Intelligence-led policing and digital technologies

An ANT investigation into the analytical knowledge production of the Danish police

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Abstract

This thesis explores the prevailing approach to police work termed intelligence-led policing (ILP) and the role of digital tools such as the newly adopted platform Pol-Intel in the knowledge production within the Danish police. The investigation revolves around the analytical work of analysts employed in the intelligence and investigation units (EAE) in the police districts which are with ILP set out to play an increasingly role in the conduction of police work.

The thesis aims to investigate how ILP is enrolled throughout the Danish police from NEC to the EAE’s and to rest of the organization. Furthermore, it aims to investigate how digital tools play a role in the analytical knowledge production. It focuses on the construction of ILP as a more objective basis for deciding priorities and resource allocation when fighting crime. In order to investigate the production of knowledge, the study adopts ANT as a theoretical framework based in a reading of Bruno Latour. This approach allows to shed light on the role of the digital tools without limiting agency to humans. The investigation is carried out on the basis of three in-depth interviews with two analysts and a programme manager from the national police (NEC).

The first part of the analysis shows the extension of the ILP program throughout the actor-network constituting the Danish police and which claims that are tied to the program. It is analysed how the ILP program is challenged by anti-programs based in conflicting demands tied to existing actor-networks. The main challenge to the further enrolment of the ILP program is shown to lie within the political and public actors of the network who’s wishes and demands for rapid exercises of judgements clash with ILP. The second part of the analysis focuses on the digital tools used in ILP analyses. Based in empirical limitations, the study fails to give an explanation for exactly how the digital tools affect the knowledge production. However, the investigation led to a different outcome pointing at an inconsistency between the supported claim of ILP and the informants own reflections on their work. It is argued, that the ILP promise of data as ‘pure’ clashes with the informants own reflections on the subject describing data, and their own analytical work, as highly subjective.

Finally, the discussion is dedicated to the connection between increasing amounts of data and objectivity involving the work of Mikkel Flyverbom. It is argued, that how digital tools transform, sort and visualize information are of increasing importance when digital technologies are the eyes of the analyst and the gateways to the world.
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List of abbreviations in the Danish police
ILP: Intelligence-led policing
EAE: Investigation and intelligence unit
NEC: National center of intelligence
Introduction

Digital technologies and data take up an increasingly part of life and society in the 21. century. Within every domain we move through a day - it being social life, work, the media, business or politics - we use or encounter digital technologies with connection to the internet. Whereas digitalization has been an ongoing process in the past decades, this century is characterized by being ‘datafied’, meaning that massive streams of digital traces are produced on behalf of our actions every second (Flyverbom, 2019 :5). It is the running route of a jogger, the click’s at a website or the email correspondence at work that makes it possible for data analysts and algorithms to identify patterns of a specific individual or a population and predict, with varying certainty, their future actions (Zuboff, 2019). Big data, algorithms, artificial intelligence are the buzz words of the 21. century and data sharing, as argued by Flyverbom, promises that it can help us see everything and thereby understand, predict and command every event so that no bad behaviour takes place (Flyverbom, 2019: 13).

This digital development is present throughout the majority of societies, hereunder also within the national states and the public sectors. In Denmark, the political will for a highly developed digital society and public sector is emphasized with the establishment of The Agency of Digitization within the Ministry of Finance in 2011, aiming to modernize and digitalize the public sector in order to ensure high quality of welfare and efficiency. The massive investments in (new) digital platforms in public institutions in Denmark is a part of the transition towards a datafied society. For instance, the health care sector bought Sundhedsplatformen, the public school system bought Aula and the police bought the digital platform Pol-Intel in 2017 to ensure continuous efficiency and improved analytical work.

Beside the previously outlined general tendencies in the society towards digital solutions, the adoption of Pol-Intel exists in a broader context where police work, security politics and crime prevention is changing. For the police the digitalization leads to new ways and tools to fight crime, but also to potential risks to national security and unexpected crime scenarios. Cybercrime, cross border criminality and terror pose new threats to law and order and the way police practice has been for years. The last two decades a shift towards a
pre-crime society has been a noticeable tendency within criminal law, where potential acts are increasingly criminalized in the fight against terror and organised crime (Hestehave, 2016). In Denmark the (open) police has been granted extended authorities by law (Bandepakke I-II, Terrorpakke I-III) and these extended authorities and increasingly use of intelligence based methods changes the foundation of police work. Intelligence-led policing (ILP), is an overall term describing the new ways of conducting police work. To efficiently and effectively reduce crime in a more complex world, analytical units in Denmark (NEC & EAE’s) play an important part of analysing available data to ensure better informed decision-making. ILP and analytical work rely on data and are inseparably bound to the digitalization of the Danish police. This new prevailing approach to police work and the increasing use of digital technologies, such as Pol-Intel, raise questions to the analytical knowledge produced which effectively becomes the base of executive judgements within law enforcement.

Based in these outlined tendencies and the development in police work, it becomes imperative to investigate the ILP project in Denmark and the influence of digital technologies in the knowledge production in the analytical units. This will be done by asking the two following research questions:

**Research questions:**

- How is the intelligence-led policing program (ILP) enrolled in the organization through NEC and the EAE’s?
- How does the use of digital tools and platforms affect knowledge production in intelligence-led police work within the EAE’s?

Since intelligence-led policing is inseparable from the digitalization of the Danish police, the extension of the ILP program in Denmark is crucial to investigate before the study can return to the adopted technologies and their role in the knowledge production. Answering research questions of this kind requires an analytical frame that can elaborate on knowledge and how it is produced. At the heart of the work by Bruno Latour is his investigation into how knowledge is constructed and co-produced by many actors. The questions this thesis seeks to investigate are very similar to those asked by Latour and Actor-Network-Theory (ANT) offers an analytical frame that takes into account the role of
humans, objects and logics in a heterogeneous approach to the question of knowledge production. The thesis investigates the subject through three in-depth interviews with employees of the Danish police who all work as a part of the intelligence-led policing project. The analysis is divided in two parts and respectively investigates the two stated research questions. The two parts do not stand alone and the findings of the first part of the analysis constitutes the base for the second part.

Before beginning the inquiring into digital technologies and intelligence-led analyses in the Danish police, a reading guide will provide an overview of the proceeding work.
Reading guide

The first chapter will introduce ANT as the theoretical frame for the study and elaborate on the consequences it has on the investigation. The chapter serves as the first part of the methodological reflections and forms the base for the whole investigation.

Second chapter introduces the Danish police and the historical circumstances behind intelligence-led policing (ILP) needed to understand the research questions.

Third chapter gives a brief overview of the general tendencies in existing research on ILP and introduces the concept. The chapter revolves around Jerry Ratcliffe’s definition on ILP, but also draws on other literature with a focus on Danish research.

Chapter four presents a reading of selected work by Bruno Latour, which create the analytical frame for the analysis.

The fifth chapter forms the second part of the methodological reflections focusing on the empirical material and the research process. The use of Latour as a methodological frame to engage with the empirical material is outlined.

The sixth chapter analyses the extension of the ILP program in actor-network of the Danish police though NEC and the EAE’s. This part of the analysis answers the first research question.

Chapter seven present the second part of the analysis answering the second research question taking into account the digital tools used by the analysts. It is followed by a sub-conclusion concluding on both parts of the analysis.

The eight chapter discusses the main findings of the analysis. It begins with a few methodological reflections in relation to the second part of the research question and thereby discuss the claim of objectivity tied to the ILP claim and its relation to increasing data amounts.

The ninth chapter concludes on the investigation.
Methodology part one: Theoretical frame

The following section will present ANT as the theoretical frame and the epistemological point of departure for the thesis. The chapter functions as the underlying basis of the entire study and as the first part of the methodological considerations.

Introduction to Actor-Network-Theory (ANT)

In light of the research questions Actor-Network-Theory (ANT) is considered a fruitful theoretical frame, as it opens up for an investigation of the knowledge production in the police, placing the role of humans and digital tools side by side.

ANT is placed within the scientific field Science and Technology Studies (STS) and even though it is a relatively new branch to organizational studies it has been playing an increasing role the last decades. Today, it is a well-known and legitimate approach and is included as separate chapters in academic introductions to the field (Langstrup & Vikkelsø, 2014: 383). STS and ANT has especially within studies of technological developments in organizations been a popular approach (i.e. Shoshana Zuboff, Judith Wajcmann) opening up for technology as more than solely tools made by humans to improve work processes but also how the laptop, the mobile phone or the calendar app produces lived times and places. Agency is not limited to humans but is distributed by the associations between human and non-human objects. Therefore, it is central to study objects in their context of use without distinguishing between dichotomies as human/non-human, real/fake or theory/practice (Langstrup & Vikkelsø, 2014:385). What is deemed relevant and irrelevant is a construction and there is no definite truth; the truth is constructed through numerous actors mutual actions and negotiations. Following a constructed truth is to follow a network of actors, including materials or artefacts that has been established over time and can dismantle again (Langstrup & Vikkelsø, 2014: 385-386). The original research field of STS was the construction of the scientific core disciplines but developed to elucidate plenty of other fields, such as organizations (Czarniawska, 2011), gender structures (Haraway, 1991) or markets (Callon, 1998; MacKenzie, 2006).

In the late 1970´ties, anthropologists and sociologists started to take an interest in the question of how something gains the status as science and why certain theories and
technologies gain acknowledgement and adoption whilst others do not (Langstrup & Vikkelsø, 2014: 384). Science, technology and society was shown to be closely connected, and the work by Bruno Latour, John Law and Michel Callon showed that society does not exist detached from science and technology, but rather is forming these from within and is itself formed by it: “it is utterly impossible to delineate an outside border to the picture - in which only ‘context’ for science would be encountered - and an inside core - in which only ‘technical content’ would be produced” (Latour, 1987: 162). ANT is a minimalistic ontology seeking to presuppose as little as possible and is characterized by not having a definite system of concepts. Concepts and theories can be misleading and draw attention from the empirical study whereas ANT focusses on basic analytical principles which can shed light on the co-production of society, technology, nature and science without determining any of it objectively given in advance (Langstrup & Vikkelsø, 2014: 387).

For this thesis, ANT, in a reading of Bruno Latour, offers another starting point for the research of knowledge production within the Danish police allowing computers, IT-platforms, data analysis software and algorithms to play an equally important part of the construction of knowledge without supposing any a priori categories. It is a non-normative point of departure which, especially in relation to technology, is beneficial for this thesis, since subjects as big data, data logging or just computers and smartphones as an evidently part of work life, often is connected to positive or negative prior assumptions by the democratic conversation or the appliance of theories. Instead, a Latourian analysis allows to ask how humans and technologies work together and construct each other. This leads the way for an elaboration on the epistemological point of departure for this thesis and how the theoretical frame has influenced the work.

**Epistemological point of departure**

The study takes a phenomenological point of departure and aims at investigating the phenomenon knowledge production in ILP in the Danish police. Shortly one can summarise phenomenology as the science of that which appears, as it appears in our experience or consciousness (Jacobsen, Tanggaard & Brinkmann, 2015: 217). It has been put into practice in many different empirical research methods and can both be described as a school of thought, a method and a way of thinking. Central for this investigation is the understanding of phenomenology as an methodological approach, and though it practically
takes the departure point in experiences and conscious appearances of the phenomenon within the qualitative interviews, it does not necessarily give preference to the human actors as the only holders of agency.

Latour’s movement is initially phenomenological with the empirical driven analyses that follows the actors without presupposing or putting forward hypotheses. As will be returned to in the theoretical outline, Latour describes knowledge as an activity, gaining knowledge, and not an accurate presentation of reality. The aim of the empirical investigation is therefore not to uncover a truth, but rather to account for the experiences.

This thesis is founded on a constructivist perception of reality based in the reading of Latour. What we tend to take for granted, obvious or true are constructions that always could appear differently (Justesen & Mik-Meyer, 2010). This implies that there is no definite answer to the questions set out for the research, as reality will vary depending on which actors are enrolled by the researcher.

**Methodological limitations as a consequence of a Latourian frame**

Reading Latour and approaching ones empirical materials with Latour has its limitations. Latour’s framework can be totalitarian rejecting any other theoretical standpoint or methodology. It may as an example not capture elements of the empirical material which seems normative. It thereby risks diminishing empirical observations by the limitations to the analytical language.

As already mentioned, ANT seeks to set up few basic principles and despite Latour’s repeating attempts to provide guide lines in his books, which will be returned to in the chapter presenting the research outline, there are no answers to the scope of an ANT investigation. Where does the investigation start and when is the data collection sufficient? The research easily ends up drowned in the amount of empirical material. An ANT based study basically faces the same problems as any other phenomenological qualitative research (Brinkmann & Kvale, 2009: 105-16). The actors in the network are pinpointed as a result of interpretation of the empirical material, and therefore deeply dependent on the choice of informants. The outcome of an ANT analysis will thereby never be ‘representable’ or present a ‘valid’ conclusion in the terms of scientific methodological rules. Instead it will
offer a closely empirical analysis of the locally-contingent meanings connected to knowledge production through the stories of the informants.

In literature on phenomenological qualitative research, validity are dealt with as a question of transparency of the analysis making the researchers choices; i.e. theories, presuppositions and interpretations; visible and understandable (Brinkmann & Kvale, 2009: 248-256). In a Latourian perspective validity becomes a question of allowing the actors to be, “interested, active, disobedient” (Latour 2000, quoted in Brinkmann & Kvale, 2009: 244). ‘Validity’ will be obtained, if the study is included into an actor-network supporting a claim/program/constructed truth; as described by Latour in Science in action (1987).
Introduction to the Danish police and Pol-intel

The Danish police is a large and complex organization and the research questions are only meaningful in the light of the historical context. The following section will present a selection of relevant facts and information about the Danish police needed as background to the proceeding inquiry of this thesis.

Reforms and multi-annual agreements

In 2007 the Danish police was reformed and 54 police districts were merged into 12 districts (excluding Greenland and the Faroe Islands). One of the aims of the reform was to modernize the management structure of the police in accordance with New Public Management tendencies and the main focus became efficiency (Christensen, 2012). Up until 2019 the strategy from 2007 was overall contingent with only slight changes in politically prioritized tasks with an increasingly focus on analytical police work as the solution to a changing crime scene and efficiency (Aftale om politiets og anklagemyndighedens økonomi 2016-2019: 10, henceforth called the multi-annual agreement).

Every fourth year a new agreement for the police and prosecution service is negotiated between the government and supporting government parties. The agreement sets out budgets and overall strategic focuses. The current agreement, A strengthened police. A safer Denmark, is still valid and negotiations for the upcoming four years has been postponed to spring 2020. With the multi-annual agreement 2016-2019 the police became subject to ‘omprioriteringsbidraget’ and was thereby required to cutback expenses with 2 pct. annually. Despite the announced cost-reducing exercise, the political agreement decided to transfer a part of the cut backs back to the police in light of the increased national terror threat (Retsudvalget 2016-17, question 915).

A challenged police

Terror threats, cybercrime, economic criminality and border control are challenging the police. The organization now holds more than a million overtime hours and these numbers seem to keep growing. The border control, imposed in 2016 by the Danish government as a reaction to the refugee crisis where millions of migrants crossed European borders, has
been, and still is, a costly affair financially and personnel heavy. To take of pressure off the police personnel the home guard and military have been employed to assist at the border. A major reformation of the police officer education was abrupted and instead of improving the academic level of the institution like neighbouring countries, a new shorter education was established. The first educated police cadets were ready to support the border control in 2019. Despite criticism of the European Union, the Danish border control was prolonged in November 2019 with reference to the multiple explosions in Copenhagen which has been linked to Swedish criminal groups and therefore it is plausible that it continuously will draw heavily on police resources.

The latest threat assessment published by the Danish intelligence service (PET) still categorizes the terror threat as severe (PET, 2020). It has therefore been five years with a high degree of alertness after the terror attacks in February 2015 in Copenhagen. Terror prevention is the main argument legitimizing extra funding to the police, especially to PET, and is also one of the main arguments behind procurements of digital tools as described in the section about Pol-Intel.

Organizational structure and employees
The organization is hierarchically structured with the Danish National Police (Rigspolitiet) as the highest authority, setting the overall strategies and guidelines for the organization together with assisting the districts with information and specialized analytical power. During the last decade, cross-district specialized entities and task forces have increased in numbers as an answer to borderless crime and attempt to improve information sharing. The police is also strengthening public and private collaborations.

The Danish police employs approximately 17,000 people with only a minor increase since 2007 (Politi 2019c). There has been a development in the composition of employees: in 2007, 75% of employees had a police officer education and in 2019 the number was 67%. The largest staff increase has been within administrative/clerical trained staff. The development has especially been noticeable within the national police, Rigspolitiet. In January 2020, it was announced by the Ministry of Justice that the national police had grown too big and that 240 civil employees will be dismissed during the year, including a undefined number of civil employees in one of the districts. Even though the civil
employees are the center of this thesis, this development is not further accounted for in order to limit the scope of the thesis and since it is still unknown which consequences it will have for the work of the police.

**NEC and EAE**

The National Investigation Center (NEC) and the districts’ intelligence and analytical units (EAE) are central to the analytical power in the police and is also the place of employment of two of the informants forming the empirical basis for this thesis. NEC was established in 1998 and is part of the national police. The aim of the center was to investigate organized gangs, support the local districts and it was in charge of the European collaboration (Hestehave, 2016: 171-172). Today, the entity still supports the districts in cases that involves organized crime or international related crimes and is the link to international criminal investigations. Furthermore, NEC holds the task of national crime prevention. In 2012, the first intelligence-led policing projects saw its daylight within NEC and is still coordinated from the center. Every police district has since 2013 had an EAE who, besides helping out with ad hoc tasks, conducts risk assessments and researches and provides analyses of crime developments within the district.

**Pol-Intel**

In 2017, the Danish parliament passed a bill allowing the purchase of a digital police platform which later was named Pol-Intel. The same year, a personal data protection regulation for law enforcement together with a departmental order regulating cross-department police work and use of personal data were adopted. The background for the platform is to be found in a selection of recommendations stated in a report evaluating the terror attacks in February 2015. It is also a part of the multi-annual agreement 2016-2019 where further implementation of intelligence-led policing is emphasized as a way to improve efficiency.

Danish police must ensure our safety and security, which is why it is crucial that the police have modern tools and working conditions so that they quickly can catch criminals and purposively prevent crime. With the new analysis platform, we strengthen the police’s opportunities of, among other things, resolving cases of IT crime and other complicated cases of e.g. gang crime and financial crime (Justitsministeriet, 2017).
Besides terror prevention, a wish for optimization and improved efficiency legitimized the purchase of Pol-Intel. The goal, formulated by the deputy assistant national commissioner Ole Andersen, is to go “from 80 % data collection and 20 % analysis to 20 % data collection and 80 % analysis” (Andersen, 2018). It has not been possible to gain access to the evaluation of Pol-Intel 2019 for the purpose of this thesis.

Pol-Intel is a solution developed by the American private company Palantir, who delivers different solutions and tools for law enforcement and intelligence services all around the world - to private as well as public organizations. Palantir incorporate big data technology and machine learning elements together with a cloud based data storage. Pol-Intel enables the police to cross reference information across databases and connected 14 databases in 2018. Publicly stated, the digital platform enables the police to:

- to get an overview of large amount of data – structured and unstructured – by use of graphs, relations diagrams and maps,
- to perform multiple forms of operative and strategic analyses based in data from several data sources,
- to share and collaborate data and analyses across districts and entities,
- to purposely sustain legal requirements to protection of data (Andersen, 2018).

Only selected employees have access to the complete platform and there is a high control of user behaviour, tracking every click and search on the platform. It is possible to grant limited access to certain employees, i.e. as a part of a time limited project or access limited as a part of a job function.
Illustration of Pol-Intel and the databases:

**DATAKILDER TIL POL-INTEL**

The illustration was presented as a part of a PowerPoint slide at a public speaking by Ole Andersen at the University of Copenhagen, 2018.

Before proceeding to the existing theoretical perspectives on ILP, the following timeline is created to provide an overview of the central developments and changes for ILP as described in this chapter.

**Timeline**

**2007:** The major police reform restructuring the Danish police.

**2012:** Evaluation of analytical work concludes that further initiatives are needed for the police to implement analytical police work.

**2013:** Establishment of EAE’s in every police district.

**2016:** Creation of FFA, the first analytical community and the first ECAC conference, European Crime Analysis Conference, was held in Copenhagen. It is organized by NEC in collaboration with Europol.

**2017:** Pol-Intel is implemented.

**2018:** Analytical and intelligence doctrine was published by NEC to ensure consistency across police districts.
Existing theoretical perspectives on ILP

Policing as a field has changed dramatically over the years and so has the access for academic research. There is no tradition for academic research within the police and policing in Denmark much unlike the neighbouring country Norway, where the Norwegian Police University College, Politihøgskolen, has, besides of educating police officers, conducted research for years as a recognized academic institution. The field of research is therefore medley and has in a Danish context taken place within many academic disciplines, i.e. security studies, psychological studies and political science studies. The following section is far from an exhaustive review of research conducted on the subject, but seeks to outline a selection of general tendencies and introduce the reader to intelligence-led policing.

A shift in practice

Law enforcement has undergone a fundamental shift in practice during the last two decades from a traditional reactive and responsive strategy to a more proactive and preventive strategy (Ratcliffe, Tjalve, Petersen, Rønn). The new strategy aims at making policing more efficient and effective through better informed decision-making. Smart policing, evidence-based policing, problem-oriented policing, intelligence-led policing etc. are only some of the terms used to describe the development in policing. In search for a joint definition on the paradigm in policing, these terms all define methods striving at using police resources more intelligent and efficient using qualified knowledge to secure an evidence-based police practice (Hestehave, 2016: 161). Within international writings there has been published numerous articles and books on the historical development of the police force and intelligence services along with their changing role, ethical implications, and organizational difficulties with implementation of ILP (Ratcliffe, Pine and Gilmore, John Eck, Sherman Kent). More recently, a larger empirical case study (Gemke et al. 2019) searched to identify key enablers to a successful implementation of ILP within different police departments in the Netherlands.

This thesis stands on the shoulders of Jerry Ratcliffe’s definition on ILP, since his work is frequently quoted within the existing research on the subject. Ratcliffe is an international
protagonist for ILP and has been travelling around the world helping police implementing ILP, and the Danish ILP program is highly inspired by his interpretation of ILP.

**Defining ILP**

As a fundamental part of police work, crime analysis was introduced in the end of the twentieth century. Inspired by strict scientific methods, as seen in medicine or management studies (Sherman, 1998:2), the new standards of policing focused on potential criminality, specific suspects and to prevent crimes from happening. Crime analysis replaced the ‘fire brigade’ police model, which was characterized by a focus on rapid, reactive responses to crimes, visibility in public space and random patrolling across areas of responsibility (Ratcliffe 2016: 14, 20).

There has been many attempts to define intelligence-led policing. Depending on the author, the historical context of the word *intelligence* is given the status as more or less important. A. Diderichsen researches within a Danish context and problematizes the implications of ILP without acknowledgement of the adversarial intelligence background (2019). Similarly, the work of V. S. Tjalve and K. L. Petersen problematize the extension of intelligence network to the civic population in a digital age as a democratic threat to society. In multiple cases, the civil population is made necessary as cocreators of the knowledge behind the security policy by partnerships, data collection and data production (Petersen, 2016: 143). In civic partnerships, the representability is not questioned and whether data, knowledge and assessments are representable for the population remains unanswered (Petersen, 2016: 156-157).

At this moment, there is still no definite definition of intelligence and it is, as a term, today used in various contexts, e.g. in business intelligence departments in companies, espionage and risk analyses. Intelligence is no longer exclusively referring to military and police forces and therefore Rønn argues that one has to investigate it in the light of the specific circumstances (Rønn, 2016: 21). Ratcliffe disclaims ILP’s connection to its military roots by arguing that the concept has evolved from a crime reduction tool to a business model or a managerial philosophy (Rønn, 2016: 6). Ratcliffe defines ILP as:
Intelligence-led policing emphasizes analysis and intelligence as pivotal to an objective, decision-making framework that prioritizes crime hot spots, repeat victims, prolific offenders and criminal groups. It facilitates crime and harm reduction, disruption and prevention through strategic and tactical management, deployment, and enforcement (Ratcliffe 2016: 66).

By conducting advanced intelligence analysis the method holds out the promise of objectivity behind decision-making and efficient use of resources combined with a broader focus on predicting and preventing crime within society.

**Action products**

Ratcliffe describes intelligence products as action products or actionable knowledge (Ratcliffe, 2016: 98). Where knowledge products can generate understanding, intelligence generates action (or are supposed to). Ratcliffe seeks to conceptualize the method with the 3-I model, “The crime intelligence analyst must interpret the criminal environment, the analyst must then use the intelligence to influence the thinking of decision-makers, and decision-makers must direct resources effectively in order to have a positive impact on the criminal environment” (Ratcliffe, 2016: 112). It differentiates from investigation case support and statistical accounts, as the analyst need to make recommendations (Ratcliffe, 2016: 111). In short, intelligence products are characterized by being processed, interpreted and future-oriented and ILP is foremost a method.

This description is a part of that shift in intelligence-work, as identified by Tjalve & Petersen. Instead of discussing methods to collect information the focus is moved to the analysis conducted by police analysts (Petersen & Tjalve, 2018: 16). Collecting information is seen as objective, politically neutral and by working by scientifically methods, choices and decisions are legitimised as based in facts and technique and thereby non-political (Petersen & Tjalve, 2018: 18). Methodological rules become the democratic control and demarcate the limits of the organization.
Challenges to ILP

Ratcliffe identifies multiple challenges to the implementation of ILP, but in a Danish context Nadja Hestehave has conducted the most thoroughly work on implementation of intelligence-led police work. Hestehave identifies a gap between policy level and practical level (Hestehave: 2016: 173). “Theoretical thinking is traditionally seen as a hinder for action, and the culture is partly dominated by rewarding a mechanical-intuitive thinking, where quick solutions, experience-based knowledge and decisions based in gut feelings is in opposition to academic discussions, where things are unnecessarily complicated” (Hestehave, 2016: 174-175). The traditional work of a police officer is to reduce complexity in contrast to the analytical police work.

Sharing information and knowledge is central for ILP work (Ratcliffe 2016), but as Hestehave identifies, organizational structures, such as hierarchical structure, top-down decision making and cultural differences between entities that makes horizontal sharing of knowledge difficult, challenge knowledge-sharing (Hestehave, 2016: 177). External political management is also identified as a challenge with demands of a more visible police force conflicting with a wish for complicated, costly crime analyses to solve i.e. organized crime and financial crime.

Another identified and repeated challenge is the general understanding between front officers, that the work of a skilled investigator isn’t possible to be taught in a class room, but only in practice. It’s claimed that the good investigator is someone with a special skill to detect things, a great ‘police nose’ (Hestehave, 2016: 175-176). It becomes a clash between the traditional educational structure, where apprenticeship and peer-to-peer training are an important source of knowledge, and the academic learning required to do data analyses.

This research outline and introduction to the ILP concept based in the work by Jerry Ratcliffe will serve as a reference point for the entire investigation. The following chapter will present a reading of Bruno Latour, which forms the theoretical frame for the study, before turning to the empirical part of the investigation.
Theoretical outline: Bruno Latour

The following chapter will present a reading of selected writings by Bruno Latour and the use of ANT as an analytical approach to the empirical data.

Actor-network-theory
Through his many works, Bruno Latour has challenged the dominating social theories, scientific ‘truths’, common sense and the role of the scientist. In opposition to a reductionist approach - which was the dominating approach in science in the late 20. century where Latour amongst others started his work - Latour does not view society as a domain which exist detached from science, technology and nature. Instead, the social is produced by nature, technology and science but also produces these from within. ANT, actor-network-theory, is a minimalist methodological frame to approach empirical investigations, engaging how technologies, humans, narratives, things etc. all relate to one another in networks of relations constructing each other. ANT is a non-essentialist theory aiming at tracing actors’ associations and disassociations along with how these constitutes the social in unstable and shifting networks. The social is not given, but a “type of connection between things that are not themselves social” (Latour, 2005: 5). Thereby, an existence of a social context, a social domain or a social reality which is ontologically ‘there’ is rejected (Latour, 2005: 37). ANT is described as radical constructivism where every action, relation or event could have happened another way. Latour differentiates it from social constructivism which takes the social domain as searching point for a construction of meaning:

When we say that a fact is constructed, we simply mean that we account for the solid objective reality by mobilizing various entities whose assemblage could fail; 'social constructivism' means, on the other hand, that we replace what this reality is made of with some other stuff, the social in which it is 'really' built (Latour, 2005: 91).

Summing up, ANT does not search for the true ‘meaning’, the hidden agendas of actors or the ‘real’ essence of an entity, but seeks to follow how the actors themselves construct and de-construct facts, groups, organizations or societies.
It offers fundamentals principles on how to study the co-production of society, nature, technology and science. Following concepts or one model or a theory does not allow one to analyse all unstable and shifting frames of references (Latour, 2005: 24). For the analytical investigation, this imply that one should restrain from the use of abstract concepts claiming connections, consistencies or conditions, explaining why actors act in a certain way. Following this, actors are more than mere informers (Latour, 2005: 4) and the work of scientists’ is not to explain the behaviour of actors, but to follow them freely in their associations and describe these from the observer’s point of view, without judging the observed actions, thoughts or relations as good or bad (Latour, 1987: 205). The method of ANT is by Latour himself described as slow moving, following the actors wherever they go by tracing associations between controversies instead of trying to settle one, “we won’t try to discipline you, to make you fit into our categories; we will let you deploy your own worlds, and only later will we ask you to explain how you came about settling them” (Latour, 2005: 23).

Symmetry
To ensure a constructivist analysis, one of the basic principles of ANT is that of symmetry. Instead of distinguishing between theory and practice, non-human and human, true or fake, nature or technology, a symmetrical approach treats every entity the same without presupposing differences and contradictions within the studied domain, “to be symmetric, for us, simply means not to impose a priori some spurious asymmetry among human intentional action and a material world of causal relations” (Latour, 2005: 76). This allows for an analysis where every actor, also the printer, phone or chair at the office space, has to be treated on equal terms.

Network
The term network has caused misunderstandings and Latour underlines that, “network is not a concept, not a thing out there. It is a tool to help describe something, not what is being described” (Latour, 2005: 131). Network is a description of the continuous relations between entities, and is, as i.e. the social, of a performative definition meaning that entities need to break up relations and attach new ones to remain (Latour, 2005: 34). These chains leave no stable or established component, “that can be used as an incontrovertible starting point” (Latour, 2005: 29). Therefore, the search for traces of these associations
and disassociations between entities need to start in the outplaying controversies where the connections are visible, where no facts yet has been black boxed and where objects still are visible.

**Actor**

Latour uses the terms *actor* or *entity* synonymously. Throughout this thesis, the use of actor or entity will refer back to ANT’ extension of actors to, “*any thing that does modify a state of affairs by making a difference is an actor – or, if it has no figuration yet, an actant*” (Latour, 2005: 71). Thereby, objects, concepts and also texts are actors as well as humans are actors. They have intentions and are capable of changing the acts and behaviour of other actors. Humans are placed side by side with non-human actors in a heterogeneous network. Latour does not conclude on ontological matters in this regard on causalities, but argues that neither things nor humans do things instead of the other (Latour, 2005: 72). Actors are “*participants in the course of actions*” (Latour, 2005: 71) and acts on others or is made to act by another. The hammer *hits* nails on the head, the sign *guides you* to go left and not right or the speed bump *forces you* to slow down, and though, the actor is not, “*the source of an action but the moving target of a vast array of entities swarming toward it*” (Latour, 2005: 46). Latour refers to Serre’s concept *quasi-objects*; the action is only in relation to other actors, making those acts. The figuration of the actant, a term borrowed from semiotics, is by itself nothing of importance, and therefore being a human or a ball as choice of figuration says by itself nothing about the action. Actors are put to existence when acting:

> Things, quasi-objects, and attachments are the real center of the social world, not the agent, person, member or participant – nor is it society or its avatars (...) Social is not a place, a thing, a domain, or a kind of stuff but a provisional movement of new associations (Latour, 2005: 238).

The agency is with the quasi-object (or quasi-subject), in the heterogeneous associations, the actor-network. Instead of using the term actor, Latour designates, “*an actor-network is what is made to act by a large star-shaped web of mediators flowing in and out of it*” (Latour, 2005: 217).
According to Latour, there are two ways of viewing actors. As intermediaries, that “is what transports meaning or force without transformation: defining its input is enough to define its output” (Latour, 2005: 39) or as complex mediators, that “transform, translate, distort, and modify the meaning of the elements they are supposed to carry” (Latour, 2005: 39). Depending on how the actor is viewed an analysis of a network will have different outcomes. Many more actors can be mediators even though they do not look like one, i.e. a computer at a work place can be changing and creating the work of the user rather than only being a tool that simply optimizes a process.

Latour highlights objects to play an important role: Technology Is Society Made Durable (1990) is not only the title of an article by Latour following innovations and their development but also a key point to understand the importance of objects’ role in our society. Humans and animals need “in order to stabilize society... to bring into play associations that last longer than the interactions that formed them” (Latour & Callon, 1981: 283). Stability and durability are honoured to objects which make relations stable and allow when to be extended in time and place. Examples can be: city walls separating a city from the outside; laws regulating behaviour of the citizens; or picking up the telephone which connects one to multiple other places and time. Things are making associations durable, lasting, “whenever we discover a stable social relation, it is the introduction of some non-humans that accounts for this relative durability” (Latour, 1990: 111), but objects quickly turn from mediators to intermediaries, hiding their role. The object is only visible as long as it act and after that, “they remain silent and are no longer actors; they remain, literally, unaccountable (...) objects” (Latour, 2005: 79). That is why the search for traces should start in the outplaying controversies where associations between actors become traceable.

**Construction of facts and translation**

In Science in Action (1987), Latour begins his inquiry into the production of facts by asking: ‘What happens if someone believes a statement or not?’.

Every fact is constructed in a process of controversies where different actors fight to define reality by convincing or forcing others to believe in their statement and thereby making it into a fact. The statement, the claim, is confirmed every time others refer to the claim as a
fact. If someone challenges the claim, the fact-builder needs to enrol allies, adding other resources. Within the scientific literature, which Latour uses as a starting point in his investigation, allies could be a reference to an academic journal like Science, co-authors or other articles that supports the original claim. Regarding how many allies, where a reference to an acknowledged academic journal is strong one,

(...) the fate of the statement, that is the decision about whether it is a fact or a fiction (...) depends on later statements. (...) Who is right? Whom should you believe? The answer to this question is not of any one of the statements, but in what everyone is going to do with them later on” (Latour, 1987: 27-28).

The fact-builder wants others to support the fact, but there is a cost: The original statement will continuously be changed by the others picking it up. ANT terms this process translation. It describes the chain of transformations of the original statement when others are mobilized and the network is extended. Since it is ultimately the others controlling the fate of the statement, the fact-builder wants to hinder the allies in transforming it beyond recognition, and the difficulty of the fact-builder is to simultaneously, “enrol others so that they participate in the construction of the fact [and] to control their behaviour in order to make their actions more predictable” (Latour, 1987: 108).

The translation process, the transformation of the transported, characterizes the relation between any actor-network and is met by resistance. Groups are competing with anti-groups, every laboratory is a counter-laboratory competing with the existing laboratories and every program of action, i.e. an organizational strategy which the management tries to implement is challenged by anti-programs. The manager, the spokesperson of the program, can load the statement depending on the employees resistance and the program gets more complicated as it respond to the anti-programs (Latour, 1990: 105). The spokesperson looks to define the program, to “make the group boundary hold against the contradictory pressures of all the competing anti-groups that threaten to dissolve it” (Latour, 2005: 33) and do so by i.e. referring to law, culture, nature or tradition.

The statement only becomes predictable when most of the anti-programs are counted for, which means that there are not that many more translations ahead, most employees
behave as wanted and when the manager accepts that a full implementation will never be possible (Latour, 1990: 105).

“The construction of facts, like a game of rugby, is thus a collective process” (Latour, 2005: 104), and to trace the translation one needs to ask firstly, who is responsible? and secondly, what is the object being translated?. An analysis should therefore follow the hands that transport the statement and the transformation undergone by the statement simultaneously.

Inscriptions and inscription devices
The production of facts has until now been described as a social process where actors and science co-produces each other. But technologies play an important role as well in distributing, stabilizing and making the fact durable. Inscription devices are one of the important objects visualizing. It is defined as, “any item of apparatus or particular configuration of such item which can transform a substance into a figure or diagram which is directly usable by one of the members of the office space” (Latour & Woolgar 1986: 51). As in the laboratory, where i.e. a Geiger counter transforms a physical phenomenon to a graph that can be distributed to the public, a statistical software, program produces one graph summing up hundreds of pollsters, is an inscription device. There are often multiple actors involved in the stages of fact building before the inscription device and thereby it is not enough only to ask what is represented, but also to ask how the representation is produced or manufactured through many stages of inscription. Inscription is the process of communicating the agency, making it into information that can be transported. Hence, a text or a drawing is an inscription.

Black boxes
If the fact builder is successful in enrolling and controlling others and expanding the network, the statement is turned into a fact, black boxed (Latour, 2005: 121). Black box are ANT’s term for ‘established’ facts, that are referred to without questioning. They often include what would be explained as common knowledge, “that which no longer needs to be reconsidered, those things whose content have become a matter of indifference. The more elements one can place in black boxes – modes of thoughts, habits, forces, and objects – the broader the construction can raise” (Latour, 1981: 285). The black boxes simplify the
social world, all the translations behind, and i.e. leaves the secretary to use a phone as a mere tool during the workday without having to question the material of it, where it has been produced, which events has taken place for it to be designed etc. By using the phone without questioning one confirms the event over and over again, but “this event does not make it qualitative different from fiction; a fact is what is collectively stabilized from the midst of controversies. (...) The original discovery will become tacit knowledge” (Latour, 1987: 42-43). The longer the arguments, the more is included in the black box. When we accept or ‘buy the argument’, “buying a machine without question or believing a fact without question has the same consequence: it strengthens the case of whatever is bought or delivered, it makes it more of a black box” (Latour, 1987: 29). But even the darkest black box, i.e. a paradigm such as 1700s believe that the earth was flat, needs maintenance to exist and can be challenged and changed. A part of the black box is maintained by all the people behind the product, making it run (salespersons, people repairing and so on) (Latour, 1987: 137), but the darker the box becomes the more allies are needed to hold in check. Machines make use of others forces and are “where borrowed forces keep one another in check so that none can fly away from the group. This makes a machine different from a tool which is a single element held directly in the hand of a man or a woman” (Latour, 1987: 129). Latour uses the example of a pestle which is a tool in the hands of a human, and the windmill, which is a machine, properly build keeping the wind and the allies in line. “If revolving windmills cannot do the job alone, then one can make it illegal to grind corn at home. It the new laws does not work immediately, use fashion or taste, anything that will habituate people to the mill and forget their pestles” (Latour, 1987: 129). To keep recruiting and maintaining, the machine has to become more complex. Automatism is brought into play and makes the complexity complete. A smoothly and reliable automaton insures automatically the alignment of allies. Latour extends his former definition of a black box from a well-established fact to when many elements are made to acts as one (Latour, 1987: 131).

**Power relations**

To mobilize an actor-network, create a black box, and then maintain it through enlisting the greatest number of durable materials is the explanation of power differences between a macro-actor and a micro-actor in ANT. To gain power is a question of constructing facts,
and mobilizing and controlling the largest actor-networks through translation described as;

(...) all the negotiations, intrigues, calculations, acts of persuasion and violence, thanks to which an actor or force takes, or causes to be conferred on itself, authority to speak or act on behalf of the another actor or force... whenever an actor speaks of ‘us’, s/he is translating other actors into a single will, for which s/he becomes spirit and spokesman (Latour & Callon, 1981: 279).

The controversies between scientists, societies and groups are a trial of strength: To turn the other’s claim into a subjective opinion so that they are no longer the spokesperson for the many, no longer Mr. Manybodies, but only Mr. Anybody (Latour, 1987: 78, 83).

A thing, like the example of an electrical car, only becomes ‘real’ when the micro-actors that was approached and mobilized by the macro-actor make it real by believing, following and supporting the network of elements, following the will of the macro-actor (Latour, 1981: 289). What is deemed ‘truth’, seen as ‘the real’, is thereby a construction of a huge network of relations across domains and actors. Knowledge is reserved the scientists, the macro-actor, and beliefs to the micro-actor, who’s opinion simply is subjective in opposition to the objective knowledge, “we now get on one hand beliefs about the weather, and, on the other, knowledge of this weather” (Latour, 1987: 182). What is deemed irrational or rational is by ANT another dichotomy which does not exist but is a dominating actor-network.

**Oligopticons and panoramas**

Actors gain knowledge by becoming familiar with things, people and events which are distant, “we start knowing something when it is at least the second time we encounter it” (Latour, 1987: 219). Producing knowledge is therefore a process of accumulation, which allows one point to become a point of reference for others, i.e. the meteorologists defining the weather. Latour calls these sites, which produces the strongest scientific facts centres of calculation or oligopticons. The centres of calculation is a term reserved for these distant points actually calculating and Latour finds a new generic term for sites connecting local sites, oligopticons, but their features are described as the same. The oligopticon is the
control room which by distance commands the many connected actors. It gathers traces and information from myriads of actors. Information is only the form of something (an opinion, an action, a thought), not the materiality itself, but it is turned into knowledge in the centres with the help of inscriptions devices and mathematical tools, such as equations and algorithms.

The term oligopticon is a reference to Michel Foucault’s work on Jeremy Bentham’s prison, the panopticon. The panopticon is an image of an all-seeing power, allowing the few to control the many. The surveillance is not the goal in itself but aims to make the ‘prisoners’ self-discipline by the consciousness of the all-seeing panopticon. The oligopticons are not panopticons, which according to Latour does not exist, though they from the outside sometimes look like ones. The oligopticon’s view is accurate but in comparison to panopticons narrow and unstable. The view and the work of the oligopticon rely on the continuous accumulation of information from the mesh of connected, but dislocated actors. It does not only store a lot of data, it also has to sort relevant information from irrelevant in the massive amounts of traces to avoid drowning in information. Numbers become a way of sorting and selecting the many traces, “to summaries, to totalize – as the name ‘total’ indicates – to bring together elements which are, nevertheless, not there” (Latour, 1987: 234). There is no limit to the nth order inscription or the rewriting or re-representation of the information gathered and, “you may obtain nth order forms that are combined with other nth order forms coming from completely different regions” (Latour, 1987: 243). Summarizing, the view of the oligopticon is unstable, because it is a result of others, and it is narrow, because of the selection and manipulation of data. The inscription devices play a leading role by translating the material to inscriptions, which allows the information to be specific and controllable on one scale.

Oligopticons are not only produced by the administrative sciences, such as economics, politics, sociology or management, but is also used by Latour to describe the administrative unit, planning lectures, time schedules, classrooms, and numbers of students in which class at an university or urban planning offices, where civil servants plans roads, tunnels, light crosses, busses, signs and pedestrian lines orchestrating the public transport (Latour & Hermant, 2006). It is the same mechanism used to stabilize society whichever oligopticon one are looking at, “calibrating inscription devices, focusing
the controversies on the final visual display, obtaining the resources necessary for the upkeep of the instruments, building nth order theories on the archived records” (Latour, 1987: 256).

Latour terms general narratives as capitalism, risk society or globalism panoramas. They, “see everything. But they also see nothing since they simply show an image painted (or projected) on the tiny wall of a room fully closed to the outside” (Latour, 2005: 187). Panorama, as a term, is primarily used by Latour as a critique of sociologists and other scientists, who seek to explain the underlying structure behind human life: I.e. if a student fails an exam, the scientist maybe explains it as an outcome of negative social legacy because the student grew up with less educated parents, instead of searching for all relations the student had relating to education. ANT would not write off that the parents’ education level may have an influence on the students ability to pass an exam, but it problematizes that it is only one of the many relations forming the student. Panoramas are misleading, when they are seen as an accurate description of the common world (Latour, 2005: 189-190). When actors try to frame their interactions into such a context as social legacy, a panorama, one should ask where it is shown, through which optics it is projected and to which audience it is addressed. And when an actor refers to underlying structures, such as organizational culture, one should ask where it has been manufactured and by which institutions and which places.
Methodology part two: Research outline

The following chapter presents the research process and the methodological considerations and choices made in order to investigate the research questions of this thesis. The empirical material for the thesis is three in-dept interviews.

The research process

An ANT analysis is a demanding process and with a humorous tone of speech Latour himself compares it to the tiresome work of an ant. The researcher has to be just as meticulous as the ant, following the actors whichever direction they go. With all actors connected in actor-networks, it is a challenging empirical affair to determine which actors to follow and take into account. How to follow them, where the investigation starts and end and when the empirical material is sufficient.

In practice, it is impossible to open all black boxes at once and despite the ideal of a symmetrical approach to all actors, there will be a difference in the attained knowledge depending on the starting point of the analysis. Within the limits of a master thesis, these questions do not become easier. In the beginning of the research process, a fair amount of time was therefore spend familiarizing with the police and the concept of ILP through literature, newspapers and studies. Also informal conversations with former employees, lectors on the subject and working analysts helped to shape and lead the study. The preliminary interviews provided knowledge of the lingo in the police and the organizational structure within an organization that is hard to depict from the outside.

The present investigation takes its starting point in the informants and follows the actor-network by the associations and disassociations mentioned. Certain actors are not accounted for, either because they were only mentioned by one informant or poorly described.

The qualitative interview was chosen as the best way to obtain knowledge about the police, the phenomenon intelligence-led policing and its connection to digital tools within the limitations set by time and availability. The qualitative interview with a phenomenological approach, as elaborated in the first part of the methodology, searches to, “understand a social phenomenon from the actors’ own perspectives and describing the world as
experienced by the subjects, with the assumption that the important reality is what people perceive it to be” (Brinkmann & Kvale, 2009: 30). The interviews do not seek to uncover a truth or the phenomenon in itself, but to investigate how the informants’ associations construct the phenomenon.

**Availability**

The police is a difficult organization to enter from the outside and any request made through official channels for this thesis was denied. Without the help from a personal relation employed in the national police and another contact made possible by a reference from Kira Vrist Rønn, lector and former employee in the national police, the interviews had not been possible to conduct.

The police is subject to strict regulations regarding duty of confidentiality and the study needed approval by the data protection unit in the national police before any interviews could take place. Throughout the entire process, the personal contact helped by making calls and passing on information about who to contact. Since the study did not request any access to data or work by the analysts, the application was approved after three weeks.

The specific circumstances caused by the politically announced cost-cutting exercise in the beginning of the current year challenged the research process. It slowed down the process by being targeted at exactly the subjects of this investigation and for a month the organization was more or less in chock, unable to respond to research requests. The first appointed interview ended up being cancelled, as the person unfortunately was dismissed in the round of job-cuts. Shortly after the job cuts, appointments fell into place by the help of employees eager to help once inside.

Given the difficult process, it is pertinent to ask whether it turned out to be the right respondents to interview. The informants all worked as a part of the ILP program and were familiar with Pol-Intel or some of the other digital tools. Both of the two analysts were employed in 2013, and had therefore been a part of the establishment of the EAE’s and the enrolment of the ILP program in the organization. This allowed for many inside facts about the development in a highly complex organization. The ILP program manager is presumably the most knowing person about the project in a Danish context. It is inevitable
that different responders would had let to another outcome when founded in a phenomenological and constructivist approach, but referring to the former outline of the informants, the study concludes that the circumstances hasn’t had a negative influence on the produced knowledge at last.

**The qualitative interviews**

The research design is structured around Brinkmann and Kvale’s seven stages of an interview inquiry (2009: 128-129) and the three interviews were planned to be semi-structured with an explorative approach, leaving the informants unfolding associations to guide the interviews.

The three interviews aimed to enlighten the phenomenon from different angles. The interview with the ILP project manager in the Danish national police, henceforth called IP1, was conducted to acquire expert and insight knowledge on the subject, since the publicly available information is very sparse. Whereas the ILP program is led from the national police, the EAE’s in each district are responsible for implementing the program across the country and therefore two interviews were conducted with analysts, called IP2 and IP3, from two different districts. The interviewees represent two different levels in the organization which made it possible to analyse the organizational development and enrolment of ILP from more than one angle. IP1 holds a police officer education and a master in political science, whereas IP2 and IP3 hold an academic degree within sociology. They have all been employed for six years as a minimum.

One of the analysts had voluntarily resigned in light of the cost cutting exercise as briefly mentioned in the introduction to the case. Though, it could have had an implication on the interview, it has been considered that it did not, since the informant described the work as an analyst generally reflecting the other interviews.

With the ANT perspective, the study is conscious of the fact that the qualitative interviews take the experiences and thoughts of the informants as a starting point. Thereby, it is also limited to the view of human actors, and it makes it difficult to depict whether there are certain relations, i.e. parts of the design of an digital platform, that the informants do not
themselves think of, but simply use. It challenges the investigations precision regarding non-human actors, which will be further elaborated in the discussion.

The informants are all ILP advocates and retrospectively it would have been beneficial for the investigation to interview an opponent to the ILP program, who could have elaborated on the counter-claims analysed only from the perspective of the informants.

**Interview guides**
The interview guide was structured around five research questions that led to numerous interview questions and possible follow-up questions. Overall it was structured in two parts, where the first part sought to make the informants describe their daily work life and their use of, and thoughts on, digital tools in relation to the ILP analyses. In the second part, the informants were asked to reflect on broader questions that sought to clarify concepts like information, data and knowledge. The interview guides were only slightly modified for the different interviews to uphold the symmetrical approach (ANT). The explorative questions in the second part of the interview guide were asked to all of them. See appendix A for the interview guides.

**Conduction and transcription**
Prior to the interviews, the informants had been informed about the main themes. Conducting the interviews, the structure became more loose than planned and questions asked were mainly areas uncovered or to clarify a statement. The loosened structure turned out to work well, as regards to the purpose of the interview. The interviews were all conducted in-person within a month, lasted between 45-58 minutes and were recorded. Two of the interviews took place in a meeting room at the respective places of employment and the last in a conference centre allowing an in-person interview with the analyst from a district in Jutland.

The interviews were recorded and conducted in Danish. They were also transcribed in Danish and only quotes included in the analysis has been translated to English. Even if a translation from one language to another implies a risk of losing the meaning in the given quote, this way was chosen as the lesser of two evils, since the interviewees as well as the
interviewer were Danish native speakers. This choice limited the risk of losing meaning to only one translation process, the translation of quotes for the analysis.

The interviews were transcribed literally and as close to the recordings as possible, writing down every statements of the given interviewee. Only ‘hm’ and pauses has not been transcribed, but is indicated by two periods. Words, tone of voice, nonverbal communication and so on is all unprintable in its full complexity, but words expressively emphasized by the informants is transcribed with bold letters. It was a conscious choice to retain most of the interviewees’ sentence structures in the transcriptions, even though spoken language differs from written language and is more difficult to read. But, by doing this, more of the original conversation was preserved and made available for the subsequent interpretation and analytical work. See appendix B for the full transcriptions.

**Coding and analysis**

As mentioned, ANT is primarily a methodological approach to engage with empirical material and throughout Latour’s writings many pages are spend describing how to trace these actor-networks. The following section will highlight the analytical approach for this thesis, including the coding of interviews and how the analysis is structured.

**How to trace actor-networks**

The second part of Latour’s Reassembling the Social (2005) is dedicated to methodology. One should 1) localize the global, 2) redistribute the local and, 3) connect the sites. These three steps has influenced the overall frame of the research process, guided the coding of the interviews and the analysis and are therefore shortly described in the following paragraph.

Initially, one should localize the global by searching for local sites constituting the global such as panoramas or oligopticons, “macro no longer describe a wider or a larger site in which the micro would be embedded like some Russian Matryoshka doll, but another equally local, equally micro place, which is connected to many others” (Latour, 2005: 176). What is represented or how it is represented at the last stage is not the goal, but rather how a representation is produced or manufactured through many stages of inscriptions. Secondly, one should look for the redistribution of the local by searching for
the roles of non-humans. Local interaction is “the assemblage of all the other local interactions distributed elsewhere in time and space, which have been brought to bear on the scene through the relays of various non-human actors” (Latour, 2005: 194). There does not exist any underlying hidden structures but there are structuring templates, circulated by techniques and intellectual technologies and one should search for inter-objective relations “that has dislocated actions so much that someone else, from some other place and some other time, is still acting in it through indirect but fully traceable connections” (Latour, 2005: 196). Lastly, one should connect the sites by searching for what circulates from site to site, “to provide a piece of information is the action of putting something into a form” (Latour, 2005: 223). This can be a document, a paper slip or a vote in the example of a parliamentary election, which expresses an opinion. The opinion undergoes many metamorphoses from a citizen at home deciding what to vote for, to a part of a poll shown on tv.

In practice, these three steps are not necessarily followed in the numbered order and the coding of the transcribed interviews went back and forth between localizing the global and redistributing the local. Latour’s third step, connecting the sides, constitutes the second part of the analysis. The first coding searched to identify actors (human and non-human) and the associations or disassociations made by the interviewees. It also looked for clichés, or in Latourian terms panoramas, and noted down other statements that seemed important to the interviewees’ understanding of ILP and the implementation of it across the organization. Lastly, the coding sought to identify inscriptions and inscription devices. The coding was carried out by attaching few key words to sentences or a text segment. At this point, the empirical material was opening up little by little and in an attempt to create an overview and to get closer to the structure of the analysis, all the key words was categorized. This method was rejected again, as it mainly led to confusion and complicated the ANT analysis. To proceed the analytical work, the investigation turned back to Latour to search for further methodological guidelines.

Follow the claims
Instead of searching for logic, in the sense of how actors associate in a straight or distorted path, ANT search for sociologics and whether it is a weaker or a stronger association (Latour, 1987: 202). This can be done by following whatever is tied to the claims of the
actors, who strive, “to make their claims more credible than others. While doing so they map for us and for themselves the chains of associations that make up their sociologics” (Latour, 1987: 202).

Latour even lists up how to analyse the sociologics:

a. What points are linked to which other,

b. What size and strength these links have,

c. Who the most legitimate spokespersons are,

d. And how all of these elements are modified during the controversy (Latour, 1987: 202).

These outlined steps paved the way from the coding to the analysis. An illustration became the result of the first part of the analysis, showing the points linked together that makes up the actor-network of the Danish police based on all the references and associations by the interviewees in a combination. Latour lists how to go about a claim:

a. By looking at the stage the claim we chose as our departure point is at;

b. By finding the people who are striving to make this claim more of a fact and those who are trying to make it less of a fact;

c. By checking in which direction the claim is pushed by the opposite actions of these two groups (Latour, 1987: 59).

The first part of the analysis is structured around the former list, analysing the allies of the ILP program followed by the anti-programs, pushing the claim in different directions. The analysis continues to follow the claim tied to ILP and how it evolves across the actor-network. Summarizing the findings of the first analysis, a second illustration narrows down the relevant part of the actor-network. The second part of the analysis search for the links between heterogenous actors and the inscriptions happening, but therefrom focuses on connecting the sites. The entire analysis thereby combines the two recently outlined approaches by Latour and even though they concern or pursue the same, it practically helped to lead the analysis process. Following these methodological reflections, the investigation turns to the analysis itself. As stated in the introduction, the following analysis is divided in two parts, investigating respectively the first and second research question.
Analysis part one: Extending the network

The Danish police is a large organization with many actors crossing and interacting on numerous levels. To investigate the enrolment of the ILP program as stated in the first research question and to follow the traces of the actors, the point of departure for this thesis, and thereby the initial analysis, is the informants respectively employed in EAE’s in two different districts and in NEC in the National police. This implies, that certain actors are not accounted for, including those of employed police officers, citizens, media and the public administrative and legal actors. Those are only referred to by the informants’ associations (or disassociations).

Introducing the actors at play

The police as an organization can be described as an actor-network. Actor-networks are constituted and entangled in many other actor-networks; law, politics, citizens or concepts as justice, theories of criminal behaviour or office culture. The following illustration shows the identified actors in the actor-network around ILP and places the actors in relation to each other. The illustration is simplified to maintain an overview and lacks some actors, such as printers, layers of management, software programs or the many different databases Pol-Intel retrieve data from.
The missing actors make the illustrated network look less like ANT, as the included actors are human beings, human organisations or human discourses. In the second part of the analysis, the focus will be on the networks with non-human actors. The numbers given to certain actors at the left of the illustration refer to employees respectively at district 1 and district 2, where the interviewed analysts are employed.

As an organization, the actor-network constituting the Danish police has been around since the seventieth century. During the years, it has changed in different directions depending on changing actors’ relations to each other. It has grown in size and is continuously expanding its network to new actors and takes over new tasks. The preventive initiatives are some of these newly and continuously expanding functions. A role that has not been associated with the police until the mid-twentieth century. The establishment of NEC in 1998, the EAE’s in 2013, and the increasing employment of academically educated analysts are, all together with the purchase of Pol-Intel, a part of a new chain of associations of the actor-network. A new fact that is fought for to become the dominating narrative of police work. It is termed intelligence-led policing.

Intelligence-led policing is a program, not only in Latourian terms but also referred to as a program by the organization itself, run by NEC, the national intelligence center. The ILP program:

... was launched in the Danish police both as a part of the reform in 2007 but also in the years 2012-2013, where an actually division of the Danish police was made with analytical units was set up within the districts where you started to implement the concept of ILP. At least at that time, the conversation about it was started and the people back then, of who I also was a part of, started to look at how other countries had implemented it (IP1: 1).

In 2016, IP1 got the position as head of the ILP program in Denmark. This moment will act as point of departure for the following analysis where IP1 becomes spokesman for the program within the police.
The ILP program: The claim

To fight the changing crime threats, ILP, stronger analytical competences and new digital tools are continuously described as the optimal solution by politicians (the multi-annual agreement), leading police scientists (Ratcliffe) and the informants:

Today, criminal activity becomes more and more complex, even though saying that everything becomes more complicated and complexed is a bit of a cliché, but the platforms used by the criminals are different (...) and therefore we also need to face the challenge in front of us when they [the criminals] use new platforms, we haven’t used before” (IP1: 4).

ILP is also described as ‘smarter’, ‘evidence-based’ or ‘knowledge-led’, referring intelligence-led policing not only to be the right tool to resolve crimes, but also as a tool to ensure optimal resource allocation.

Basically, ILP was born of scarce resources and when you are in a situation where there are scarce resources it is crucial to make the right decisions at the right time. So you should not send a hundred men to a football match if there are no prelude to disturbances. You know... it is self-evident, but it has not always been that way. There were fixed plans for operations at a football match and we sent the planned squad cars. Perhaps we should act based on an analytical evaluation, saying ‘OK, what is the risk of something happening here?’ Then we could use those resources somewhere else. And it all makes sense in the end, as we have prevented crime elsewhere. That is the point. The ILP project is not a savings project (IP1: 9).

In line with Jerry Ratcliffe, IP1 describes how ILP has gone from being solely crime analysis to a business model (IP1: 3). The choice of words by the two interviewed analysts describing their work adds to the understanding of ILP as a business model. Analyses need to add value to the organization (IP3: 37), there need to be a demand for the products (IP3: 44). The analyses should serve an organizational purpose and not only be a tool for target figures (IP3: 43, IP2: 21), but instead form the foundation for every decision-making process (IP2: 24).
The digital platform Pol-Intel is closely related to the claim of ILP as the future of police work, “for 10 years we have attempted to implement intelligence-led policing, but it hasn’t been successful until the purchase of Pol-Intel” (Andersen, 2018). The political statements following the purchase have been very similar, as they related to the strengthening of the analytical power in the police (Justitsministeriet). IP1 puts less emphasis on the exact role of Pol-Intel as it is only one of many tools, but all the informants agree, that ILP is deeply connected to, and depended, on digital tools (IP2: 29, IP3: 44, IP1: 5).

**Allies of the program**

ILP does not happen in NEC (...). It is within the districts that we need competent analysts, we need a strong community, need personnel with different professions to collaborate (...) That is important. And ILP is happening in the districts. Some districts are good at it (...) And when I say it works really well, I mean the collaboration between analysts and the other staff groups, and where the analytical product or the analytical voice has an impact in the conduction of police work. That is, when conclusions or decisions made by management is based on a qualified analytical foundation. This is where we want to be. When you start looking at definitions of ILP, you also look at it as being some sort of "proactive strategy" and it is a process, but it’s really about making some decisions on a qualified basis. That is what ILP is all about (IP1: 3).

In this quote, IP1 not only summarizes the main purpose of the ILP program, but he also outlines the path the actors are desired to follow. IP1 has been focused on expanding the program throughout the districts by educating the analysts and constructing a community among them: “the establishment of some analytical units does not alone ensure implementation of it [ILP] in the districts (...) we have to create an analytical community” (IP1: 1). Every year the analysts are given the possibility of attending the ECAC conference hosted by NEC in collaboration with Europol, where leading international researchers on crime development and crime detection are keynote speakers, presenting new digital tools, theories or methods (IP1: 16-17). Twice a year they meet each other in Forum for Analysts (FFA), where they participate in workshops, discuss best practice and how others have dealt with cases or issues. They “have been spoiled” as IP1 describes it (IP1: 7, 16) with the amount of supplementary training and organized network meetings.
For the program to live and become the reality of police work, IP1 needs more allies than the analysts. The connections to the leading researchers within the field and Europol confirming the Danish ILP program are strong supporters as well as it is stated as a part of the official strategy of the police and is politically supported, which all makes it difficult for people who are in opposition to the program. Following these allies, the program is already dominating the controversy of how to conduct police work in Denmark.

But a claim needs to be reinforced. It is a process of continuously interesting the allies, but also to ensure that the program is not transformed through the hands of the allies in a way where it ends up unrecognizable for the spokesman. Every time an analysis is conducted, every time someone explains ILP as concept, the program is translated in the moment of action. In their hands, the analysts hold the fate of the program, as well as every other actors related to the program, let it be the local management, which IP1 also educates, the politicians or the citizens which will be elaborated under the section Political uncertainty and fears and feelings of citizens:

Now there are someone translating ILP to data-driven police work. And when you talk with some of the employees from the data protection unit, when you attend some of their conferences, they talk a lot about the data-driven police. And that is a funny translation, because ILP is much more than data-driven police work. Because we also interpret the data (IP1: 15).

The supplementary education, conferences and organized network meetings are all a part of interesting the allies, the analysts, but it is also a process of confirming the program of action to ensure that the analysts follow it as intended. Methods and theories are continuously added to the program to lead the analysts in the desired direction and to create stronger associations between the individual analyst along with the ILP program, NEC and co-analysts across the country. As IP1 mentions, and as IP2 confirms though also wishing for even more co-work, the organized network make them call, mail and visit each other the rest of the year (IP1: 16, IP2: 26).

ILP is expanded and implemented from the bottom up from the analytical community created across the districts:
We are building a community that spreads throughout the organization from down up. We really want to turn it upside down so that more managers put on the ILP-cap. During the last couple of years many of them has done it, no doubt about it, but we would really want to see more” (IP1: 2).

Therefore, the next step for the ILP program is to expand these initiatives to other staff groups, which also needs to understand ILP (IP1: 7). IP1 explains that the, “management needs to be better equipped, preventive personnel, operative personnel, the other staff groups, and investigation needs to be equipped. So we have made it far. And this is our focus moving forward. But we also need to hold on to the analytical community” (IP1: 16). By expanding the initiatives, IP1 seeks for an aligning of interests of the actors within the organization, so they all point in the direction laid out by the ILP program. Misconceptions, the translated distorted program, such as data-driven police work, and anti-programs, such as the management asking for an analysis to legitimize a decision, can be kept in check.

According to IP3, interesting the analysts is also of great importance. Where IP1 connects it with ensuring competent analysts, IP3 describes it in order to retain employees. The analysts have many different and often academic backgrounds. IP3 links educational background with dedication to the job, or rather that the logics of professions differ between police and academic personnel. Police officers have a vocation in their work life, to fight crime, which is not given among the academic personnel. To keep their interest, there needs to be career prospects or professional development.

So, you are hired to do something and then the principle purpose is for you to stay there. And that can work out just fine if you are a nursery teacher, because that is your vocation. In relation to university graduates, a large number of them cannot content themselves with that (IP3: 38).

Where police officers throughout their education have been shaped by the actor-network constituting the police, the purpose of being a police officer or the identity of being a police officer, the academic employees have less and sometimes no relation to the police...
beforehand, as anything else than a distant institution. HS mentions it as a vulnerability in relation to gained knowledge within the units, since there are no organizational memory, no collecting database for projects. Knowledge is tied up to certain employees and to their personal hard drives. Until a technological solution solves the difficulties of storing employees’ work at the same time as taking into account the potential legal breach of personal information, that part of the actor-network will remain unstable.

**Allies of the program: The intelligence and analytical departments, EAE**

The EAE’s function is described by IP3 as a small cogwheel which, “if it plays out the right way, it is at a place where it can be a part of (...) making all the bigger ones turning the right way” (IP3: 37).

Even if the EAE is one department, there are different staff groups divided between strategic analysts and operative analysts. The former is primarily employed personnel with an academic degree and the later primarily employed police officers. In district 1, the EAE has worked towards erasing the difference between the two groups of analysts (IP2: 27). IP2 describes this as a general tendency across EAE’s, but it is dealt with by the departments themselves. The strategic analyses aim at informing about the ‘outside world’, the general crime development in the country and to make recommendations to hinder further crime development in the long run. The strategic management can on that basis carry out initiatives that make the organization ready for changing crimes expected the following year. The operative analysts are more directly related to police operations and if they point to a problem, the adequate answer is to send out a patrol, launch an initiative within a crime-ridden estate or install more surveillance at a certain place (IP2: 22).

According to IP2, the operative part of the EAE works well, whereas IP2 is more sceptical regarding the strategic part (IP2: 22). In line with the definition of ILP by IP1, IP2 problematizes that the strategic analyses are still not a part of a systematically input to the local management, “to provide a basis for true and fair knowledge” (IP2: 34), such as HR, the financial department, the national police or different staff groups reporting back on staff matters, job satisfaction or work environment. “The local strategic management still misses the full understanding of what it means to be analytically based” (IP2: 23). The local management’s association to analytical work is still a weaker relation compared to the
more well-established ones as finance (IP1: 3). ILP and the analyses are still not established as the dominating decision-making model by the local management. The severe economic challenges, as some districts have, shoves the analytical work in the background (IP1: 3).

The analysts work from offices that are separated from their respective police station and are primarily in touch with the rest of the district through digital tools, such as emails, phones, daily produced presentations or databases. IP3 has little connection or contact to the operative personnel and investigators, but, “it is a thing that makes a lot of sense, but it’s also one of the things that becomes less prioritized when you have piles of tasks on your desk” (IP3: 42). IP2 stresses the importance of knowing the organization, what do they need help to do. According to IP2 the management needs the inputs from the different departments, because they don’t have contact with the rest of the district themselves.

Whereas there are less communication with police officers and so, IP3 has a large network of analysts’ across EAE’s (IP3: 39, 42). As IP1 describes it, the construction of a network, which was created by NEC, has worked and the analysts call each other to ask advice and get informed about other solutions after they have met each other. IP2 problematizes the shot down of the analytical network but also notes that the inclusion of other professions is needed.

**Allies of the program: Knowledge centers**

If the police knew what it actually knows, all cases would be solved. And that is very characteristic, because there really is a lot of knowledge within the police and if you consider knowledge as the central to the police, thus thinking of it as a knowledge organization, then I personally think it is an interesting perspective (...) It is interesting how knowledge clusters. So the local police, the operative personnel, the investigation units, in that perspective one could say that the role of the EAE is to collect all the knowledge from the other departments, connect it, enrich it, evaluate its credibility and its relevance and thereafter distribute it back to the same or other departments. Afterwards, it is the task of the other departments to act on this information or
intelligence as it has become. This is what you call it, you get information, enrich it and thus make it intelligence that you can send back again (IP2: 32).

Here, IP2 describes an EAE as a kind of knowledge center collecting all the clustered information from every department in the police. But, it is not only a process of collecting information, intelligence-led analyses are defined by having a purpose. Information is the input, but the output has been transformed, and is called intelligence. That chain of translations of the information will be analysed later in this thesis, where the focus now will be on the translation of the program.

The EAE’s are important allies for the program as they end up being responsible for the further extension of the network within each district. To conduct the analyses, and thereby for the ILP program to function as planned, the unit needs input. One of the most important inputs is the every-day registrations made by police officers in the different systems such as the case file administration database, Pol-SAS.

IP3 describes the relation to other police departments in the district as one of providing a narrative. To ensure they register all information about a case¹ the EAE’s spend time explaining that the provided information helps to solve cases. If they register an incident:

We can continue the work by connecting cases to search for patterns and say ‘OK, if we can point out that these 17 burglaries are connected, maybe then there is a better possibility of, if you don’t have any actual DNA or fingerprints or anything else like such unambiguous traces, limiting the number of possible suspects pointed at’. And sort of focusing which directions you need to look into (IP3: 43).

IP3 describes a former resistance to registering all information connecting it to organizational history where management primarily used the data as target numbers. The first anti-program is present here, where some officers refuses or turn to a more laissez-faire approach to registration of information during their work day based on the claim that

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¹ Every time the police is called for assistance, police officers need to file a report which now, or very soon, can be done on their phone in the field (Politi, 2019).
the data only serves for target figures. A counter-claim is set up to handle the disbelievers: the data provided by the officers today is used for much more and can catch criminals, "does that mean you actually use it? Yes, we do and we depend on it so we can do these things. And then they are like ‘OK’, and want to do it" (IP3: 43).

At this part of the network, the allies are kept interested by the narrative offering them an easier path. It has been carried out by visits to the different units (IP2: 31), but in IP3’s district it primarily happens as a part of a daily e-briefing PowerPoint show, where the EAE informs the operative team at the beginning of every shift about tendencies, persons or places to watch and collect information about, or targets for arrestment if spotted. Sometimes these presentations also include examples of prosecuted criminals facing jail, which had been made possible by the information provided by the officers to remind of the importance of registering all information and to do it correctly (IP3: 43). At these presentations, many translations has happened from the police officer registering an incident or a suspicious act to a diagram displaying recently activity by a gang member or the blissful story of a jailed criminal. The information has passed between multiple actors; phones, databases, computers at offices of EAE’s and investigators, the prosecutor, the court, potential news media etc., but is presented by inscription devices, i.e. a diagram on the PowerPoint show, and is thereby made communicable to the rest of the organization.

Summing up the ways of mobilizing allies, all the arguments are present in this case and used depending on the potential ally. The police officers and operative units providing the information in the first place are primarily interested by the quicker path to catch criminals. The local management is interested by the same claim, but also of one of reducing costs.

All the informants provided an immediate and distinct answer to the question on the future of ILP as police model, “we do not have any other choice” (IP3: 49), “there are no alternative. That is how I will say it” (IP1: 15) and IP2 describes that one can only hope that it remains the dominant strategy, since it is the only adequate answer to the new crime threats (IP2: 34).
Anti-programs

The anti-programs are only possible to analyse through the counter-claims made by the allies of the program, the informants. In their own words, anti-programs are challenges for the implementation of the ILP program and are mainly pointed out to be a question of cultural change. According to Latour, there is no such thing as an ‘organizational culture’, which primarily is referred to as a panorama seeking to explain why certain actors act as they do. Instead, Latour encourages to seek the associations and disassociations behind what is explained when referring to ‘organizational culture’. In this case, the informants mainly use the term ‘organizational culture’ or ‘logics’ in relation to managerial issues besides the already mentioned need for operative personnel and officers to understand why they must collect an register information and react on the intelligence given back to them by the analytical units. The political actors and citizens are also a part of the challenge. The following section will shortly return to the police officers before exploring the management, the political and public part of the network.

The ‘police nose’

You cannot fight economic crime, IT-crime and cross-border crime with the police nose, which was good when you walked around in a village or in your own neighbourhood. You just cannot and that is why the Danish police has to work smarter. Let us return to that word, to have to work smarter to be a fairly credible counterpart to the crime threat (IP2: 34).

When describing the need for ILP as the only adequate measurement to the new crime threats, the ‘police nose’ is a term frequently referred to, as it is in the former quote. As a part of making the claim credible, the old way of police work is continuously referred to as something negative; the former police officer was a lone ranger, got drawn into a case and forgot to tell others about it or did not ask for help of the analysts, wrote notes in a notebook which was only shared with colleagues at lunch and made decisions often relied on their gut feeling, the ‘police nose’, “beforehand, decisions was made, without saying too much, based on (...) the police nose, or you know, that gut feeling” (IP1: 8). By associating former police work with a gut feeling, the spokesmen of anti-programs are subjectified, whereas the ILP project spokesman seems to stand for objectivity, Mr.
Manybodies, making decisions on behalf of the many based on evidence, analyses of the data of multiple cases.

Despite this counter-claim, the description of the competent analyst in some form resembles that of a former police officer. The competent analyst is described as one exercising judgements as well, but the decision-making moment is moved from the streets to the office. The analysts are trained to remember a ‘critical voice’ in the back of their head when they work to ensure quality and to validate data.

We educate people to use these ways of validating and to be critical. So yes, I would say that there is [procedures for validation], and the systems are also set up to ensure this, but we cannot get around that it is you as an analyst, or you as any other role in the police, who works by these methods and validates” (IP1: 6).

The intelligence and analysis doctrine published by the National Police sets out methods for validating data and information for everyone working at the Danish police, but it is the responsibility of the individual employee to evaluate the information and decide whether or not the information given is to be validated. “The doctrine is written to give the police as a whole a general understanding for concepts and methods (...) and theories” (IP1: 10). IP2 has read the doctrine but puts no greater importance to it by describing it as one ongoing project on data quality, though connected to, among multiple others (IP2: 31-32).

The ILP program claims to objectivity through scientific forms of knowledge production ensured by a standardized and strict methodological frame and approach to information.

‘Flat earthers’
Another counter-claim to an anti-program is a reference made by IP3, who heard the comparison mentioned by a speaker at the latest ECAC conference. To describe the difficulties of changing people’s habits, the speaker compares certain employees in the police with flat earthers:

In the sense that you can present one piece of evidence after another (...) in relation to what makes sense, then they say ‘yes, that sounds exciting’ and then they go back doing
exactly what they have done before. So compared to (...) being overwhelmingly presented with what is the right way to handle something, but despite that knowledge you just do what you always did (IP3: 50).

The association to flat earthers are a way of dismantling the arguments in favour of the anti-programs by claiming to know the objective truth. Following Latour, the analysts, as allies of the ILP program, can be described as scientists who are part of the construction of the claim separating their objective knowledge from subjective beliefs. The controversy has still not settled and the ILP program continuously needs to fight to become the winning argument. IP3 links the comparison to flat earthers to explain why other countries facing the same development at some point experienced a backlash to former ways of conducting police work. The challenge is not only within the police as a work place but is also linked to another part of the actor-network, the political actors:

We can talk about evidence and everything, but you also have a political culture, where knowing something within a field is not necessarily given the greatest value and not at all in (...) the judicial domain (...) That it is one of those [domains] where we still think it is relevant to ask people what they think about it. We would never ask you whether you think the hole in the ozone layer is too big or is too small or if it is just right. Of course, we do not base it on that. We base it on something that is more fact-based in relation to its consequences (IP3: 50).

To support the claim of ILP, IP3 chooses strong allies in science and positions the analysts at the same level. As with the reference to the ‘police nose’, the counter-claim seeks to reinforce the original program by referring to the opinions of citizens and politicians as merely subjective opinions in opposition to the knowledge of scientists.

**Managerial logics**

All of the informants describe management as a challenge for the program. Some managers see the potential of ILP, but the progress is tied to individuals (IP3: 41). Even if it is not often, the two analysts still experience managers asking for an analysis that legitimates a decision already made or asking for simple statistical surveys (IP2: 23, IP3: 44). Management still needs to understand what to request from the analytical units and
also to request it (IP3: 37, 40). It is a widely held view that ILP is the right way to go (IP1: 9), the allies are mobilized, but the managers, as actors, are yet not controlled and translate the program in ways that are remarkably different from the desired. Both IP3 and IP1 mention power relations as a factor:

It is a cultural issue, there are a lot of people who still, a lot of employees in the police, who still resist to hand over power to someone else (...) You cede some power to others as a leader, as a decisionmaker (...) Who says, ‘It may be what you assess, but this is what our data shows us. So that is why I think you should say this’. It is a major challenge (IP1: 8).

No actor only exercises judgements on its own, but draws on associations and relations from ones time as i.e. a commissioner in the police and how one previously addressed situations and which other actor-networks one is part of. A manager, who has been valued for his or hers sense of how to exercise judgments in a moment, having a sensible ‘police nose’, is subjectified by the local spokesman, the analysts, speaking on behalf of the silent citizens through their analyses, “suddenly there is a demand that it must be analytically supported. Then your scope of assessment is narrowed down” (IP3: 41). IP3 prefers to look for managerial logics behind the reasoning of management instead of pointing it out to be a question of retaining power:

I think some of it makes sense in relation to that, after all, it is one of the things they are managerially trained to, to be able to make decisions quickly and defend them (...) in many contexts you have to do something fast and you have to be very authoritarian because a population, or the people involved in a major event, then can rely confidently on that someone is in charge of the situation (IP3: 41).

Thus, IP3 describes a part of the organizational objection to the program as based in conflicting managerial requirements between the needs of the population, to have a strong and forcefully acting authority, and the new requirements to ensure that decisions are backed up by evidence. IP3 elaborates the changing organizational logic further:
We are an organization very capable of decisive action. It means that if you are faced with a problem, you must act. And that is the organizational logic, OK, then we have to send a patrol or we have to start an investigation or we have to do something. Whereas you, as a knowledge worker, initially must know something (IP3: 39).

In Latourian terms, one could say that there are two different perspectives of time at play in the prior and the newer logics tied to the programs. Time, as well as places, is constructed by and tied to an actor-network. Following the old logic, the manager gains knowledge by referring to own experiences of cases, or his or hers officer’s experiences. The analyst, the knowledge worker, gains knowledge through large amounts of data of actions and events, summarizing places and times on a broader scale, or, as Latour would describe it, on a different scale. The different logics collide at more serious events, but also at a lesser scale as it becomes apparent in following quote:

Then the management has decided that we have to do something about that problem now (...) if we look at the crime development, there is no noticeably difference about this Monday compared to last Monday or Monday last month. But at this moment the decision has been made, and we also need a clarification quickly (IP3: 41).

Time is relative to different actor-networks and depends on the perspective of the observer chosen as a starting point. In their own words, analysts may experience a lack of time to solve tasks with short deadlines (IP3: 39), because solving a task includes certain succeeding steps and procedures whereas the manager with a different logic follows a different dimension of temporality. The reference to short deadlines by IP3 is made in connection to the difficulties of knowledge sharing across the police which is challenged by the limited time resources. It is a succeeding step which not necessarily is a part of the former managerial order of events.

Political uncertainty and fears and feelings of citizens

The police is a public institution controlled by the Ministry of Justice. The ILP program is therefore not only in the hands of the employees and managers within the police, but also in the hands of the political majority in the Danish Parliament who, further out the network, is in the hands of the citizens as elected by public vote.
The former section shed light on the managerial logics of the police, but the political actor plays a great influence on the translation of the program by the managers. A former Minister of Justice:

(...)

asked directly for lists reporting where the mobile police station was placed and at which hours a week in the police district of Central and West Jutland. That was the degree of detail he asked for. And then you can be just as data-driven, but if he thinks it should be placed in Viborg at Tuesdays, the chief commissioner of police probably thinks so too (IP2: 23).

Political interference challenges the status of ILP as more than a new criminal tool among others available for the police. Likewise, political decisions made overnight supports the former managerial logic, the antiprogram of ILP, in the ongoing controversy of defining police work.

The multi-annual agreement also reflects the different requirements to the police, “that the police is modern, efficient and resilient is an essential precondition for it to continuously fight against the crimes that create insecurity and uncertainty in the society” (The multi-annual agreement: 3). Formulated in the target and performance plan of the police 2019, solving the task, “requires a maintained focus on operational readiness and efficient collaboration across the districts” (Politi, 2019b: 4). The political actor sees no conflict between a police capable of decisive action in next to no time and a knowledge-based and resource efficient police. The answer to the latter is to be found in knowledge sharing and solved by the purchase of Pol-Intel, “the overall ambition of the project is to make relevant data sources as easily accessible as possible to the police personnel while fully complying with the personal data rules, so that, to put it informally, each employee 'knows what the police know’” (Retsudvalget, 2016-17a). For the political part of the actor-network, ILP is a part of the continuous modernization of the police and an approach that should be extended to new areas within the police (Justitsministeriet, 2017) but is not stated as the underlying strategy for every executive judgement.
The political connection to the program as a business model is thereby of a weaker connection, but it is tied to strong associations like resource optimization and budget constraints that resembles the more broadly political ambition of securing ‘more welfare for less resources’ by introducing new technologies (Digitaliseringsstyrelsen). The political actor is mobilized, but not controlled. Interference and uncertainty about future political decisions, are also mentioned by all the informants as challenges, hoping to continue the progress, the methodological development and retaining employees (IP3: 38, IP2: 23, IP1: 17).

"Everybody talks about ILP and everyone says it is a new complex world and ‘blah blah blah’. Therefore we have to be more skilled and all these things. But there is also a reality where Mr. and Mrs. Denmark would like us to be visible in Nørresundby on Friday at four o’clock” (IP1: 9). IP1 notes a clash between strategy and reality or between rationality of police analysts and that within the nation. Controlling the translations of the program throughout the extensions of actors is the major difficulty, and ILP as dominating way of conducting police work is not black boxed. The nation’s demand for more local, visible police officers shows a weak association from citizens to analytical units in the police. The citizens’ experience of crime can change the fate of the program and where cybercrimes have become an increasing part of the fears of the citizens consistent with the threat assessment of the police (Nielsen & Just, 2019) and parts of the mobilization of the citizens are yet to happen.

Sub-conclusion

The first part of the analysis shows the extension of the ILP program throughout the actor-network, the Danish police. It is an ongoing controversy between fact-builders where ILP has the upper hand at the moment. The spokesmen, IP1 from NEC and the local spokesmen from the EAE’s, mobilize allies with two main arguments, there are no other way and it is the best way to optimize resources. However, the ILP program is continuously challenged by anti-programs. The associations to the ‘police nose’ or the ‘flat earthers’ are made by the informants in order to disclaim the competing spokespersons. The associations support the claim of the ILP program by subjectifying the anti-programs leaving ILP to define the objective ‘truth’.
The police as organization, an actor-network, is large and the ILP program is in the hands of the network, the fate decided by the following actors translating the program. Where the program has predominantly control of police officers and the operative personnel (noting that there will always be some dissidents not controllable) and their translating of the program is therefore predictable: the managers are less easy to control. The challenges are analysed to be based in conflcitions between the ILP program and existing actor-networks. Some managers who have held the job position for many years seems to draw on existing sociologics that are tied to political and public actors. The existing actor-network demands rapid exercises of judgements which clashes with the enrolment of ILP. The challenges are present, and where wars in Syria and Iraq led to an immigration flow towards Europe, refugees walking at the Danish highways in Jutland and to an immediately political decision that allocated police officers to the borders, an ILP risk analysis probably had not led to that outcome (as expressed between the lines by IP3: 50). The main challenge to the enrolment of the ILP program therefore lies within the political and public actors of the network.

At this point, it is possible to narrow down the relations between the actor-network around ILP, based in the specific findings from the first part of the analysis in the following illustration. The green colour symbolizes strengthening networks, and the red colour the (attempting) weakening networks or anti-programs.
The illustration shows the enrolment of the ILP program from NEC to the EAE’s and further out the actor-network connected by green lines. The red lines illustrates the anti-programs: the ‘police nose’, ‘flat earthers’, the public and political actor and the existing managerial logic, that all challenges the ILP program. If the red connections should had been elaborated further, it had been necessary to conduct interviews with opponents of the ILP program.
Analysis part two: Heterogeneous networks

At this point, the analysis has given an account of the extension of the program throughout the actor-network within the police and within the broader connections with politicians and citizens. To explore the knowledge production by intelligence-led policing, the thesis will turn to the second research question: How does the use of digital tools and platforms affect knowledge production in intelligence-led police work within the EAE’s?

In order to investigate the question, the following sections will analyse the work of the analysts, the digital platforms and the informants’ reflections on data, information and knowledge in more general terms and in relation to their work.

Criminal actions

Our job is to try to look at (...) which parts of the outside world we need to deal with. Both at a slightly more abstract and overall level. (...) Point at active burglars or documentations of gang members or lots of those things that are specifically targeted at individuals. We really don’t care about the question of how many. Unless it’s an indication that there is something new. (...) Because it may signify that you are facing some new vulnerabilities (IP3: 45).

The purpose of the analytical intelligence work is to study criminal actions. Their job is to use data, information and knowledge to target persons or to make indications about the changing crime scene (operative/strategic). The outcome of the analysts’ work, ‘products’, can be risk analyses, hot spot maps, social network analyses, hot persons, analytical-led patrolling or crime development figures. Central to all the products are the process of turning collected data into information into knowledge and finally into a purposeful intelligence product through digital tools by an analyst. The process is also described by IP1 as,

We work with Ratcliffe’s DIKI, data, information, knowledge, intelligence (...) you start with (...) raw data which then becomes information when you evaluate it, which then becomes knowledge when you interpret it, which then becomes intelligence that you can
use. A telephone number in itself is not a piece of intelligence, it is just a piece of data. That is nothing. It is something when you (...) put it into a context. That is the case with all things, but it is also the case with intelligence work (IP1: 10-11).

All the informants return to this distinction between data, information and knowledge with or without referring to Ratcliffe or the intelligence doctrine (IP2: 48, NW: 33). Data is, in itself, ‘nothing’ until the analyst has worked with it, “to gain knowledge you have to put them (bits of information) in a different context” (HS: 48-49) by comparing it to similar data or to already attained knowledge. That is the process of validation and it is emphasized numerous times by the informants, since, “information can be false or inaccurate or misleading” (IP2: 33) and “you cannot trust data” (IP1: 12). Gaining knowledge is described as a process of confirming or disapproving hypotheses by comparing data with other independent sources, “in my ideal world, we all worked by the falsification theory of Karl Popper” (IP1: 11).

But what is the data and is it changed by the media transporting it from the field to the computer screen at the office? In order to answer the question it is relevant to initially search for the inscriptions turning something into information in the databases.

**Inscriptions**

Digital tools are not new to the police and with technical evidence, and the course of events being crucial in a prosecution process registering these in digital databases has been an ongoing work since the 1960’ties. Intelligence-led police work is an outcome of the digitalization but is at the same time enhancing and producing the development. Computers, internet, maps, software programs, computer drives, Excel, platforms, phones, passwords, printers, ANPG, PowerPoint, Pol-Intel, Pol-SAS, Pol-MAP are all digital tools used by the analysts. According to NW the work day and the tasks have not changed significantly over the six years of employment. There are added new digital systems and thereby new possibilities, but it has not changed the foundation of the work (IP2: 22, 27).

Pol-Intel foremost extract data from Pol-SAS which is still divided in 12 parts, one for each district. Pol-SAS is a:
(...) case file administration system, but it is also a database (...). It is in that system that you run cases. If a report has been filed, it will be entered into Pol-SAS, then it will be sent to an investigator and if the investigator must take statements from witnesses, then the interrogation will be filed in Pol-SAS, and it will be passed on to a prosecutor, who also writes something in Pol-SAS. (...) So, that is the main database (IP2: 25).

Therefore, data in Pol-SAS can be described as information about actions taken by citizens experienced by the police officer who files the report. The first inscription takes place when the officer types information about the case, be it on an app in the field or behind a computer screen at the station. The officer needs to choose a category of crime, the crime code, describing the experienced situation (IP2: 30), the action of the citizen. Bringing Latour’s description of information in mind, actions of citizens though is the form of information transported from site to site. For the analyst, Pol-SAS is an accumulation of information on citizens and criminals agency and the information is transported and represented through many inscription processes before being presented as an intelligence product in a hot spot analysis or an analytical based optimized patrol. In this process, crime codes, addresses, road signs and summary fields are all inscriptions.

Pol-Intel adds another level of inscription. Pol-Intel is a platform where the employees can search across databases, such as already mentioned Pol-SAS, but also i.e. the register of firearms licenses, the central register of car owners, the CPR (the central national register), certain Europol database etc. It cannot validate data by automatic comparing similar information or sources, but it can collate different information in one search set up by algorithms of IT-employees at the IT service group of the police, KIT (IP1: 14).

Qualitative information is turned into codes by the algorithms making structured, i.e. simple crime statistics of numbers of burglaries in a specific area, and unstructured data, written notes in a summary box or a transcript of an interrogation, commensurable. As numbers or codes, they can be compared, related to each other in every possible way, dislocated from place and time. Pol-Intel makes it easier to sort data, compare data and visualize data.
Tools

For the analyst, software programs, databases and computers first and foremost serve as tools, “I have always used the programs, which I, at the given moment, thought was the best way to solve my task” (IP1: 14). Digital tools are treated as intermediaries in the daily work of the analysts solely passing information. The implementation of Pol-Intel is also primarily associated with effectiveness by the informants, “before you had to log into eight or nine or 17 different systems. Some of them required that you switched to another computer and some of them required a different login and password (...) maybe 80 % of the time was spend at collecting relevant information” (IP3: 44). Pol-intel is described as a much easier and quicker tool freeing time to focus at the analytical part of the analysts’ work and less on data collecting. As a tool it structures the data, making the following validation process easier (IP1: 6), but the system can’t validate the information or ask the questions for the analyst.

Digital tools are an inevitable part of the analysts’ work (IP2: 29) and intelligence-led policing, but, ”systems are irrelevant, if you do not have the right processes and the competent people (...) platforms and technology are so important in relation to ILP, there is no doubt at all (...) but your system can be as good as any, if you do not have any skilled people” (IP1: 5). IP1 prefers to look at systems, people and processes in relation to each other and systems do not, in itself, make up the difference. Pol-Intel is capable of a lot, but far from everything. When the informants describe challenges in their work relating to digital tools it is primarily related to ones of human character: has the officer registered the episode correctly; has the case file been updated; or has the meta data been added with the right references (by a person). Issues relating to the system are the increasing amounts of data, rendered possible by the digital solutions, which requires even heavier sorting. None of the informants question whether the increasing amount of data is beneficial, but only stress that it requires specialized competences, new inscription devices, software, to handle the data and produces grey areas in relation to the legal authority (IP2: 29-30, IP1: 6). In line with Flyverbom’s thesis (2019), it seems like the question of increasing data amounts as something promising and fruitful is black boxed.
Data is:

(...) a very exciting phenomenon because it is basically just (...) post-structural. So, it is nothing. But it is something that is composed of other things, if you will. Maybe it also contains something, but it does not contain anything that is not framed. (...) After all, that is what we teach them, that there is no data that is pure. Basically you cannot trust data. In my point of view. But, you can get as close to data as you want and the more you have, and the better you are at sorting the data, the better (IP1: 12).

Though, increasing data amounts are the promise of objectivity. ILP is produced by the digitalization but also produces it in a continuous search for more data to secure its position as the objective fact-constructor.

**Amounts of data and quality of data**

A challenge is what one might call data quality. Such systems are no better than their input. In that sense, ANPG [automatic license plate recognition] is easy because it is machines registering the data, but in Pol-SAS, it is people who register the input. If something happens in the real world out there, on the street, or at someone's home. Well, is it then an incident of house spectacle, or domestic violence or is it a threat to someone’s life or..? It is different crime codes (IP2: 30).

Data quality is a topic frequently returned to by the informants. The focus on police officers and operative personnel to register information, as brought to light in the first part of the analysis, also relates to the question of data quality. The analysts rely on the rest of the actor-network to register correctly, but also to update the case file when something new occurs in the case, “so that (...) you always can read it and (...) have a very brief overview of which case it is, what it is about and how far the work has come. It is not always filled out correctly and sometimes it is not updated” (IP2: 31).

As mentioned in first quote, the adoption of APNG seems to solve the issues of data quality. In Latourian terms, the APNG system can be described as an automaton, a complex machine keeping allies of the program in check automatically by locking information about actions of the citizens. The flight data unit in NEC is another example of
automizing the input of data, but the information is only accessible for the unit (and assumingly by the intelligence bureaus PET & FE). As far as the author is informed, the automation is not extended further, yet and the allies, i.e. the police officers, are needed to be kept in check.

The difficulty of the later is apparent in following quote by IP2:

> When we talk about data quality, one has to keep in mind that it is a question of quality in terms of what? If we take the example of a traffic accident on a deserted road, well, if there is no address, but only milestone 67.1, then you can go out there and say, that was exactly where it happened and that is what you need, if it turns into a lawsuit. So, there is good data quality in relation to the traffic officer who has to make a statement in court in half a year and say it happened at that and that milestone, but there is poor data quality in relation to the mapping of incidents and identify where the hotspots are. Because the map looks at the addresses, and there is no address right there. So, that is the question with data quality in relation to the different purposes. And in the perspective of the many, analysis is not the central purpose (IP2: 31).

The systems are set up to support the analysts and investigators of the police, but it can clash with the inherent logics in the work of a police officer. The analyses depend on the correct and continuous registering by the network, and before i.e. GPS locations are built-in to the systems, the clashes of the organizational purposes will remain an issue to address by the analysts.

**The police as an oligopticon**

Data is at the heart of ILP and digital tools serve as stabilizers of the input flow of information. Policer officers must choose a crime code when filing a case, such as the law requires the digital registration of car owners. Thereby, digital tools make the work of the analyst possible on a larger scale extending further out the network by transporting the information from many sites back to the computer screen at an office in an EAE.

Information is only the form of something; the actions of citizens, their permanent addresses or their license plates, but is turned into knowledge at the EAE’s with the help of
inscription devices like Pol-Intel. The police becomes a center of accumulation of information, which allows analysts to gain knowledge about criminal action at a distance and to refine it by accessing and comparing many, many cases. The police has always had this function, but the datafication intensifies the process and allows the analyst to know without collecting the information in first hand themselves. The EAE’s, or the intelligence-led policing program, can in Latourian terms thereby be viewed as an oligopticon commanding other parts of the network at a distance. By comparing and summarizing, they are able to create new patterns and construct knowledge to an extent that continuously expand. From the EAE's, the analysts based in the summarized information and constructed knowledge, plan patrols, identify suspects to arrest or arrange increased surveillance in certain exposed areas. Pol-Intel serves as an accumulator of information but also provides a visual display of i.e. a hot spot analysis, crucial to the distribution throughout the organization. It helps translating the work of the analyst, which logics can be far from that of a police educated, to something understandable.

Recalling Latour’s description of the oligopticon, it is an accurate, but narrow and unstable view. They are reliant on the constant flow of inputs by the rest of the actor-network and the view is narrowed down by the design of the systems, the inscription devices, that requires to i.e. choose between different defined crime codes or add a specific address. With the increasing data volumes, the oligopticon is strengthen in its reach, but it also requires an even, heavily sorting of relevant and irrelevant information to avoid drowning in data. As IP1 notes, “I think our biggest challenge in the police and other places where we use big data, is that we have no control of what is cut away. We can have really good systems that can do a lot for us, but how all the underlying algorithms synthesizes (...) what comes out, you and me cannot control” (IP1: 13-14). The implementation of Pol-Intel is a calibration of the inscription devices at hand and specifies the view even more. When IP3 problematizes that the analyses are focused on increasing activities, this narrow view becomes apparent which probably will continue to challenge them:

In reality (...) one should also react when something decreases. Because it is a good indication of, presumably, those who have done it before, they do not go home and say, well, then I just do not get that money. They find a new way. And it can be a good
The ILP program and the calibrating inscription devices also have an implication for the organizational structure, by adding more layers to the executive judgement or rather redistributing it. Where the police officers before had a higher degree of influence on the decision making process, the analysts based in the ILP claim make the calls, i.e. informing which persons to arrest or plan the patrolling route. As a patrol officer, “you are led from A to B” (IP1: 9) and the police officers are to a larger extent commanded in the field by the distant oligopticon. When Ratcliffe notes that the military did not have the same issues of integrating intelligence to operational decision, he explains it by the negative connection to the ‘police nose’ (2016: 98), but rather it is to be found in the different sociologics tied to existing networks as shown by the analysis.

**What is changed by the systems?**

Yes, of course it frames our knowledge which appliances or tools we use, but it has always been that way. And you only get the answers, when you ask the right question. And your system does not ask the question on your behalf. So, what is it that the man named Kettering said, a problem well stated is a problem half solved. So it is important that the question you ask your system is the right one (...) and that question cannot be framed by you conclusion.

R: No, not as an analyst?

IP1: No, and neither as an investigator or anyone else. That, I think, is something that you really need to work on, because you are shaped by a discourse, by an experience and by a (...) just by a lot of names. So if I ask (the system), a lot of the names that I already know, then I also know the answer (IP1: 20).

The systems do not break with previous developments, but are rather a continuation of these and as IP1 describes it in the former quote, the choice of tool or method has always influenced and affected the produced knowledge.

The second part of the analysis has investigated the heterogenous network of the ILP program and the digital tools certainly play a role in the knowledge production of the
EAE’s through the many layers of inscriptions - but it is not within the scope of the empirical material possible to get closer to the translation processes of the inscriptions and study *how*. However, an interesting discrepancy within the analysts’ own understanding of data and knowledge and their support of the ILP claim built up in the first part of the analysis becomes apparent. A deeper inconsistency between the claim of the ILP program and the informants own comprehension of the subject is revealed with i.e. IP1 noting that, *"the output can never ever reflect the input"* (IP1: 13) be it through a machine or a human mind, but also at another part of the interview describes, how analysts are trained in evaluating information by models building on Karl Popper’s falsification theory (IP1: 11). This confliction is apparent in numerous other quotes throughout the analysis, where the informants’ reflections describe data as faulty, subjective and not trustable. These statements express a highly constructivist approach to the subject that is not far from Latour rejecting a materiality behind information and that every information or knowledge is constructed by the context/actor-network. And yet, all the informants at some points return to the claim of the ILP program, where data and information are described as ‘pure’ or ‘raw’ resembling a nearly positivistic world view, where an analysis are able to express the given, the actual, the real facts. This discrepancy between their work as analysts and their own personal understanding of data, information and knowledge points at a breach in their own comprehension of their work. But it is not only the informants who fluctuates between the different understandings of knowledge and it seems that the divergence is inherent already in the ILP claim as presented by Ratcliffe. Like the informants, the book numerous times refers to contradicting world views, as i.e. Ratcliffe stating that it is never possible to achieve a truly unbiased analysis (2016: 82), but at the same time adhere to the DIKI continuum, where data are observations or measurements unencumbered with additional meaning (Ratcliffe, 2016: 71).

**Sub-conclusion**
The first part of the analysis analysed the enrolment of the ILP program in the actor-network and which claims the spokesmen use to support the program. The analysts themselves are allies of the ILP program and are a part of the construction of ILP as a more objective basis for deciding priorities and resource allocation when fighting crime. The analysts employed in the local EAE’s become spokesmen themselves in the effort to extend the ILP program further by disassociating the sociologics of the existing actor-networks.
These links are, especially between certain managers, strong, as they relate to wishes by the political and public actors and thereby continues to challenge the ILP program.

The second part of the analysis illustrates how actions of citizens become information through inscriptions. The dislocated action is transported from one site to another by the digital databases. The algorithms behind Pol-Intel add another layer of inscriptions and the platform serves both as accumulator of the traces and as inscription device visualizing the constructed knowledge by the analysts.

The police is described as an oligopticon that relies on the rest of the actor-network to register and to act on the produced knowledge. The informants’ continuing references to the issue of securing the quality of data, and the challenges of increasing amounts of data, intensify this. Though, the increasing amounts of data serve to support the ILP claim as the objective policing approach. The ILP is thereby an outcome of the digitalization but continuously produces it too. The datafication intensifies the accumulation of information in the oligopticon. The knowledge production of the oligopticon is amplified, the scientists’ position reinforced and the knowledge produced becomes even more difficult to challenge and contradict. It makes it possible for the oligopticon to extend the network even further.

The study was unable to answer the second part of the research question thoroughly. Digital tools undeniably play a role in the construction of knowledge within ILP analyses, but the research was limited by the empirical data. To be able to answer the research question as stated, a micro-sociological study following an analyst working on a single case from start to end will be necessary. However, the investigation led to a different outcome outlining inconsistencies between the supported claim of ILP and the informants own reflections on their work. The second part of the analysis showed that the ILP promise of data as ‘pure’, clashes with the informants own reflections on the subject describing data, and their own analytical work, as highly subjective. The informants fluctuate between a constructivist understanding of data and knowledge and the positivistic connotations that is tied to, and supports, the ILP claim.
Discussion

The following chapter will shortly return to a few methodological reflections in relation to the second part of the research question. Thereafter the central findings of the analysis which opened up for more questions will be discussed; the connection of increasing data amounts as a promise of objectivity with the ILP claim and the informants own conflicting reflections on data, information and knowledge.

Methodological reflections

The purpose and findings of the first part of the analysis are largely covered by existing research and it is widely agreed by informants and researchers, as outlined in the chapter on existing perspectives on ILP, that the ILP program i.e. challenges the organizational structure of the police, power relations and the basic competences needed as a police employee. The analysis showed that the ILP claim is more or less enrolled throughout the police and that the main challenges remains in the political and public relations. The connection between the program and these actors remains a question to investigate.

A part of the conclusion on the analysis was that the study was unable to answer the second research question in depth. Therefore, it is necessary to spend a moment reflecting on the methodological approach and what could be done in further research to actually answer the question of the role of digital tools in the knowledge production in ILP analyses.

As already pointed out the issue lies in the limitations of the empirical material. It would not be solved by simply conducting more interviews, which would be needed for a further elaboration on the first part of the analysis, but by supplying the interviews with anthropological methods like an observation study. The analysis gave a foretaste to the complexity involved in the knowledge production of the analysts with the many layers of inscriptions transported and dislocated from distant places. In order to account for the many translations happening, the study would had needed to follow an analyst or two in his or hers work from the beginning of a case and to the end of it. It would require intimate knowledge observed through their work days following how they treat data through databases as Pol-Intel, Excel and other software programs to enlighten how the many
levels of inscriptions represents the phenomena and thereby affect the constructed knowledge. Access to the actual spreadsheets and databases would also be beneficial. This being said, this suggested study would definitely had outreach the scope of a master thesis.

From a research perspective it is an interesting further study, where ANT offers a theoretical frame to shed light on the role of the digital tools that takes into account materiality and intentions within objects. How they transform, sort or visualize information is of increasing importance when digital technologies are the eyes of the analyst and the gateways to the world. As shown in the analysis, digital tools are treated as intermediaries in the daily work by the informants, but they need to be analysed as mediators to investigate the influence of them, and how they as quasi-objects are the centre from which the collective action is structured.

Data, data and data..

The reader has probably stumbled across the many associations made to data by the informants throughout the analysis. Meta data, sensitive data, quality of data, big data, police data etc. are all words used by them and data was mentioned 154 times in total during the interviews. Nearly every subject or question asked somehow returned to the question of data.

It was shown in the analysis, how increasing data amounts hold the promise of objectivity in the ILP program. At the same time this connection to an objectivity is what causes a clash between the description of the work of the informants and their own constructivist thoughts on data, information and knowledge. Is this discrepancy a part of a greater movement in our time and is it possible to see the narrative tied to the ILP program in a larger context? The following section will discuss these interesting questions on the base of the analytical work of this thesis. It will continue the non-normative approach to the subject and still not take a stand on whether ILP is a better way to conduct police work.

The ILP claim connecting availability of big amounts of data with evidence based policing draws on very well-known positivistic connotations within science: the strive for objectivity through careful data analysis and the setup of research criteria like reliability,
representativity and validity to ensure this. In the interviews there was found a reference to Popper (IP1: 11), and though Popper represents an elaborated version of positivism where scientific knowledge is not infallible since every theory is brought about by assumptions, it is based in the believe that through falsification of hypotheses, science can reach a form of objectivity.

Central to Latour’s work is the confrontation of this dominant structuralistic scientific belief which among others builds on dichotomies like society/nature, mind/material, fake/true. They imply that actions, claims or findings can be explained as either a natural or societal cause and that information is a presentation of the materiality or a fact itself thereby representing objectivity. With the discovered ongoing and persisting oscillation within the empirical material between a constructivist understanding of data and knowledge and the positivistic connotations that is tied to, and supports, the ILP claim, the work of Latour is extended from being a theoretical frame and a methodological approach to appearing in the empirical study itself.

In a Latourian terminology it seems like we are in the middle of a controversy, where the analysts at a daily basis are filled up, stuffed by the narrative tied to the ILP claim as shown in the first part of the analysis. But at the same time they utter a critical distance when asked to reflect on the presentability of data. The analysts are conscious of their work with data as clouded by subjective judgements. This is shown when pointing at the role of the analyst to make the final validation whether to trust a source or not, when pointing to the importance of the chosen coding of a certain crime or the coding of any information feed into the digital systems, and as shown by the talking about interpreting data. Still the analysts continuously return to the intelligence doctrine’s description of data as something neutral based in Ratcliffe’s DIKI continuum that places data, information, knowledge and intelligence in a hierarchical order in the knowledge production. The informants do not have the words to account for the watershed they are in the midst of, and they draw on a familiar vocabulary like the reference to justified true belief even though it contradicts with the main part of their utterances. The existence of a definite truth has been the winning argument, black boxed, in academia for many, many years. Even though i.e. discourse theories have led its way into the social sciences amongst other relativistic perspectives,
the predominant academic knowledge production taught is still one that aims at validity, representation or generalisation. It is presumable, that the informants have been trained through their educations in these concepts as well.

Summarising the former, Latour’s confrontation is ongoing, but has moved from the scientific battlefield to the general public also including workplaces. And even though the ILP program searches to limit these discussions to take place in educational settings only (IP1: 12), it lies just beneath the surface. Despite this movement the existing actor-networks continue to work, and as citizens we still expect the police to do the right thing. This influences the work of the police and it is pointed out by one of the informants off the record, but also by multiple researchers like Nadja Hestehave. They refer to a zero defect culture as a consequence of the expectations to the organization which silences discussions. Without going further into the discussion of the zero defect culture in the police, we will point at the deeply rooted expectation, which is based on an assumption that there is one right way to handle a situation and that it is possible to access the outcome prior to the action. Obviously that has never been the reality and the police therefore draws on a narrative legitimizing their position. The ILP program provides such a narrative as seen in the analysis, where increasing data amounts becomes the promise of objectivity.

Mikkel Flyverbom confronts exactly this prevailing idea that increasing data amounts automatically lead to better decision-making in his recent book, The Digital Prism (2019). The rationale is used by large tech companies like Google to justify the continuous hunt for more data, but is also reflected in governmental policies to legitimize i.e. increasing surveillance. He ties it to an increasing aim for transparency; if every action is logged, it is possible to account for and place confidence in decisions taken, since it is always possible to go back and check what ‘actually’ happened. Flyverbom presents the metaphor of the prism to confront the delusion. Data is only a representation of the reality and digital technologies do not provide a window to reality, but is rather comparable with a prism, where the output never presents the input. Transparency projects provide representations, rather than presentations (Flyverbom, 2019: 18) and Flyverbom draws on the Latourian understanding of digital technologies as mediators. He stresses the need for analysing technologies as management of visibilities, since, “the content policies and values of
digital platforms set limits to what we see in the first place” (Flyverbom, 2019: 9). There are multiple processes and analytical procedures and decisions involved in data projects, that needs to be addressed individually in order to understand how the technologies make us see, know and govern social worlds (Flyverbom, 2019: 41) and following the Latourian line, the book especially points out the processes of sorting and ordering data as an important step in the knowledge production (Flyverbom, 2019: 35). As outlined in the introduction to the existing theoretical perspectives of ILP, this is also at the heart of the critique of the analytical approach to conducting police work by Petersen and Tjalve (2018). They problematize that data collection itself is seen as something objective or political neutral and that the focus has shifted to mainly concern the analysts’ analytical work which seeks to be legitimized by an increasing implementation of methodological academic standards.

Collecting and sorting data is a process that involves way more than making information available for the following analytical work. It is remarkable that we as society still search for an objectivity and believe in increasing data amounts as a solution to this, when most of us are aware that a graph or a photograph is only a representation of reality and that it depends on the chosen input of the graph or the angle of the photography. These examples are maybe banal compared to the increased complexities of algorithms and digital technologies which for many remain incomprehensible, but the point is the same; whichever prism you choose as your gateway, the outcome will always be a reflection of the reality. Latour’s encouragement to question black boxes, or Flyverbom’s call for reflection on produced visibilities, seem just as important in a datafied society as ever.
Conclusion

This study has investigated how intelligence-led policing is enrolled in the Danish police and which role the digital tools play in the knowledge production through an ANT analysis based in a reading of Bruno Latour.

The first part of the analysis showed the widespread extension of the ILP program throughout the actor-network, the Danish police, and the claims used by the spokesmen to support the program and secure allies. The spokesman from NEC and the analysts are allies of the ILP program and are a part of the construction of ILP as a more objective basis for deciding priorities and resource allocation when fighting crime. The allies are mobilized by two main arguments, there are no other way and it is the best way to optimize resources. However, the ILP program is continuously challenged by anti-programs: The ‘police nose’, the ‘flat earthers’, the public and political actor and the existing managerial logic are all mentioned by the informants. The challenges are analysed to be based in conflicts between the ILP program and existing actor-networks. The main challenge to the further enrolment of the ILP program is shown to lie within the political and public actors of the network. Especially the existing managerial logic is argued to draw on existing sociologies that are strongly tied to political and public actors who’s wishes and demands for rapid exercises of judgements clash with the enrolment of ILP.

The second part of the analysis investigated how actions of citizens become information through many layers of inscriptions before being presented as knowledge in the EAE’s. The algorithms behind Pol-Intel add another layer of inscriptions and the platform serves both as accumulator of the traces and as inscription device visualizing the constructed knowledge as i.e. a hot spot map. The dislocated action is transported from one site to another by the digital databases and the police is shown to function as an oligopticon where the analytical units aim at commanding the actor-network from a distance. Data is essential for this to happen, which is shown by the informants many references to data and the quality of it, and the analysts rely on the rest of the organization to support the claim by registering correctly in the databases.
It is argued that digital tools undeniably play a role in the construction of knowledge within ILP analyses, but the study was limited by the empirical data. Therefore it is within the scope of the study possible to conclude on the investigation of the second research question. Exactly how the digital tools affect the knowledge production in detail remains unanswered.

However, the investigation led to a different outcome outlining inconsistencies between the supported claim of ILP and the informants own reflections on their work. The second part of the analysis found that the ILP promise of data as ‘pure’, as also adduced by the leading ILP researcher Jerry Ratcliffe, clash with the informants own reflections on the subject describing data, and their own analytical work, as highly subjective. The informants fluctuate between a constructivist understanding of data and knowledge and positivistic connotations that is tied to, and supports, the ILP claim. It is shown in a quote by one of the informants, describing that it is impossible to trust data since it is always framed, but that the availability of larger data amounts allow the analyst to get as close to reality as wanted. This discovery leads to the central findings of this study; that increasing data amounts become the promise of objectivity in the ILP program even though it clash with the majority of the informants’ opinions. Thus, ILP is produced by the digitalization but also produces it in a continuous search for more data.

Lastly, it is discussed how the connection between increasing amounts of data and objectivity in the study relate to more general tendencies in our current time involving the work of Mikkel Flyverbom. He connects the prevailing idea that increasing data amounts automatically lead to better decision-making with an aim for transparency. Even though a large part of the population are aware of the limiting angle of i.e. a photography, we seem to overlook the many processes and decisions involved in data analyses and digital technologies framing the conclusion or output. Drawing on Flyverbom’s analogy of a prism, the importance of treating digital technologies as mediators as encouraged by Latour is argued to be necessary to investigate the influence of digital technologies and their role in analytical knowledge production. The chosen prism becomes the gateway to the world and inconsequential of the choice, it will transform the information and only provide a reflection of reality. This counts for intelligence-led policing or any other field.
List of references


Retsudvalget (2016-17b). REU Alm.del endeligt svar på spørgsmål 915.

