must be considered in determining what kinds of policies and procedures should be in place to regulate the use of CCTV systems in public spaces, the more immediate priorities are legal in nature. To be more specific, the legality of the R.C.M.P's use of CCTV in public spaces has recently been called into question by privacy oversight officials at both provincial and federal levels and a number of critical questions have been put to the Supreme Court.

The statement of claim submitted by the Privacy Commissioner of Canada to the Supreme Court of British Columbia identifies a number of problematic areas in relation to the use of CCTV

¹¹ Studies of public reaction to CCTV may be flawed. Ditton (1998) highlights the problem: when he asked respondents pro-CCTV questions before asking them whether or not they were in favor of CCTV - 91 per cent were in favor. When a different sample were asked anti-CCTV questions followed by whether or not they were in favor of CCTV, only 56 per cent were in favor.

systems in public spaces. For the purposes of this discussion, primary attention is given to the formidable legal questions raised in the Commissioner's challenge, in principle, to very use of CCTV systems in public spaces. Pending the exploration of this basic issue, secondary attention is turned to those questions which deal with the operational procedures and para-technical aspects. The legal challenges to the use of CCTV draw on the Privacy Act and The Canadian Charter of Rights and Freedoms.

In the first case, it is argued that continuous, non-selective monitoring is a violation of the Privacy Act and that the sophistication of the technology makes them a particularly privacy-invasive – requiring a higher standard of justification than other forms of intelligence gathering. This claim finds its basis in the *Regina v. Wong* decision of the Supreme Court of Canada in 1990, in which the Court held that “to permit unrestricted video surveillance by agents of the state would seriously diminish the degree of privacy we can reasonably expect to enjoy in a free society”.

With respect to the Charter, it is claimed that indiscriminate video surveillance in the absence of cause, even without continuous recording, breaches the fundamental privacy rights of all Canadians as protected by sections 2(d), 6, 7 and 8 of the Charter – Article 12 of the United Nations Universal declaration of Human rights and Article 17 of the International Covenant on Civil and Political Rights.

In this later context, the Privacy Commissioner argues that Canadians retain the right of being lost in the Crowd – of going about their business without being systematically monitored by anyone, let alone the police. Further that there is a reasonable expectation of – and entitlement to – a degree of privacy – even in a public place. And finally – that the use of video surveillance by the R.C.M.P. infringes on the exercise of freedom of association, prevents the exercise of mobility rights, deprives Canadians of their liberty and security of person and constitutes unreasonable search and seizure.

The heart of the Privacy Commissioner's legal challenge to the use of CCTV lies in his charge

that *the benefits purported to CCTV have not confirmed by research*. Indeed, he also charges that CCTV displaces rather than reduces crime; that it does not reduce violent crime; that it drains other police resources and may reduce the number of police on the street. Hence – the sacrifice of Charter rights and freedoms yield greater safety or security.

In so far as the determination of the Supreme Court on the issue of principle is not yet forthcoming, it is appropriate to table this matter pending further jurisprudence. In the meantime, however, if it is determined that the use of CCTV systems by the State in public spaces is not, as a matter of principle, unconstitutional or illegal objectionable, there is still a formidable set of issues associated with the governance and regulation of CCTV systems so that their use does not run afoul of the law or the Charter. These were also addressed by the Privacy Commissioner and require unpacking and explanation.

Policy Issues

This section reviews some of the policy issues that arise as a result of operational concerns that have been expressed (by the Privacy Commissioner as well as other) about the use of CCTV, and subsequently examines the regulatory approaches adopted in the UK and Australia in order to suggest some principles that may be useful to frame the issues in the Canadian context.

- a. CCTV systems rely on the judgment of their operators. In the absence of formalized imperatives, that provide operators with specific and precise guidelines – there is a higher likelihood of profiling, stereotyping and discrimination. The policy formation process needs to consider the criteria which would determine who operators monitor, what is the maximum duration of monitoring is, what the minimum duration is, and what kinds of factors extend this duration. In addition, in so far as continuous, non-selective recording poses a much higher privacy risk, criteria need to be established for determining when cameras are switched to record mode, how continuous the recording can be, etc. Further, procedures need to be established with respect to the rationale underlying monitoring. Logs need to be kept and there must be oversight mechanisms. Finally, provisions must be put into place for disciplinary measures or sanctions that might result in the event of

an infraction or violation of the provisions.

b. With respect to the records created by the cameras there are several questions. First, what principles govern use and disclosure? Under what conditions should a person be granted access to a video record? Under what conditions might they be denied? How long are the records to be preserved? How are they to be disposed of?

c. In the UK, the Data Protection Act, the Human Rights Act and the Private Security Industry Act 2001 form the basic regulatory structure. Together, these acts make the following provisions for the use of CCTV systems¹²

- Requires registration with statement of purpose
- Establishes compliance protocols
- Sets out signage requirements: including the size and content of the message.
- Limits uses to original purpose
- Requires that cameras be position so as not to capture unintended.
- Allows individuals access to the data
- Binds public authorities to principles of respect for privacy
- Sets standards for the collection and processing of images for use in court, the sharing of personal data by authorities, good practice for showing CCTV footage to witnesses for identification, and the regulation of targeted surveillance.
- Requires private sector CCTV operators to be licensed.

Principles of Policy Formation and Process

From a social science perspective, we know very little about processes of policy formation in the literature. It is clear however, at least in the case of the UK, that a dense network of actors have been involved in the process of policy formation including: local authorities, police, media, civil liberties groups, retailers, proprietors, insurance companies, schools and the suppliers of CCTV

¹² There is, however, little information about whether and to what extent these policies with respect to the installation of CCTV policies are actually being followed (William 1996).

systems. Indeed, one of the key benefits of CCTV is that it brings together these actors around a common purpose.

In addition to questions of legality, the UK Home Office has suggested a number of criteria ought to be considered to guide actors who are in the process of making decisions with respect to the deployment of CCTV.

Proportionality

The perceived threat of crime or harm to the area must be sufficient to justify the installation of CCTV; the level of coverage should be in keeping with the level of crime; and, whether the presence of the system would disrupt the balance between public safety and the needs of the individual.

Accountability

There must be training procedures in place to ensure that the monitoring practices of CCTV users are governed by appropriate codes for practice and sets of procedures.

Balance

CCTV should not be over used. Other means of surveillance or social control may prove just as effective.

Open Questions - Further Research

- 1) While the previous discussion establishes that the verdict is not yet in on the effects of CCTV systems, it also suggests that it is simplistic to approach questions about the efficacy of CCTV systems in isolation. Indeed, it seems quite clear that a multivariate research designs which make allowances for the multi-dimensional character of security need to be employed.
- 2) The connection between objective states of security and safety and subjective

feelings of safety and security needs to be explored in the context of CCTV.

- 3) Finally, there are question about whether improved training for those responsible for monitoring CCTV systems may go some way towards addressing the problems of profiling – or whether such tendencies are an inherent part of the activity we know as surveillance.

Recommendations for Further Research

- 1) the cost-effectiveness of CCTV in relation to other responses needs to be considered
- 2) the effectiveness of novel uses of targeted CCTV initiatives on victims and offenders needs to be examined
- 3) More research needs to be done on displacement to areas without CCTV. - The beneficial/detrimental impact of CCTV on neighboring areas not covered by the cameras.
- 4) More detailed investigation must be conducted to determine what features make a particular scheme a success or a failure.

Conclusion

The growth of systems of surveillance needs to be understood both as a consequences of the increasing complexity of modern societies and as a particular epiphenomena of ‘liberal democratic’ forms of governing. Analyses of these phenomena have typically constructed the question in terms of finding an appropriate balance between human rights and security. However, the proliferation of CCTV systems may prove to poses a significant challenge to these countries cannot be treated in a uniform or homogenizing way.

In the UK, the extent of CCTV coverage increased dramatically over the last decade and this despite the lack of substantive research evidence to suggest that CCTV works. What accounts for such an expansion? Critics of CCTV declaim the

proliferation as the consequence of a combination of political expediency and the ‘apparent’ (as opposed to actual) efficacy of CCTV systems as crime prevention tools.

Canada is at a cross-roads with respect to CCTV. In the wake of 9/11 and the new climate of fearfulness, the demand for more security has become ubiquitous. Is CCTV really the solution?

Bibliography - Topics

- 1) CCTV, Crime Prevention and Deterrence
- 2) CCTV, Public Police and Private Security
- 3) CCTV: Empirical Studies
- 4) CCTV and Urban Design
- 5) CCTV, Privacy and Civil Liberties
- 6) Theoretical Perspectives on CCTV
- 7) CCTV and Commerce
- 8) CCTV and the Convergence of Information Technologies
- 9) CCTV and the State
- 10) Public Perception and Response to CCTV
- 11) CCTV in the Private Sphere
- 12) CCTV in the Public Sphere

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