| Article | # The Paradox of Caught-in-the-act Surveillance Scenes: Dilemmas of Police Video Surveillance in Rio de Janeiro |

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Abstract

This article reports some of the issues raised by field research conducted in the official video surveillance system in public spaces that is operated by the Military Police on behalf of the Rio de Janeiro State Department of Public Security. The research was conducted at the Command and Control Center (CCC), where the images from all the cameras in the police battalions are brought together and at the police batallion at Copacabana (19th BPM), the first area at the city where surveillance cameras were installed. This system is treated as a sociotechnical network, formed by the interaction of individuals and technological elements, further increasing the importance of an observation from two different levels of this network. Special attention is drawn on what I call "the paradox of the caught in-the-act surveillance scenes", dilemmas emerged around the conflict between the work of surveillance and the aesthetics of surveillance, and also on a main videosurveillance problem: (human and/or technical) overdetermination.

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Introduction

This article is the result of a study of a police video surveillance system in Rio de Janeiro, Brazil, that came into operation recently. Fieldwork was carried out by the author over approximately seven months in video surveillance operations rooms; three months were spent in the state command and control center (CCC) and four months in a police battalion (19th BPM) with responsibility for one particular part of the city (the Copacabana and Leme neighborhoods). By way of background, following is some information about the city, the neighborhoods studied, the installation of the video surveillance system and the theoretical and methodological approaches employed in the fieldwork.

Rio de Janeiro is the second largest city in Brazil and one of the most important in Latin America, with 6,320,446 inhabitants distributed very unequally over an area of 1,200.28 km^2. [1] The geography of Rio de Janeiro is notable for the city's position on the Atlantic coast and the rugged relief of the Serra do Mar mountain range, whose slopes descend very close to the ocean. During the last two centuries, many of the hillsides, even those encrusted in the wealthiest neighborhoods in the city, have been occupied illegally

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[1] Source: IBGE. The population density in the city is 5,265.81 inhabitants per km^2.

by families living in poverty or extreme poverty[2] and suffer from inadequate, insecure facilities. The dwellings on these hills form what are known as *favelas*, or shantytowns.[3] In the imaginary and real life of the inhabitants of Rio de Janeiro, these are the ultimate symbol of urban violence, and the place where this violence is felt most dramatically. As a result of the geography and history of the occupation of the city, the division between center and outskirts, very common in large metropolises, has little meaning despite the clear differences between the neighborhoods, among which the southern area, known as *Zona Sul*, located closest to the sea, has the highest concentration of income. The poverty and violence cannot simply be kept out of sight of the wealthy, as happens in cities where the poor outskirts are geographically isolated from the more sought-after residential neighborhoods. In addition, the city has very high crime rates and levels of violence; for example, in 2009 there were 5,793 murders. This should be compared with a figure of 471 for New York and 642 for the whole of England and Wales in 2010/2011.[4] Furthermore, Rio de Janeiro has two police forces (one civilian and the other military[5]), which are known for both their violence and high levels of corruption and direct involvement with crime.

Although only separated by an avenue, the neighborhoods of Copacabana and Leme[6] are quite different. While Copacabana has 147,021 inhabitants spread over its 4.57 km^2 — quite a high population density[7] — Leme, with approximately one fifth the area of the adjacent neighborhood (0.90 km^2), has less than a tenth of Copacabana's population (14,157). It thus has a significantly lower population density,[8] although one that is still well above the average for the city.[9]

The local diversity of social classes cuts across all economic levels in the city, reflecting the inequality that characterizes the metropolis. From the very wealthy living in huge apartments facing the sea through the many social strata present in the city to the countless street dwellers, anybody can circulate and live in the region. Officially there are six *favelas* there, and these can be grouped into three main areas (complexes), around which "sensitive zones" have developed, particularly in the streets used to gain access to them. One of the complexes is in Leme, while the other two are in Copacabana.

Copacabana is also a well-known symbol of Rio de Janeiro and is one of the main images associated with the city by other Brazilians, as well as one of the main images associated with Brazil by foreigners. Because of this, there are large numbers of tourists, exacerbating the growth and spread of crimes, offenses and deviant behavior. Tourists are very often prime targets for thieves because they normally carry enough cash for their expenses while traveling and, more importantly, because they are unaware of most of the prevailing street codes, especially those regarding dangerous situations and locations. It should also be pointed out that tourists are an easy target for the camera operators, who can therefore take preventive action by observing any movement around them more carefully.

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[2] Notable among these are migrants from the northeastern region of the country — a very poor region that suffers from seasonal droughts — and Afro-Brazilians released from slavery at the end of the 19th century.

[3] For the importance that these are acquiring in daily life and the imaginary about poverty and violence in the city, see Valladares (2005).

[4] Sources: ISP, New York Police Department and Home Office.

[5] The main difference between them is that the civilian is officially responsible for investigations and proceedings (of the judicial police), while the military is to repress crime, maintain order, and perform surveillance and patrolling.

[6] Together they form the 19th AISP. Since 1999 Rio de Janeiro State has been divided into 40 AISPs (Integrated Public Security Areas), each of which contains a Military Police Battalion (BPM) and at least one, but sometimes as many as five, Civil Police Stations (DPs). In the area that I studied (the 19th AISP), there was one battalion (the 19th BPM) and two police stations (the 12th and 13th DPs).

[7] 32,170.9 inhabitants/km^2.

[8] 15,730 inhabitants/km^2.

[9] According to a senior figure involved in the installation of the video monitoring system, the choice of an AISP with a relatively small area and a high population density meant, broadly speaking, that more people could be monitored in a smaller space, resulting in a high monitoring density.

When determining the exact place to install the cameras in the study area, a number of non-technical factors had to be taken into account. Many of the cameras installed in the *Zona Sul* area of Rio de Janeiro are in hotels or office blocks. When the pilot project for cameras was set up in Copacabana, the Department of Public Security imagined that it would be easier to explain and negotiate the installation of the cameras in the hotels along the seafront, which, because they are in tall buildings and present in large numbers, would be strategically and structurally best suited to monitoring. The arguments put forward by representatives of some hotels regarding invasion of guests' privacy and excessive control of people entering and leaving the hotel by the police were rebutted by the Department of Public Security, which argued that the cameras would bring undeniable benefits and that the hotel sector only stood to profit from the drop in violence and the decreased number of muggings along the seafront. The hotels that accepted the proposal formed the backbone of the first police video surveillance scheme in the city. All those involved in the system mentioned tourist muggings as the best example of an offense that had been successfully fought with the CCC, thus lending an air of partnership to the installation of the police cameras on the tops of the hotels along the seafront.

However, the situation in Copacabana, which was particularly favorable for the monitoring strategy, was not to repeat itself, as even at other beaches the conditions were not as favorable. At Barra da Tijuca, the much greater length of the beach and the smaller number of hotels prevented the whole seafront falling within the field of vision of the cameras, and at Botafogo and Flamengo beaches there were even fewer hotels.

With regard to the methodology, the ethnographic research was absolutely central to data collection. Interviews were also carried out, but these proved less profitable than the many informal conversations I struck up with the camera operators or which I often found myself involved in as I followed their work.

The very central role played by the interaction between man and machine in the working of the system that I noticed during the ethnographic observations put me in mind of the approach known as *actor-network theory*. Many sociological studies that address the subject of technology and innovation use the concept of the sociotechnical network to account for the collective, hybrid dimension of systems when they are in operation (see Law 1992; Latour 2000; Akrich 1993). In addition to being formed by the combined actions of humans and non-humans,[10] such networks are characterized by a lack of fixedness and by the fact that they only effectively exist when updated by practical action. Technology is seen as something different from mere technical objects. Human actors are also components that shape technological modernization, as are the relations of power, cultural traits, institutional traits and other social or even natural factors.[11] According to this theoretical and methodological approach, ethnographic monitoring of networks in operation is the only way of understanding the technology rather than depending on the discourses and promises of those who promote it.

The field

Since June 2005, Rio de Janeiro city has had an official video surveillance system in public spaces that is operated by the Military Police on behalf of the Rio de Janeiro State Department of Public Security. In full expansion since then, the installation of surveillance cameras, about which no public objections have been raised, has established itself as government security policy and in official discourse is considered exemplary, a "model of integration with the world of modern police forces",[12] as the Secretary for Security and his wife, the State Governor, declared at the time. Video surveillance has been treated

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[10] Computers, cameras, software, radio waves, optical fiber cables, pixels etc.

[11] Human sensory limitations, such as the inability to see or hear several things at the same time, or lightning strikes, which interfere with radio transmission of data, the technology used by the police video monitoring system in Rio de Janeiro.

[12] Opinion expressed in the article *"Inaugurando o Centro de Comando e Controle de câmeras da Secretaria de Segurança"* (http://www.ssp.rj.gov/noticia.asp?id=1459), published on the State Department of Public Security website.

officially as a technological innovation that would help the process of transforming a police force marked throughout its history by repeated cases of corruption, abuse of power and violence. Images captured by the cameras are frequently used in police investigations and, most notably, published by the press in news portals or by amateurs on image-sharing websites such as YouTube. To date, however, no official data on crime rates and violence in the areas under surveillance has been produced. It was against this background of scant or no information about the system that I carried out ethnographic research as part of a doctoral thesis in 2008 (Cardoso 2010) into two of the main facilities where images from official video surveillance are monitored.

The system of *surveillance* cameras (or, as official discourse would have it, *monitoring* cameras[13]) set up by the Rio de Janeiro State Department of Public Security and Military Police, can be broken down, broadly speaking, into three main areas: the places where the cameras are located in different parts of the Rio de Janeiro metropolitan area; the operations rooms in the police battalions (*BPM*s, or *Batalhões de Polícia Militar*), where the monitoring cameras are operated most of the time; and the Command and Control Center (CCC), where the images from all the cameras in all the police battalions in which the system was installed are brought together so that the work being carried out in each battalion can be supervised.

In addition to the Military Police, three companies hired by the State Department of Public Security are directly involved in the video surveillance system: *Embratel*, the company responsible for the communications technology, i.e., for round-the-clock transmission of data from all the cameras on broadband radio connections as well as for storing the data for 30 days;[14] *Comtex*, the largest Brazilian manufacturer of surveillance cameras, which "*is responsible for urban monitoring projects in major cities*" in Brazil;[15] and *Assegura*, an aid foundation that originally employed policemen and firemen who had retired early for health reasons and some of whom were wheelchair users, but that started, as video surveillance expanded, to offer work to those who had retired based on length of service and wanted to earn additional income. Because they work in the BPM operations rooms, the staff hired by *Assegura* are the main people responsible for the surveillance work itself, which involves operating the cameras most of the time and monitoring the images.

In the CCC the cameras are monitored by policemen, who in theory are responsible for "monitoring the monitoring" carried out in the police battalions by the *Assegura* staff, seeing what they see, seeing them seeing what they see and following their actions as a result of what they have seen. The operators in the center as well as those in the police battalions were supposed to have attended a training course on "monitoring techniques" that not only provides guidance on how best to carry out the work and the best strategies to use but also teaches attendees how to handle the software used by the company responsible for setting up the system. All those asked, nevertheless, said that they had learnt on the job with their colleagues, who explained the system and showed how it functioned during the course of their work. It would seem that only a small proportion of them took part in the training, which in theory was a basic requirement for carrying out the function.

In addition to these policemen, the staff working in the CCC included the coordinator, the overall head of video surveillance in Rio de Janeiro (a lieutenant colonel in the Military Police), as well as four general supervisors representing each of the links in the structure: a police sergeant and employees from *Comtex*, *Embratel* and *Assegura*. The only thing breaking up the space was the partition for the coordinator's room

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[13] The term surveillance is not generally used by those who work with the system, for whom the term *monitoring* is preferred. However, the literature on the subject is all based on the concept of *surveillance*; hence, having made this disclaimer, I alternate indiscriminately between the two categories in the articles I have written on the subject.

[14] As the Coordinator explained to me, if there was anything interesting in the images, this period could be extended.

[15] www.comtex.com.br

which — in a true spirit of accountability — was made of transparent glass so that the coordinator could supervise all the work being done by the camera operators. As these operators usually were facing the screen and had their backs to the coordinator's room, he could observe them all the time without normally being observed by them. Everything in the CCC was arranged so as to focus attention on the images shown on the large screen and the LCD screens on either side of it. The benches where the operators sat were laid out so as to reflect the curvature of the screen, and the four supervisors were located right in the middle of the room, which had a slight slope from the entrance to the screen, as in a cinema. The coordinator's room was at the top, to the right of the main screen. The operators were in the path of the coordinator's gaze as he looked at the screen and were therefore under surveillance or constantly subject to the possibility of supervision by their boss. There can be no denying — at least in the architecture of the monitoring center — the panoptic inspiration,[16] albeit adapted to contemporary technologies of visibility.

When I carried out this research, the video surveillance system extended to 22 military police battalions, corresponding to approximately 220 cameras spread throughout different neighborhoods within the areas covered by these battalions. In each battalion there was a COBAT (Police Battalion Operations Center, or *Centro de Operações dos Batalhões*) made up of, in addition to the cameras, a sector for dispatching operational teams (vehicles or policemen on foot) to the areas being monitored. If one of the operators observed a suspicious or dangerous situation in the cameras, the procedure was that they had to inform one of the dispatchers, who would get in contact with the police team nearest the scene. Conversely, if one of the dispatchers received information about an incident within the field of vision of one of the cameras, the camera would immediately be actioned so that the action could be followed on it.[17] *"Integration between information and action – that is the COBAT combination",* the coordinator observed. COBAT consists, on a relatively reduced scale, of a materially heterogeneous network of humans and objects (Law 1992), people and technologies that redefine themselves constantly in the course of practical operations.

Four operators worked in the operations room, each in front of a computer running a program (*LiveViewer*)[18] that gave them access to images and allowed them to move the cameras[19] distributed throughout the battalion's area. At the bench behind theirs were military policemen carrying out the function of *dispatchers*, who were responsible for taking voice calls and using the information from these calls to guide the operators' work. The *dispatchers* were also responsible for establishing the link between the operators and the police in the streets, with whom contact had to be made when something that had been observed on the cameras required intervention. To help with this, the *dispatchers* used a computer program connected to radio units carried by policemen and used in police vehicles and booths. The same program allowed the exact location of the police vehicles to be determined by GPS, making communication more efficient in theory. Monitoring was most effective in the battalions, where there were fewer cameras and the operators were not quite so flooded with images (it should be stressed that the excessive number of images is probably the greatest challenge the operators face).

It was in an attempt to investigate the system of cameras at the two main levels that I extended the field work to a COBAT. The COBAT chosen was the 19th Military Police Battalion, which is located in the Copacabana neighborhood and also covers the adjacent neighborhood of Leme. Both areas are pioneers in video surveillance in Rio de Janeiro. By extending the study in this way, I was able to gain a better understanding of how the system works as a network that integrates, both in its existence and its *modus operandi*, the action of different *sociotechnical agencements* (Callon 2003) made up, among other things,

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[16] See Bentham (2000).

[17] This resulted in a situation similar to that found by Goold (2003) in England: the cameras ended up being more effective in controlling the actions of the police than in identifying criminal acts before they occurred. Other methods of controlling police visibility were then developed, which I analyze in a separate work (Cardoso 2010).

[18] In addition to being used for real-time viewing and for operating the cameras, the software also recorded the images and allowed these to be accessed for up to 30 days.

[19] There were on average ten cameras per police battalion, but in the BPM I was investigating (the 19th) fourteen were working.

of men, machines, software and images, and to understand the practical implications of the coordination and integration of these *agencements* for video surveillance and public security policies. One such implication I have chosen to explore in this article is what I have identified as the *paradox of caught-in-the-act surveillance scenes*, which is a result of the central role played by images of crime and suspicious scenes captured on camera in legitimizing Brazilian police video surveillance in the contemporary cultural and media panorama. This is an issue that could only be addressed by observing video surveillance from two different points, following — even if only partially — the network through which it is articulated.

Seeing without being seen

When I asked the coordinator in the CCC what the main function of video surveillance was, his immediate answer was "*protecting society*". According to him, the main, ever-present objective of the work of monitoring is crime prevention, which can quickly become repression when a crime or a situation involving risk has been identified. The action plan thus involves three different aspects: intimidation, repression and, when possible, investigation. He also explained that to get the desired results, it was essential that the location of the cameras was kept secret and that they were installed as discreetly as possible. Using the logic of the Panopticon, he explained that

> that way the guys in the street will think the camera could be anywhere. The main objective is not to create "islands of safety" where there is a sign saying the person was being filmed, but to make a city that is safe as a whole.

In spite of the undeniable disciplinary bias (Foucault 2003) of a system in which people know they are being monitored by cameras but do not know exactly where the cameras are, the secrecy surrounding the positioning of the cameras is perfectly in keeping with the Brazilian tradition of personal or institutional appropriation of public information, where the notion of accountability and transparency are seen as hindrances to the work that needs to be done (DaMatta 1997; Kant de Lima 1995). This Brazilian peculiarity can be confirmed by comparison with other countries.[20] In Great Britain, where the system was used more widely and developed faster (Norris and Armstrong 1999a; McCahill and Norris 2002), there was no legislation to prevent the use of CCTV. In France (Fonteneau and Le Goff 2008), in line with the bureaucratic tradition typical of that country, video surveillance in public places is the target of restrictive regulations that seek to protect "individual liberties". Among the rules that must be obeyed, very notable is "the duty to inform the public about the existence of a video surveillance system and the identity of the body managing it, information that must be provided both clearly and permanently."[21]

The regular release to the press of pictures of crimes and suspicious scenes captured on security cameras is intended to be part of the same "disciplinary strategy" used by the Department of Public Security, as part of which criminals and "*decent upstanding citizens*" are shown the successful work done by the CCC, making it feared and respected. This was, in the opinion of the coordinator, a strategy that had proved to be absolutely the right one. In spite of the lack of official data at that time — the Institute for Public Security (ISP) was making a great effort to take the necessary measurements, but the comparison would

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[20] There are, however, considerable similarities with the British context, as can be seen from the comparison with the study of Norris and Armstrong (1999) about the rise of CCTV, particularly in regard to overdeterminations and *suspicion*, as we shall see.

[21] In Paris, the *Préfecture de Police* website shows the location of all the *vidéoprotection* cameras in each *arrondissement* (the French police also avoid using the term surveillance): http://www.prefecturedepolice.interieur.gouv.fr/Prevention/Videoprotection/Videoprotection-repartition-des-cameras-par-arrondissement/Implantation-des-293-cameras-actuellement-operationnelles-a-Paris. Comparative international studies (Norris *et al.* 2004; Hempel and Töpfer 2002) show that there is a significant difference between countries where video surveillance in public spaces developed rapidly and was not questioned, such as Hungary (Molnar 2003), the Czech Republic and China (Walton 2001), and those countries where it was not made, at least initially, official security policy, such as Austria, Germany, Denmark and Sweden. Explanations for this suggest a relationship with the existence or otherwise of legislation for the protection of personal data, human rights and the regulation of public spaces

be neither quick nor easy, as there were no technological resources to generate this information for the period before the cameras were introduced — his personal impression, based on his experience as a policemen, was that there had been a reduction in crime rates in the areas monitored despite the unintentional creation of "islands of security".[22] However, in his opinion, with the trend towards increasing investment in technology, the islands would eventually end up forming a city that was safer overall. He suggested that expansion of the CCC was a certainty and a successful choice by the Department of Public Security, as monitoring would increase the impact of the work of policemen (an operator can see various cameras at the same time) and software technology would allow even greater optimization of this work (he mentioned programs in use in other countries that trigger an alert when an image is different from what would normally be expected, e.g., when there are abandoned packages, when people are present in strange places or when certain individuals in a crowd have been identified by analysis of biometric data). The trend, which he felt it was futile to struggle against, was for the multiplication of a gaze, which in his opinion was becoming ever more powerful and accurately targeted.

Overdeterminations: Intermediaries and mediators

I would digress here to mention an issue that, while not indispensable to an understanding of the question being discussed in this article, is fundamental to an analysis of camera-based monitoring. It is important to highlight that the practice and discourse of the video surveillance system I studied was organized around technical overdetermination, the idea that it is enough to acquire advanced technological resources for the results they promised to be achieved almost automatically. Too much emphasis is placed on the technology per se, while the training and working conditions of the men responsible for the difficult and tiring work of controlling the cameras and observing the images are neglected. Returning to the distinction that actor-network theory makes between intermediaries and mediators (Latour 2005),[23] the men who make up the video monitoring system are officially presented as, and sometimes also internally seen as, intermediaries of exclusively technological actions, rather than as human mediators making up a vast and complex sociotechnical network. This perspective was inverted in certain situations and contexts: when the question needed to be treated from the point of view of the workers, all the technological structure that made up the system was seen as mere technical intermediation of human activities and interactions.

By following daily practical activities in the centers, these interleaved overdeterminations repeatedly became apparent. A significant example of this is the extremely low level of training and familiarity with the technical instruments they worked with shown by the operators of the surveillance cameras. In the CCC this task was performed by soldiers and corporals in the Military Police, most of whom had limited IT knowledge, had notable difficulty concentrating on the screens and had admitted they had no interest in the work they were carrying out. In the COBATs, however, the extent to which the operators were ill-prepared to work with the system was even more apparent, as not only had they not received any technical training but also the advanced age of the retirees rehired by *Assegura* (at a significantly reduced cost, as they were not offered an amount that would correspond to a wage, but an income that would complement their small, and very often insufficient, pension) represented an even greater obstacle to be overcome. As if the inevitable lack of familiarity with IT and digital technology of men from the lower classes (before retiring they had held the lowest positions in the military hierarchy in the police and fire service) and an average age of over 70 years were not sufficient obstacles in themselves, the men had to overcome

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[22] The colonel stated that there had been a noticeable reduction in crime in Copacabana (according to his estimate approximately 70%!) and that an effect of this reduction had been to bring about a series of behavioral changes. As an example, he mentioned the migration of transvestites to streets leading away from the beach or to Barra da Tijuca, an upper-middle-class neighborhood where camera coverage was less extensive.

[23] *"An* intermediary, *in my vocabulary, is what transports meaning or force without transformation:defining its inputs is enough to define its outputs. (...)* Mediators, *on the other hand, cannot be counted as just one (...). Their input is never a good predictor of their output; their specificity has to be taken into account every time. Mediators transform, translate, distort, and modify the meaning or the elements they are supposed to carry"* (Latour 2005: 39).

physical limitations common in the elderly, particularly a progressive worsening of their sight, a sense that plays a central role in video surveillance work. To compound the tremendous difficulty the operators had dealing with the computers and software they used to control the movement of the cameras, the images were smaller and not as clear as television pictures, which represented the relationship the vast majority of them had with images and screens. The lack of investment in professional training for the camera operators gives a clear indication that the way the video surveillance policy is both perceived and planned is based on technical overdetermination, where the workers are considered mere "intermediaries".[24] On the other hand, when explaining the criteria used to choose the operators for both the CCC and COBATs, the different authorities involved in the video surveillance project were unanimous in pointing out that prior involvement with police work weighed heavily in the decision, and supported this with the argument that such individuals would already know about *vagabundagem*,[25] which would mean that they were better able to notice suspect movements in the streets. The expression used by the camera operators was "malicious gaze"[26], which was supposedly based on the accumulated experience and knowledge they had brought from the *streets*. The first practical problem with this version was that approximately half of the operators working in the COBATs had not been policemen but firemen, two categories that, although sharing the same aid foundation for retirees, widows and orphans (*Assegura*), carry out completely different functions insofar as public security is concerned.[27]

However, I would like to draw attention to another point: the fact that the justification founded on the ex-policemen's and ex-firemen's practical knowledge of crime ignores the predictable and unaddressed difficulties the surveillants face when dealing — rather clumsily — with the technological and video surveillance hardware and software. Such a justification considers only the relationships between people

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[24] When observed at close hand, the relationship the operators established with the technical apparatus of the cameras and computers gave an indication of how difficult the "*COBAT combination*", consisting, in the words of the coordinator, of "*the interaction between people and technology*", was to put into practice. As Jackson (2002: 337) points out, *"Although from an objective point of view a person and a machine are manifestly different entities, an experiential point of view reveals the extent to which our sense of being either essentially different from or symbiotically merged with a machine is a function of how we interact with it – specifically, how much we feel we understand it and how much control we feel we have over it".*

[25] *Vagabundos* and *vagabundagem* are the terms most commonly used in the police world to refer to criminals and deviants in general. *Vagabundo* is used to denote a dishonest person, but also has a connotation of idleness and laziness. *Vagabundagem* is used to refer to the activity of a *vagabundo*. The use of this language shows the contrast repeatedly made by the Police in Rio de Janeiro between *crime* and *work*, rather than *crime* and *order*, or *crime* and *the law*. The employment and social security booklet (*carteira de trabalho*) continues to be particularly valued, not only as a guarantee of employment but also as evidence of a person's trustworthiness. For further details, see Misse (1999).

[26] The "malicious gaze", I was informed, was the way they monitored the streets, always looking for suspicious activity. As I was able to observe, most of the time suspicion fell on people, but there were also some situations that particularly caught the videosurveillants' attention. The *malicious gaze*, as was explained to me in different places, was a result of the *professional experience* of the ex-firemen and ex-policemen who worked operating the cameras, accustomed as they were to working in the street and recognizing situations involving crime or danger. I soon realized that it was also a way for them to start to orient themselves in the massive flow of information they received from the surveillance cameras on the streets. While this mechanism was undoubtedly of value, it should also be stressed that it reproduced well-known old prejudices by targeting as suspects the same stereotypes as always (blacks, street dwellers, street children, trash pickers etc.), individuals seen as *potentially* dangerous or as criminals just waiting for a suitable opportunity to commit a crime. Curiously, another constant target of the *malicious gaze* (for the opposite reasons) was *tourists*, who were seen as *suckers*, constant "*potential victims*". The question of suspicion already occupies a central position in the pioneering works on CCTV in Great Britain, such as Bulos and Sarno (1996) and Norris and Armstrong (1999a and 1999b).

[27] Although I do not intend to concern myself with the issue in this article, I had the opportunity on several occasions to observe that the assignment of retired policemen and firemen to video monitoring activities was as much a function of budget issues as of professional protectionism (which led to former members of the Military Police being chosen and thus benefitting financially) and the *Assegura* lobby (in 2008 the video surveillance program was the foundation's main external source of income). It should be borne in mind that video surveillance systems require considerable financial expenditure, once infrastructure, maintenance, personnel costs and the monitoring itself are taken into account, and that they have a natural tendency to grow. This in turn feeds back into costs, which increase steadily as a result. Given this background of major expenditure on technical investments and maintenance required to set the system up and keep it operating at a minimal level, the only way of cutting costs is by reducing expenditure on personnel. And in Rio de Janeiro it was indeed with personnel, who were treated as an element of lesser importance in the camera monitoring process, that savings were made.

— the surveillants and those under surveillance — and does not take into account the interaction with the technology, which is indispensable for the very existence of these relationships (starting with the computers the operators use to control the cameras and watch the images). The issue is inverted, and now it is the technical facilities that are seen as mere intermediaries that make the relationship between the humans involved in video monitoring possible without fundamentally changing it.

Many other specific examples emerged during the course of the field research, indicating clearly that depending on what best suited the context, the human or technical components of the system were emphasized, always in isolation. Hence, it was possible to justify from two opposing angles the failure to provide professional training for the operators by treating as non-existent what proved to be the most problematic issue arising from this lack of training, i.e., sociotechnical relationships — men and technology as mediators of the same materially heterogeneous network.

Archived *caught-in-the-act surveillance scenes*

Although in widespread use, video surveillance is quite a recent phenomenon and only exists through these networks, whose elements are constantly reconstructing themselves and influencing each other, especially as a result of experience, the practical and unexpected development of monitoring work. For an incident to be captured by one of the cameras was quite rare and would usually depend to a great degree on chance, as well as possibly on the operator's astuteness and, in cases involving a crime, the criminal act and the criminal's not knowing where the cameras were.

For this reason, as well as always referring to the video surveillance system in flattering terms whenever asked, the people who worked with the video surveillance system in the CCC with whom I talked would also more often tell success stories about the security cameras or show an image of a crime or suspicious scene captured by the system. After all, illustrative images, whether real or imaginary, were the very core of the work, as well as proof of its success. Likewise, from the first time I visited the COBAT in the 19th BPM, I was shown archived images from the cameras, sometimes with the aim of illustrating a particular explanation, but usually just as a way of getting round the mundane nature of the day-to-day images. The *boredom factor* Gavin Smith (2004) refers to was an inescapable fact, and although pictures of crimes or suspicious scenes were indeed captured, this did not happen as often as one might imagine or wish. Consequently, whenever something was recorded within the field of vision of one of the cameras, the operators would rush to show me this on my next visit. And, when this did not happen, the most helpful of the operators would look in the logbook for a note from another shift that might indicate an interesting event. It only seemed logical to the operators that if I studied security cameras I should want to see images of crimes or suspicious scenes, which would be much more interesting than the day-to-day scenes we saw all the time in the street outside the building. Nonetheless, however interesting those caught-in-the-act surveillance scenes might indeed be, the way the operators dealt with the banal images of life in the neighborhood was also central to my research. Equally interesting was to observe how these retired men dealt with the computers, computer memory and files in an attempt to recover caught-in-the-act surveillance scenes recorded in the logbook, all the time clearly showing the great difficulty they experienced trying to relate to these technological devices, with which their children and grandchildren were probably more familiar.

On one of the first days of field work in the police battalion, for example, as part of the presentation on how the monitoring system worked, the operator who was talking to me opened a folder called *Demonstration* and selected three videos from it to show me. I was not able, however, to see whether he had chosen these on purpose or at random, only that there were many others in the folder. I had already

seen parts of two of them on the Internet:[28] one showed a handbag being stolen from a woman at the seafront while she was distracted, and another an overexcited man being chased (called "energetic action") from the beach side of the street across to the sidewalk in front of the buildings on the other side. The third, which was far less exciting, showed a lifeguard helicopter rescuing a swimmer in danger of drowning and was probably not the result of video monitoring but a scene just being followed by the cameras. The fact that they showed me two files with images I had already seen over a year before on YouTube — posted by a very active police officer well-known for his work as a blogger[29] — shows how important the material was in portraying the video surveillance system in a positive light but also raises suspicions about the scarcity of such conclusive caught-in-the-act surveillance scenes. All the video images were obtained by the 19th BPM, and as well as seeing them on the web and in the battalion itself, I saw them on two different television programs broadcast by different stations.

Surveillance and caught-in-the-act surveillance scenes: The esthetic appropriation of security images

Security cameras and surveillance images are now used quite often both as the subject of and an esthetic-narrative resource in many films and television programs, forming what some authors call an *aesthetics of surveillance* (Bruno and Lins 2010) or *aesthetics of caught-in-the-act surveillance scenes* (Bruno 2008). While an "aesthetics of surveillance" has been talked about for at least forty years, the one we are familiar with today differs considerably from the "classical model" and is much more popular, spontaneous and widespread than the conceptual experimentalism of past decades.

Nevertheless, despite the undeniable relationship between *surveillance* and *caught-in-the-act surveillance scenes*, we must not lose sight of the difference between them. Whereas the first category presupposes intention and constant, systematic vigilance, the latter can be the result of this vigilant observation — the case of video monitoring or the *voyeur* — or of chance. And a caught-in-the-act surveillance scene can be planned (a hidden camera being the classic example) or spontaneous, intentional or fortuitous — an accident or a fall. *Caught-in-the-act surveillance scenes* are made possible by surveillance but the vast majority of the time remain a virtual concept; regular, *uninteresting* images predominate, making routine monitoring an extremely boring activity. Video surveillance images represent one of the best-known examples of the *aesthetics of surveillance*; however, they rarely produce caught-in-the-act surveillance scenes. The area that falls within the field of vision of the cameras in Rio de Janeiro is very large. Although at first sight this would appear to represent a further advantage, in practice it soon became clear that the most noticeable effect this had was to cause the surveillant gaze to be diluted even further. If we treat the space as homogeneous (which it definitely is not), then there is a very low probability that the camera will be aimed directly at the place where the "virtual caught-in-the-act surveillance scene" is taking place, and an even lower probability that somebody is looking at and paying attention to the images. In theory, the operators' knowledge of the area being monitored (which are the more "dangerous" places, the layout of the streets and the escape routes) should serve to counterbalance this dilution of the gaze. In practice, however, things happen differently: the operators fail to recognize the region they are monitoring, and the criminal or deviant behavior is not mapped. As the constant comments by the operators made clear, it was easier for those who could potentially be caught in the act on camera to understand monitoring and avoid being monitored than for those doing the monitoring to discover "the video surveillance shortcuts" in Copacabana and Leme. The techniques for hiding were considerably superior to those for finding.

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28 http://www.youtube.com/watch?v=brCzpUfmjNg.
29 www.diariodeumpm.net

The aesthetics of caught-in-the-act surveillance scenes give a clear message: what is shown must contain in itself all the explanatory elements and be the result of successful surveillance, voyeurism or chance. Caught-in-the-act surveillance scenes are not in themselves a thing or a behavior. Rather, they are a set of relationships established between two or more agents (the person being caught in the act and the person doing the catching) with the mediation of optical instruments, relationships that create a witness and transform a fact into an event because they are materialized and embodied in material of varying durability (Law 1992).[30] For example, a fact as trivial as a woman walking in a dress becomes an event when a *voyeur*, armed with an ingenious technical device, manages to capture images of her panties from below; and by making it available to the public on sites like YouTube, the real and virtual reach of this produced event is extended (Cardoso 2009).

In the case of police video surveillance in Rio de Janeiro, in-the-act surveillance scenes caught on camera form a plentiful supply for television news programs (and, consequently, the Internet) — exhaustive searches are undertaken for images of any events that are worthy of attention in the media, whether they be illustrative or elucidative or preferably from different points of view. Hence, even if surveillance does not presuppose *caught-in-the-act surveillance scenes*, capturing such images are essential for the "image of video surveillance".

The paradox of caught-in-the-act surveillance scenes

Archived videos are of great importance in consolidating monitoring as a public security policy; the images and their power to explain and argue can be used to demonstrate the effectiveness of monitoring, even without the supposedly objective support of crime statistics. Publicizing the practical results of video surveillance in the form of caught-in-the-act video surveillance scenes is of the utmost importance in justifying this security policy, both in terms of its effectiveness and its legitimacy, by seeking to render irrelevant any possible conflicts with those whose space is invaded virtually by electronic surveillance, or at least reduce such conflicts to lesser (and private) evils necessary so that a greater (and public) good can be reached.

This search for visibility in successful cases of monitoring not only uses the press to lend legitimacy to the system and show it in a positive light, but also establishes a relationship with the press in which caught-in-the-act surveillance scenes become regular journalistic content, contributing to changes in the aesthetics and content of television and Internet journalism.[31] And, in a notable movement of reappropriation of these images, they can be viewed, recorded, assembled and used as raw material *ad infinitum* in any computer connected to the World Wide Web. In websites like YouTube, we can find hundreds of such images from all around the world, creating, establishing and satisfying the ever-more-present *aesthetics of caught-in-the-act surveillance scenes*, which also has the effect of making us get used to video surveillance and, what is more, seeing it as a positive, unavoidable fact. This means, logically, that a demand is created for video surveillance images, which end up becoming objects of desire and a fetish for the press and those responsible for monitoring, as well as for those looking for them on the Internet.

This conjuncture produces what I call the *paradox of caught-in-the-act surveillance scenes*. The main objective of the monitoring system is to make the neighborhoods where it is installed safer; however, at the same time there is an ever-increasing need for caught-in-the-act surveillance scenes, especially those involving crimes or violent behavior. If, as the coordinator and press proclaim, there was a substantial reduction in crime as a result of the installation of security cameras in the area I investigated, then it would

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[30] *"(...)* durability is yet another relational effect, not something given in the nature of things. If materials behave in durable ways then this too is an interactional effect*"* (Law 1992: 6).

[31] See, for example: http://www.youtube.com/watch?v=NBdOJBC4Cw0, http://www.youtube.com/watch?v=foaewCi1WUI or http://www.youtube.com/watch?v=Esdxg-6JdFw

be perfectly normal for there to be an ever-smaller number of crimes that could potentially be captured on camera. Simply because there would be fewer of them. The reduction in violence would lead to fewer potential images of violence. The COBAT operators are under constant pressure from the CCC coordinator and supervisors for images that would prove that video surveillance is effective in promoting public security; nevertheless, a truly effective system means an ever-greater difficulty obtaining such images. A paradox thus emerges: a fall in the number of incidents is not welcomed by those in command because it automatically leads to a fall in the number of surveillance images of crimes and suspicious scenes. However, the very showing of these caught-in-the-act surveillance scenes to a wider audience and the publicity surrounding the cameras mean that their locations become known and that crimes and deviant behavior tend to migrate to areas where there are no cameras, or at least may not be any.

By this I do not intend to assert that Copacabana or Leme have become safer places or that they have seen a radical drop in crime. However, as always occurs, different behavioral and criminal dynamics develop as these explore and adapt to new forms of repression as well as to the emergence of potential new victims (like the increasing number of tourists visiting Rio de Janeiro in recent years). As soon as new police mechanisms or procedures become known, whether it be as a result of press publicity or concrete successes that become well-known, new ways of escaping from them start to be considered and put into practice. During periods when the transition is at its most radical, sudden increases or decreases in violence can occur, in part because the same process is occurring constantly in the police forces, which have to adapt their strategies and behavior to the criminal dynamics.

The fact is that a change took place in the area that attracted the attention of all the operators: muggings and thefts, especially those involving tourists, which had been observed constantly when monitoring started (most of the archive images I saw were from 2005), were captured on screen increasingly rarely. Similarly, transvestite prostitution on Copacabana seafront became less common and migrated either to Barra or to streets leading away from the beach that were not monitored. This was probably intended more to spare clients embarrassment than to protect prostitutes' own images, as the possibility of being filmed or having one's car license plate filmed while arranging to have sex with a transvestite could cause embarrassment that many would prefer to avoid. At least that is what the coordinator himself had deduced, claiming that there had been no visible fall in this type of prostitution, only an adaptation (relocation).

Although nearly all the operators told me there had been an overall fall in crime in the neighborhood, in informal conversations they were unanimous in telling me that the positions of the cameras had become known to the *vagabundos*. This apparently happened very quickly, as operator A, who was quite dispirited, told me confidentially: *"all the vagabundinhos[32] already know where there are cameras. When they were installed, we were able to get a few, and then they all realized what was happening"*. Operator B stressed that things continued to happen and that the profile of the average incident had just changed; now, rather than being a mugging, the typical incident was the result of chance or an involuntary, rather than calculated, loss of self-control, such as a fight between lovers, and *"nuts creating unrest"*.

The coordinator, however, continued to put pressure on the operators to produce a greater number of caught-in-the-act surveillance scenes, as one of the more active head operators confessed to me, saying that not even a higher number of average monthly incidents relieved him of pressure from his superior. *"The colonel* (coordinator) *puts pressure on us, he seems to be very demanding. He's saying that our area doesn't have many incidents, he thinks we're to blame, but we're not, it's really difficult"*.

Operator C confirmed to me that in a meeting between the operators and the *Assegura* representative, they had been put under pressure about the small number of caught-in-the-act surveillance scenes in their area. He, nonetheless, felt there was no solution for the problem:

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[32] *Vagabundinho* is the diminutive of *vagabundo* (see note 11).

> Yes, it looks like we'll have to put on a show so they can see we're working. The bad guys are really running away from the cameras, they know where they are, they don't do anything there. And nothing's secret in the police, that doesn't exist any more. *Globo* (the TV channel) broadcasts it immediately, any new initiative by the police to prevent crime appears in the news straight away and spoils everything. Because all sorts of things always happened and still happen in Copacabana, there just isn't much happening in this area any more, no, he said, pointing to the computer and showing generically all the areas monitored.

On my visits to the CCC, when he was explaining the reasons for keeping the locations of the cameras confidential, the coordinator mentioned that the aim of monitoring was to create a city that was safer overall rather than just islands of safety within the fields of vision of the cameras. However, the widespread dissemination of caught-in-the-act surveillance scenes captured along the beachfront, as well as the publicity by the Department of Public Security about the installation of cameras in this area (when the monitoring system was installed in Copacabana, it featured in most news programs), ended up having this effect. These islands of safety, although less spectacular than the images of crimes or suspicious scenes shown on television programs and YouTube, nonetheless provide evidence of the relative effectiveness of monitoring in the fight against certain types of crime. After all, ensuring that a public video surveillance policy helps convert Rio de Janeiro into a city that is safer overall would require much more extensive camera coverage and even then would have to be accompanied by an even more substantial increase in the number of operators, generating considerable costs, which would tend to increase; or it would just fill the city with blind electronic gazes searching desperately for fortuitous caught-in-the-act surveillance scenes.

Conclusion

The immanent contradiction between the desire to eradicate crime and violence, which is the intrinsic moving force behind official public security policies, and the constant need for surveillance images of violent or criminal behavior cannot be denied. For this reason, the *paradox of caught-in-the-act surveillance scenes* is inseparable from police video surveillance in its current form because it tries to reconcile irreconcilable opposites: the need to display images while at the same time keeping the precise location of the cameras a secret; and the need to see more and more that which one is attempting increasingly to eliminate.

This situation is well-known to those who work with public security: when it is functioning correctly, the work does not seem to be necessary, leading to a pendulum effect on investments. When crime rates are high, funds become available, but when the crime rate subsequently falls, funds are cut. The distinguishing feature here is the combination of the notion of the operational dysfunctionality of accountability (secrecy about the location of the cameras) and the poor quality of existing official data (which are unable to measure oscillations in the crime rate objectively), leading to the use of an expedient — the exhibiting of caught-in-the-act surveillance scenes in the media — that not only adversely affects the panoptic strategy adopted, but also causes any assessment of this public policy to take into account criteria that are more concerned with visibility than efficiency.

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