

Legitimacy Issues Regarding Citizen Surveillance: The case of ANPR-technology in Dutch policing

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Abstract - In 2005 the concept of nodal orientation was put forward as a leading principle for policing in the Netherlands. While putting a focus on new technological possibilities, it was supposed to strengthen the legitimacy of the police in the face of a changed environment. The use of technologies, such as Automatic Number Plate Recognition (ANPR), in turn, encompasses legitimacy questions themselves. In this paper, legitimacy dilemmas surrounding the implementation of nodal orientation in Dutch policing are explored both theoretically and empirically. Literature study suggests that dilemmas posed by contradictions between criteria of legality, moral justification and social acceptance are even more complicated by the variability, the ideal and the scale of legitimacy. Empirical research into the policymaking concerning ANPR in a Dutch police force shows that uncertainty regarding legality and social acceptance of ANPR is dealt with in two ways. On the one hand, the police strive to actively influence both dimensions. On the other hand, the police rely on moral justification in terms of effectiveness and efficiency while not substantially supporting these claims.

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'We need to change course before it is too late.'

(The Board of Chief Commissioners, 2005: 4)

1. Introduction

1.1 Nodal orientation as a new police strategy

In 2005, the Board of Chief Commissioners of the Dutch police (in the rest of this paper referred to as 'The Board') published a new vision memorandum on policing. This report entitled 'The Police in Evolution'¹ portrayed a reorientation on the task and position of the police. The presented mission, vision and strategy were not supposed 'to do more – or less – than offer a course for developments to follow with a view to tailoring police tasks as closely as possible to society's requirements' (The Board, 2005: 12).

'Nodal orientation' was highlighted as a key concept in the new police strategy. Derived from the work of Manuel Castells (2000) on the network society, the police distinguished a space of flows alongside a space of places, urging them to take up a new strategy concentrating on the nodes and flows constituting the space of flows. In their own words: 'The nodal orientation ('infrastructure policing') leads to surveillance of the infrastructure, or rather, of the flows of people, goods, money and information that use the infrastructure to move from one place to another' (Ibid.: 78). In order to realise this surveillance of flows the police needed to develop information-driven working methods and secure the exchange of information with partners in the safety domain (Ibid: 80). This emphasis on the importance of information encompassed a more technology-intensive way of working, which explicitly included the use of 'catch scan technology where observations and registrations of people and vehicles are compared with a wide range of databases (e.g. unpaid fines, stolen vehicles, missing number plates, known suspects)' (Ibid.: 79). In subsequent policy documents this technology is predominantly called Automatic Number Plate Recognition (ANPR) and will as such be referred to in this paper.

The concept of nodal orientation has been a heavily debated topic, both in academia and in police circles. Recently, Bekkers and Van Sluis (2009a) provide an overview of the current state of affairs regarding nodal orientation. In their contribution the authors set out the core characteristics of the concept, explain its strategic implications and examine the followed implementation strategy. They state that the implementation of nodal orientation in police practice can be characterised as 'island innovation', a collection of so far unconnected projects. They conclude by shedding some light on the future of nodal orientation and provide some advice to realise a rehabilitation of this –in their eyes- beautiful concept.

¹ In Dutch: 'Politie in Ontwikkeling'

1.2 Legitimacy problems as a reason and a result

In a review of the contribution by Bekkers and Van Sluis, Bruggeman (2009) expresses three matters of concern which all point to legitimacy problems regarding nodal orientation. Firstly, he questions how far the police may and should go concerning the 'random' application of nodal orientation, especially in the light of privacy issues. Secondly, Bruggeman wonders whether the current manner in which nodal orientation is used has any future at all when looking at ongoing technological developments. Consequently, he casts doubt whether further investments in nodal orientation can be legitimated. The third issue raised is a need for self regulation to uphold the democratic quality of nodal policing. In conclusion, Bruggeman states that once these three issues are addressed, this will stimulate a more lasting acceptance among citizens. Summarising Bruggeman's concerns, he identifies legitimacy problems in terms of legality, justification and social acceptance. In the following reply by Bekkers and Van Sluis (2009b) they affirm the importance of citizens' privacy as well as the issue of democratic accountability of nodal policing. In addition, they emphasise that nodal orientation isn't merely a matter of technology, but has political relevance as well and as such needs political-democratic legitimation.

This is a remarkable state of affairs when reassessing the reasons why a new vision and operational concept were needed in the first place. As I will argue further in section 2, part of the reasons which led the police to develop the strategy of nodal orientation can be understood as possible threats to the organisational legitimacy. An indicator for this assessment can be found when looking at a quote from the introductory chapter of the report.

'There is a feeling that the police should perform better. Wherever the expectations and performance levels are difficult to reconcile citizens become dissatisfied, they lose confidence in the police and the police lose their legitimacy. The police aim to continuously optimise their performance and, at the same time, their public image. Part of this process involves the profession forming a shared, coherent view on what will contribute to promoting safety. The present document contains the guiding principles of such a view, expressed as a mission, a vision and a strategy for the coming years.'

(The Board, 2005: 21).

Apparently, in the view of the police, the potential loss of legitimacy could be countered by developing a new strategy. The respective contributions by Bekkers and Van Sluis, and Bruggeman, however, reveal that the strategy itself seems to pose some legitimacy risks of its own.

How can nodal orientation enforce the legitimacy of the police and at the same time cause legitimacy problems? How can this tension be understood? In this paper I aim to take the discussion between Bekkers and Van Sluis (2009), and Bruggeman (2009) further by

identifying legitimacy dilemmas in the practice of nodal policing. What do police actors consider to be legitimacy issues when dealing with nodal orientation? How do they interpret and address these issues? Answers to these questions may help to assess what the police are already doing to overcome legitimacy problems regarding nodal orientation as well as what issues may be found troublesome. The empirical arena I studied concerns one of the 25 regional Dutch police forces, which I will refer to as 'Nodalville'. In the Nodalville police region, ANPR technology has played an important role in the implementation of nodal orientation. I conducted this case study between December 2008 and April 2009.

Legitimacy-related questions about the nodally oriented application of ANPR could be: 'Does catching a handful of criminals justify the 24/7 scanning of all vehicles passing a particular ANPR-camera?', 'Which information should be allowed to be connected to the registered number plates?' or 'Why should innocent citizens' data remain stored in police databases?' Legal theory and moral philosophy would be helpful to answer these kinds of questions. In this case study, however, I've taken a different approach towards legitimacy issues. Instead of asking these kind of normative questions myself, I'm interested to see whether these questions are posed by the actors involved in ANPR policy-making, and how these are addressed. In other words, how important is legitimacy in police practice and how do police actors deal with it?

Consequently, the central research question for this paper is:

What are legitimacy dilemmas in police policy making concerning the nodally oriented application of ANPR and how are they dealt with?

1.3 Paper outline

In order to understand the legitimacy dilemmas in the case study, the concept of legitimacy is first explored in literature. Theoretically, it's important to determine what the concept entails, of what different aspects it consists and why it's of relevance to the issue of nodal policing. The literature review results in a theoretical overview of legitimacy dilemmas and operational indicators of legitimacy issues. In the third section, I describe the research methods of this case study, which can be characterised as qualitative-interpretive. Fourthly, I'll describe the context and use of ANPR in the Nodalville police region. In the fifth section, I'll discuss what legitimacy issues arise in ANPR policy-making, what legitimacy dilemmas these pose and what actions police actors take in reaction to the issues at hand. Finally, I present the conclusions and reflect on the importance of legitimacy in policing practice.

2. Legitimacy: indicators, relevance and dilemmas for nodal policing

2.1 Assessing legitimacy

Legitimacy is an abstract concept which is not easy to handle (Zouridis, 2009: 293). Yet it *is* handled in the practice of public administration. Sometimes this happens literally, for example by mentioning it in a policy report. The ‘Police in Evolution’ report shows 24 instances of the word ‘legitimacy’ distributed over 18 pages. This quantitative measure indicates that the issue of legitimacy is of some relevance to the Dutch police, which isn’t surprising when looking at Beetham’s argument that all power structures seek legitimation (Sparks, Bottoms and Hay, 1996: 85; Zouridis, 2009: 293). This, however, doesn’t help to form a thorough understanding of the meaning of legitimacy for policing. In order to gain such an understanding, we must turn to academic literature about legitimacy to find operational measures which can help to recognise legitimacy issues in public administration.

Gaining, having and maintaining organisational legitimacy is far from an easy task to realise. According to most theorists, legitimacy concerns the need to fulfil criteria which are about the right with which a public organisation wields power (Vedder, 2007a: 6). This ‘right to rule’ (Simmons, 1979 in Copp, 1999: 5) is of a multidimensional nature, encompassing legal, morally normative and social aspects (Vedder, 2007a: 7). These three dimensions, which can be referred to in terms of legality, moral justification and social acceptance, make up a general structure through which the legitimacy of any given power structure can be expressed and evaluated (Beetham, 1991 in Sparks, Bottoms and Hay, 1996: 85). In the following, I briefly discuss these three dimensions, after which I will discuss possible reasons for the police to pay attention to legitimacy issues concerning nodal orientation (subsection 2.2). Finally, I highlight some complicating factors and dilemmas to the assessment of an organisation’s legitimacy (subsection 2.3).

Legality

Legality can be described as the principle that the government may command and forbid citizens to do things, under the condition that the law allows for it, and in a way which is in conformity with legal rules and principles of justice (Michiels, 2006: 11). This aspect thus refers to the conformity to rules. It may appear to be easily testable by for example checking whether a certain action is in accordance with the law. Problems arise when it turns out that either there is no regulation about a specific action or there is just a broad rule which require a great deal of interpretation to make it applicable to the specific situation. Empirical indicators for legality as legitimacy are references to rules, regulations and procedures.

Moral justification

This aspect concerns justification in relation to moral norms and values. Even though this is the only of three aspects which can contain substantive criteria (values and norms with specific content), such as respect for human rights, it is not restricted to these alone.

Procedural criteria such as accountability and responsibility may also be relevant (Vedder, 2007a: 8).

Social acceptance

This aspect entails the consent or representation of those involved or affected. Zouridis (2009: 299) identifies three indicators for social acceptance. These are: support, trust and obedience/compliance. In addition, Vedder (2007b: 204) points out that this matter isn't solely restricted to the acceptance of citizens, but can take shape by consulting powerful or knowledgeable organisations as well. A concern for these matters on the part of the police forms an indicator for the practical relevance of this legitimacy dimension.

2.2 Relevance to nodal policing

From two points of view, it can be argued that the issue of legitimacy is of relevance to the police. From a moral point of view, public organisations ought to strive for legitimacy. It would be amoral to exercise power without a legitimation by established rules, shared values and social acceptance. From a practical point of view, public organisations need to strive for legitimacy in order to survive. Vedder (2007b: 198) calls this the striving for legitimacy 'for reasons of political efficiency and effectiveness'.

Legitimacy is a measure for the quality of public administration and therefore an important and guiding principle (Hendriks, 2007). It sets boundaries and obligations to the policies and actions of public authorities, thereby safeguarding citizens' fundamental rights. At the same time it is a complex principle, because of the different meanings and possible interpretations in the practice of public administration causing difficulties for public officials in their decision-making. The issue of legitimacy is especially relevant in situations where the public organisation interacting with citizens is very powerful (Zouridis, 2007). A powerful organisation can become even more powerful once it has incorporated information technologies in its policies and practices (Zuurmond, 1994), thereby making the issue of legitimacy even more important. ANPR constitutes such a technology.

From a theoretical perspective, there are two reasons why the legitimacy of the police cannot be taken for granted, and therefore should be reconsidered:

1. The police signal a decreasing effectiveness in their task of safeguarding society and fighting crime, because of several changes in society. The police themselves realise that 'efficiency and efficacy are now important pillars for the legitimacy of policing' (The Board, 2005: 25). The changes in society also refer to the social acceptance of the police, as indicated in subsection 1.2.
2. The technology-intensive strategy of nodal orientation implies an increase of police power, which needs legitimation.

2.3 Legitimacy dilemmas

In its striving for legitimacy, the police may encounter a number of dilemmas which have to do with the complexity of the idea of legitimacy. A dilemma involves making a tough choice. Before elaborating on the different kinds of dilemmas, I first explain why the adherent choices are this difficult. Reasons can be found in the variability of the three dimensions, the idealistic nature of legitimacy and the legitimacy scale.

Variability

Legitimacy is an ideal which an organisation should always try to reach from a moral point of view. What's unfortunate for the practical fulfilment of this striving is that legitimacy itself cannot be defined in absolute terms. The idea of what is legitimate changes over time along with societal and legal developments. The police may now be considered legitimate in manifesting themselves as a key player in the safety domain, because it is their legal task to fight crime and society expects the police to do so. The morally normative idea that crime is an undesirable matter for our society and should therefore be banned is the foundation of the legal and social support for the police task. Apart from the fact that the notion of what's considered to be a crime can change over time, ideas on how to protect society from it can alter. The police themselves signal that media, politics and citizens have become more dominant in the safety domain (The Board, 2005: 25). Beetham (1991 in Sparks, Bottoms and Hay, 1996: 85) contends that the specific content of legitimating principles and beliefs is extremely historically and culturally variable. Therefore, what legitimated a Dutch police force in the 1970s may not rightfully justify the actions of this police force in 2009. This variability of evaluative criteria very much complicates the assessment of an organisation's legitimacy. Would it for example be legitimate for an organisation to anticipate on future events to legitimise their actions? This matter makes it even more interesting to see what the police consider to be indicators for their legitimacy.

The idea(l) of legitimacy

One could pose the question whether an organisation needs to completely fulfil (if at all possible) the requirements of all legitimacy dimensions in order to be legitimate. From an empirical point of view the question would be whether the police indeed tries to do so and finds all dimensions to be equally important. According to Zouridis (2007: 97; 2009: 295) legitimacy concerns 'a power configuration being simultaneously legal and authoritative, and its justification', indicating that an organisation would have to fulfil all requirements. From Beetham's scheme (in Sparks, Bottoms and Hay, 1996: 85) we can infer that a certain degree of illegitimacy is unavoidable. The scheme shows a form of non-legitimate power for each dimension. He distinguishes illegitimacy (breach of rules), a legitimacy deficit (discrepancy between rules and supporting shared beliefs or an absence of shared beliefs) and de-legitimation (withdrawal of consent). All three forms of non-legitimate power are a realistic option, which an organisation should try to prevent from happening. In doing so, the morally normative dimension is logically primordial to both the regulatory and the social dimension of legitimacy, because the last two may be instrumental to fulfilling the first.

(Vedder, 2007b: 210). This point is also made by Copp (1999: 3) when he highlights the issue of moral authority as being crucial for legitimacy.

Legitimacy scale

The concept of legitimacy so far has been discussed in reference to public organisations in its entirety. For the discussion on legitimacy issues regarding nodal policing it's relevant to make a distinction between occurrent legitimacy on the one hand and dispositional legitimacy on the other. The latter refers to the legitimacy of an organisation in its entirety, whereas the first involves the legitimacy of a particular activity (Vedder, 2007a: 9). These two scales may be at odds with each other, because a legitimate organisation (whose exercise of power is legitimised by legal rules, moral values and social acceptance) can perform non-legitimate actions. Such an organisation may for example make a policy decision which is not socially supported. On the other hand, there may be a non-legitimate organisation performing legitimate actions.

Dilemmas: contradictions between dimensions

Legitimacy dilemmas can arise when a particular action or organisation is found legitimate from the point of view of one dimension and illegitimate from another. Then, the issue is to determine the weight of the respective dimensions. If we were to theorise about concrete legitimacy dilemmas concerning nodally oriented ANPR, the following scheme could be drawn up. In the scheme hypothetical situations are described, which are based on technical, legal and organisational possibilities, and not actual applications.

	Occurent (action)	Dispositional (organisation)
Legal-Moral	Even though the law doesn't allow for it (yet), the police gather and store ANPR data on all important nodes in the region, because they feel it to be necessary to catch offenders.	The police operate within the limits of the law, but are morally obliged to go beyond them (in order to be effective in crime fighting)
Social-Moral	The police feel morally obliged to use ANPR to catch the modern criminal, while stakeholders don't embrace the technology (yet).	Other stakeholders in the safety domain demand the police to make it their primary concern to protect citizens rather than use all means available to fight criminals while the latter is of higher value to the police.
Legal-social	Violation of citizens' privacy rights by gathering and saving ANPR data is granted under strict legal conditions, whereas surveys show the people find this completely unacceptable.	The police operate within the limits of the law, but feel pressured by the other stakeholders in the safety domain to do more.

Table 1; *Examples of theoretical legitimacy dilemmas concerning nodal orientation*

These are theoretical legitimacy dilemmas. We don't know yet whether police actors actually experience these dilemmas while implementing nodal orientation and how they deal with

them when considering the complicating factors of variability, ideal legitimacy and scale. Now, to what extent can these dilemmas be identified in policy-making concerning ANPR for nodal orientation? How important are legality issues in the policy making process? How do police managers justify the use of ANPR technology? Are relevant stakeholders consulted and for what reasons?

3. Research methods

This study can be characterised as an endeavour to *understand* how police actors involved in ANPR policy-making perceive and handle this technology, making this an interpretive-qualitative research. In this study, policy-making is considered to be a non-linear process in which formal decision-making at the managerial level and work floor decisions at the implementation level influence each other. In reaction to the top-down approach of policy-making, this can be called a bottom-up approach in which policy implementation is viewed as part of the policy-making process rather than a separate process (Hill, 2009: 202-204). Therefore, both formal decision making and operational experiences with ANPR are included in this case study. This methodological choice isn't merely theory-driven, but has an empirical foundation as well. As worded by one of the police chiefs I interviewed, '*The police are very much an organisation of do-ers. At times, they perhaps insufficiently think things through. But they do manage to stimulate a whole lot with the thinkers by letting things happen in practice.*'

When dealing with ANPR, whether this happens in daily police business or in writing policy documents, police actors make sense of this particular technology in a particular context and a particular situation. Their perception of what ANPR is and what it can do for policing is crucial to the policies being formed. This process of sense making by police actors can be called the first hermeneutic in this research. The second hermeneutic consists of me as a researcher trying to make sense of this process. I seek to understand how police actors deal with legitimacy dilemmas concerning ANPR. As a consequence, there's a double hermeneutic in this research. Because of the double hermeneutic, I speak of 'data generating' instead of 'data gathering', since the research data in this case study are constructed within this particular context, rather than laying there to be found by the researcher (Yanow, 2007).

Findings in this paper are based on the study of one Dutch police force. Data generating methods included participatory observation, interviews and document study.

Position of the researcher

As a researcher I functioned as a visible observer in the police organisation. I gained official access, received an access card for police buildings, an e-mail account and user name and password for the computer network and had a physical work space. I could walk in and out whenever I desired. This access was granted, because the police are very much interested in legitimacy issues concerning the application of ANPR. I promised to address this issue

and write a report especially for the police force. My visible position may have triggered informants to act more consciously than they normally would. In order to prevent informants from feeling exposed or perhaps even compromised and to stimulate them to speak and act freely, I promised anonymity to the individual actors as well as the police force as a whole. Therefore, in this paper I don't connect quotes to specific job functions, let alone names and speak of 'a Dutch police force. Three key informants, who served as my formal contact persons within the organisation, played an essential role in the data generating process.

Informants

I distinguish three key informants from other informants in this case study, because I had contact with them more extensively than with other informants and they regularly pointed me to new sources of information for my research. Using a network metaphor, I would say these three people were the nodes in my network of informants, documents and events.

Two of the three key informants worked as policy advisors in the department responsible for all policy development concerning information technologies. My desk was situated in their office, enabling me to overhear phone calls, listen to their conversations with colleagues and engage in them as well. Moreover, they actively informed me about policy developments taking place during the days I wasn't physically present. My other key informant led a division responsible for all ANPR data management. All requests for ANPR data coming from within and outside the police force were handled by this 'ANPR-division'. Therefore, this key informant could provide adequate information about the practice of ANPR.

Other informants included twelve people from within this particular police force and six people who are actors in the ANPR policy process, but aren't actually part of this police force. The latter group consists of actors who are either members of the national ANPR programme office or the local district attorney's office. I found the informants through the system of 'snow-balling', meaning I asked each informant I met whether he or she could recommend me another person to talk to. I started this process with my key informants and proceeded until I felt I wasn't learning anything substantially new to my research. Also, the 'snowball' sometimes stopped when people didn't respond to my request to meet. Information generating from and with the informants proceeded through interviews and participatory observation. Additionally, I conducted a document study.

Observation

Between December 2008 and April 2009 I spent several working days at the office to shadow my two key informants². For practical reasons I planned these days around most of the interviews I wanted to conduct. On these days I was able to engage in day-to-day conversations with the people working on the floor, which gave me a good idea of what were the ongoing policy topics regarding ANPR. I made field notes of every conversation I had and discussions I overheard. In addition to these office days my third key informant invited me to the ANPR-division a couple of days enabling me to take a look at the data software. He took me through some query options and answered more detailed questions about the functioning and application in practice of this data system. Furthermore, I made two visits to one of the

² On the method of shadowing see also Geuijen, 't Hart and Yesilkagit, 2007: 132

key locations for ANPR data gathering. I was able to see the camera positions, traffic flows and secret camera van where the data entered the software system.

Interviews

Besides the spontaneous, yet sometimes lengthy, conversation-style interviews which I mentioned earlier, I also conducted semi-structured interviews with twelve informants. A total of seven interviews were conducted with informants representing the Nodalville police force. The other five informants were either national police representatives or employees of the local district attorney's office. The local police informants were mainly asked to describe their involvement with ANPR and elaborate on successes and problems they encountered. The other informants were asked to provide information about the policy context in which the local police force operated and comment on their experiences with the local police force. The interview protocol relied on open ended questions, leaving room for additional questions tailored to the specific interview situation.

Document study

I studied documents such as policy papers, work instructions and internal (memos, intranet postings, e-mails) and external correspondence (letters, newspaper publications and presentations) to see whether and how legitimacy issues are addressed.

4. The power of ANPR

4.1 Technological power

The power of the concept of nodal orientation is that it offers a strategic perspective by reframing existing practices and projects and framing new practices (Bekkers and Van Sluis, 2009a). This is precisely what has happened in the police region of Nodalville. They had started using ANPR shortly before the 'Police in Evolution' report appeared and ideas about nodal orientation could descend to the Dutch police forces. This police force has been using ANPR for law enforcement purposes since 2004 but is gradually expanding the range of applications to innovative ways of crime fighting. At the same time, the number of ANPR cameras in possession of the Nodalville police has substantially increased, resulting in more data gathering. Using ANPR at infrastructural nodes doesn't automatically imply a strategic repositioning of the police. Van Bruul, Damkat, Van Dijk et al (2008 in Bekkers and Van Sluis, 2009: 52) argue that in most cases this is no more than a technical approach of traditional police work. Even if this were the case in Nodalville, ANPR still is a very powerful tool.

In this section, I will discuss the power of ANPR technology in the police region of Nodalville, as this is an important aspect of discussions on legitimacy. A core characteristic which makes ANPR a powerful technology is that it combines location data with personal data enabling the police to monitor citizens' every movements faster and more accurately than ever before. The police use of ANPR can therefore be understood within the context of other

initiatives in public administration to use location-based services (LBS) in public policy. For a more detailed account of power and privacy aspects of LBS see Van Ooijen and Nouwt (2009). The specific power of ANPR becomes apparent when considering the amount and nature of the data being gathered, the way in which this data is managed and some actual applications in police work. This account is intended to provide some general insights, which are needed to understand the discussion on legitimacy issues in section 5 of this paper. Therefore, it's not a complete or entirely detailed description of ANPR applications in Nodalville.

4.2 The Nodalville ANPR system

ANPR involves more than just a camera taking pictures of number plates. It is a complex system which *can* convert traffic data into valuable police information. I put an emphasis on 'can', because, as will be demonstrated, not all data actually amounts to information.

Technologically speaking, the Nodalville ANPR system consists of cameras for data gathering, databases for data storage, a network connection for data access and software for data linkage and analysis. I'll briefly highlight some basic aspects of each of these technological components. The Nodalville police force owns both fixed and mobile cameras. The fixed cameras cover the major entry and exit roads and gather data for 24 hours a day and 7 days a week. The mobile cameras present in police vehicles are switched on more irregularly. What data exactly do these fixed and mobile cameras gather? A camera automatically takes pictures of the number plates of all passing vehicles. The underlying software then converts these digital photos into alphanumeric data. Both the picture files and the alphanumeric number plate data are stored along with data on location and time. The network connection then enables an authorised police-officer at the office to access this data within seconds. From one fixed location alone on the average over 80.000 passages are registered per day. At the time of writing, all data is stored for four months and permanently deleted afterwards, except for the data which in the meantime has been selected for further police investigation. A software program helps the police to enrich the millions of stored ANPR data records in order to get information which can be of value in different kinds of police processes. The program creates hitlists of number plates with which 'something's up', to use the words of a police informant. At this point in time, the police define the criteria for inclusion on a hitlist by looking at past or present offenses of the car owner. Examples range from unpaid speeding fines, alcohol offenses and drug trafficking to wanted felons. By linking police data on offenses to data on car owners, hitlists of attention-worthy number plates are generated.

4.3 ANPR applications

Basically, the hitlists can be used in two types of applications. This is direct pursuit on the one hand, and further investigation on the other.

Direct pursuit

Direct pursuit involves comparing number plates to a previously composed hitlist in real-time to take immediate action. The Nodalville police organise special action nights to actually remove the 'hits' from the anonymous traffic flow. On these occasions, police motor-cyclists are present at one of the fixed camera locations. Upon a signal from their colleague watching the ANPR system, they drive up to the particular car and escort it to the side of the road where police officers are awaiting to handle the particular offense. This for example involves collecting fines, checking for alcohol abuse or making an immediate arrest. Passing cars which aren't registered on any hitlist, the so-called 'non-hits' do remain in the ANPR system because of their possible relevance for the second type of applications.

Further investigation

The reasoning of the Nodalville police is that all ANPR data, both 'hits' and 'non-hits', may prove to be of use later on for crime fighting purposes. Specific queries help the police to let the necessary information emerge from the huge amount of stored data. The police have for example used the ANPR system to retrospectively track the movements of a murder suspect. A police investigator explains how ANPR was used in the particular case:

' We gave a presentation in the court of law, in which we showed a virtual oversight of a map. We used little light bulbs to show our observations of the historical data, ANPR and camera footage. That way we could, so to speak, let them drive towards the scene of the crime. Well, that made quite an impact, also in the court of law. That's the beauty of it. [...] That's the power of combining your data. [...] So far, I haven't had a single question about the acceptability of this data to the court of law. We simply explained in the official report how we got it, how it's made available and this is simply accepted. No questions. None at all. No.'

The quote above suggests that the use of data gathered by means of Automatic Number Plate Recognition (ANPR) doesn't pose any legitimacy problems. The informant also states that policemen working with this technology don't consider this to be an issue. One could wonder whether the fact that neither the court of law nor the involved police investigators think this particular application to be illegitimate means that there are no legitimacy issues concerning ANPR.

Another way of using ANPR data for further investigation is the analysis of movement patterns of a particular group of people. The Nodalville police have compiled a hitlist of home burglars. On this list there are names and number plates of people who are known to be convicted, suspected or otherwise involved in burglaries. This list is updated on a weekly basis and is used to find suspects of particular burglaries and to enable the police to catch burglars red-handed. Finding suspects is done by geographically plotting committed burglaries and hitlist movements. Also, the time of the burglaries and the time at which the fixed camera locations are passed are taken into account when determining which cars can be connected to which burglaries. At the same time, the system allows for exclusion of particular suspects. Furthermore, movement patterns are analysed to determine at what time

a burglar returning home is likely to pass by one of the camera locations. This allows the police to position a field officer at the scene so he or she can lift this person out of the traffic stream, possibly finding the stolen goods in the trunk of the car.

5. Legitimacy issues in ANPR policy-making

The analysis of the interviews, the field notes and the documents reveals that the Nodalville police force is concerned with legitimacy issues regarding legality, moral justification and social acceptance. However, not all dimensions receive equal attention in ANPR policy-making.

5.1 Legality

The way in which the Nodalville police deal with legality issues can be characterised as:

- **Consciousness of the need for legal legitimation**

Currently, there's no law available which clearly determines how the police may and may not use ANPR. Nodalville policy makers actively investigate which laws are applicable and come to the conclusion that the current legal framework doesn't provide sufficient guidance on what course of action should be followed. This assessment, however, doesn't pose a reason to not develop a course of action at all.

- **Instrumental legality**

In order to overcome the legal insecurity, the police develop an instrumental concept of legality. They don't wait for legal security to arrive by itself, but actively engage in political discussions in order to help create the legal possibilities. As one informant formulates it: "We want to prevent having a suspect in front of a judge who then considers the ANPR-data to be illegitimate evidence."

- **Legality as a risk**

At the same time, policy documents show that legality issues are considered to be a risk as well. The police express their concern that the development of legal norms and the political discussion may put a stop to the originally designed and enacted plans. This is especially the case for possible violations of citizens' right to privacy.

Legality is thus considered an important criterion for the legitimacy concerning ANPR, but not a criterion which is completely beyond the power of the police.

5.2 Moral justification

The Nodalville police are not particularly concerned about this legitimacy dimension, which is remarkable, since it would be logical to turn to morally normative arguments considering there's a lack of legal guidance. How then do the Nodalville police justify ANPR?

- Effectiveness and efficacy

For most actors it is quite clear that ANPR already increases the effectiveness and efficiency of the police force and will do so even more in the future in the face of expanding applications. Informants and documents usually refer to successes of the direct pursuit application in law enforcement to support their claim and use this argument to legitimise further applications of ANPR. We see that the legitimacy of a particular police action (the direct pursuit application) is used to refer to the legitimacy of the police organisation as a whole. 'Policing becomes more effective', is something I've heard more than once. In addition this claimed dispositional legitimacy is used to justify yet another police action (the further investigation application). As a result, the provided justification is not a sound one.

- Nodal orientation

The concept of nodal orientation is also often used as a means of justification. 'ANPR is efficient, it's effective, and of course it's nodal orientation'. Most informants state this without properly explaining what nodal orientation entails and why this is of importance.

- Frontrunner position

Another, often expressed, argument is that the Nodalville police force is the frontrunner as ANPR is concerned. The image and position of the Nodalville police among the other police forces apparently is an important consideration in ANPR policy-making.

5.3 Social acceptance

The police pay attention to issues of social acceptance in various ways.

- Remaining informed

Policy-makers actively follow the ongoing political and societal discussion on ANPR. For this purpose, they consult research reports, follow the news media and consult online forums where citizens express their opinions on the matter.

- Strategic consideration

The police themselves assess the importance of certain stakeholders. Policy-makers express to take what some actors have to say more seriously than others. Nonetheless they also listen to 'less relevant' actors, but more for the sake of listening than for the actual outcome. This, however, can strengthen their apparent consideration of the social dimension of legitimacy.

- Cautious communication

The Nodalville police limit the social awareness about ANPR by their conservative communications policy. There have been press releases about the direct pursuit application, but these don't give away details about the technology. They merely mention the results of a

particular action. Only on some occasions some information about crime fighting applications is provided, but only in very general terms and upon a journalist's request.

- Influencing social acceptance

Even though this police force has representatives in all national discussion boards on ANPR, this doesn't automatically mean the social dimension of legitimacy is honoured in a traditional way. Informants expressed to take part in these groups mainly to educate other police forces on how they should handle ANPR and to influence the discussion on legal norms. 'We now discuss these matters in order to prevent being stopped later on'.

6. Final remarks

The variability of legitimacy, resulting in uncertainty regarding legality and social acceptance of ANPR is dealt with in two ways. On the one hand, the police strive to actively influence both dimensions. On the other hand, the police rely on moral justification in terms of effectiveness and efficiency while not substantially supporting these claims. In order to increase legitimacy, the police need to find substantial support for this moral claim. The fact that the police are partly aware of this problem is a good start.

This case study shows that policy makers are very sensitive towards legitimacy issues, but mainly for pragmatic reasons. By means of legitimising actions, such as researching legal boundaries and talking to policy stakeholders, the chances increase of the potential of ANPR being fulfilled.

When returning to the initial debate concerning the legitimacy of nodal orientation, an ironic twist can be given to this account. In the Police in Evolution report, securing citizens' privacy was cornered as an argument for the implementation of nodal orientation. Reasons for this were that nodal orientation was supposed to be less invasive to citizens and not randomly applicable. In this case study, however, privacy only emerges as a complicating matter, an argument against ANPR. Perhaps, further support can be found for these substantive values to provide a new impulse for the discussion on the legitimacy of nodally oriented ANPR.

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