Surveillance & Society



The Practice of Predictive Identification: Optimising for Organisational Needs

Fieke Jansen

Volume 22, Number 3, 2024

Open Issue

URI: https://id.erudit.org/iderudit/1113684ar DOI: https://doi.org/10.24908/ss.v22i3.15788

See table of contents

Publisher(s)

Surveillance Studies Network

ISSN

1477-7487 (digital)

Explore this journal

Cite this article

Jansen, F. (2024). The Practice of Predictive Identification: Optimising for Organisational Needs. Surveillance & Society, 22(3), 292–303. https://doi.org/10.24908/ss.v22i3.15788

Article abstract

The advent of predictive policing systems demonstrates an increased interest in more novel forms of data processing for the purpose of crime control. This paper draws on interviews with police practitioners in the Netherlands and the UK to deconstruct the rationalities that are embedded within the turn to predictive identification. Debates on predictive policing have predominantly centred data in the analysis of the institutional and societal implication of prediction, linking its use to the premise of efficiency and accuracy and foregrounding issues around bias and discrimination. Yet, little is known about its actual practice. In policing, I find that studying data as practice surfaces new insights into the relationship between risk and the ways in which crime priorities are operationalised and the security mandate of the state is negotiated. Drawing on Harcourt's (2008) observation that the desire to predict crime says more about the police than it does about a potential offender, I argue that predictive identification is not about prediction, nor about efficiency, but rather it is about optimisation. Here, datafication serves to overcome self-defined organisational challenges within the police.

© Fieke Jansen, 2024



This document is protected by copyright law. Use of the services of Érudit (including reproduction) is subject to its terms and conditions, which can be viewed online.

https://apropos.erudit.org/en/users/policy-on-use/



Érudit is a non-profit inter-university consortium of the Université de Montréal, Université Laval, and the Université du Québec à Montréal. Its mission is to promote and disseminate research.

https://www.erudit.org/en/



Article

The Practice of Predictive Identification:Optimising for Organisational Needs

Fieke Jansen

University of Amsterdam, Netherlands fieke@criticalinfralab.net

Abstract

The advent of predictive policing systems demonstrates an increased interest in more novel forms of data processing for the purpose of crime control. This paper draws on interviews with police practitioners in the Netherlands and the UK to deconstruct the rationalities that are embedded within the turn to predictive identification. Debates on predictive policing have predominantly centred data in the analysis of the institutional and societal implication of prediction, linking its use to the premise of efficiency and accuracy and foregrounding issues around bias and discrimination. Yet, little is known about its actual practice. In policing, I find that studying data as practice surfaces new insights into the relationship between risk and the ways in which crime priorities are operationalised and the security mandate of the state is negotiated. Drawing on Harcourt's (2008) observation that the desire to predict crime says more about the police than it does about a potential offender, I argue that predictive identification is not about prediction, nor about efficiency, but rather it is about optimisation. Here, datafication serves to overcome self-defined organisational challenges within the police.

Introduction

From the range of data systems police are investing in, predictive policing tools are one of the most tried, tested, and studied across Europe (Jansen 2018). Initial scholarly work theorised the relationship between prediction and knowledge and how its introduction was changing the nature of policing (Brayne, Rosenblat, and Boyd 2015; Van Brakel 2016). This was followed by a growing body of scholarly work that tried to understand the predictive models applied in policing (Hardyns and Rummens 2017; Brayne 2021; Lally 2022), how these models "hardwired" bias and discrimination in policing (Lum and Isaac 2016; Williams and Kind 2019), and the legal regimes that govern its use (Babuta, Oswald, and Rinik 2018; Van Brakel 2020a). Through the act of centring data and prediction models as an object of study, scholars have been able to highlight and critique policing futures that could occur once these technologies become embedded within policing. Yet, as Brayne and Christin (2021) point out, very little is known about the actual practice of predictive policing or how these tools landed in an operational organisation such as the police. Emerging empirical research that addresses this knowledge gap has offered insights into how the introduction and use of predictive policing systems are changing organisational data practices (Egbert and Leese 2021), how everyday data practices inform the construct of risky behaviour and police responses (Leese 2022), and how the use of predictive policing systems invokes resistance rather than compliance with on-the-ground police officers (Sandhu and Fussey 2021). Yet, little is still known about "why" police departments are turning to predictive policing systems.

Often predicated on the managerial logic of increased efficiency and effectiveness (Beer 2018), there is little evidence that suggests police are actually developing or buying predictive policing tools to do more with less. This paper draws on empirical research with specialist and senior police officers in the Netherlands and the UK who decide on the design, development, and use of predictive identification systems to offer insights into the rationalities that are embedded within their uptake. Predictive identification systems are based on statistical calculations of police data to identify locations and individuals that share one or more group traits with a risk profile, which in turn informs the police of where to search and whom to punish (Harcourt 2008). Indeed, my findings confirm that senior police officers believe that these systems allow them to select the "right" individual for a crime prevention program. However, this is only part of the story. My research findings also show that predictive identification allows the police to "fix" something in the organisation that is not working as well as it should and justify certain policing responses. In addition, the mere existence of prediction closes avenues for not intervening, as it creates perverse incentives to act if merely to avoid being held responsible for when a "predicted" risk materialises. These insights point to a dynamic in which the individual who commits a crime might be the object of predictive identification systems. From the perspective of the police, these systems allow them to overcome self-defined organisational challenges. These insights demand a more nuanced understanding of to what end and on what grounds these technologies are introduced, beyond a cost-efficiency argument.

The paper starts by outlining the advent of predictive policing systems, during which two distinct policing futures are argued to unfold. The first starts with predictive policing systems as a technical artefact that amplifies and perpetuates existing policing practices; the second approach engages with these technologies as a socio-technical system that reinforces the police's belief in data and their interest in increased data collection. To illustrate, there are several rationalities that underpin the interest in novel data systems beyond a narrow understanding of doing more with less resources. I go on to provide an analysis of the affordance police inscribe to predictive identification systems. The paper will conclude with a discussion on what this construction says about the police, their operations, and their views on crime.

Predictive Policing

The advent of more novel data systems in policing is closely connected to the increased datafication of society, where the rise of computation and its vastly expanding data infrastructures have marked a turning point in what is believed to be possible in the classification and organisation of people, objects, and events across time and space (Ball, Haggerty, and Lyon 2012; Haggerty, Wilson, and Smith 2011; Lyon 2006). To gain insight into the relationship between datafication and the operation of power in society, surveillance scholars have concerned themselves with why and how people are tracked, surveilled, and governed (Lyon 2001, 2007; Browne 2015). Such accounts provide important insights into the ideologies and global mechanisms of surveillance, but as Dencik (2019: 243) observed, "we still struggle to account for the ways in which different actors make use of data, and how data is changing the ways actors understand and act in relation to social and political issues." As such, if we assume, as this article does, that novel data systems are being introduced into policing, this in itself requires a deeper and contextual understanding of how police use data and how those data impact their understanding of crime and policing.

In the context of policing, the use of more novel data systems has been conceptualised as "predictive policing" (Van Brakel 2016), "intelligence-led policing" (Brayne 2017), and "algorithmic policing" (Egbert 2019). Each describes key aspects of the use of data by police: predictive policing emphasises its probabilistic and pre-emptive ability (Van Brakel 2016); intelligence-led policing connects the increased interest in surveillance tactics to the shift from more traditional police practices to intelligence activities (Brayne 2017); and algorithmic policing highlights the reliance on technology to make sense of the data for policing purposes (Egbert 2019). What these concepts have in common is that they shed light on specific affordances (Gibson 1979; Hutchby 2001) attributed to contemporary data systems and theorise about their effect on police and their perception of crime. This paper will focus on predictive policing systems, a

statistical analysis that identifies patterns in the distribution of crime data to predict where or who is most likely to commit a predetermined criminal offence in the near future (Ferguson 2017; Kaufmann, Egbert, and Leese 2019; Van Schendel 2019).

Predictive policing systems are mostly directed at predicting the location of high-impact crime, such as robbery, burglary, and theft, and can inform the extent to which police patrol certain areas. Less well-known are predictive identification programs that identify, rank, and intervene in the lives of individuals who are already known to the police through a care and control approach (Ferguson 2017; Van Schendel 2019). In these programs, the traditional policing approach of deterrence through surveillance, arrest, and conviction is combined with interventions aimed at addressing the multitude of problems that exist in the life of an individual labelled as risky, such as debt, unemployment, addiction, psychosocial problems, and mental disabilities (Ferguson 2017; Van der Put et al. 2013). Important to note for this paper is that both systems, placed-based policing and predictive identification, are based on the logic of risk. These predictive systems construct a risk profile based on past criminal behaviour captured in police databases to preselect which locations and known individuals share one or more group traits with it, which informs what and who should be subjected to increased police scrutiny (Harcourt 2008).

The correlation between prediction and prevention is rooted in the data affordances of optimisation and accuracy. McQuillan (2022: 15) argues that "optimization is a particular kind of rationality, one that requires the context to be datafied and asserts that condensing its complexity into a calculation provides a superior kind of solution." The solution that a predictive identification system offers lies in the belief that it generates superior crime insights. Sandu and Fussey (2022: 66) highlight that the "claimed benefits of predictive policing centre on the technology's ability to enable pre-emptive police work by automating police decisions. This could reduce the overall harms of crime by facilitating early interventions while also bringing efficiency gains during a time of austerity." The scholars point to perceived efficiency gains attributed to prediction, better allocation of resources, the ability to only to patrol "at risk" neighbourhoods or monitor and control "at risk" individuals, early intervention, and deterrence through visual police presence on the streets or in an offender's life. They point to the affordance of doing more with less resources. Scholarly critiques on the turn to predictive policing raise concerns about the reliance on datasets that reflect historic inequalities and perpetuate racialised policing (Williams and Clarke 2018). These systems create policing futures in which police attention is increasingly directed to already over-policed communities, as these tools do not analyse nor predict crime but analyse and predict police activity (Lum and Isaac 2016). Such accounts provide two intertwined policing futures, doing more of the same with less resources; however, it is imperative to recognise that this assumes an uptake of predictive policing systems. Yet, many predictive location policing systems have been halted since their introduction in Europe (Chowdhury 2018; Jansen 2018), and others have been met with resistance (Sandhu and Fussey 2021).

Empirical research into the actual practice of placed-based policing offers insight into what is changing despite the halting of or resistance against these systems. Brayne's (2017) research into the use of big data by the Los Angeles Police Department shows how its existence invokes the police's interest in and needs for expanding data collection and surveillance efforts and creates a desire to make their existing databases interoperable. Similarly, in Europe, research shows that, despite disappointing results, the use of predictive policing systems is reinforcing the police's belief in and desire to work with data (Egbert 2019; Egbert and Leese 2021). Kaufmann, Egbert, and Leese (2019: 83) found that "it has made police authorities aware that the massive amounts of crime data they possess are quite valuable and can now be easily analyzed." Insights from these studies show that there are enough other organisational benefits for the police, beyond their promise of more efficient crime fighting, that legitimize the continuous experimentation with more novel data systems. Similarly, Sandhu and Fussey's (2021) qualitative study of UK police organisations engages with predictive policing as a system that shapes and is shaped by a broader organisational structure and culture to reveal a different set of institutional and societal implications. This paper contributes to this body

of work by exploring the why: on what grounds and to what end the police introduce predictive identification.

This friction between the imagined policing future and the lack of knowledge about the actual uses requires an articulation of what we theorise when we theorise about predictive policing. Here, this paper draws on Harcourt (2008) to situate predictive policing as the continuation of the dominant rationale on crime prevention. He notes that, while the belief in the logic of prediction to enhance the efficiency of the police and the broader criminal justice system has become commonplace, it is rooted in the flawed logic of deterrence and efficiency (Harcourt 2008: 22). He argues that this logic assumes that future offenders respond rationally to the threat of punishment; it presumes a correlation between the risk of getting apprehended and punished and the likelihood a person will refrain from committing a crime (Harcourt 2008). This is a correlation that has not been substantiated, and the fact that societies believe this to be true "tells us something about us rather than anything about them. It tells us something about our desire to believe, our desire to predict, our desire to know the criminal" (Harcourt 2008: 24). It is not the aim of this paper to assess the validity of deterrence as a crime prevention strategy, but rather to take cue from Harcourt (2008)) and offer insights into what the turn to predictive policing says about the police, their operations, and their rationalities on crime.

Methodology

This research focuses on the turn to predictive identification systems in the UK and the Netherlands. In the Dutch context, there are a number of different predictive identification programmes, which police refer to as a person-based approach. The most notable are the Top 600 and Top 400 by the Amsterdam municipality and Prokid, the latter of which was developed by the Dutch national police (Abraham et al. 2011; Openbaar Ministerie 2019; Wientjes et al. 2017). In the UK, the Gang Matrix in the city of London has to date been one of the most visible and controversial European policing interventions based on risk scoring. Other predictive identification programmes in the UK are the Integrated Offender Management model of the West Midlands Police (Ethics Committee 2020), who also lead a nationwide project called the National Data Analytics Solution (NDAS) project (Baraniuk 2018). While this paper is based on interviews with police practitioners who work across these predictive identification projects in the Netherlands and the UK, the intent of the paper is not to discuss these projects as individual empirical sites. I will draw from the interviews to provide insights into the overarching "sociotechnical imaginaries" (Jasanoff and Kim 2015) of risk to account for the "why": why police are turning to these tools. This paper does so by providing an account on how predictive identification is described and contextualised by practitioners seeking to advance its uptake within the police in order to illustrate how risk is seen as a central construct to optimise for a wide range of self-defined organisational challenges.

In this paper, I explore the ideologies and agendas at play in predictive policing through examining the actual practice of predictive identification and how police practitioners conceptualize risk. Through studying data as practice, drawing on what Couldry (2004) has called studying "media as practice," I engage with predictive identification as a sociotechnical system that is shaped by both the technology and its surroundings. This allows me to theorise to what end police are turning to specific data-driven policing functions, how these materialise in their everyday reality and their understanding of crime, and the ways in which they are opening and closing opportunities for future policing action in different contexts. Research on developments in policing is notoriously difficult in terms of access (Brayne and Christin 2021), even more so when looking into the use of data systems. This is because police are weary of becoming the centre of controversies around the use of biased technology. It is also because the implementation of more novel data systems by police is ephemeral in nature, some systems never make it into the operations of policing, others are used, and others have since seen their introduction halted (Jansen 2018). Therefore, I chose to engage in multi-sited empirical research in which I looked across and between data-driven policing functions in the Netherlands and the UK. This allows me to identify broad organisational principles that

structure police approaches to technology and offer insights into the social structures that (re)produce them. This research interviewed specialists and senior police officers engaged in four risk-scoring models, Top 600, ProKid, Integrated Offender Management model, and the domestic violence machine learning (ML) model.

The empirical data analysed for this paper, twelve semi-structured interviews, is part of a larger body of research on how datafied policing intersects with social justice concerns. Overall, data were collected through qualitative methods (fifty-six semi-structured interviews with experts, police practitioners, and civic actors in Belgium, the Netherlands, and the UK, participant observation in police and civil society meetings, and document analysis) in 2019, 2020, and 2021. Document analysis informed the sampling of predictive identification systems, expert interviews functioned as insider references to gain access to police practitioners for my case studies (McKechnie 2007; Patton 2002), and participant observation provided a contextual understanding of the current and planned uses of predictive identification systems. Research participants were recruited through a combination of purposive and snowball sampling (Etikan et al. 2016; Tongco 2007). The interview sample consisted of specialist or senior police officers in the Netherlands and the UK who are either in charge of the district in which the predictive identification function was being developed, are responsible for innovation within the police, or are the specialists that develop a specific tool in relative isolation. The London MET, responsible for the predictive identification program the Gang Matrix that had been subjected to significant public scrutiny and halted on the order of the mayor of London, declined requests for interviews. Each interview was digitally recorded and transcribed verbatim, and quotes were cleaned and, where needed, translated into English at the writing stage. For the cleaning and translation, I tried to stay as close as possible to the actual words used by practitioners. For this paper, I applied inductive thematic analysis to best capture the experiences, meanings, and ideologies foregrounded by the interviewees. I systematically searched, identified, and analysed interview data for common themes to offer insights into "why" police are turning to predictive identification (Braun and Clarke 2006). In my coding process, I looked for specific projects, tools, and developments; their origin story and uses; the actors involved in the projects; the discourse on their needs, risks, challenges, questions, and points of conflict; and the practices that emerged from the introduction of data-driven policing.

Findings

As a way to examine the rationalities embedded in the turn to data systems in policing, my findings section describes four distinct ways in which senior police practitioners describe and contextualise predictive identification systems. The construct of risk can be categorised as a logic that allows the police to create a normative measure of behaviour, a normative label that justifies a specific intervention, a normative construct to coordinate state activities, and a normative expectation to intervene. Although this paper will engage with the different meanings of risk as isolated constructs to highlight their specific affordances, they should not be seen in isolation from each other but rather as a multitude of meanings that are inscribed alongside and in relation to each other.

A Normative Measure of Unwanted Behaviour

Existing approaches to predictive identification are predominantly oriented towards finding the "right potential offender" for specific crime prevention intervention. The construct of risk allows the police to translate abstract politically defined crime problems into a concrete target group. In theory, this should enable the police to more accurately select individuals that belong to a specific security problem by matching individuals who have previously come in contact with the police to a normative measure of unwanted behaviour. In practice, it allows the police to operationalise a political demand that emerges in response to a high-profile violent incident.

Risk scoring is a way for police to move from a descriptive to a prescriptive problem statement. In other words, it allows them to move from an abstract problem to practical variables. Moments of crisis, such as

the London riots in 2011, high-profile violent burglaries in Amsterdam in 2011, and recent drug-related high-profile incidents and murders in Amsterdam, trigger the political definition of new crime and safety priorities. In London it was "the Gang member," in Amsterdam it was prolific HIC offenders for whom the traditional interventions of arrest and punishment were not sufficient, and currently, it is the political desire to identify and change the life course of those young men who need to be made more resilient to the temptations of organised crime. These political ambitions in themselves create normative and often racialised understanding of a problem (Williams and Clarke 2018). However, in the context of this paper, I will engage with the ambiguities that become embedded within a risk score when one tries to operationalise abstract problems. In the context of drugs and violence, a Dutch practitioner observed, "This is not an exact science. These are politically defined problems: young men who are vulnerable to the influence of drug criminals, who might be sent out with a weapon. These are very soft descriptions that you try to operationalise [into hard criteria]" (Interview with senior information officer, January 16, 2020). To operationalise the drug and violence priority, a risk profile is created of, for example, all individuals under thirty that are in the police registration system and have been arrested in the past five years for selling hard drugs and committing a violent crime, posing a threat, or being in possession of a weapon (Gemeente Amsterdam 2022). In this process, police create a normative measure of unwanted behaviour (Jansen 2022), which, in the eyes of the state, makes those selected no longer young men who have a range of challenges and opportunities but who are at risk of being recruited by drug cartels.

Practitioners observe how these models are able to identify known offenders but are less capable of predicting the actual riskiness of the specific individual, as expressed by a senior information officer: "Someone who is on [the list] has a history of criminal behaviour whereby the chance of re-offending is there, but it is not always certain how big this risk exactly is" (Interview with senior information officer, January 16, 2020). This observation suggests that predictive identification primarily serves to identify known offenders based on certain behaviour rather than actually determining the risk of re-offending, but the authority ascribed to the police information obfuscates this nuance. For example:

The police in the Netherlands, as the public authority operational on the ground across all layers of society, holds a unique information position that can best inform these decisions. (Interview with district chief, January 8, 2020)

We are one of the few companies that can look beyond people's front doors twenty-four hours a day. (Interview with district chief, January 8, 2020)

In their eyes, police data are more reliable than data of other public authorities, as the police have a day-to-day presence on the streets and a mandate to enter into the private sphere of people when there is a suspicion of criminal activity. The rationale is that the police see what others don't or can't. This reinforces the belief that a risk score mathematically calculated based on police data is an authoritative predictor of future offending rather than a self-defined normative measure of unwanted behaviour.

A Normative Label to Justify a Specific Intervention

Risk as a policing lens is not a new phenomenon. A British practitioner notes that "as soon as you start talking about predictive policing certain people start referencing things like *Minority Report* and they think that it is outrageous, while actually, we have been managing offenders based on a risk score matrix for quite a long time, and all we are trying to do here is make it more sophisticated and accurate" (Interview with detective superintendent, November 13, 2019). Predictive identification, as such, is merely the continuation of an existing practice, where the accuracy affordance of data obfuscates and legitimises normative approaches to crime and policing.

When a normative measure of unwanted behaviour becomes embedded within a policing approach the variables not only select and label individuals as "at risk" perpetrators but also form the justification regime

for the entire intervention. This insight emerged from the challenges discussed by police officers who are not only developing but also implementing predictive identification systems: "So there are guys you had the feeling that we should actually take them along. And there are guys who you felt maybe we should have included a little less" (Interview with senior information officer, January 16, 2020). Scholars and technologists refer to this as a false positive, unjustly being included in the output, and false negative, unjustly being excluded from the output, but the practitioner argues that reality is more complex than these binary understandings of data modelling:

There is a soft target group just below [the list], the slightly less prolific offenders, who have just as many problems as the identified individuals. So if there's a slightly less active HIC multiple offender in there, and a slightly more active HIC multiple offender falls out, you wouldn't have wanted to swap them. Because that slightly less active multiple offender who's approaching [the list] can still be bursting with problems. (Interview with senior information officer, January 16, 2020)

Arguably, this "soft target group" still fits the criteria of the intervention and, when ranking between eight hundred and one thousand individuals, there might be those who are more prolific and should theoretically qualify over others, but all of them have problems. All who are in this "soft target group" are believed to benefit from the care and control interventions intended to manage and reduce their criminal activity and to slightly improve their circumstances. These insights challenge the notion of false positives, as the boundary between who falls within and outside a predictive identification intervention is not hard but diffuse. There are a few false negatives, where the team knows about individuals who should qualify for the approach but "who in the past have been charged with the wrong article, a non-HIC offence such as kidnapping or a drug rip deal" (Interview with senior information officer, January 16, 2020), and as such do not meet the criteria. However, as the senior information officer explains, this is not enough reason to make exceptions: "The moment you start making exceptions, the criteria no longer apply, and that really is the basis for your approach. That is your legal justification for putting people on that list, so you can't deviate from that" (Interview with senior information officer, January 16, 2020). Pre-emptive interventions based on predictive identification systems are not imposed on a selected individual through a court decision but rather an administrative decision. As such, the justification regime this practitioner refers to is an organisational process to externally justify to the individual, the public, and the state why certain people qualify for a specific intervention. Whilst the affordance of prediction is often tied to identifying the "at risk" individual, the air of neutrality (Van Dijck, 2014) gives these variables the authority to become a justification regime for both the selection and the entire intervention.

A Construct to Coordinate between State Institutions

Risk as a construct for coordination stems from the belief that the police are not necessarily the best actors to act upon the risk score; for example, the police have the mandate to act on a criminal offence, but care and child protective authorities might be in a better position to change some life conditions surrounding a child. Practitioners observe how individuals who end up getting selected for a specific intervention through a predictive identification system often have complex problems and a long, fragmented history with a range of state institutions: "We do know that the problems in a person's life are so broad and encompass so many domains that a government needs to know that people who are concerned in one domain are also concerned in another domain" (Interview with policy adviser, September 12, 2019). Similarly, another practitioner said, "If someone has problems in their family or is struggling with substance abuse, health problems, or has debts, and also re-offends, then all these elements should be reasons for public authorities to coordinate their work to improve the conditions in someone's life" (Interview with senior information officer, January 16, 2020). Therefore, practitioners believe that a sole focus on the "riskiness" of the individual flattens what they are trying to achieve and does not acknowledge the fact that these individuals are often already engaging with and dependent on a wide range of public institutions. Here, risk scoring is positioned as a construct around which public authorities can coordinate their efforts, step up, and take more responsibility.

Risk, as such, might be calculated for an individual, but it is a construct that allows public authorities to respond to the political agenda of increased coordination and cooperation. In the context of crime prevention, this agenda imposes the security mandate of the police onto more care-oriented public authorities. The development is referred to in the Netherlands as a "one government" approach and in the UK as multi-agency partnerships. What characterises these approaches is that local authorities—police, care, education, and welfare authorities—regularly meet and jointly intervene in the lives of individuals. "These authorities discuss who is in the best position, [and] who holds the best resources and mandate to intervene" (Interview with district chief, January 8, 2020). Predictive identification systems as such can be understood as a normative construct that only informs the initial selection; they also use the construct of risk to allow a range of public authorities to join forces and invest resources to intervene in the lives of an individual and their family for a longer period of time. When an individual is identified as "risky," the idea of the "one government" approach is to make one authority responsible for the implementation and coordination of the interventions of all. Unlike the popular belief that predictive identification will allow police to do more with fewer resources, a practitioner observed that these integrated interventions "costs a lot of time and energy" (Interview with senior information officer, January 16, 2020) and are very resourceintensive.

A Normative Expectation to Intervene

Finally, four senior police officers linked the visible turn to predictive identification to placing unattainable or unwanted normative expectations on the police to pre-emptively intervene. Individuals who are situated within the youth, care, and security policy area of the police observe that the preventative task of the police is nothing new. Rather, it is the turn to predictive identification that has given rise to concerns and expectations regarding the role of the police in society: "This raised several concerns. Do we want this? Is this a police task? Can we justify that we do this? And if we identify that something could happen, what does this mean, will someone do something with this signal? (Interview with strategic adviser, November 27, 2019)

The emphasis on "will someone act" upon the output of a predictive identification tool needs to be situated in relation to the societal expectation that the state can control and eliminate risk. As one practitioner observed, "there's a whole lot about keeping a grip, but the discussion about how realistic is it, that's not being had" (Interview with strategic adviser, November 26, 2019. The introduction of predictive systems creates an unrealistic expectation of harm prevention as it presumes that crime is the result of flawed police intelligence. Another practitioner observed: "after all, we live in a society in which we have had some really serious incidents in which the politicians tend to look at who is responsible" (Interview with district chief, January 8, 2020). She points to political and media responses to high-profile violent incidents, where the blame quickly shifted from the immoral perpetrator to the public institution that "failed" to prevent the incident from unfolding. This foregrounds a dynamic in which external meaning attributed to risk closes avenues for not intervening, as it creates perverse incentives to act if only to avoid being held responsible when a potential risk materialises.

Discussion: Optimising for Organisational Needs

Predictive policing systems are a clear manifestation of the datafication of European policing. Their uptake has been subjected to growing scrutiny, specifically in relation to reinforcing historic inequalities and perpetuating racialised policing. Yet, we know very little about their use in actual practice and why police are testing and implementing these tools. The "why" is imperative, as the turn to prediction says more about society and the police than it does about the potential criminal (Harcourt 2008). Dominant debates situate the introduction of novel data systems within the managerial logic of increased efficiency and effectiveness (Beer 2018). Data systems come with the promise that the insights they generate are objective, neutral, and superior to human insight (Van Dijck 2014); unlocking these will allow for a more efficient allocation of resources (Beer 2018). In the context of policing, prediction is believed to allow the police to do more with

less and increase the efficiency of deterrence, as it allows police to be at the right place at the right time or intervene in the lives of the "right" people who are "at risk" of (re)offending. Yet, it is important to note that there is very little scientific evidence that suggests a clear relationship between the use of predictive policing tools and the reduction of crime (Van Brakel 2020b).

This paper does not explore the (in)effectiveness of these data systems, nor of the police, but aims to complicate the "why," the raison d'etre of the introduction of predictive identification systems. In centring the practice of policing, the multiple state, institutional, and personal agenda's that are negotiated through data systems come to the fore. By introducing the term "organisational optimization logic" I want to foreground that, while the commonplace understanding links the foci of predictive identification on the "at risk" individual, my findings illustrate that practitioners primarily position these tools in relation to the organisation. Here practitioners perceive predictive systems as a way to respond to a range of demands placed on the institution. Predictive identification systems, as such, are not mere isolated technical objects but manifestations of rationalities, belief systems, and institutional priorities. As I will elaborate on below, these findings offer insight into risk not as a predictor of criminal behaviour, nor as an efficiency tool, but as a construct that allows police to overcome self-defined organisational challenges.

Making sense of the "why," if not to predict crime, requires an analysis of the rationality of datafication. Often the rationality of datafication is discussed in relation to the political economy of data. Gürses, Overdorf, and Balsa (2018: 1) observe that contemporary data systems "leverage the knowledge they gather to not only understand the world but also to optimize it, seeking maximum extraction of economic values through capturing and manipulation of people's activities and environments." The authors situate the "why" of optimisation in relation to economic value, yet if we zoom out, it can be said that these systems of optimisation do not make decisions about right or wrong, they treat the world as one big information system whose main organising principle is to optimise for a specific purpose. The police, being the most visible agent of the state, are deeply implicated in enforcing political orders through the threat of punishment (Bourdieu 1991; Jackson and Bradford 2009). Thus, in the context of policing, the purpose of optimisation should not be linked to profit but to governance and control, a means through which state ideology is translated into action (Henman 2011). This is reflected in my findings, where the construct of risk enables the police to translate politically defined safety problems into a concrete target group, making them eligible for a coordinated, costly, and invasive state approach. Thus, predictive policing seeks to rationalise and optimise the operations of policing (Egbert and Leese 2021: 3).

That the construct of risk is less about the "at risk" individual and more about the promise that data analysis will allow police to transform and overcome their internal challenges requires an articulation of the rationalities that underpin risk as a mode of governance. Beck (1992) observed that managing risk has become a central feature of governance in contemporary societies. One can fundamentally seek to address the root causes of man-made risk or choose to manage its consequences (Wimmer and Quandt 2007: 337). Predictive policing systems are firmly rooted in the latter, as they optimise for an orthodox approach to crime. This is a tactic that sees crime as a flaw of the individual who commits it and the failure of the police to prevent it, rather than the result of an unequal distribution of power, material resources, and life chances in societies (DeKeseredy and Dragiewicz 2018). Approaching predictive identification not as an isolated technical object but as a manifestation of the rationalities of policing reveals that its value lies not in its ability to predict but to optimise and overcome organisational flaws. As such, by studying data as practice, I aim to do justice to the ways practitioners speak about predictive identification beyond doing more with less resources. Specifically, this foregrounds how the construct of risk allows the police to negotiate a range of demands placed upon the institution, from the need to act on newly defined security problems, to the need to respond to the demand for more integrated government approaches, to the need to exercise control through targeted interventions to prevent being blamed if a violent criminal act unfolds. Thus, the act of decentring the efficiency frame, doing more with less, in our understanding of why police turn to predictive identification offers insights into the political, social, and policing agendas that are negotiated through the construct of risk.

In this paper, I have illustrated that police practitioners' sociotechnical imaginary of risk is less about the ability to generate statistical crime insights and more about its ability to operationalise politically defined safety problems, justify specific interventions, coordinate across public authorities, and create normative expectations to intervene. These findings conflict with the common theorisation of predictive policing, in which prediction is linked to the ability to predict when and where crime is most likely to happen in the near future (Kaufmann, Egbert, and Leese 2019) or who is most likely to become a potential offender or potential victim of a predefined crime priority (Gandy 2010; Ferguson 2017). As Egbert and Leese (2021) note in the context of predictive location, policing outputs of data systems do not necessarily need to be true to inform police operations. This in part resonates with my findings, as practitioners observe that these systems might not be able to predict the actual riskiness of an individual to commit a crime but nonetheless offer police avenues for action. In the case of predictive identification, it allows police to translate politically defined problems into an actual target group. This group profile does not need to be "true" for the police to show political actors that they are tackling the crime problem. In turn, the variables that select individuals who fit the crime profile become the justification regime for the selection and the entire intervention. As such, the affordance of predictive identification is not in the predictive value of data but in its ability to operationalize, select, and justify.

Conclusion

Predictive policing is a much-debated object of study in theories on the datafication of the state. In part, its prominence can be attributed to the fact that, in the context of the state, the police is the public institution that is at the forefront of testing and experimenting with novel data systems. In part, the fact that the police are the on-the-ground enforcers of a state ideology, through the threat of punishment and repression, makes policing's turn to predictive tools a natural object of concern and critique. In these debates, the affordance of data, rather than their actual practice, has taken centre stage in theorisations about the institutional and societal implications of predictive policing. There is still a lot unknown about what is actually happening or why police are turning to these systems. This paper offers insights into the sociotechnical imaginaries that underpin the introduction of predictive identification systems to theorise what these developments say about the police, their operation, and their perspective on crime.

As a way to approach this, I built on Couldry's (2004) approach to studying "media as practice," to study data as practice. Looking across and between different implementations of predictive identification in the Netherlands and the UK allows me to distil the overarching rationalities that become enacted through the system. These insights require a shift from an understanding of risk as a construct that is merely tied to an individual toward one that is multifaceted and primarily used as a normative construct that allows police to operationalise and justify certain practices. Through this paper, I aim to contribute to the debates on datafication and, more specifically, on predictive identification by foregrounding that the police are constantly negotiating expectations placed upon them by police officers, politicians, and the public. Novel data systems are a new tool in the arsenal the police use to negotiate the rights of individuals, the safety and security mandate of the state, and organisational and political priorities.

This paper foregrounded why police turn to predictive identification systems. It did not engage with the practice of designing these systems nor gain insights into the encroachment of the security mandate of the state on care authorities and its services through these predictive identification programs. As such, further research into predictive identification systems will need to uncover how normative measures of unwanted behaviour get constructed and the extent to which the security gaze of the police is extending and changing the way in which care authorities interact with individuals who are deemed at risk. For the former, it is pertinent to gain insight into the norms and values that become embedded within predictive identification

systems. Such research will need to contextualise predictive identification approaches within local politics and trace the origins of the variables. For the latter, research will need to situate these developments in the lived experiences of targeted individuals and the practices of care authorities.

Acknowledgments

Research for this article has been supported by the ERC Starting Grant DATAJUSTICE (grant no. 759903) under the Horizon 2020 research and innovation program.

References

Abraham, Manja, Wendy Buysse, Lotte Loef, and Bram Van Dijk. 2011. *Pilots ProKid Signaleringsinstrument 12- Geëvalueerd*. Amsterdam, NL: DSP-Groep.

Babuta, Alexander, Marion Oswald, and Christine Rinik. 2018. *Machine Learning Algorithms and Police Decision-Making: Legal, Ethical and Regulatory Challenges*. Whitehall Report, 3–18. London: Royal United Services Institute and University of Winchester.

Ball, Kirstie, Kevin Haggerty, and David Lyon, eds. 2012. *Routledge Handbook of Surveillance Studies*. New York: Routledge. Baraniuk, Chris. 2018. Exclusive: UK Police Wants AI to Stop Violent Crime before It Happens. *New Scientist*. November 26. 2018. <a href="https://www.newscientist.com/article/2186512-exclusive-uk-police-wants-ai-to-stop-violent-crime-before-it-happens/faccessed July 13, 2021].

Beck, Ulrich. 1992. Risk Society: Towards a New Modernity. Translated by Mark Ritter. London: Sage Publications.

Beer, David. 2018. The Data Gaze: Capitalism, Power and Perception. London: Sage Publications.

Bourdieu, Pierre. 1991. *Language and Symbolic Power*. Edited by J.B. Thompson. Translated by Gino Raymond and Matthew Adamson. Cambridge MA: Harvard University Press.

Braun, Virginia, and Victoria Clarke. 2006. Using Thematic Analysis in Psychology. *Qualitative Research in Psychology* 3 (2): 77–101.

Brayne, Sarah. 2017. Big Data Surveillance: The Case of Policing. American Sociological Review 82 (5): 977-1008.

. 2021. Predict and Surveil: Data, Discretion, and the Future of Policing. Oxford, UK: Oxford University Press.

Brayne, Sarah, and Angèle Christin. 2021. Technologies of Crime Prediction: The Reception of Algorithms in Policing and Criminal Courts. *Social Problems* 68 (3): 608–624.

Brayne, Sarah, Alex Rosenblat, and dannah boyd. 2015. Predictive Policing. Data & Civil Rights: A New Era of Policing and Justice. https://www.datacivilrights.org/pubs/2015-1027/Predictive_Policing.pdf.

Browne, Simone. 2015. Dark Matters: On the Surveillance of Blackness. Durham, NC: Duke University Press.

Chowdhury, Hasan. 2018. Kent Police Stop Using Crime Predicting Software. *The Telegraph*, November 27. https://www.telegraph.co.uk/technology/2018/11/27/kent-police-stop-using-crime-predicting-software/ [accessed July 10, 2021].

Couldry, Nick. 2004. Theorising Media as Practice. Social Semiotics 14 (2): 115–132.

DeKeseredy, Walter, and Molly Dragiewicz. 2018. Critical Criminology: Past, Present, and Future. In *Routledge Handbook of Critical Criminology*, 2nd edition, edited by Walter S. DeKeseredy and Molly Dragiewicz, 1–12. New York: Routledge.

Dencik, Lina. 2019. Situating Practices in Datafication—from above and Below. In *Citizen Media and Practice: Currents, Connections, Challenges*, edited by Hilde C. Stephansen and Emiliano Treré, 243–255. New York: Routledge.

Egbert, Simon. 2019. Predictive Policing and the Platformization of Police Work. Surveillance & Society 17 (1/2): 83-88.

Egbert, Simon, and Matthias Leese. 2021. Criminal Futures: Predictive Policing and Everyday Police Work. London: Taylor & Francis.

Ethics Committee. 2020. Ethics Committee Minutes and Advice. West Midlands Police Crime Commissioner, January 17. https://www.westmidlands-pcc.gov.uk/wp-content/uploads/2020/02/17012020-EC-Minutes-and-Advice.pdf?x56534.

Etikan, Ilker, Sulaiman Abubakar Musa, and Rukayya Sunusi Alkassim. 2016. Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics* 5 (1): 1–4.

Ferguson, Andrew Guthrie. 2017. The Rise of Big Data Policing. New York: New York University Press.

Gandy, Oscar H. 2010. Engaging Rational Discrimination: Exploring Reasons for Placing Regulatory Constraints on Decision Support Systems. *Ethics and Information Technology* 12 (1): 29–42.

Gemeente Amsterdam. 2022. Informatie voor Top600. Gemeente Amsterdam. https://www.amsterdam.nl/wonen-leefomgeving/veiligheid/informatie-top600/ [accessed May 16, 2022].

Gibson, James J. 1979. The Theory of Affordances. In *The People, Place and Space Reader*, edited by Jen J. Gieseking, William Mangold, Cindi Katz, Setha Low, and Susan Saegert, 67–82. New York: Routledge.

Gürses, Seda, Rebekah Overdorf, and Ero Balsa. 2018. POTs: The Revolution Will Not Be Optimized? ArXiv Preprint. https://doi.org/10.48550/arXiv.1806.02711.

Haggerty, Kevin D., Dean Wilson, and Gavin JD Smith. 2011. Theorizing Surveillance in Crime Control. *Theoretical Criminology* 15 (3): 231–237.

- Harcourt, Bernard E. 2008. Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age. Chicago, IL: University of Chicago Press.
- Hardyns, Wim, and Anneleen Rummens. 2018. Predictive Policing as a New Tool for Law Enforcement? Recent Developments and Challenges. *European Journal on Criminal Policy and Research* 24 (3): 201–218.
- Henman, Paul. 2011. Conditional Citizenship? Electronic Networks and the New Conditionality in Public Policy. *Policy & Internet* 3 (3): 1–18.
- Hutchby, Ian. 2001. Technologies, Texts and Affordances. Sociology 35 (2): 441-456.
- Jackson, Jonathan, and Ben Bradford. 2009. Crime, Policing and Social Order: On the Expressive Nature of Public Confidence in Policing. *The British Journal of Sociology* 60 (3): 493–521.
- Jansen, Fieke. 2018. Data Driven Policing in the Context of Europe. Data Justice Lab. https://datajusticeproject.net/wp-content/uploads/sites/30/2019/05/Report-Data-Driven-Policing-EU.pdf.
- 2022. Top400: A Top-Down Crime Prevention Strategy in Amsterdam. Public Interest Litigation Project. https://pilpnjcm.nl/wp-content/uploads/2022/11/Top400 topdown-crime-prevention-Amsterdam v2.pdf.
- Jasanoff, Sheila, and Sang-Hyun Kim. 2015. Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power. Chicago, IL: University of Chicago Press.
- Kaufmann, Mareile, Simon Egbert, and Matthias Leese. 2019. Predictive Policing and the Politics of Patterns. *The British Journal of Criminology* 59 (3): 674–692.
- Lally, Nick. 2022. "It Makes Almost No Difference which Algorithm You Use": On the Modularity of Predictive Policing." *Urban Geography* 43 (9): 1437–1455.
- Leese, Matthias. 2022. Enacting Criminal Futures: Data Practices and Crime Prevention. Policing and Society 33 (3): 1-15.
- Lum, Kristian, and William Isaac. 2016. To Predict and Serve? In: Significance. Significance 13 (5): 14-19.
- Lyon, David. 2001. Surveillance Society: Monitoring Everyday Life. Buckingham, UK: Open University Press.
- ed. 2006. Theorizing Surveillance; The Panopticon and Beyond. Devon, UK: Willan Publishing.
- ——. 2007. Surveillance Studies: An Overview. Cambridge UK: Polity Press.
- McKechnie, Andrew. 2007. Beyond Barriers: A Critical Realist Perspective on Disability and the Meaning of the Dwelling. PhD Thesis, Cardiff University.
- McQuillan, Dan. 2022. Resisting AI: An Anti-Fascist Approach to Artificial Intelligence. Bristol, UK: Bristol University Press.
- Openbaar Ministerie. 2019. *Top 600 Aanpak*. Ministerie van Justitie en Veiligheid, October 8 https://www.om.nl/organisatie/arrondissementsparket-amsterdam/top-600 [accessed April 10, 2021].
- Patton, Michael Quinn. 2002. Qualitative Evaluation and Research Methods. Thousand Oaks, CA: SAGE Publications.
- Sandhu, Ajay, and Peter Fussey. 2021. The "Uberization of Policing"? How Police Negotiate and Operationalise Predictive Policing Technology. *Policing and Society* 31 (1): 66–81.
- Tongco, Marie D.C. 2007. Purposive Sampling as a Tool for Informant Selection. *Ethnobotany Research and Applications* 5: 147–158
- Van Brakel, Rosamunde. 2016. Pre-Emptive Big Data Surveillance and Its (Dis)Empowering Consequences: The Case of Predictive Policing. In *Exploring the Boundaries of Big Data*, edited by Bart Van der Sloot, Dennis Broeders, and Erik Schrijvers, 117–41. Amsterdam, NL: Amsterdam University Press.
- 2020a. Rethinking Predictive Policing: Towards a Holistic Framework of Democratic Algorithmic Surveillance. In *The Algorithmic Society Technology, Power, and Knowledge*, edited by Marc Schuilenburg and Rik Peeters, 104–118. Abingdon, UK: Routledge.
- 2020b. Een Reflectie over Het Huidig Toezicht van Het Gebruik van Surveilancetechnologie Door de Lokale Politie in België. *Cahiers Politiestudies* 55: 139–160.
- Van der Put, Claudia, Mark Assink, Anner Bindels, Geert J. Stams, and Sanne de Vries. 2013. Effectief Vroegtijdig Ingrijpen. Een Verkennend Onderzoek naar Effectief Vroegtijdig Ingrijpen ter Voorkoming van Ernstig Delinquent Gedrag. Amsterdam, NL: Ministerie van Veiligheid en Justitie.
- Van Dijck, Jose. 2014. Datafication, Dataism and Dataveillance: Big Data between Scientific Paradigm and Ideology. *Surveillance & Society* 12 (2): 197–208.
- Van Schendel, Sascha. 2019. Risk Profiling by Law Enforcement Agencies in the Big Data Era: Is There a Need for Transparency? In *Privacy and Identity Management. Fairness, Accountability, and Transparency in the Age of Big Data*, edited by Eleni Kosta, Jo Pierson, Daniel Slamanig, Simone Fischer-Hübner, and Stephan Krenn, 275–289. Cham, CH: Springer International Publishing.
- Wientjes, Jacqueline, Marc Delsing, Antonius Cillessen, Jan Janssens, and Ron Scholte. 2017. Identifying Potential Offenders on the Basis of Police Records: Development and Validation of the ProKid Risk Assessment Tool. *Journal of Criminological Research, Policy and Practice* 3 (4): 249–260.
- Williams, Patrick, and Becky Clarke. 2018. The Black Criminal Other as an Object of Social Control. *Social Sciences* 7 (11): https://www.mdpi.com/2076-0760/7/11/234.
- Williams, Patrick, and Eric Kind. 2019. Data-Driven Policing: The Hardwiring of Discriminatory Policing Practices Across Europe. European Network Against Racism (ENAR), November. https://www.enar-eu.org/IMG/pdf/data-driven-profiling-web-final.pdf [accessed October 12, 2022].
- Wimmer, Jeffrey, and Thorsten Quandt. 2007. Living in the Risk Society. Journalism Studies 7 (2): 336-347.