

**Frois, Catarina; Machado, Helena (2016), Modernization and development as a motor of polity and policing, in Ben Bradford; Beatrice Jauregui; Ian Loader; Jonny Steinberg (eds.), The SAGE handbook of global policing. London: Sage Publications, 391-405.**

In the discourse of politicians and security force officials around the world, technology is frequently advanced as a powerful and innovative tool in the prevention, dissuasion and general struggle against crime. In the case of production of policies around the safety of goods and persons — that is enforced by the police of one country, at local, regional, national or international level — the use of advanced technological systems cuts across all areas of its activity. As the surveillance studies scholar Gary Marx wrote in 2002, in the aftermath of the September 11 terrorist attacks, the technological potential which aim at collecting personal information (for different uses) include: “video and audio surveillance, heat, light, motion, sound and olfactory sensors, night vision goggles, electronic tagging, biometric access devices, drug testing, DNA analysis, computer monitoring including email and web usage and the use of computer techniques such as expert systems, matching and profiling, data mining, mapping, network analysis and simulation.” (2002: 9) Amongst the technological devices that globally gained a prominent role in policing activities over the last couple of decades is CCTV (closed-circuit television) and computerized forensic DNA databases. Both are seen as important technological tools in policing for improving efforts to detect crime and increase public safety and security.

The British case constitutes an inevitable starting point to understand the origins and widespread of CCTV, both because the UK was a pioneer in this area, and because

its long experience provides a rich source of information on the potential uses, benefits and even weaknesses of this surveillance and security device. The CCTV images of two-year-old James Bulger abduction from a shopping mall in 1993 proved the importance of the CCTV footage which made the reconstruction and actual viewing of every step leading to the fatal end possible. This was the first time that CCTV images demonstrated their importance and pertinence before a worldwide 'audience' (De Haan and Loader, 2002). It showed how a crime could be reconstructed, the criminals identified, and how the images could be viewed over and over. It was the trigger event that contributed to a dramatic change in British cities: the security and safety of people and property became a major concern; cities were open spaces of free circulation, and the public increased the tone of their demands urging that the investment in CCTV should be made as swiftly as possible. CCTV recordings were thus understood, from the UK to several other countries that followed this example, as one of the most advanced tools to fight and deter crime, on the one hand, and to manage criminal offenders' prosecution.

One other important technological tool that has become a major feature of policing across Europe and North America is DNA databasing (Williams and Johnson, 2008). Forensic DNA databases involve the collection, storage and use of DNA profiles from nominated suspects, convicted offenders, victims, volunteers and other persons of interest to criminal investigation work, so that the profiles can be compared with those obtained from crime scene samples used in crime investigations and law enforcement. Similar to what has happened with CCTV, the UK has also adopted a pioneer role in relation to the incorporation of forensic DNA technology in policing. The first national forensic DNA database was created in the world: the National DNA Database

(NDNAD) of England and Wales, established in 1995. Since that time, forensic DNA profiling and databasing have become significantly important resources for policing worldwide.

The typical diffusion pattern of “high-tech” innovation causes that novel technologies originate where wealth and knowledge are most concentrated: in the most industrially advanced regions of the world. They are then exported to other societies and cultures with considerably different histories of technology and governance. Having this in mind, the overarching goal of this chapter is to discuss the role and significance of technologies such as CCTV and DNA databases in policing in countries with diverse socio-economic contexts, such as “less developed countries” like Greece and Portugal, and “more developed” ones such as Germany, Sweden and the UK. These studies offer valuable empirical examples of the contingencies emerging from following the trends of incorporation of technology in policing that are imagined and produced in more advanced countries, and which are implemented without considering different national or local circumstances.

Our argument is twofold: on the one hand, we debate the ways in the championing of technology within the field of surveillance, security and policing derives its overwhelming momentum from a force often underestimated in critical and scientific analysis: the ambition of modernity (or to be “modern”). On the other hand, we show how the drive to follow international trends circumvents careful analysis and previous testing of models and procedures, essential for an assessment of these technologies necessity, suitability, and overall chances for success. Our thesis is that the elements of innovation and technological development have always been hailed as the beacons of progress and advancement, assuming the guise of a self-evident proposition and thus

becoming an obstacle to posing some of the important questions: How does technology interfere with policing methods, with their duty to protect people and property, and to dissuade and fight crime through an active involvement with local communities? How can we measure the degree of (allegedly fallible) human reliance on (allegedly infallible) technological devices? How can traditional policing practices be harmonized with cutting edge technology? What is really at stake in terms of the role played by technology as an instrument of policing and security? Therefore our first task must be to clarify the purpose for which it is meant, ascertaining its need, suitability and scope of action. Secondly, we must strive to understand the mechanisms of institutional cooperation, to make a realistic assessment of their willingness to carry through with a given political program in this area.

Some of the case studies we will focus upon may seem paradoxical or caricatured episodes, but they illustrate how ideas of modernization and progress pervade current policing methods and uses of technology, when not attending to the specificities of the context in which they are applied, result in less more than political slogans and rhetoric propaganda. In other words, a careful observation of technological phenomenon in the context of policing reveals idiosyncrasies which, if not taken into account, result in partial and even wrong conclusions of the way technology increases or annul strategies adopted by the security forces, nationally or internationally.

Traditionally associated with physical proximity, nowadays police work increasingly tends to be executed remotely through the use of technological systems, often without the need of a person to detect anomalies. However, in one place we may have rudimentary techniques accompanied by high technology, for example, notwithstanding the dissemination of video surveillance, proximity policing, including

on foot patrols remains the most visible presence of police force as a guarantor of law and order (Durão 2008; Fassin 2013). Through another example, we will see that despite the existence of state-of-the-art DNA database technology, and the possibility of information processing systems, the lack of basic material equipment, such as suitable gloves for collecting biological samples at the crime scene (Machado and Costa, 2013) – render even the most sophisticated technological devices absolutely useless.

### **Technology as a means to an end, or as an end in itself?**

In their introduction to the volume *Eyes Everywhere. The Global Growth of Camera Surveillance*, Lyon, Doyle, and Lippert (2012) question the reasons for the continuous investment in the installation of video-surveillance systems in public and semi-public spaces, considering their apparent inability to effectively serve their prime function of preventing or dissuading criminal activity. To put the matter simply, what can explain the increasingly widespread and global use of a technology, which apparently does not accomplish the purpose it was designed for? Several arguments can be advanced to explain a phenomenon that is not exclusively restricted to CCTV<sup>1</sup> systems, but which we find that apply equally to the majority of technological devices currently used to aid policing activities: 1) the myth of their efficiency and productivity as advanced crime-fighting instruments; 2) their ability to maximize existing resources, thus guaranteeing improved management of human and material assets; 3) the need to

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<sup>1</sup> Regarding CCTV specifically, see Germain, Dumoulin e Douillet (2013), in which the authors map out the different approaches adopted in the scientific literature to deal with this phenomenon, namely interpreting it as an “element of the contemporary ‘surveillance society’, characterized by greater social and governmental control” (2013: 134); attempting to gauge the efficiency of video-surveillance systems; and finally, describing the origins and developments in the implementation process of video-surveillance systems, taking into account the idiosyncrasies of national/local contexts.

use the more sophisticated devices which other more advanced and modern countries have adopted.

Nevertheless, we must acknowledge this is a difficult and complex issue. Video-surveillance cameras have been used in a variety of public and semi-public spaces world-wide: schools, hospitals, public streets, government buildings, shopping malls, public transports, parking lots, banks, pharmacies, delis, petrol stations, bars and night clubs, jewelry stores etc., etc. But while it is impossible to gauge, with any degree of certainty, the real effects that video-surveillance systems in operation have, namely regarding the prevention, dissuasion, and reduction of crime, we are just as unable to ascertain the degree to which these devices actually interfere with other basic rights such as the privacy and freedom of the subjects being monitored. If we are to consider, for instance – as the existing evidence seems to show – that a phenomenon of naturalization develops among users of a given space where such system are in operation, how can we ever hope to accurately assess the impact these devices on the actions of those same subjects?

Specifically concerning the relationship between police activity video-surveillance systems, we could find numerous examples to discuss, but they all point to that crucial nexus between polity-technology-security, and the same applies to forensic DNA databases. A particularly clarifying example of the motivation behind a technology-based policing model as an instance of a political project in the context of the European Union (EU), is the creation of a pan-European system for the transnational exchange of forensic genetic data between EU countries for the purpose of combating cross-border crime and terrorism (and also illegal immigration) by means of the so-called Prüm Treaty (signed in 2005), also known as the “Schengen III”, that was

adopted in 2008 into EU Law through Decisions 2008/615/JHA and 2008/616/JHA (EU Council, 2008a, 2008b).

The Prüm framework established August 2011 as the deadline for all Member States to comply with the necessary measures for the reciprocal automated searching and comparison of information on DNA profiles, fingerprints and vehicle data. Member States which do not yet have centralized DNA databases are legally obliged to establish them. By March 2014, 10 countries were exchanging DNA data within Prüm and 9 countries have fulfilled the requirements (Council of the European Union, 2014). If the EU succeeds in the Prüm political project for creating a genetic surveillance apparatus, the genetic profiles of around 10 million individuals will be exchanged between agencies in all EU countries (Prainsack and Toom, 2010, 2013).

Prüm supports the EU objectives to accelerate the creation of an area of freedom, security and justice and is open to other EU countries that are out of the Schengen area. A core dimension of the representations of the world contained in Prüm is the political belief that the interoperability of DNA databases is a mere technical-scientific issue: it will be solved by standardization and harmonization of scientific and technical procedures (while, in fact, it is a highly sensitive political issue, and interoperability has obvious semantic, social, cultural, economic, organizational and legal dimensions) (De Hert and Gutwirth, 2006).

Throughout the next section of this chapter we will continue to analyse the complex interrelations between technology, policing and security. In particular, we will address the topics of the external imposition of technology in policing in less developed countries and the production of the idea of transnational policing.

*- Technology and transnational policing*

In a globalizing world, where the boundaries between the internal and external security of states are becoming increasingly blurred, it is now often the case that policing is tinged with a transnational feature (Sheptycki, 2000). In the context of the EU policing a considerable investment is being made in forms of policing which take place across national boundaries. Concerns regarding terrorism and cross-border criminal activities have pressured national jurisdictions into pondering the need to create international cooperation policing mechanisms in these areas (Loader, 2002).

The relevance of transnational policing also means that many countries face external mandatory directives, which have profound implications in national and local policing practices. In this section of the chapter we focus on two cases of such external impositions as a vehicle of reinforcement of security through technological devices: the mandatory nature of arrangements for data-sharing between EU member States of data of interest to transnational policing orientated to fight organized criminality, terrorism and illegal immigration; and the imposition of video surveillance at the city of Athens, when hosting the 2004 Olympic Games.

One relevant dimension of EU contemporary transnational policing is the data sharing between Member states according to the rules of the Prüm Decision, described above. In general terms, the Prüm Decision is founded on two main assumptions: 1) It is assumed that the “global nature” of technology will “solve” differences in local and national policing practices in the EU countries. 2) The view that Prüm will be a solution to solve the present partial fragmentation and complexity of other tools in the domain of cooperation in the field of justice and home affairs (SISII, VIS, EIS etc.). This mandatory requirement was made without taking into consideration the significant



differences between EU countries regarding for example national policing structure and operational and organizational traditions, legislation, nature of the criminal justice system, national variations regarding human and economic resources to invest in forensic DNA database, DNA profiling technologies and in other kind of police's information databases. In addition, the Prüm Decision raises concerns in terms of accountability because the measures adopted under this treaty are not subject to the usual accountability mechanisms that characterise the EU legal system, i.e. not being subject to European Parliamentary scrutiny (Balzacq, 2006; Balzacq *et al.*, 2006; Kietz and Maurer, 2006; McCartney *et al.*, 2011). The mandatory nature of this transnational data-sharing among policies also raises problems related to differentiated European integration (De Hert and Gutwirth, 2006; Guild and Geyer, 2008; Kiez and Maurer, 2006; Loader, 2002; Luif, 2007); as well as fears regarding problematic issues related to data protection, privacy and access (Cabezudo, 2013; Kirkegaard, 2008; McCartney *et al.*, 2010, 2011). In addition, while most Member States have sought at least to produce legislation to regulate national forensic DNA databases, there are still some countries in the EU – Croatia, Greece – that have not yet done so, while others – for example, Italy and Ireland – have passed legislation in this area but do not yet have operational databases.<sup>2</sup>

This mandatory feature is of particular relevance in the case of the creation of a national forensic DNA database Portugal. The legislation that regulates the functioning

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<sup>2</sup> Other problems of political, administrative, organizational, technological and financial nature arise with Prüm. As described by Prainsack and Toom, “problems occurred in mobilising political majorities to adapt national law to the Prüm provisions; conflicts arose between stakeholders over who should be given certain administrative competences and responsibilities; and human and financial resources were scarce. Moreover, at least ten countries anticipated problems with Prüm readiness, as various systems are incompatible and need to be replaced. In other words, connecting to the Prüm network not only is time intensive, but also expensive: a Belgian study reported that the average cost for a country to access the Prüm network approximates two million Euros. For countries that had no national DNA database in operation before 2008—such as Italy, Greece, Malta, or Ireland— the costs are likely to be much higher.” (2013: 5-6).

of the Portuguese forensic DNA database, which is relatively restrictive, in the European context, in terms criteria for inclusion of profiles and the periods of time and conditions for their retention and/or deletion, could easily be pressured for changes in legislation in order to keep up with international trends to increase the size and scope of the national database (Santos et al. 2013). The Portuguese government's eagerness to 'catch up' with other countries' developments renders this scenario likely.

External impositions of transnational security and surveillance policing practices are also common in international Mega events (Bennett and Haggerty 2011). One illustrative example is the case of the 2004 Olympic Games in Athens. This case is one of the first which clearly demonstrates, not only the external imposition but, specifically how video surveillance systems, conceived as technological mechanisms to reinforce security, do not always produce favorable or even predicted results. Referring specifically to video surveillance in public places, Samatas (2004; 2008) describes how the city of Athens, when hosting the 2004 Olympic Games, was equipped with over 1,200 sophisticated video surveillance devices. This was an operation in which the Greek government suffered considerable international pressure to guarantee security conditions with a view to the safety of the Games' proceedings, particularly from the USA which was at the time fully engaged in the 'war on terrorism'. This case clearly illustrates a technocratic concept of security, favoring technological supremacy over efficient policing. Looking back on this event, we can see that in fact during the Olympic Games security was ensured through policing techniques that were traditionally used by the national police forces, since a large part of these new devices

were never even used.<sup>3</sup> The result of such costly investment is that several years later, the majority of the cameras were inoperative, either due to a shortage of qualified personnel to run them, or because neither the state nor private companies were able to sustain them financially. The compromise solution found for this standstill was to sell the cameras to private entities, to be installed along the major roads which every year register high death rates due to traffic accidents. According to Samatas, in this case, the decision, while valid, failed to act directly on the causes behind this phenomenon, in this particular case the roads' bad state of conservation, deficient lighting and poor access. In his work, Samatas has consistently analyzed the impact and discrepancies between external influences and national policies, and how they have affected Greek society on many levels, emphasizing what we may call a policy of contagion that has revealed itself to be counterproductive and ineffective. It will not be an exaggeration to interpret the economic crisis which the country has been plunged into since 2009, as a reflection of the inability of Greek society to modernize and adapt itself to international developments.

One other aspect emerging from the incorporation of technologies in policing: the rhetoric of technology as a motor for modernization is particularly sound in countries that follow the typical diffusion pattern of high-tech innovation, importing technologies that were originated in other countries. We focus on the case of Portugal, partner of Greece in facing a severe economic crisis, and in many aspects a typical example of the incongruences that might emerge from importing technologies that were originated in rich and developed countries.

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<sup>3</sup> The work of Minas Samatas (2014) has been consistent in discussing what the author characterizes as the "Super-Panopticon Scandal" resulting from the 2004 Olympics and the use of surveillance and security devices by the police, the military and the government.

*- Technology as a symbol of modernization and progress*

In Portugal, the ideal of modernity and the fight against backwardness is so deeply rooted that it has been assimilated into a kind of official rhetoric, to the point where we could almost say it has become a national trait, readily identified by the Portuguese as a defining feature of the national character. At least for the past two centuries, successive governments have tried, and invariably failed, to embody this reformist agenda, which in more recent times gained renewed impetus after the democratic revolution of 1974 that put an end to a long period of political dictatorship. A benchmark of this new aspiration to modernity can be traced to Portugal's admittance into the European Union in 1986. The injection of community funds over the next two decades had the effect of actually operating such a change, turning Portugal from the essentially agrarian and rural society, typical of underdeveloped countries, into a modern urban economy that could compare with its other more advanced European partners, measurable through the rise in the ranking of the Human Development Index. In the period since 1974, we can identify three distinct modernization waves, which we will describe, respectively, as the political, infrastructural and technological waves (Frois 2013).

For our present discussion, we will be essentially interested in the latter stage, and particularly in the paradigmatic instance provided by the creation of a government program entitled "Technological Plan" in 2005, a clear example of how the incentives of competitiveness and modernization can be used as an argument to implement political measures and condition strategic decision-making. The Technological Plan, which was 'part of the governing program' conceived as an 'action agenda for all the Portuguese society', linked by the common denominator of technological innovation through informatics systems and digital technology in the most diverse spheres,

intended not only to modernise procedures and *modus operandi*, but ultimately also to transform mentalities. At the turn of the twenty-first century, the governmental strategy for development has, in one way or another, relied on the idea of using technology as its primary vehicle. Within this strategy, governmental measures have taken technology's instrumental innovativeness and raised it to a symbol of modernity. But these measures also became something more besides a simple plan for 'progress'.

Technological devices, symbolizing everything that is modern, attained a very fashionable fetish quality. Through computers in schools, a high-speed train, new ID cards with electronic chips, or a widespread DNA database, the Portuguese government was not just attempting to improve standards of living; it was attempting to prove its modern condition in the European arena." (Frois 2008; 2012). This political drive to introduce advanced technology in all areas of state activity must be understood as an instrument of modernization (one amongst many) intended to hoist Portugal to levels of development that seek to emulate the models of more advanced European countries (Machado and Frois, 2014). The permanent comparison and imitation mostly through the believe that technology will automatically improve efficiency in public security and in crime fighting was very clear in relation to the implementation of CCTV at a national scale and in regard to the creation of a national forensic DNA database in Portugal. The political enthusiasm regarding the potential benefits to increase the public safety and success in crime fighting and prevention following the kind of simple reasoning that can be summed up as follows: if "more advanced" countries use these policing devices to aid crime fighting, why shouldn't the same technologies be used in Portugal?

The disappearance of the British three-year-old Madeleine McCann in Portugal in 2007 was a signal event that attracted a level of global media attention unprecedented

in any previous mission person case. The presumed abduction of Madeleine McCann may have affected long-term representations of criminal justice and police practices in Portugal (Machado and Santos, 2009). Media pressures encouraged the government and law authorities to adopt measures that develop the application of CCTV in hotels and in public spaces, as well as the uses of forensic technologies in criminal investigation (Machado and Santos, 2011).

Police forces and policing activity have not remained immune to this reformist technological drive. The implementation of video-surveillance systems in public spaces and the creation of a forensic DNA database alike, processes that were introduced in Portugal relatively late when compared with other European countries (having been legally sanctioned in 2005 and 2008 respectively), are both cases which have been more deeply marked by an element of political rhetoric and institutional confrontation than by a genuine concern with the operational effectiveness and suitability of the technologies involved. As far as video-surveillance is concerned, having started out as a political initiative, it soon had to face countless obstacles raised by the very stakeholders involved in the process: police forces were generally opposed to the use of CCTV technology, favoring investment in other kinds of material and human resources - such as more and better equipped patrol cars, or more officers on the field to carry out the kind of proximity policing which they considered a more effective strategy to fight the kind of (consistently low) crime rates registered in Portugal over the last years.<sup>4</sup> Considering that video-surveillance systems in public areas were to be supported by local administrations, it is not surprising that with the onset of the economic crisis that started in 2008, the initial commitment to modernization on multiple fronts (specifically

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<sup>4</sup> These arguments are fully developed and discussed in Frois (2015; 2013).

in terms of the alleged need to strengthen security levels in the country) gradually waned.

In terms of the law, while in theory the legal framework was conceived to create the necessary conditions for implementation, in practice this did not prevent the National Data Protection Authority from stonewalling its intents for years, until in 2011 the government decided to revoke the binding force of this entity's rulings, giving the Ministry of Internal Affairs exclusive competence to rule on the installation of public video-surveillance systems. The National Data Protection Authority was accused of being an obsolete institution, unable to keep up with the requirements of what government considered to be modern-day concerns, for which only a technologically oriented solution was sufficient. On a different front, it is now clear that none of the changes introduced in the law contributed to operate the expected modernization of police forces or their material means<sup>5</sup>. When in 2011 Portugal was forced to request an international financial aid program, all investments in current or future projects in this area were accordingly cut. The economic crisis swept across all professional classes and socio-economic strata, and public entities were the first to suffer severe cut-backs and restrictions (Frois 2014).

Returning to 2005, in the same year that the Portuguese Law allowed for the use of video surveillance in public spaces, the newly elected socialist government

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<sup>5</sup> Amongst other factors, recent experiences show that this is due to the lack of adequacy between security policies and existing conditions on the ground, the absence of a consistent effort to promote institutional cooperation and the consequent prevalence of corporative rivalry, all of which are in turn strengthened by the failure to obtain expected results. As the Annual Internal Security Reports have shown, the fluctuations in crime rates seem to bear no relation to the introduction of new policies. Consider, for instance, their steady decrease since 2008, that is, long before then introduction of a so-called National Video-surveillance program, and their continuing downfall even after the program's interruption with the economic and financial crisis of 2011. In other words, in a country with negligible crime rates and traditionally considered one of the safest in Europe, the prosecution of a technology-based security policy was on the one hand generally perceived as being motivated by purely populist political agendas, and on the other hand received by its major stakeholders (police forces, judicial instances etc.) as an unnecessary and unfeasible endeavor.

announced the intention to create a genetic database of the entire population for civil identification purposes, which could also be used in criminal investigation work. The plan to create a universal genetic database announced by the government was presented as an important (scientific) tool that would improve “the fight against crime and make? criminal justice more efficient” (Portuguese Government 2005). The announcement stated that the establishment of an “integrated criminal information system” was needed that would allow for links to be made between the various existing public databases containing information about the citizens. If this plan had been implemented, Portugal would have been the first country in the world to have a centralised DNA database of its entire population for civil and criminal identification purposes. Although this plan never passed into the law, this political intention resonates with the long social history of the Portuguese state collecting personal identification data. In 1927 (Decree 13254 of 9 March) regional identification archives were created combining both criminal and civil competences. This government effort to create a universal fingerprint database was similar to what happened in countries such as Argentina in the 1910s and in USA in the 1930s and early 1940s (Cole and Lynch 2010: 112). But contrary to what happened in other countries, where efforts to include non-suspect citizens in databases were a failure, in Portugal, after an initial resistance, the civil uses of fingerprint database continued to expand in a relatively uncontroversial way until today (Frois, 2014; Machado and Prainsack, 2012). At the present, the Portuguese law allows fingerprints to be taken from all Portuguese citizens for the purpose of issuing a citizen’s card, identity card or passport, and for it to be cross-referenced with digital fingerprints found at crime scenes.



In the political discourse, the idea of creating a national forensic DNA database was blended with the appeal for the need of the “development of Portugal”. This was clearly implied by the Minister of Justice’s emphasis on the need for the country to follow more advanced countries in matters of DNA criminal investigation, as well as transnational database cooperation, regarding security policies and crime fighting (Ministry of Justice, 2007). Such pronouncements by the Minister of Justice illustrate the political atmosphere at the time of the introduction of forensic DNA database and profiling technology in Portuguese society. The fact that Portuguese government presented the idea that the creation of a forensic DNA database would uphold great expectations and enhances public confidence in the criminal justice system represents an important starting point for the examination of the social and cultural context of the incorporation of forensic DNA technologies in policing in Portugal. In general, DNA database projects are more likely to obtain public support if the political discourses that present it to the wider society “correspond with established narratives in a particular society” (Prainsack, 2007: 86). This is of particular relevance considering that the government promised a solution to some salient problems of contemporary Portuguese society, such as the inefficiency and slowness of the justice system (Machado and Silva, 2010).

*- Institutional conflict: the political class and police forces*

We believe that some of the institutional disputes that arise over CCTV, between the policies of national governments and police or security forces, are common to every place in the world where this kind of technology is introduced, both in public and semi-

public spaces. Despite the relative inconspicuousness of the constant struggles taking place inside the state apparatus, when compared to the notoriety assumed by those very same measures during those brief moments of public attention when they are announced in the media, they deserve our special attention, since it is there that the thin line separating the theoretical debate (essentially the sphere political decisions) from practical knowledge on the field (police force know-how), becomes clearer. For example, in the book *Video Surveillance Practices and Policies in Europe*, Ola Svenonius studies Stockholm's "Security Project" (Svenonius, 2012), a plan conceived to centralize and coordinate the city's plural policing in the public transport system. Svenonius describes the key problems that resulted from an existing security strategy that implied cooperation between different police force agencies, only to conclude that the "centralisation processes may not seem as coherent as they are presented in research and that often policy changes seem to produce less the results that were expected and instead stabilise old constellations [of power] under a new heading." (2012:120). In that same volume, Nils Zurawski presents us a case study on the installation of five surveillance cameras in a public square in Hamburg. By mapping out the project's chronology from its planning stage through to the installation and eventual cancellation (very similarly to what took place in several Portuguese cities), he manages to show that "the cameras became a vehicle for political negotiation [amongst local stakeholders] the discourses moved from a crime prevention focus to arguments around urban regeneration and renewal." (2012: 122).

In countries which have served as the model for establishing DNA databases, such as the United Kingdom and the USA, there is a clear emphasis on the role of the scientification and professionalization of the police through the use of genetics in

criminal investigation (Cole, 2001; Nuffield Council, 2007; Williams, 2003; Williams *et al.*, 2004). In countries such as Portugal such emphasis on scientization and professionalization also exist, but it is performed under different constraints, by which various factors combine to restrict and subordinate police investigation work to legislation: the work of the Portuguese police forces in gathering biological samples from crime suspects is dependent on an order issued by a judge; the constraints established by Law 49/2008 of 27 August (Law on the Organisation of Criminal Investigation) increase the grey areas of crime scene management; and investment in human and technological resources for police work is insufficient (Machado and Costa, 2013; Machado and Santos, 2009, 2011). The legislation that regulates in Portugal the functioning of the national forensic DNA database - Law 5/2008 - contains a range of provisions that attribute control and decision-making powers concerning the creation of DNA databases to judges. Police access to the information contained in the national forensic DNA database during the course of criminal investigations is therefore very restricted (Santos *et. al.*, 2013).

The cultural imaginary of the infallibility and efficiency of DNA technology is based on judicial and criminal investigation practices and cultures in countries, such as the UK, USA and Canada, which not only have significantly expanded the genetic databases used to investigate and combat crime (due to an almost total absence of restrictions on the inclusion and retention of profiles), but have also conferred broad powers on the police with regard to the process of collecting and analysing samples and obtaining access to information. The differences concerning the countries that have provided the model for investing in and developing the applications of DNA technology

within criminal investigation work create local tensions that may even reinforce images of the inefficiency of the police.

This environment of tight access restrictions to the national forensic DNA database in Portugal by police forces bears a trace of the institutional dissent between the government and police and security forces. The first time that the Portuguese government officially announced the creation of a forensic genetic database, one of the points that was emphasized was that under no circumstances would the database remain under the jurisdiction of a police entity (Machado and Silva, 2010). In their turn, the different police entities complained of a lack of state investment in the technical and scientific training for the police and lack of material resources – even basic resources, such as gloves and adequate containers for collection and preservation of evidence – to enable these police forces to collect DNA traces efficiently from crime scenes (Machado and Costa, 2013).

### **Old and new conceptions of security technologies**

The examples above show how the following of imported models that did not attend to the social, economic and cultural specificities of the geographical context in which they were applied resulted in what one may think as paradoxical or caricatured episodes. It is not so. Ideas of modernization and progress are useful and convenient as political slogans, but they often remain within the sphere of intentions, confined to a political discourse that is essentially rhetorical and which is constantly in a process of self-perpetuation. Ultimately, what we may observe is that the differences between countries and regions, and even the nuances existing within each of them in terms of cultural and

social standards, determine our interpretation of the circumstances which individuals identify themselves as being a part of. While in some contexts the question of security assumes great expression, and the investment in policing technology mediated systems is encouraged by local governments, commercial associations and resident populations, in other contexts the concerns with ‘security’ are more basic, more ontological, and individual necessities play a bigger role in a dominion that has more to do with the existing conditions of life (such as employment, health care, education). We finally arrive at the key point in this debate: while technological devices may be used by police forces – whether in the fight against terrorist attacks, cyber-terrorist organizations, national or international crime –just one amongst many means that can be used to face up to duly identified threats, their transformation into a “model” of security and consequent indiscriminate implementation regardless of contextual specificities (geographical, cultural, socio-economic etc.) have tended to promote a conception of technological-based security systems as an end in themselves, and thus as already representing a mode and a philosophy of action.

The argument of modernization through technology is fascinating, as much for what it reveals of parochialism, as of the ignorance of other experiences, practices and motivations. In this context, we do well to recall Gary Marx’s admonition to consider some “Conceptual matters – the ordering of surveillance” saying that “surveillance is neither good nor bad, but context and comportment make it so.” (2014:221). With this in mind, we should then turn to Keith Breckenridge’s words as he describes how “Biometric identification systems are under development in many regions and institutions around the world. The new passport documents in Europe, North America and Australia all make use of biometrics, but they have very limited surveillance

capacities because – under the bright light of popular anxiety about bureaucratic invasions of privacy – they have been deliberately and carefully hobbled. (...) But it is still incongruous, in the light of the wider scholarship on the new surveillance state, that the most powerful biometric surveillance systems are being developed in the poorest countries, the former colonies of European empires.” (2014:17).

In his work, Breckenridge traces the history of biometric data use in South Africa from the mid-20th century until today, demonstrating how the more recent technologies – namely in countries like India, Brazil or South Africa – have been adapted to deal with problems that are far from the kinds of “modern threats” identified in countries such as the USA or the UK. In South Africa, computerized biometric identification emerged in the 1980s as an instrument of control in gold mines, and was later adapted to aid the pension payment system in remote areas where ATM machines were not available.

This example shows us how some of the “advanced” technologies designed to fight “new” dangers, meant to equip police forces with the kind of means considered more powerful and sophisticated, have already been used for decades to other ends than crime deterrence, the fight against terrorist threats and so on. The heated debate that took place in the United States and in the UK in the wake of September 11, regarding the introduction of ID cards (Lyon 2009), for instance, was viewed with indifference by the citizens of European countries where such documents have been used for decades, and where they carry neither a pejorative weight, discriminating effect, nor any indication of greater or lesser police repressiveness and control.<sup>6</sup> Such examples are evidence that the debates surrounding surveillance, security and global policing which

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<sup>6</sup> A thorough discussion of this point can be found in Frois (2008). The work from Caplan and Torpey (2001) is also a valuable contribution to understand specificities of, as the author put it “documenting individual identity”.

the present volume intends to put in a broader perspective, do in fact belong to the political, economic and cultural domains.

The hegemonic discourse based on a determinist world view of technological inevitability and on the conviction that the problems and threats to security are felt similarly throughout the world, is ironically often found to quickly become obsolete and anachronistic. In other words, only through better and more detailed information, more transparent procedures and a broader debate that includes all the relevant stakeholders as well as society at large in the decisions that are taken, will it be possible to prevent obstruction, objection and resistance in such a sensitive area as this.

The potential public benefits of surveillance technologies in policing need to be questioned and re-examined on the basis of a multi-vocal approach to views about their advantages and risks of – one that also involves citizens – serving as a resource for a better understanding of individual perspectives and collective attitudes. Possible and desirable routes should be built for effective public engagement that can account for the heterogeneity of knowledge and expectations, and certainties and uncertainties raised by such policing surveillance technologies. From our point of view, the accomplishment of this goal demands broader research on the public understanding of the role of highly advanced technologies in crime fighting. The perspectives and attitudes of the public, this study could be useful for the development of international common ethical standards for the content and use of CCTV, forensic DNA databases, biometrics, etc. to ensure that the potential of such technologies to fight crime is well explored in a framework in which human rights are respected.

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