

# The Myopic Panopticon

## The Social Consequences of Policing Through the Lens<sup>1</sup>

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### abstract

The paper describes the possible effects of video surveillance and related technologies on policing, not at the instrumental level but from a symbolic perspective. It is shown that actual effectiveness of the technology has little impact on procurement and development, that it is the *discourse* of surveillance that is transforming official social control. The vision of crime afforded by the camera is “myopic” because it reduces crime to behaviour and crime control to incident response; and doing so threatens to transform policing into a purely reactive activity inspired by military standards and technologies.

### Keywords

policing, CCTV, social control, militarization, surveillance, public order

### INTRODUCTION

One of Jeremy Bentham’s most famous – but perhaps least interesting in itself – work is without doubt his plans for the ideal prison he called the *Panopticon*. As its name indicates, the main goal of the architecture of the facility was to allow its personnel an unobstructed view of the entirety of the structure. That physical *possibility* to see everywhere, combined to the practical incapacity of human beings to simultaneously watch everything, actually required an additional small feature that Foucault (1975) thought to be a fundamental characteristic of modern social control. Because allowing the inmates to see the guards would have made it possible to know *where* surveillance was directed at any moment, and therefore to defeat it, the watching eyes of the panopticon’s personnel would be hidden. As a result, the enlightenment’s rational inmates would have to simply *assume* they were being watched all the time, and act accordingly, whether or not actual surveillance was taking place. In other words, the panopticon’s inmates would discipline themselves, they would *reform*.

Foucault suggested that this form of disciplinary power also permeated society at large, where the vigilant eyes of the state and of other institutions which may have a stake in a certain form of order (schools, factories, shopping malls), may be watching and making *their* inmates control themselves. Much recent work on video surveillance technology (Gordon, 1987; Norris and Armstrong, 1999; Poster, 1990) has, as least in part, adopted the

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panopticon metaphor and noted that the eye of the state can now be, literally, everywhere; and that microscopic population control is becoming a reality.

But the idea of self-imposed transformation and discipline only truly works if we assume that the “inmates” are rational in the classic Enlightenment sense. This implies that, as they weigh the costs and the benefits of their future actions, they always perceive the consequences of being seen, recorded and eventually punished, as serious costs. This is the vision proposed by proponents of video surveillance *as well as* those who are critical of the potentially wider and deeper control they may enable. However, judging simply by the number of security videos shown on sensationalist news programs everyday, in which unmasked perpetrators assault, defraud and steal from their neighbours, or by the number of police officers assaulting suspects in plain view of their patrol car video cameras, one can safely say that classic rationality is probably not the entire story. Of course this has not slowed down procurement and installation of new systems in many countries and Canada is no exception. The seductive power of classical rationality and its fundamental compatibility with the judicial process (Garland, 2001: 189) are the main engines of this development.

Accordingly, the question of whether or not society is becoming like a prison, that we are or will shortly (or, for that matter, will not) be living in a “maximum security society” (Marx, 1988) is becoming a fundamental one. However, even the best efforts to create a panoptic society are not alone sufficient to this goal and what we may be creating is a “myopic” panopticon, one that sees what it can, when it can, and barely manages to meet minimum conventional expectations of police-imposed order. This paper does not argue, as Williams and Johnstone (2000) have, that surveillance is incomplete, that there subsist areas where no camera can see. This is true of course, but it can be remedied – at least in theory – by adding more cameras, more technology. This problem raises efficiency issues, but few conceptual ones: as is the case with most technological shortcomings, this one can be fixed with more of the same. Will it ever be possible to really see *everywhere*? Probably not; but it will certainly be possible to see in enough places to make the difference inconsequential. What is “myopic” in this panopticon is not its lenses: those can and will be improved. Rather, it is the idea of social order it helps construct – and its consequences on our order-related practices, namely private and public policing strategies. Understanding order through *optics* will have important consequences – one of which, as we’ve seen, is to reinforce the common sense belief that crime is rational in the simple, classic sense.

Section 2 will show that in fact *overt* video surveillance (that is, which is evident<sup>2</sup> to those inside the camera’s scanning field) does not *deter* crime in any important way; and yet this conclusion, even when it is fully accepted, rarely affects the authorities’ decision-making process. Foucault was right in his description of how we have come to *think* about order, control and social peace, and the actual, tangible effectiveness of these new conceptions can be thought of as an entirely separate question. This alternative form of control may or may

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2. It can be evident in three basic ways : 1) the video equipment is purposefully ostentatious, even including sometimes a monitor visible by the public; 2) there are signs that mention its presence (“*smile, you’re on camera*”); 3) it is a widely known fact that the type of establishment in question is likely to have some form of video surveillance (banks, for instance).

not be more *controlling*. But it does recast the reality of peace and security in a new political discourse. This discourse is the key to understanding why the application of electronic surveillance technology will likely increase exponentially, in complete isolation from both its purported and its real benefits or failures. In other words, the symbolic meaning of the technology is far more important than its measurable (but always subjectively interpretable) effects. In fact, the practical strengths as well as the limitations of traditional policing have already contributed to defining “crime” and concentrating our fears and our responses on actions that are *visible* (see Brodeur, 1991). There is no reason to stop the seamless progression to the next nuance where “crime” is what is *visible by video technology*. Bear in mind that, because of that tautology, surveillance will always tackle “crime,” because crime is the product of surveillance. The resulting profusion of crime video on television (and for sale in VHS and DVD formats with titles like “Real Police in Action” in the “documentary” section) will only convince us more that we are targeting the right priorities. The London Metropolitan Police, an early adopter of video surveillance, has not been shy in providing the media with a readily usable electronic theatre of criminality (interestingly, Lord Peel’s founding vision of the Metropolitan Police was strongly inspired by the work of Bentham).

Section 3 will explore some of the most obvious sources and consequences of the spread of video surveillance in public policing, in part by looking at what its effects have been on the private sector, and in part by exploring the military connections of the new technology. In conclusion, I will describe some of the possible medium-term outcomes of the proliferation of video surveillance by drawing comparisons with the histories of other police technologies. It will become apparent that this security discourse and its related surveillance practices will have a ripple effect on the way most of us understand our safety and interpret our surroundings as safe or unsafe. More importantly, this understanding of security has the power to radically transform the way we do order maintenance in our cities, pushing it further towards what could be termed “reactive prevention.”

In addition to a review of the current literature on the subject the analysis in this paper is based on preliminary research into three types of information: 1) government papers, announcements, press releases and directives; 2) industrial literature; 3) investigation of one (now defunct) video surveillance project in the city of Hull, Canada.

### PERPETUAL EXPERIMENTATION

First, one must point out that there remains a magical aura around computerized technologies that their providers are only too happy to sustain, for obvious reasons. This is due in large part to the media portrayal of these technologies, which greatly influences the political discourse about them as well as the public’s level of acceptance of that discourse. Paradoxically, while it adorns its news reports with an unending stream of grainy, low-quality surveillance video recorded on worn-out 168-hour capacity tape, the media also flamboyantly exaggerate the capacities of new technologies in fictional programs, with video resolutions that defy the laws of physics, image extrapolation that recreates faces from square-centimetre patches of skin and pixel interpolation software that manages to extract supernatural amounts of information from old Polaroids. In fact, as a rule any technology that involves computers is likely to be misrepresented by the media, both in the documentary and fictional offerings. The reasons

for such misrepresentation include lack basic expertise and understanding of the technology, and complacent regard for the ready-made headline. The result of this daily bombardment of crime video has been the creation of a new myth of unbeatable crime-fighting technology.

As already mentioned, the actual effectiveness of video surveillance plays a minor role in this story. There are many reasons for this, but first it must be pointed out that in the surveillance discourse, “effectiveness” refers to three broad and overlapping categories that are difficult to distinguish. First, there is *deterrence*: overt surveillance aimed primarily at discouraging potential offenders from actually committing crimes. Second, *intelligence gathering*: a police force may be interested in collecting images for their informational content, to build files, understand relationships, create chronologies, etc. Third, *evidence*: evidence is information that meets basic legal requirements and is thus admissible in court to support the accusation of a suspect. With this in mind, let us have a look at the way the technology has been used so far.

### Video surveillance

Video surveillance can be overt or *covert*. It may be hidden because recording must be surreptitious; that is the case, for instance, of intelligence-gathering activities. It can also be helpful to actually catch a perpetrator in the act and produce evidence. Then too, equipment may also be hidden simply to protect it from tampering. Finally, it could also be hidden so as to be in keeping with the panopticon principle of invisible vision: if one can see where the camera is pointing, one can perhaps better manage to conceal his or her actions. In these cases, since *deterrence* is still the goal, signs will be posted to warn those present that they are being watched. Another strategy consists in placing the camera in a large, conspicuous housing, with a one-way transparent polycarbonate shell. This can both dissimulate the actual position of the camera *and* make its presence obvious (but it is far less effective against tampering than simply hiding the camera). One side benefit of this approach is economical: it becomes unnecessary to have actual cameras in every housing, thus lowering the cost of the system while being potentially far more convincing (or ominous, depending on one’s point of view) than simple signs. But as of yet, none of these suppositions have actually been empirically tested. As with the rest of the edifice, it all rests on our conviction that people are rational in the classical sense.

What is of particular interest here is not so much the nature of the technology or the strategies commonly used (for that, one may want to browse the multitude of journals dedicated to this technology) but rather their position inside the modern discourse of security. This position is one of complete, spectacular effectiveness in crime control, at (sometimes, *extremely*) low cost, resting on industrial claims, crime statistics and Benthamite, panoptic conventional wisdom: only, and *all* those with “something to hide” should fear the camera (see Ditton, 2000: 700-2).

Industrial claims are extremely wide in scope and predictably optimistic. What I refer to as an “industrial claim” is very specific. They are not crime or effectiveness statistics (though of course system vendors do use those as well) but simply the technical specifications of the components being sold. Video resolution, performance in low-light conditions, lens zoom ratio and pan/tilt speed as far as the cameras themselves are concerned, but also the

“ease of use” of added components such as automatic motion detection switching, the convenience of the central terminal, the speed and quality of recording components, the capacity of fibre optic links, the number of cameras a system can allow one pair of eyes to effectively monitor at the same time, etc. Of course none of these cameras ever freeze, get dirty, obstructed, or destroyed; the links are never severed, the computer systems never crash. The technology is absolutely perfect – yet future improvements are guaranteed. Consider the following description of a particular product:

[...] The System 9740™ full featured video matrix switching control system is for use in medium sized CCTV installations. The system is designed to allow operators the ability to view and control a maximum of 256 cameras to 32 video monitors. A single matrix bay can be configured for up to 256 nonlooping video inputs and 16 monitors (standard models) or 128 looping video inputs and 16 monitors (“S” models). A dual bay system can be configured for up to 256 non-looping inputs and 32 monitors (standard models) or 256 looping video inputs and 32 monitors (“L” models). Pre-configured, pre-packaged systems make installation fast and simple. Each system is provided with Windows® based software for overall system programming. Powerful macro operation allows manual or automatic activation of events that commonly occur, based on time of day, day of week, day of year and alarms. Macros may call system wide sequences (tours), activate prepositions and auxiliaries on equipped cameras, automate VCR control, and activate external relays to turn on lights, lock doors, etc. The System 9740 matrix also includes built-in video loss detection and system diagnostic features. Video loss detection monitors incoming video signals to alert operators of a camera failure [...] (Pelco.com, 2001).

It is easy to see how engineering and technological jargon can seduce. It is a world of perfection and accessible invulnerability.

There are two facets to crime statistics: the costs analysis and the crime prevention analysis. While the financial aspects seem rather straightforward (more on this later), the crime prevention aspect seems to be problematic at best. In most cases the before/after time series being presented show a reduction in crime – but a reduction no more important than that of comparable towns not equipped with video systems. According to the Home Office (1993), the effect of video surveillance on crime is positive, but diminishes over time; it is an essentially *deterrent* effect, and because of poor video quality few arrests are ever made with the help of these systems (this has improved somewhat since 1993). It should not escape comment that actual prevention seems to be associated with the better lighting and open landscaping that usually accompanies the installation of cameras – things that have already been shown to reduce local crime *without the presence of those cameras*. The Home Office study is relatively old (more recent and methodologically superior studies have shown similar lackluster results, see Ditton, 1999), but the point is that its at best lukewarm conclusions have not stopped the Home Office from setting up a national, 170 million pound plan to increase video surveillance and to help more cities acquire the technology (a single 79 million pound investment was announced in 2001 [Home Office, 21.08.2001]). There is no irony when government policy makers claim that, since completely conclusive “scientific proof” is impossible – even calling on the authority of the great philosopher of science Carl Popper – there is no point in delaying the massive investments:

No-one needs to be unduly defensive because we cannot prove that effects follow from our interventions. Proof is not possible in the hardest of the hard sciences. They are all, as Popper

(1972) has convincingly argued, irredeemably fallible. A fortiori, no-one can sensibly expect proofs outside the laboratory in the pragmatic world of developing responses to crime, where there are many specific and thorny evaluation problems [...] (Home Office, 1993: 25).

Such arguments are also made easier to accept when it is argued that the way cameras prevent crime is by *detecting more*. In other words, it is possible to claim that increased (or insufficiently decreased) crime statistics actually show that the cameras work (see Ditton and Short, 1999).

Finally, as far as “common sense” and public opinion are concerned, there is the usual problem of devising proper methods of polling. Adopters of video surveillance and security firms have numbers showing an immense majority of the public in favour of cameras, while other research suggests ambivalence at best. The towns of Bradford and Shipley, in the UK, provide a good example. In 1997 the Shipley police force set up an information caravan and asked visitors to give their impressions on the plan to install video surveillance equipment in the town centre. Only 1 of 50 respondents had a “concern” about privacy, all others being enthusiastic about the project. At about the same time, a Bradford City Council poll, answered by over 4 000 citizens, showed a 40% *strong opposition* to the scheme (KDIS online)<sup>3</sup>.

Typically, the major factor in citizens’ rationale about video surveillance is their fear of crime. Intangible, difficult to measure, independent from actual risk, fear of crime or insecurity has become a crucial aspect of police work evaluation, especially since the invention of “community policing” (Skogan, 1990). According to Ditton (2000), in Glasgow at least, the cameras did not make citizens feel safer. There is of course a very important feedback effect at this level: the more security cameras, the more security video on television, and the more cogent the crime danger to the viewer. Terrorist attacks, by definition aimed precisely at creating fear and producing intense media activity, will no doubt push forward the adoption of video surveillance. The September attacks in New York are already being used by equipment vendors as examples of what they claim to be able to prevent (see *Computer Reseller News*, 8.10.01). One media release from the International Biometric Industry association (IBIA) put it this way:

The members of the International Biometric Industry Association stand ready to meet the extraordinary new challenge, both by providing technology that can enhance security where it is needed, and by providing responsible, informed, accurate advice about the true capabilities offered by biometrics. With firm resolve and the utmost dedication to ethical behavior in these distressed times, we are committed to assisting every agency of government and every vulnerable part of the private sector worldwide in order to help deter and prevent further acts of terrorism (IBIA, 2001).

The experience of the city of Hull (Canada) illustrates many of these points. An extremely modest camera system was in operation there from 1993 to 1999 and was meant

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3. Both towns now have video surveillance systems – some 200 cameras in Bradford (the UK has an estimated 300 000 cameras installed, *not including privately operated systems*; according to most estimates the total is well above 1 million cameras).

to target a specific problem area. Four cameras were used to help control a 1 km stretch of a downtown street that had some 24 local bars frequented by residents of nearby Ottawa, where such establishments were legally required to close some two hours earlier. The cameras were housed in semi-transparent domes, and signs were posted to further underline their presence. The entire project was also given intense media attention, driven by strong concerns for the impact of the technology on civil liberties.

Purchase and installation of the system was funded by the municipality, while the police force took the responsibility of monitoring the images. But no specific staff or officer was dedicated to the task and no training was provided. The video feed was monitored from a police station by whoever happened to be on duty. The Hull police department showed no interest in conducting an evaluation of the technology, simply because the system was perceived to be essentially a *dispatching* tool. According to the Department (personal interview), monitoring was used essentially to prioritize calls, to alleviate the need for additional foot patrols and to help officers arriving on site to identify trouble makers. In that respect the system is deemed to have been extremely helpful. But the property offenses, assaults, and the overall problem in the target area only disappeared when a bylaw forced bars to close at the same time as neighbouring Ottawa. In short order the bars, the drunken, rowdy crowds as well as any need for the cameras disappeared. Interestingly, the red-on-white *signs* warning of video surveillance remain, even though the cameras were removed almost three years ago.

The signs may originally have been there not purely as a deterrent but also to defuse potential legal and ethical challenges, but the fact that they are still there now is not simply an oversight. The conviction that being seen will modify behaviour is tenacious, even in face of evidence that in this case at least, the deterrent aspect of the exercise was an indisputable failure. In Hull, the behaviour of those knowingly under camera surveillance – sometimes in presence of television cameras as well – was not affected. Admittedly, the situation, while not unique by any measure, was specific: late night outings, heavy alcohol consumption, offenders travelling in from a different city. Yet the city of Vancouver, among others, is contemplating using video surveillance in an area frequented by heavy drug users. The expectation that results will differ from those achieved in Hull is rather surprising; that is, if we assume that the adoption of video surveillance is the result of prevention goals and effectiveness analysis.

#### Intelligent motion detection and face recognition

As is often the case with technological tools, initially disappointing results spontaneously suggest that further technology, fixes, patches, updates, etc., will eventually succeed in meeting the original objective. And surveillance technology is no exception. There are few, if any, indisputable clues – let alone proof – that it will *never* work. Current and short-term enhancements include higher resolution video, better low-light performance, infrared imaging, improved networking through fibre optics or wireless connections, as well as economic improvements such as centralisation and specialization of monitoring – which of course mean that fewer, and lower paid civilians will be employed as surveillance agents in centralized, remote electronic surveillance centres. For instance, part of the Home Office 79 million pound investment mentioned earlier includes 1.3 million to integrate the video surveillance

system of five towns in East Lindsey in order to “provide 24-hour monitoring and provide reassurance to local communities who experience fear of crime” (Home Office, 21.08.01). Incidentally, this is typical of the contemporary shift in focus in surveillance and policing activities: they are targeted at the citizen rather than potential criminals. Offenders may or may not feel threatened when on video, but that law-abiding citizens feel safer (which is actually not entirely true, again see Ditton, 1999).

More exotic enhancements are right around the corner. They include the use of “backscatter” low-level x-ray imaging (for instance, *BodySearch* by American Science and Engineering) to instantly see through clothing and detect weapons, explosives and contraband. X-ray imaging also allows to randomly search entire groups of cars in parking lots without actually touching any of them, to see at a distance through walls, inside parcels and inside various personal effects. Motion detection is also coming of age. From early and quite crude systems that turned on recording with external motion detectors (not unlike outside house lights that automatically switch on when approached), what is available now alerts human monitors by analysing changes in the image at the pixel level. The size, distance, location, speed and direction of alert-level motion is programmed in advance to avoid alerting monitors for falling leaves and stray cats. Soon, software that can analyse the “threat level” or “suspiciousness” of a particular motion – walking back and forth in front of an automatic banking machine, or from car to car in a parking lot, for instance – will be widely available.

Face recognition software could make this even more efficient by increasing alert priority if the individual in suspicious motion has a criminal record. The technology can already be added to existing video systems, provided local illumination and camera quality are adequate; however, for now they perform better on still picture cameras with much higher resolution. The software translates facial features into simple mathematical formulas that can be checked against data banks almost instantaneously. So far it is most successful with willing, motionless subjects, in other words for security systems that use individual faces as entry keys or validation codes (like fingerprints or iris structure), but newer products have been used with some degree of success to “recognize” individuals in crowds without their knowledge or cooperation. In ideal conditions the software, based on an ordinary PC, can analyse and check between 10 and 20 faces per second. One experience, during the 2001 Super Bowl, with a commercial system scanning arriving fans and comparing their faces with the local police department’s picture library of 1,700 criminals, produced 19 unconfirmed “matches” – no arrests (or corroboration) were made because the faces were subsequently lost in the crowd (see Woodward, 2001 and Poulsen, 2001). The performance of this technology remains questionable, but this is unlikely to remain the case much longer. Furthermore, as in other such situations, the current shortcomings have not stopped the early adopters from installing the systems.

In each case, but especially in combination, these enhancements will greatly reduce the need for “warm bodies” sitting in front of video monitors. So far, the multiplication of cameras has caused a proportional multiplication of monitoring agents, because the image data is raw and the amount of information to sift through is very high. It is not unusual for a 1,000 camera control centre to provide for 200 monitoring stations. But when software improvements begin to refine and sort visual data, actual human judgement will become more and more

superfluous, to a point where it will eventually be limited to dispatching responsibilities, responding to situations already flagged by the software system (see Nunn, 2001). In the medium term the system may be in a position to do away with human monitors altogether, and will be able to notify street-level patrols directly when necessary. It will be interesting to see how this plays out in the continuing privacy debate, as it could be argued that privacy is not threatened by machines, especially if they are operating under strict parameters and non-crime related data is systematically destroyed.

#### Sound location

Strictly speaking this is not video surveillance. However, I want to include it here for a simple reason: system integration. Computers are especially adept at compiling and integrating data sources. That is in fact the main reason that camera arrays are different than live officers' eyes. Of course one could argue that I should then have included "dataveillance," the surveillance of data traces left by individuals. The reason I have left dataveillance aside here is its incapacity to be *preventive* in any meaningful sense. On the contrary once integrated, sound location technology can help point cameras in the right direction, and that is an important step towards a complete computerization of physical surveillance that would render the human agent superfluous at the surveillance stage.

Sound location technology (Planning Systems Incorporated's [PSI] *SECURES* and Trilon Technology's *Shot Spotter* for instance) has an explicit prevention goal, as stated in Trilon's literature:

The primary emphasis by police in Redwood City [California] has been placed on prevention in gunfire prone neighborhoods. We don't need substantially more people in jail, but need to prevent those who shoot their guns from feeling free to act illegally. Police have found that most people will stop from shooting their guns once they know that police have a tool to identify the precise location of this illegal activity (Trilon, 2001).

The seriousness of exactly what is being prevented is disputable, however:

In Redwood City citizens and law enforcement have reported a dramatic reduction in celebratory and random gunfire over the years that the system has been in use. The Redwood City Police Department reported that gunfire was nearly illuminated [sic] during New Year's Eve of 1997 (*Ibid*).

Nevertheless, what is of particular interest here is the integration of sound location to video systems, which could greatly enhance computerised monitoring by helping automatic cameras find their targets. The technology already allows for the software to automatically link gunshots to nearby telephone numbers so the monitoring officer can call potential witnesses (in fact, given the last quote, probable suspects). The combination of face recognition, motion analysis and sound analysis could become very interesting in the near future<sup>4</sup>. It is easy to see how, again, the *potential* and future developments of the technological solutions are an important part of the justification for its immediate implementation.

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4. Note that while vendors and operators of such systems quickly point out that detecting gunshots is different from detecting conversations and that therefore basic privacy is not threatened. However, once these systems are commonplace it could occur to moral entrepreneurs and ordinary citizens that screams – and, more so, *muffled* screams – should be part of the detection system's priorities.

## THE SURVEILLANCE CONSTELLATION

Policing through video surveillance is closely allied to the practical efforts of the military and private security. This proximity is in part maintained by the fact that the developers and providers of the technology are the same. Another important factor is the militarization of police in general through the increasing use of “SWAT” teams, helicopters, armoured vehicles, automatic weapons, demolition explosives, as well as the adoption of many military technologies of detection as well as data collection and analysis (Haggerty and Ericson , 1999; Kraska, 1999; Kraska, 1999b). On the private security side it has been pointed out that the boundaries between traditional public policing and private security duties are increasingly blurry (Brodeur, 1988).

Like its astronomical counterpart, this “constellation” is not a real object, but one that appears from abstract links created by a specific concept, between wholly separate bodies that appear to be linked when understood in a certain way or seen in a certain angle. This illustrates not only the close interrelations between the bodies but especially the extreme likelihood that commonly developed technologies will continue to permeate each of them. The constellation has many stars: academic institutions involved in research, military organisations, private technology contractors, private security organizations, police organisations, security and criminal intelligence gathering organisations and various other government institutions with stakes in various forms of surveillance, interests in the high-tech economic sector or international relations.

As pointed out by Haggerty and Ericson (1999: 249), our vigilance is required by “[...] the prospect of still greater normative confusion as the technologies designed to make war possible weave their way into the social fabric that make society possible.” But there is more here than a normative argument about war and peace, or about the prevalence of surveillance and control technology in the social. One key effect is the adaptation of policing to fit into the constellation.

### Military sources

The US military is a major investor in security surveillance technology; it even has a few departments dedicated to the evaluation, planning and acquisition of systems, such as the Biometrics Management Office (BMO). At the same time, the Department of Defence (DoD) often finds itself in a rush to integrate already existing technology (such as high definition television, HDTV) in order to improve its “battlespace awareness” systems. Battlefield support is (as of yet) well beyond the scope of an article on policing, but let us go back to the example of face recognition technology, which has an interesting story and an imposing paper trail. The DoD showed interest in the possibility that computers could be used to recognize individuals in 1993 and invested 6.5 million US dollars in its Face Recognition Technology (FERET) program. Its main goal was to devise a reliable way to evaluate face recognition systems for eventual adoption. Interestingly enough, the program was created by the DoD’s Counterdrug Technology Development Program Office (CDTDPO):

The goal of the FERET program was to develop automatic face recognition capabilities that could be employed to assist security, intelligence, and law enforcement personnel in the performance of their duties (CDTDPO, 2001).

International drug trafficking is of course one of the main areas where the distinction between law enforcement and military action gets blurred (another would be terrorism). As far as the FERET program is concerned, it was simply assumed that the technology would benefit everyone. The program was closed in 1998 but has successors in the CDTDPO with the *Facial Recognition Vendor Test 2000* and at the Defence Advanced Research Projects Agency (DARPA) with the *Human Identification at a distance* (HumanID) project. In another interesting development, the FERET database of test images is now available through a civilian agency, the National Institute of Standards and Technology (NIST) of the Department of Commerce. Research done by the Massachusetts Institute of Technology, one of the partners in FERET, is now sold commercially by Viisage Technology to private enterprises and police forces. The complete integration of military, police and private interests (including universities) could hardly be clearer, and there is no better guarantee that surveillance technology will continue to impose itself in all three.

Many other technologies developed for or with the military will eventually reach ordinary law enforcement. Lens and camera technology seems obvious: improvements in light amplification, radar detection and motion analysis are already continuously made and added to the police tool belt. But more exotic advances will keep coming as well, at the level of detection, such as hyperspectral imaging, which allows the remote (as in, from low orbit) analysis of materials (such as marijuana leaves in a field) or at the level of the surveillance platforms, such as automated aircraft. The fact that this is almost a truism tells us something important about the myopic panopticon: its technological bases have a life of their own, they are not the product of, nor do they actually depend in any way on a preexisting surveillance strategy, and certainly not any form of *police* strategy. Strategy has to adapt to the technology, and what will be made visible will be determined by the characteristics of technologies being developed for extraneous purposes and specific visions of security. This applies to wider policy issues as well: for instance, it will be interesting to see the effects of the new capacity of immediate orbital detection of the plants on the issue of the legalization of marijuana.

#### Private security

The invasion of everyday official social control by the camera actually started in the private security sector and pertained to the control of shoplifting and employee theft. But let us keep the same example of face recognition hardware and software. Clients of major system vendors already include casinos and shopping malls. Unlike “dumb” cameras, those connected with facial recognition systems are theoretically able to flag casino cheats, “clients” that never buy anything or who were arrested for shoplifting before, and can keep track of employee movements inside and around the company building; all this without constant human supervision.

The error rate of face recognition systems is far less problematic on private property than it is on the street; this is why the private sector is, as always, at the cutting edge. The main reason is that access to private premises is still considered a privilege and we accept the

right of the proprietors to be selective with the visitors they choose to let in. This even though these premises are sometimes huge shopping complexes linking subways, streets and office buildings, making them something entirely other than what has traditionally been understood as “private,” and better described as “mass private”, as Shearing and Stenning (1981) have pointed out. It is easy to see that we are far more likely to accept cameras in the street, having become accustomed to shop and eat under them. The same will be true of errors due to malfunctioning facial recognition: being routinely misidentified in private spaces will slowly accustom the average citizen to the possibility of being stopped by police when flagged by imperfect software while walking their dog in the neighbourhood park. The point is, even “incompetent” face recognition can become acceptable, if it becomes normalized.

For all intents and purposes since 1996 the city of Newham (UK) has been wired like a casino or a shopping mall, including face recognition technology. In Liverpool, public police cameras and privately installed ones are linked together in a citywide surveillance network (Coleman and Sim, 2000; also, Norris and Armstrong, 1999). At this point few people can or perhaps *want to* make a cogent argument to explain why the public street, which separates their camera-riddled housing complex from the camera-riddled mall where they shop and the camera-riddled office building where they work, should be camera-free. Not to mention the apparently strong desire in the general public for the power of the camera to “clean” *all* spaces of undesirable, annoying or unseemly things and persons – independently from the question of crime.

Williams and Johnstone (2000) refer to this phenomena as the “*mall*ing of public space.” Of course this malling is informed by a very specific understanding of “cleanliness:” meaning, as conducive to mass consumption as well-ordered shopping malls are (Norris and Armstrong, 1999: 8). The matter of the influence of local business groups over policing is nothing new, but with video surveillance it is being recast in a slightly different way because the technology used everywhere is the same, and therefore utterly networkable (Coleman and Sim, 2000: 632). However, since the technology as a whole will be so much better at benefit maximization and loss prevention than humans are, business influence over public surveillance is destined to become redundant in the near future.

#### CONCLUSION: POLICING THE IMAGE

Police officers usually refer to the change towards video surveillance as the adoption of another tool that will help them do their work in a more efficient way. Changing from a wooden hammer to a carbon fibre one is such a change. One that involves a radical transformation of the practice of policing clearly is not. The main change has been to recast the police-public interaction in terms of benevolent and omniscient surveillance. But it is far deeper than that. In fact, it is the police themselves who could become the tools of automated surveillance.

It is now commonly accepted that the car, for instance, was not “just another tool” either: it transformed policing by isolating officers from the neighbourhoods they patrolled and limited their interactions with the public to their encounters with delinquents, vandals, gang members, drunks, prostitutes and other undesirables. It fostered the us-and-them attitude that the new “service” paradigm strives to replace by more holistic, problem-solving

approaches usually based on public trust in and cooperation with the police. But in fact these two types of policing are not that different, especially with the myopic panopticon at work. The newer “community” approach is founded on the understanding that police work is more than crime-fighting, that it involves (*de facto* or ideally) many other levels of public order maintenance – which is exactly what video surveillance aims at as well. In that sense it could be said that surveillance technology is a way to do public order without having to obtain, maintain or rely on public trust – or in fact any form of interaction whatsoever.

Benthamite public order was to be maintained by actively encouraging all members of the public to become the ubiquitous eyes of the police, to report on all criminal activities and inform against all delinquents. Robert Peel’s police integrated this perspective as well as was politically feasible at the time. “Community policing” strategies, often explicitly adopting Peel’s principles, also disperse the surveillance function to members of the public by calling for “partnerships” with local groups and by creating “block watch” schemes and the like. The public’s cooperation is indispensable; in fact it is so obvious that it is hardly ever questioned – the only recognized difficulty is in devising the right approaches for obtaining it, for making the citizen “responsible for his or her own security” while maintaining tactical autonomy. With surveillance cameras, and more so with future integration of related technologies, this difficult and tedious work of obtaining the cooperation of the public becomes superfluous.

The difference is that when members of the public are charged with reporting peace-troubling situations, activities or people, they also get to *define* what is peace and what may or may not disturb it. But that can be problematic in its own way, of course: citizens are not always as tolerant of youth, minorities or outsiders as they should be. On the other hand, cameras and software packages have no abilities for such discrimination if not so programmed in advance. For now, “members of the public” are still hired to monitor the video signal (and do introduce ethnic discrimination, see Norris and Armstrong, 1999). But this will not last. Automation is cheaper and more reliable – and it will also be presented as a) immune to conventional wisdom stereotypes and selective perception based on race, sex or dress (of course racial profiling could easily be included in the software, if desired); b) more compatible with the ideal of independence of the police from social and political influences and c) as I have already pointed out, as a *lesser* invasion of privacy than human-monitored cameras.

Cameras could also be said to defeat one unintended consequence of fear of crime, namely the retreat of law-abiding citizens from public spaces, which is said to encourage criminals to move into a neighbourhood or to increase their activities there. As it turns out, being “watched over” by an electronic guardian angel does not reduce the citizens’ fear of crime (Ditton, 2000) – but now it matters little whether or not citizens manage to “take back the street.” Traditional community relationships, which implied that everyone knew everyone else, are simply *replaced* by video surveillance. Some already argue that continuous surveillance is in fact reducing the artificial “privacy” created by the impersonal big city (Nock, 1993 or Brin, 1996). The problem of course is in the utter lack of reciprocity between the watcher and the watched, where actual police officers are replaced by generic electronics, ever present but mysterious and without the least trace of responsibility. More so as humans are replaced in the monitoring room as well, with surveillance software doing more and more of the work. It will be interesting, in the future, to see whether the public’s trust in the police

is heightened by the promise of continuous vigilance or lowered by the knowledge that no actual persons in authority are involved, in any point of the loop – except at the time of direct intervention. Either way, video surveillance will make it possible to replace not only the eyes of the public, but also the “intimacy” commonly understood to produce its community.

Policing through the lens also implies microscopic, localized intervention. Either with *deterrence* or *evidence* as the main goal, observation of the offense taking place is only the first step: there must be a proper reaction system in place – if only to satisfy our spontaneous understanding of rational behaviour. Usually, it takes the form of the “incident response team,” meaning, for the most part, readily deployable patrol cars. In the classically rational point of view it is assumed that if near-immediate response is not observed to occur the deterrent effect of cameras will be reduced by the uncertainty of actually getting physically caught by police. Therefore classical rationality dictates that all camera-visible disorder must be immediately addressed if the technological investment is to be protected (we have seen that the incontrovertible fact that this rationality does not *work* is immaterial). In short, electronic order-maintenance is immediate behavioural control. It is *myopic* because it never sees the background for behaviour, which is reduced to set dressing. There is no need for problem-solving, for instance, because the camera *is* the solution; rational individuals will simply refrain from engaging in peace-disturbing behaviours. This discourse opens the door for a massive move back to purely reactive policing, but on a much wider scale. While the actual installation of cameras can be said to be “proactive” (Norris and Armstrong, 1999: 24), actual police activity will be limited to “reactive prevention:” incident-response designed to deter.

Further, it will be a form of policing that reacts not to human-defined situations but rather to what Nunn (2001: 23) refers to as “algorithmic routines designed to focus on a selected subject and to distinguish between acceptable or prohibited physical movements.” Advanced surveillance technologies will resemble computerized dragnets filtering city activity to retain certain patterns predefined by a complex mixture of police administrative objectives and the characteristics of the technologies involved. As they detect traces and remnants of prohibited activities the electronic dragnets constantly refocus policing and social control in general on behaviours rather than environments. What is more, the electronic surveillance system of the future needs not differentiate between terrorists, pimps and drunks. Only non-conformist behaviour is important. There is no longer any need for specialized police competences (special task forces targeting gang activity or drug trafficking for instance) or indeed in other areas where surveillance is needed, such as probation, court orders, parole release, speeding, parking violations, consuming drugs or alcohol in public, violating a curfew or failing to pick up after one’s dog. Minor offenses might earn a fine automatically sent to the identified citizen, while more serious ones will be relayed to the response team. The cyber-patrol officer is the tool of reputedly omniscient software, as he no longer sees a city but a series of actions flagged by surveillance systems. Actually, since *Facelt* recognizes vandals, deadbeat dads, runaway kids and terrorists in the same exact way and police specialization costs money, there is no good reason for the same response team not to be dispatched in all cases. Only the threat level may differ, and thus the intensity or *quantity* of the warranted response: in all cases, SWAT teams are the most rational and efficient way to respond. In this

scenario military technology completes the militarisation of police and the transformation of public and of private space into “battlespaces.”

So the panopticon is myopic because of the simple economic rationality it imposes both on the offender and on control institutions, because of its reduction of prevention to incident response and for its abstraction of context in favour of behaviour. But its real consequences still lay in the future. Perhaps the glut of deviant behaviour will make efficient control impossible. There are too many variables to make useful predictions on this level. So the question remains whether this new way to police the city will be more or less coercive. Coleman and Sim (2000) seem to think actual control will increase, to the point that the consequent physical coercion makes discourses of security and disciplinary practices comparatively unimportant in understanding the mass behaviour of the future. Yet we have seen that in fact these new coercive practices only exist because of the (classically inspired) discourse about rationality and the function of surveillance in crime prevention. In the *future*, the level of coercion we will be denouncing as “coercive” will also vary with our interpretation of how safe we are and how safe we want to be. Outside of normative arguments, what is “coercive” is an integral part of the social context we are constructing.

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