

Algorithm and Administrator: An exploration of responsible administrative practices when working with machine learning models

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Enschede, the Netherlands

9th of September, 2024

Word count: 35.990

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Master's Thesis for Joint Educational Degree (2023-2024)

MSc in Philosophy of Science, Technology, and Society

MSc in Public Administration

Faculty of Behavioural, Management, and Social Sciences – University of Twente

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1. Administrative Discretion in a Digital Bureaucracy

1.1. Data and Public Administration

Governments are eager to capitalise on the promises of big data analytics in their administrations. Recent controversy in the Western world about the use of big data by governments highlight the risk involved with this ambition. Allow me to give a few examples:

- The UK government was faced with large public pressure after using data-driven predictions to determine the final grades of high school students when they were unable to take final exams due to the COVID-19 pandemic (Freeguard, 2020; Weale & Stewart, 2020);
- From 2013 until 2015, the government of Michigan falsely accused 20.000 people of fraudulently seeking unemployment payments. The automated system was mistaken in 93% of the cases it reported as faulty (Felton, 2016);
- In 2020, the Hague District Court ruled against the Dutch state on the question whether its fraud risk assessment algorithm used by the tax authorities, known as System Risk Identification (SyRI), violated article 8 of the European Convention on Human Rights (ECHR). This article concerns the citizen's right to respect for private and family life (*NJCM et al. V The Dutch State*, 2020);
- In 2021, the Dutch government was fined €2.750.000,- for the unlawful processing of citizen nationality, and systematic discrimination of single parents from the larger cities, with a low yearly income and a migration background in the risk-based monitoring procedures of social benefits (Autoriteit Persoonsgegevens, 2020, 2021).

In the latter two examples, the use of the machine learning models contributed to the scale of harm and bias towards specific citizen groups in what is known as the social benefit scandal. In total 68.246 families claim to have been falsely accused of fraud in their benefit applications and impacted by disproportionately large fines as a result (Dienst Toeslagen, n.d.). Only sometimes families could bear the consequences of these fines, but many faced problematic debt which led to 1115 children being placed under court custody (Centraal Bureau voor de Statistiek, 2021; Commissie Belhaj, 2024; Commissie van Dam, 2020). The risks of algorithm use in government thus become tangible, in conjunction with specific policy, political, and legal context it can unjustifiably discriminate against specific citizen groups, without the administration being aware of this. The parliamentary interrogation into the social benefit scandal called for "Human Measure" in government administration (Commissie van Dam, 2020).

In light of this call for human measure, I aim to explore the tension between the dominant material-discursive practices around machine learning models and the human public official. Central to my exploration will be what it means for a public official in executive government, in service of the public government as a whole, to act responsibly in collaboration with machine learning models. Defending that administrators have discretionary space in a digital bureaucracy, responsibility of the administrator is conceptualised based on a theory of practice. Considering my research itself as a product of practice in which I bear responsibility, the theoretical explorations of administrative responsibility are contrasted with an empirical study. This empirical study will centre on the administrative practices of responsibility during the public hearings of the Dutch parliamentary inquiry on fraud policy and service provision, which followed upon the parliamentary interrogation on the social benefit scandal. In the analysis, the risk classification model (risicoclassificatiemodel, RCM), a machine learning method, used by the tax authorities during the social benefit scandal will be studied as an exemplar case. By continuously searching for the tension between the philosophical reflections and the practical implications, I aim to provide a view of administrative practices with machine learning that prompts and enables practitioners to reflect on their going abouts and ideas of what it means to act responsibly in public administration.

To guide my research in this direction, I have formulated a central research question:

How relates the responsibility of the public administrator when working with machine learning models to the dominant material-discursive practice on the public administrator's work with risk classification model as practiced during the public hearings of the Dutch parliamentary inquiry fraud policy?

This research question is supported by three sub questions.

1. To justify the research focus firstly, why does the public administrator hold responsibility in the digital bureaucracy?
2. To inform the idea of responsible administrative practices in government secondly, what is the responsibility of the public administrator in administrative practice when working with machine learning models?
3. And lastly to base the discussion of the main research question on the practical reality of working with machine learning models in government, what is the dominant material-discursive practice on the public administrator's work with machine learning models in executive government organisations as practiced during the public hearings of the Dutch parliamentary inquiry fraud policy?

In this chapter I lay the basis for the later elaborations on responsibility in administrative practice, the role of machine learning models therein, and the empirical research into recent practices around administrative responsibility when with machine learning models in Dutch government. I first elaborate on the pressure on governments to use big data analytics. Then, I discuss the role of technology in public administration and the administration as a knowledge institute. Subsequently, I argue for the discretionary space that public officials maintain in this highly technological institute by contrasting Weber's (1921/1978) ideal-type of bureaucracy and Lipsky's (1980) street-level bureaucracy. Scrutinising the way increasing digital technology and automation is considered as to reduce administrator discretion, I ultimately draw on the complexities of the implementation of digital systems in administrative procedure and practical examples to claim that the room for administrator discretion remains, albeit with different characteristics. To exemplify these characteristics, I typify four situations in which administrator discretion is most present, including the classic street-level administrator. This discretion of the administrator in the digital bureaucracy illustrates the significant influence they has on government operations, which grounds the account of administrative responsibility provided in chapter 2.

1.1.1. Big data in government

Governments are eager to capitalise on the potential of big data in public administration. Indicative of this is the enthusiasm of the Organisation for Economic Co-operation and Development (OECD). The OECD, promoter of economic strength, individual liberty, and general wellbeing of countries and citizens in those countries (OECD, 1960), has established a digital government index. With the promotion of a user-centred, data-driven, platformed government, the OECD aims to make public sectors more efficient and effective, and make public service provision more effective and convenient for users (OECD, 2020, p. 5). Faced with decreasing public trust, the OECD suggests governments should work with data at their core to be efficient, be transparent, and live up to citizen's expectations in service provision (OECD, 2020, p. 7). This all in a strong regulatory framework with pro-active compliance from governments, so as to not damage public trust in government functioning (OECD, 2020, p. 17).

The European Union echoes the OECD's call for a digital government (European Commission, 2020a). In the strategy, data is seen as a key resource to make public services more effective and address big societal challenges of healthcare, mobility, and sustainability at little costs. To realise the full potential of data that is collected, the strategy outlines initiatives for the extensive data sharing government to business, business to government, and government to government within the EU (European Commission, 2020a, p. 13). This push for data sharing and use for the public good is set in the groundwork of the General Data Protection Regulation (GDPR), outlining data rights of EU

citizens. By empowering citizens to enforce these rights and strict compliance to the GDPR by authorities, citizen trust should increase and resistance to data-driven innovation should lower (European Commission, 2020a, pp. 1–3).

Similar to the EU, the Dutch government sees the use of data in its operations as a means to address a broad range of societal challenges (Rijksoverheid, 2021a). In the Dutch Data Strategy ‘digital government’ as is clearly positioned as a means to effectively and efficiently produce societal value, not a goal in itself. Concerning this value, McKinsey global put a figure on the financial potential of extensive data use in government. Up to 6% of the yearly government expenses could be saved by the increased use of data and automation in government practice. In 2020, 6% of the total expenses of the Dutch government amounts to about 23 billion euro (Statistiek, 2023). Clearly, the expectations of increased use of data in public administration are high.

To realise these expectations, premised on the vast availability and collection of data, dedicated data analytics and large computational capacity are required (European Commission, 2020a; OECD, 2020; Rijksoverheid, 2021a). The combined publication of the European Strategy for Data with a white paper on artificial intelligence (AI) is telling in this respect (European Commission, 2020b). Big data is only valuable when the computational capacity is available for it to be put to use. Big data is characterised by its very large volume of data, the high-speed at which it is collected (velocity), its diversity (variety), and its fine-grained resolution (veracity) (Kitchin, 2013). It is this character that makes the adequate analysis of big data challenging and resource intensive. It is with the presence of large computational capacity and dedicated learning analytics that this large amount of data becomes useful and thus valuable. In line with this, the white paper identifies AI as central to the projected societal benefits of big data (European Commission, 2020b, p. 2).

1.2. Technology and Public Administration

The interest that governments take in data analysis is not surprising. To understand the role of data and data analysis in executive government, this section explores different arguments for the central role that data has in government.

1.2.1. Public administration and data have a history

Although big data is a new phenomenon, plain data is not. Measurement, a most basic way of gathering data, has a history in Western government that dates back to the Egyptians and the ancient Greeks, and has been a cornerstone to commercial activity (Aristotle, 350 C.E., Book 1 part XI; Crosby, 1997, p. 14; Porter, 1995, p. 91). An early form of active data gathering by governments is the census, a regularly occurring count of citizens, households, and other relevant information. Ancient Rome's magistracy included a dedicated person responsible for organising a regular census, the Roman censor. Citizens were required to inform the magistrates of their personal details and property like land, slaves, and animals. This was all minutely administered under supervision of the censor. Based on this information, lists of tribe members and senators were made, public benefits were divided, and taxes were collected ('Censor', 2020). Thus, data has been central to the operation of government in the West since ancient times.

In modern states, the role of data has been transformed. With the advent of the Enlightenment in 17th century Western Europe, government was introduced to a way of thinking that enabled a greater degree of control (Kitchin, 2014; Scott, 1998, p. 88). James C. Scott (1998, pp. 90–91) describes how statehood as we know it today adopted the ambitions of the sciences around this time, characterising modern statehood. This form of statehood shares the scientific ambition to observe fact and establish unambiguous conclusions. Taking from the experimental scientific method grounded in the specification, isolation, and manipulation of variables, the modern state engages in the systematic ordering of its subject matter in which data collection is a central means (Scott, 1998, pp. 347–349).

This systematic ordering is clearly seen in the examples of the three prerequisites that Scott (1998, p. 65) describes for the contemporary modern state. The first prerequisite is the structuring of nature. This was important for the optimisation of gathering natural resources and is exemplified by the development of scientific forestry in Prussia. Here the concept of normalbaum was used to estimate and control yield from plots of forest (Scott, 1998, pp. 14–15). The second prerequisite is the structuring of space. This allows for the accuracy of mapping and thereby enables oversight of the city and plots of agricultural land, the latter being especially relevant for practices of land tenure and taxation (Scott, 1998, p. 39). Organising citizens is the third prerequisite for the modern state and

involves methods for unambiguously identifying individual persons. A good example of this is the registration of fixed surnames. Again, this was mainly for the purpose of taxation, but also involved the accountability of the person to the State under policies such as conscription. Subsequently, its introduction was heavily resisted in 15th century Tuscany, and only successful in the 17th century. (Scott, 1998, pp. 65–67). Interestingly, administratively organising nature, land, and people have standardized these into systems, which has historically been motivated by the wish to impose rules on that system, like taxation.

The parallel between the development of experimental science and the modern state thereby becomes clear. It is through this rationalisation of the subjects of nature, space, and people that the jurisdiction of governments naturally grows. Instead of only focusing its operations to support the wealth and power of those deemed worthy, the sovereign, the activities of the modern state shifted to the welfare of its citizens generally (Scott, 1998, p. 91). Think of the central importance given to education and healthcare in countries like the Netherlands nowadays.

For some topic to be governed, government needs a way of seeing it, to speak in the terminology of Scott (1998). It is impossible to be simply aware of all that of relevance in society. This way of seeing, making the topic of interest visible, involves observation, methodisation, and standardisation. Through a number of case studies in which this was wholly counterproductive and harmful, Scott (1998) warns for the imposition of this standardisation on complex situations and argues for the simplification that is involved in the process of making visible. It is important to be aware of the performative effect that the ways of looking of the modern state have, yet we should not mislead ourselves to think that government administrations can operate without relying on data and method.

1.2.2. The rationale of data in public administration

The ambition of modern states to achieve unambiguous operation is as grounded in data as science is. While in the wide variety of sciences many different kinds of data are used, quantitative data is especially useful to achieve unambiguous outcomes. Numbers enable analysis that is not inherently bound to the context in which the data is produced. Bruno Latour (1987) prominently characterised numbers as being highly mobile between contexts, enabling a comparison between the two from the moment they have been standardized to fit the quantification. It is from this acontextual, standardized character that the rationale behind the use of data gains a lot of convincing power in light of the modern government's ambition to achieve unambiguous outcomes.

In his book *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*, Theodore Porter (1995) explores the role of methods for generation of quantitative data and the way this has established a central position in modern science and government. Porter (1995) takes particular

interest in why it is that numbers provide this sense of objectivity. Objectivity can be defined in many ways, but Porter (1995, pp. 3–8) relates the pull of numbers in public debate specifically to mechanical objectivity. This kind of objectivity is characterised by the strict application of rules in the process of investigation. Through commitment to procedure, the researcher distances themselves from the outcome of the project which makes the outcome non-arbitrary, impersonal, and unambiguous. After all, if the steps of the procedure are correctly followed, the exact same outcome should be reproduced.

In addition to the impersonal convincing power of mechanical objectivity, in matters of public administration there is often a specific method that has been institutionalised (Porter, 1995, pp. 33–34). In case of competing methods for investigation, institutionalisation settles the discussion on alternative methods by its dominance. Porter (1995) thus describes that it is through curbing personal judgement, or subjectivity, and institutionalisation, that mechanical objectivity gains its power to convince. This power to convince is based significantly on the ability of this combination of mechanical objectivity and institutionalisation to provide a singular, coherent, and consistent view of what is considered 'real'.

Alfred Crosby (1997) describes the rationale underlying this powerful process described by Scott (1998) and Porter (1995) aptly. Crosby (1997, p. xi) seeks an explanation for the sheer dominance of the Western world at the time of European imperialism, the same time that is subject to Scott's (1998) investigations. This explanation he argues lies not in their advances in science and technology, but in the rationale that underlies this development in science and technology. The rationale is characterised by pantometry, universal measure. He describes this in the following way:

“In practical terms, the new approach was simply this: reduce what you are trying to think about to the minimum required by its definition; visualize it on paper, or at least in your mind, (...) and divide it, either in fact or in imagination, into equal quanta. Then you can measure it, that is, count the quanta.” (Crosby, 1997, p. 228)

This rationale of looking at the world has an essentialistic character. First reduce a subject to its minimum, be it Scott's (1998) nature, land, or people. Then, structure that subject in visualisation. And ultimately the division, where the subject matter is separated into the quanta, unitary elements. It is with this measurement that overview can be had of matters too expansive, too complex for simply knowing. It is the rationale of the modern state as described by Scott (1998). Crosby (1997) goes on to describe the ramifications:

“Then you possess a quantitative representation of your subject that is, however simplified, even in its errors and omissions, precise. You can think about it rigorously. You can manipulate it and experiment with it, as we do today with computer models. It possesses a sort of independence from you. It can do for you what verbal representation rarely does: contradict your fondest wishes and elbow you on to more efficacious speculation.” (1997, pp. 228–229)

It is the precision of the representation that facilitates the modern state’s ambition of unambiguous outcomes. With this precision, the representation can be operated on, procedure can be defined, by which the person involved can be displaced. The representation holds a truth that cannot be manipulated, mechanical objectivity is thus achieved.

1.2.3. Public administration as a technological institution

The presented interpretations of government are clearly critical interpretations linked to historical failures of the State (Scott, 1998), how numbers unjustifiedly gain argumentative weight in science and public debate (Porter, 1995), and European imperialism (Crosby, 1997). Yet, they still seem to convey a fundamental aspect of how contemporary government operates and what current views of *good* governance entail.

Looking at the uncodified laws of executive government institutions in the Netherlands, the general principles of good governance (Rijkswaterstaat, n.d.), the themes discussed earlier can be found. Decision making in government has to carefully prepare decisions, involving all relevant facts. It then has to decide impartially, with the use of appropriate procedure as legally intended. Procedure in government must be unambiguous. In the operation of this procedure, the government has to avoid any appearance of partiality. The decision has to then be decisively motivated by reference to active policy or legislation. In summary, the decision of executive government should be based on all available data, follow unambiguous procedure, and be motivated by explicit reference to active policy or law. The mechanically objective decision is thus the ideal, one where the outcome is unambiguous and independent from the person who makes the decision.

It is in this sense, seeing the history of government with standardisation and data gathering, the central position of data in government rationality, and the way this reflects in contemporary guidelines for good governance, that I consider government in the Western world to be a technological institution. An institution in which operations strive to make rational, unambiguous decisions. An institution in which data collection, data analysis, and specification of procedure is the central method for achieving this ambition. An institution, operated by humans, that seeks to make the human involved in decision making invisible. Such is the institution that I call technological.

1.3. Discretion and Public Administration

The technological administration has no place for the human administrator, yet administrations are operated by these human administrators. This section attempts to locate the administrator in the digital administration. Weber (1921/1978) conceptualizes the modernistic ideal of administration, the bureaucracy, in which the bureaucrat is a cog in a vast organisational machine of government. This form of government being an ideal-type, reality can be quite different. This is what Lipsky (1980) contends with his ethnographic study on the way street-level administrators: those in direct contact with citizens like police personnel and social welfare administrators shape government policy with their discretionary space. Putting this debate in the current context of increased digitalisation of administration, the question arises how the discretionary space of public administrators has changed and currently takes shape. Does the digital bureaucracy make the administrator superfluous? I claim it does not. Allow me to elaborate.

1.3.1. Weber's ideal-type bureaucracy

In the administration's ambition to realise mechanical objectivity, it is the ideal of a well-developed bureaucracy that aligns best. Central to this debate is Max Weber's (1921/1978) ideal conceptualisation of the bureaucracy, the neutral mechanical instrument that is in the hands of the political ruler(s).

The ideal-type administration that Max Weber (1921/1978, pp. 956–958) presents is fit for the name bureaucracy, rule by administration. The mechanism of the institution is made up of administrators whose task is strictly delineated and embedded in a hierarchy, where those higher up monitor the activity of those lower in the hierarchy. The bureaucracy exists by virtue of written laws and procedures, also called the files, requiring dedicated training of the person before one is eligible to be an official. The role of the official is to be an expert on a specialised element of the procedure, to execute this task in service of the procedure, and to do so under the consideration of the task as a duty to fulfil rather than something entrusted on their person (Weber, 1921/1978, pp. 958–959). The official is not subjected to the personal ways of their superior but should be led by the impersonal and functional files of the administration, so as to be highly predictable (compliant administrator, see chapter 3).

And so, bureaucracy is defined by its complete rationalisation of administration, official's functioning, and that which is subject to the bureaucracy. In his earlier work on *the Protestant Ethic and the Spirit of Capitalism*, Weber (1905/1930) expresses his concerns with the increasing rationalisation in society. He is worried about people ending up in a so-called iron cage: a situation in which instrumental values of efficiency are pursued at the expense of the freedom and agency of the

individual to think for themselves. Weber's feelings towards the ideal-type bureaucracy are thus clearly mixed (Kim, 2022; Vázquez, 2023).

1.3.2. Lipsky's street-level bureaucracy

It is this ability to think for themselves that Michael Lipsky (1980) researches of administrators in bureaucracies. Lipsky (1980) counterbalances Weber's (1921/1978) ideal-type bureaucracy with a seminal work on the agency of the human officials working in government institutions. People have interests, opinions, interpretations of what they are doing and should be doing, and can defy regulations imposed on them. Lipsky (1980) investigates this room that administrators have within the neatly ordered procedures and argues for the significance and discretion of what he terms the street-level bureaucrat.

Exemplified by the teacher, police officer, doctor, and judge, Lipsky (1980) means to indicate the public officials who are in direct interaction with citizens as part of their responsibilities. Lipsky (1980, pp. 8–12) argues that the street level bureaucrat is an essential part of public administration. The significance of the street-level bureaucrat at the time shows from the fact that they were high in number, their salary accounted for the majority of government spending, and that their day to day operation was, without fail, the centre of political discussion. At the same time, street level bureaucrats make up what the citizen experiences as government and the policies it implements. In their day to day interactions with people making executive decisions on a person's eligibility for a policy, kind of treatment, or kind of education, street-level bureaucrats determine the nature, amount, and quality of the policies they implement. In this direct interaction, they have a significant impact on citizen lives and self-image through their decision-making, face the direct response of citizens to their decisions and policy ramifications, and are the ones who establish social control in the name of public order. This role in between policy and citizen often has them at the centre of public controversy. Policy makers in government and politicians cannot go without the street-level bureaucrat.

Lipsky (1980) argues that by virtue of their direct engagement with citizens, street level bureaucrats hold a significant degree of discretion. The complexity of the social interaction, the practices of anticipation, pleasing, and social norms between official and citizen, does not allow for streamlining and gives the bureaucracy its human face. In this complex interaction, the citizen wishes to receive a service from the government over which the street-level bureaucrat decides. At the same time, the citizen provides the very data that is processed by the public official, giving the street-level bureaucrat a crucial position in the agency (Prottas, 1978).

This discretion of the street level bureaucrat come to the fore even more when they face high expectations, high volumes of work, while having little resources. They will be forced to prioritise their work, make executive decisions in doing so, and further streamline their work informally. Lipsky (1980, p. 19) even argues that the functioning of bureaucratic institutions, in a context of overregulation and legal ambiguity, depends on these acts of discretion by the street-level bureaucrat.

Another context in which administrator discretion shows is when the street level bureaucrat disagrees with the intent of the legislation and when their interest does not align with that of the manager. Lipsky (1980, pp. 21–22) illustrates this by various examples, like when the Boston Housing Authority implemented a racial integration housing decision guideline to eliminate the discretion of the public officials over housing allocations. The aim was to make the process more fair, except this policy did not work. Street level bureaucrats interpreted exceptions to the rule liberally to have some applications processed more quickly, informed applicants on how to get their application treated as urgent, or misplaced and lost applications in the process. The volume of work they had to process and the desire to continue working as before resulted in the undermining of the policy's intention.

1.3.3. Reinforcing bureaucracy through digital technology

Understandably so, administrative discretion has been problematized as having the possibility to overrule or frustrate political decisions, or, even more problematic, expose citizens to arbitrary decision-making (Finer, 1941; Hayek, 1960/2011, pp. 182–183; Strauss, 1984). Efforts to curtail the discretionary space of individual administrators include a legality requirement of the functioning of administration; checks and balances within public institutions, and principles of good governance (Bovens & Zouridis, 2002). With the advent of digital information technologies, however, numerous scholars have argued to have resolved the problem of administrator discretion by automating administrators away. Allow me to review the common argument.

Firstly, the digitalization of administrative information is said to displace administrators from their data gathering position as described by Prottas (1978). Digitized information can be stored centrally in an organization and is easily shared among organizations. No longer is the citizen the one who has to provide all relevant information, and the administrator the one who channels this into the report. This exchange between citizen and administrator has been swapped for a central database and the involvement of a host of administrators from various departments. These administrators hold various functions to gather, manage, or use the data from the database. Just think of the data collection through standardized administrative forms online, like an address registration or request for social benefits. Zuurmond (1998, 2012) describes how this management of information in organisations

increases the level of managerial control, which he calls infocracy, even though the traditional conditions for administrator discretion seem to have improved, like a reduced hierarchy and higher contextual complexity. The key difference lies in the transformation of the administrator from the information creator to the information user. The single administrator in contact with the citizen has therefore lost discretion in the translation of citizen information and requests to the report and is now expected to follow the procedure with the information as provided by the database.

Secondly, the opportunity that digitalization of information brings for the implementation of algorithms displaces administrators from operative functions. The structured form of information in databases lends itself well for the development of programs that implement algorithms to manipulate the data¹. Bovens and Zouridis (2002) describe this process well. In administration, this capacity of data has been used for the automation of, for example, the analysis of standardized administrative forms mentioned before. Administrators no longer have to worry about the assessments of the standardized form. The program analyses the information and can make a (preliminary) decision, depending on how it has been designed. As we had already seen, administrators at this point were already tied to the central database of the organization, and now are no longer needed for deciding on routine cases like study-loan applications or speeding tickets (Bovens & Zouridis, 2002).

The implications of technological automation for the functioning of public administrations have been met with a wide variety of responses. Newman, Mintrom, and O'Neill (2022), scholars in evidence-based policy making, argue that the essentially computational machine of public administration will be strengthened in its bureaucratic character by the rise of big data-driven automation. In contrast, Manski and Manski (2018) theorize how state-sovereignty can be transformed into a global, popular sovereignty through decentralized technologies, most prominently blockchain. More realistically, there are arguments to basically engineer the state away with a wider variety of decentralized, commons-based technologies including blockchain (Pazaitis & Drechsler, 2020). What remains a shared premise among these visions however, is that public administrators will have no role to play in the properly designed, technological infrastructure of government, whether that is centralized or decentralized.

For the administration in which the administrator has been automated away, Lorenz, Meijer & Schuppan (2021) introduce the ideal-type of algocracy. Here, the definition of algorithm is specified

¹ Here I use the useful distinction by Dourish (2016) of algorithm + data = program. The algorithm in this sense is an abstraction, in mathematical terms or in pseudo-code, that operates on the data. This includes both rule-based algorithms and machine learning algorithms.

to (big) data-driven machine learning as by the definition of Yeung (2018). It is through the pattern recognition and correlation-based insights of these algorithms that the administrator is no longer even required for assessment of the exceptional case. Through the calculation of risks and uncertainties the algorithm is able to address all cases. The infocracy displaced administrators from routine administrative tasks, the algocracy displaces administrators from their professional practice. Administrator discretion seems abolished.

1.3.4. Discretion in digital bureaucracy

However, let us not get swept away in the discussion of these ideal-types, and keep them merely for the purpose of illustrating of the tensions that this work is dealing with. After all, recent literature study shows that public administrations worldwide have only limitedly implemented AI applications (Mergel et al., 2023). Moreover, recent public controversy in the Netherlands around the use of risk profile-based monitoring of social benefits (Commissie Belhaj, 2024) and study grants (Minister of Education, Culture, and Science, 2023) have led to evaluations of other government systems and a high importance given to the careful consideration of the need and tools for automating assessment. A significant group of Dutch administrators are known to be critical and conservative towards the implementation of algorithms in the administration (Rijksoverheid, 2020, pp. 20–21). Thinking in terms of a fully developed infocracy or algocracy will thus not be very helpful considering the practical reality of administrations. The administrator is still present in this mix of information technologies and algorithms, but where does they reside in the digital bureaucracy?

Bovens and Zouridis (2002) conceptualise the role of system-level bureaucrats in their discussion of automating away the street-level bureaucrat. The system level bureaucrat is a civil servant who is mainly concerned with the design and management of the organizational system in which the programs run. In addition, the system-level bureaucracy requires IT experts to code the programs and legal policy staff to make a translation of legislation to the program. All those involved have to continuously make non-trivial choices in these processes of translation and implementation that are alike the policy making role of street-level bureaucrats as described before.

When projected into a process-based view from the legislature to execution, the identification of the role of legal staff, IT-experts, and system-level bureaucrats give rise to four significant contexts in which administrator discretion is exercised. Firstly, the legal staff has to translate legislative acts into procedure and policy that allow for operationalization. Lipsky (1980) identified legislative and regulatory ambiguity as one of the sources of administrator discretion. The committee Belhaj (2024) brings forward an intriguing example of this form of discretion in their investigation of the social benefit scandal in the Netherlands.

It concerns the establishment of the all-or-nothing approach to the rescinding of daycare benefits in the case of an identified mistake in the application. The act passed by the parliament clearly states the conditions under which parents have a right to daycare benefits, yet remains unclear about the consequences should these conditions not be met. Questions regarding this arise when the tax authorities notice situations where parents do not pay their required financial contribution. It is argued by the tax authorities that parents have to contribute in every case. This is supported by a mathematical argument, seeing that the parental contribution and the daycare benefits scale with the costs of the daycare, and a linguistic argument, seeing that the benefit is referenced as a way to accommodate [“tegemeoetkoming” in Dutch] parents for the financial costs. This is checked with the state attorney, who affirms the reading of the tax authorities and gives two possible courses of action. Either each individual case has to be reviewed to assess the right to daycare benefits, which may result in the conclusion that there is none, or the authorities can rescind the received daycare benefits in full and give the parents the opportunity to prove their made costs. The authorities choose to follow the latter. The first case with this reading was confirmed by the highest Dutch court, which meant that the reading of the tax authorities was confirmed and became common practice. This jurisdiction contributes to the consideration of the legislation as an imperative legal provision, meaning that neither the tax authority nor the judiciary has the authority to demand less than the entire sum of daycare benefits, unless the highest court corrects their decision. The all-or-nothing approach was born (Commissie Belhaj, 2024, pp. 99–105).

Clearly, the tax authorities actively interpreted the content of the legal act which was supported by the state attorney and ratified by the highest court. The interpretation of legislation in policy execution is not an unambiguous process.

Secondly, the IT-expert’s role, or more specifically the software engineer’s role, of translating policy into computer programs. I use here a distinction similarly used by Dourish (2016). Based on the work of Niklaus Wirth, Dourish (2016) breaks down the functioning program into the algorithm of the program, an abstract description of processing an input to an output, and the data that the algorithm runs on. When talking about the use of algorithms in public administration, IT-experts in each of these categories are involved, the software engineer, the algorithm designer and the data scientist.

So, the software engineer is responsible for translating policy into a computer program. This might seem like a process that can be executed in a mechanically objective manner, yet Passi and Jackson (2017) contend that this is only one aspect of the programmer’s work. The programmer has to combine the problem of interest with this abstract knowledge of theory and abstraction. In deciding what problem to address, what methods to use, and what form to give to the solution, programmers

have a significant influence on the ultimate functioning of the system. In later ethnographic study on the practices of programmers in a corporation, Passi together with Sengers (2020) further corroborates this claim of programmer discretion by showing the extensive engagement of programmers with colleagues and managers on defining the functional goal of the system, the different methods for realising the functionality, and criteria of success.

And then thirdly, let us take a look at the data scientist's role in this process. The data scientist is the one who prepares datasets, designs processes of data collection, and assesses the relevance of the data to a specific problem. In more colloquial terms, it is the person 'who does the cooking' of the data. Data always derive from a context and the data scientist is the person who designs this derivation and further manipulation (Helmond, 2014). Similar to the role of the programmer, this is not just a technical process, but involves practices of negotiation of the meaning of features and the translation of findings from the data science teams to management and others involved to establish trust in the approach taken by the data scientists (Passi & Jackson, 2018).

Fourthly, there is the role of the algorithm designer. Mathematician Cathy O'Neil (2017) has made a well-known and compelling argument for the way that numbers can be mobilized to shape a favourable reality for those who design them, to the detriment of those subject to the algorithm. Through the use of big data and opaque models, complex situations, like ones pertaining to human risk-behaviour when applying for a loan, are abstracted and approximately quantified. Similar to the data scientist, the algorithm designer has to face similar contextual challenges in their practices of abstraction, yet these come forward in the form of statistics and metrics.

Not all problematic functioning of software can be ascribed to the IT-experts who design this, the functioning of the software is also dependent on the organizational role that is ascribed to it by those who work with it. So, let us turn to the fifth and final form of discretion in the digital bureaucracy, the administrative official.

While automation by IT-solutions promises to no longer involve front-line workers, the implementation of the systems proves to be a process that requires significant effort from administrative officials. Officials have to convince and educate other officials and citizens to use the system (Alshallaqi, 2024). In this sense, the system level bureaucrat of Bovens and Zouridis (2002) is more likely to coexist with the street level bureaucrat. In this coexistence, it becomes the task of the system-level bureaucrat to get the screen-level bureaucrat to operate with the digital systems that they mobilise in their overall system design. It shows in the common form of implementing advanced analytics in the administration. There are many instances of risk-based monitoring, which flag instances for review by human official, and service automation that spits out cases that cannot be

assessed with a high enough certainty. The systems are thus not all-encompassing as often projected, but remain very much a collaboration with the human administrator, under supervision of the official higher in rank (Alshallaqi, 2024; Giest & Klievink, 2024; Keiser, 2010).

It is in this sense that the algorithm becomes more a kind of decision-support system rather than an autonomous agent (Giest & Klievink, 2024). The administrator makes an assessment and interprets the relevant procedure for this. The administrator has a variety of options at their disposal, different procedures, possibility to request more information, and different assessments of the request. All of which they have to make a motivated decision on. Face to face interactions may have thus been phased out, but discretion in the operation of procedure is still present, with a certain similarity to the street-level bureaucrat as described by Lipsky (1980).

In sum, we learned by discussing works from Scott (1998), Porter (1995), and Crosby (1997) that data and data analysis are inherent to modern government, yet present significant limitations and risks in the way that technologies of administration, inherently abstractions and thus limited, have a tendency to reshape the reality they try to represent. The rationale for increasingly implementing administrative technologies in public administration is strong, but does not fulfil one of its central premises, that automation of administration phases out the human administrator. As discussed, there are various contexts in which administrators have significant influence in the way the digital bureaucracy operates. Both in the design of the digital bureaucracy, and, when the considering the implementation of digital technologies in the administration, in roles that are more recognisable as a traditional form of discretion. To get back to the central question of this chapter, it is because of this discretion of the administrator in the digital bureaucracy that the administrator still holds responsibility for its operations.

2. Administrative Responsibility when Working with Machine Learning Models

In the previous chapter it has been argued that the administrator has discretionary space in a digital administration from which follows their responsibility. To realise a functioning digital application it has been outlined that the following roles are required: translation from legal acts; the software programming; the data analysis; the algorithm design; and the implementation of the software application including organisation management and exception handling. The people will all be typified as administrators. In these tasks, the administrators have a discretionary space to make significant choices that impact the policy they implement, which makes them responsible for their actions. They effect a difference.

This second chapter specifically considers the work of administrators with machine learning models, more commonly referred to as AI, because of the transformation its implementation promises. There is a wide-spread push for the adoption of AI in the public sector, eager to capitalise on the projected cost-efficiency gains and the improvement of public service provision to citizens. Underlying this promise of increasing cost-efficiency lies a decrease in work for human administrators through automation, or the streamlining of their work through risk-based selection. This changes the way the administration makes decisions and presents a specific challenge to administrative responsibility, as underlined by the numerous public controversies centring on the use of AI in Western governments recently. It is this challenge that machine learning poses to administrative responsibility that this chapter investigates when attempting to define the responsibility of the administrator when working with machine learning models.

Scholarly interest in the consequences of the use of machine learning in decision-making, part of what is called algorithmic decision making, is significant. Schuilenburg and Peeters (2021) edited a volume on the consequences of algorithms in society and present a comprehensive review. In their introduction they note how human follow-up, required by many a procedure, fails to meaningfully engage with the outcomes of the algorithm because they lack understanding of the system functioning and capacity to influence it (Schuilenburg & Peeters, 2021, p. 5). Subsequently, Schuilenburg, Peeters, and the contributors to their volume extensively consider the legal, technical and societal aspects of algorithmic systems in order to come to better aligned algorithmic systems. Yet, in doing so they lose the human subject in the decision making. Reuben Binns (2018, 2022) makes a significant contribution to the role of the human subject in decision making with algorithms, arguing for the significance of human decision makers from the perspectives of individual justice (Binns, 2022) and public reason (Binns, 2018). Work in explainable artificial intelligence (XAI) then

jumps in to conceptualise and facilitate meaningful interaction between the model and the human decision maker, for example by Baum et al. (2022) in their paper titled “*From Responsibility to Reason-Giving Explainable Artificial Intelligence*”. Yet, then it becomes again the task to design the technology such that the process is responsible. While the importance of this focus on the design of technology should not be pushed aside, it has to be grounded in a broader idea of what it means for humans to relate to the technology responsibly. Especially given the complexity of implementing AI applications in public government and the lack of academic insight into the topic (Mergel et al., 2023), this requires a philosophical approach that cannot be reduced to a criterion on a checklist. This is what I hope to conceptualise with this chapter.

A good intuition for what administrative responsibility is, is provided by Mark Bovens’ (2010) definition of the closely related concept accountability. To be accountable for something, is to be answerable for its consequences. Accountability is the state of being answerable of someone to a forum. This requires that this person explains their conduct towards this forum. The forum will then evaluate the explanation, judge its appropriateness, and possible mandate repercussions. This gives rise to questions like, what is an explanation of conduct? What is or who is (part of) the forum? When is an explanation of conduct appropriate? And how does responsibility ultimately differ from accountability? These are questions I will address in the following chapter.

The role of an epistemic agent is explored to answer the research question of this chapter: *What is the responsibility of the public administrator in administrative practice when working with machine learning models?* Primarily it is important that the administrator is responsive to the central concerns of practice, consisting of the technical knowledge of the administration, the professional community of administrators, and reflective on their individual contribution to the (re)production of practice. For machine learning specifically, this means that administrators should actively address the technical vulnerabilities that arise from its use. This can namely guide the administrator to monitor the model’s functioning and to reflect on the capacities that they themselves ascribe to the model.

The chapter is organised in the following way. First, I present my understanding of machine learning. In this understanding I differentiate methods of machine learning from the model that result from the method applied to training data. I defend that machine learning, based on its characteristics of generalisation and epistemic opacity, introduce the problems of individual justice and explainability for public administration. Then, I elaborate on theories of administrative responsibility. The dominant theories of administrative responsibility present an inherent conflict. One end of the spectrum defended by Finer (1941) draws on well identifiable organisational structures of hierarchy and task division, yet clearly falls short in positioning the individual administrator in this idea of responsibility.

The other end of the spectrum is defended by Friedrich (1940) and draws on the complexity of administration to appeal to the individual administrator's responsibility in terms of upholding professional values. The account however lacks a convincing interpretation of this complexity, which is a significant conceptual gap. First, I attempt to this by a review of the debate between Herbert Simon (1945/1997) and Dwight Waldo (1952a) on the role of science in administration. Resulting in a poorly informative back and forth, I attempt to establish an informative account of administrative responsibility by extending Waldo's (1952a) work on democratic administration with Joseph Rouse's (2015) definition of practice from the philosophy of science. This account subsequently informs reflection on an administrator's responsibility when using machine learning, grounded in the problems of individual justice and explainability.

2.1. Generalisation and opacity problems of machine learning

Artificial intelligence or AI is a hot topic, many are talking about it which makes definitions vary greatly. I will not use the term AI, but more specifically refer to machine learning. When I speak of machine learning, I mean the set of methods used by a computer to learn from data. When I speak of the machine learning algorithm, I mean a specific method by which the computer can learn from data. When I speak of a machine learning model, I mean a specific instance of the machine learning method. The model refers to the implemented neural network that has been trained on data, which technically is the element that 'learns' not 'the computer' (for an explanation of machine learning incl. example cases see appendix 1).

2.1.1. Challenges when implementing machine learning

The adequate implementation of a machine learning model in an organization presents several challenges.

Implementation

Firstly, the model has to be developed appropriately for it to be functional. Russell and Norvig (2022, pp. 722–731), in their widely used handbook on AI, define the typical development process to involve five stages. First, the problem of interest has to be formulated. A problem formulation suited for the application of a machine learning algorithm is specific and informs a well-defined goal. This includes the identification of parts of the problem to which a simpler solution than machine learning is more suited (role of the software programmer). Second, the data source is selected. The data has to be relevant to the goal and of good quality. Data quality involves knowing how the data is produced, by whom this is done, the range of possible values, and the potential errors in the dataset, including those errors possibly introduced by malicious actors. All the error that can arise from this has to be addressed and is called the pre-processing of data (role of the data scientist). Third, the model is selected, trained, and its performance evaluated. Different models have different requirements of the data and different strengths. The details of the model will be specified to perform best on the set goal, but this involves trade-offs, e.g. between false positives and false negatives or computational costs and model benefits (role of the algorithm designer). Fourth, the model is tested to build user trust. Finally, when the model has been implemented, it requires monitoring of performance and updating to changing situations (role of the IT team). Decision-making during these stages are hard to teach and require experience with the development of these models. The appropriate development of the model is thus the first challenge to working with a machine learning model. Notice how these challenges align with the types of IT-related administrator discretion defined in chapter 1.

Problems of generalisation

Secondly, machine learning works based on generalization from training data, which generally introduces two problems: the nonstationary problem and the long tail problem (Russell & Norvig, 2022, pp. 672 & 730). Machine learning models have to generalize from training data towards future data in order to be useful. If the model only performs well on training data, deployment will not be successful since the model will not be able to overcome insignificant variation in the novel input (also called overfitting).

Non-stationary problem

The nonstationary problem indicates that the situation in which the model is deployed likely changes over-time, the model subsequently has to evolve with the situation in order to remain functional as expected. Depending on the situation, new models should be trained on recent data more or less frequently. When updating a model more frequently, think of updates every day, extensive model testing becomes less feasible. If the model is not updated and trained on newer data, its functioning will deteriorate as the situation in which it is deployed naturally changes, yet a high refresh rate of the model comes at the cost of less model-testing (Russell & Norvig, 2022, pp. 730 & 731).

Long-tail problem

The long tail problem concerns the representative quality of training data for uncommon cases. The more rare a case is, the less likely it has many samples in the training dataset. When ordering the classes based on number of samples, the distribution is likely to have a sharp peak and long tail, hence the name. There is significant research effort into methods to address the low performance of machine learning models on rarer classes. Yet, while progress has been made over the past decade on the long tail problem, better performance on rarer instances relative to the common instance still comes at significant cost of overall performance (Zhang et al., 2023). What is more, is that a model that directly assesses user input, in this case the input of citizens, even when trained on a large dataset, will encounter data points not seen before and decrease in performance (Russell & Norvig, 2022, p. 730). The long tail problem can thus occur in training datasets and in the cases that the model encounters in use, leading to low performance on rare instances.

Epistemic opacity

The last problem, specific to the method of neural networks in machine learning, is the fundamental unclarity of how the model generalizes from training data, called epistemic opacity. While the process of learning can be precisely described mathematically, philosophers of science consider it impossible to semantically interpret, or explain, what the neural network has learned from training data and subsequently explain or justify how the outcome of a neural network is produced (Burrell,

2016; Sullivan, 2022). A machine learning expert might be able to interpret the training process, the model architecture, the software embedding, but interpreting the functionality of the model for a specific instance involves such a complexity that it is “not fathomable” (Lipton, 2018; Zerilli, 2022, p. 2). The inherent epistemic opacity of a neural network thus makes it impossible to understand why an output has been produced. In the case of a decision by a neural network based model, the decision would therefore not be explainable.

2.2. Administrative responsibility

What do the characteristics of generalisation and epistemic opacity inherent to machine learning models mean for the responsibility of administrators when working with them? First, I outline the debate on administrative responsibility between Friedrich (1940), defending professional values, and Finer (1941), defending subservience to the public will, which are still two dominant views of administrative responsibility (Hwang, 2019). Friedrich's account rests on an ill-defined scientific attitude in discussion, which is then explored by reviewing the debate between Herbert Simon (1945/1997) and Dwight Waldo (1952a) on the role of science in public administration.

The debate on administrative responsibility starts with a concern expressed by Weber (1921/1978) in the context of the ideal-type bureaucracy. The technical intricacy of the bureaucracy, the expertise of the administrator in this bureaucracy, and the legitimating authority embedded in 'the files' make Weber (1921/1978) worry about the power relation between the administrator and the politician, which is what he expresses when he states the following:

"The power position of a fully developed bureaucracy is always great, under normal conditions overtowering. The political "master" always finds himself, vis-à-vis the trained official, in the position of a dilettante facing the expert"
(1921/1978, p. 1101)

It is this tension between the politician, who hopefully is a worthy representative of the public, and the administrator that is central to the debate on administrative responsibility.

2.2.1. Theories of administrative responsibility

Concerned with a de-facto authoritarian state resulting from the power of unelected administrators in government as opposed to elected politicians, Herman Finer (1941) sees administrative responsibility as deriving from the subservience of administrators to the orders of those higher up in the hierarchy, with the executive branch led by a politically responsible minister. Finer (1941) sees democratic government to essentially succeed in hearing the public's needs and wants through the institutionalisation of an elected body which embodies the public's authority. The parliament thereby becomes an extension of the public will, and it should impose that on the executive branch of government.

The responsibility of administrators is to defer to the public will, as embodied by elected institutions and unambiguously expressed by them. Any transgression of that which is ordered by elected institutions by the administrator should lead to severe punishments. It is important that the qualification required to be an administrator instils a fear of transgression of the public will in the

administrator, since supervision cannot control for every possible transgression. In this sense, administrators should purely execute that which is ordered and not involve any personally held conception of the public good. Finer's (1941) conception of administrative responsibility as subservience is captured in his claim that the bored, unmotivated administrator is more suited for the adequate execution of political orders, than the zealous administrator motivated to contribute to the public good.

Finer's (1941) contemporary Carl Friedrich (1940) disagrees fundamentally with this conclusion and instead argues for the importance of the professional administrator who is responsive to their community and the public opinion, not just political orders. Administrative responsibility is thus twofold to Friedrich (1940) technical and political. Technical because the administrator is responsible for designing policy that is effective in light of its goals and doing so in a way that does not contradict other active policy. Political because the responsibility of the administrator is also to the public and its dynamic problems, wants, and needs, not just to the orders of the elected parliament.

Friedrich (1940) disagrees with Finer (1941) that there exists something as a public will that parliament can be representative of. Friedrich (1940) considers this firstly impossible due to the heterogeneity of citizens in society. He furthermore criticizes this idea for resting on an absolute distinction between politics and administration, or policy making and policy execution. He explains how this view conceptualizes policy making more like policy deciding, which overlooks the formulation of the policies to be decided upon. In what is in reality the slow process of policy development, Friedrich (1940) argues for the essential role of the official's experience and technical expertise for sound legislation. To truly contribute to the public good as a government, he argues that citizens, including administrators, should freely voice their opinion about matters of government and administrators should be responsive to this expression of wants and needs in this process of policy making.

The question to Friedrich (1940) remains how this political and technical administrative responsibility would be ensured. Sharing the observation with Finer's (1941) that mechanisms of accountability do not succeed in guaranteeing the responsible conduct of the administrator, Friedrich (1940) proposes an active role for the administrator to ensure administrative responsibility instead of an attitude of subservience to political order. The elected body is there mostly to attune administrators to their responsibility towards the public, knowing that their proposals can be stopped by an elected body. To live up to the dynamic needs of society and address its complex challenges, administrators as professionals require collective work rules and a befitting morale. A rigorous, scientific approach to their own practice and the possibility to open their considerations up to collegial and public scrutiny

are considered important. For Friedrich (1940), it is this scientific attitude that makes a level playing field in the bureaucratic hierarchy and settles professional disputes. This way, responsibility is elicited among administrators, rather than forced on administrators. To ensure administrative responsibility, Friedrich (1940) suggests that the administrator is thus not only accountable to the external body like the parliament, but also responsible to uphold the values and standards as set in the community of professional administrators with a scientific attitude in discussion.

Let us consider the use of machine learning in the administration from the perspective of these two definitions of administrative responsibility. From Finer's (1941) position, the use of machine learning in administration is responsible so long as political goals are realised, legislation is complied with, and external accountability mechanisms are satisfied. When this is ensured, the role of the administrator is defined by the political authority. To capitalise on the promise of cost-efficiency, the administration should decrease the hours of labour involved in their operation. Any public concern or political consequences of machine learning model functioning, arising from the inability to accurately establish the grounds on which the model makes decisions, are not pro-actively addressed by the administrators unless the parliament requests it specifically. Administrators do not debate the issue, except how their execution relates to the political orders and hierarchy is strictly followed. For them to deal responsibly with machine learning models, is to apply them, comply with legislation, follow the orders from bodies they are accountable to, and obtain political goals.

From Friedrich's (1940) position, the use of machine learning in administration is responsible when it satisfies the technical and political responsibilities of the administration. Technically, the use has to comply with existing legislation, satisfy external accountability mechanisms, and align with the professional values and standards of the administration. Politically, administrators should be responsive to public concern surrounding machine learning when developing policy and daily operations. Potential misconduct or problems in the procedure should be discussed in a rigorous manner away from prejudice, both internal to the organisation and, if needed, publicly. For Friedrich (1940), an administrator deals responsibly with machine learning when they comply with legislation, uphold values and standards of the professional community, and is sensitive to changes in public concern.

Analogous to different approaches of Finer (1941) and Friedrich (1940) is the differentiation between accountability as a mechanism and a virtue by Mark Bovens (2010). Those works that draw on the word accountable to refer to a course of action in a normative fashion fall into the category of accountability as a virtue. Being accountable thereby indicates the behaving of an administrator in light of what is considered good administrative conduct. One could say that the administrator is

answerable to the value of good administrative conduct. The works that draw on accountability to indicate a system that shapes the obligation of an actor to explain and justify their actions to some kind of forum, whether internal or external, are considered to address accountability as a mechanism. This forum then evaluates the justification, judges this, and can take punitive measure accordingly. This mechanism should then guide the behaviour of the administrator.

Since my aim is to position the human administrator in relation to machine learning, and not design better regulatory frameworks. I will not further pursue Finer's (1941) definition of administrative responsibility. Friedrich's (1940) position will be taken as a starting point for further investigation in the following sections of the chapter.

2.2.2. Science and public administration

Friedrich (1940) points to the methods of science to guide internal discussion on policies, but what does it mean to have science guide this internal discussion? What is the role of the administrator in this? A clear depiction of two conflicting normative takes on these questions can be found in the seminal debate between Herbert Simon and Dwight Waldo. Whether science is value-laden is the central point of contention between the two.

Administrative Behaviour

Simon (1945/1997) grounds his view in the ideal of a fully technological, perfectly rational administration (Mintrom, 2016). Similar to Finer (1941), he upholds a distinction between the political and administrative, albeit for functional, analytical reasons in the study of public administration (Harmon, 1989). The administrator presents a limitation to the realisation of the rational ideal of administration, since the administrator is human with a limited capacity to process information. Since the administrator still holds the intention to make increasingly rational decisions, Simon (1945/1997, p. 68) argues for the design of the administration such that their decisions are as close as possible to objective rationality. This is subsequently the central concern for the scientific study of public administration according to Simon (1945/1997): how to organise the administration such as to give the most rational execution to political goals as possible.

Faced with the challenge from which perspective to determine the rationality of behaviour, Simon (1945/1997) responds:

Perhaps the only way to avoid, or clarify, these complexities is to use the term rational in conjunction with appropriate adverbs. Then a decision may be called "objectively" rational if in fact it is the correct behavior for maximizing given values in a given situation. It is "subjectively" rational if it maximizes attainment

relative to the actual knowledge of the subject. (...) A decision is organizationally rational if it is oriented to the organization's goals; it is personally rational if it is oriented to the individual's goals. (1945/1997, p. 85)

Rationality is thus firstly about the maximisation of goal attainment, which can maximise goal attainment in fact, or do so in a sense that is limited to the capacity of the individual. The rationality can also be oriented towards different goals, those of the organisation or those of the person. What is rational in public administration is the maximisation of political goals. The administration should therefore be designed in such a way that what is rational for the individual to do, aligns with what is rational to do for the organisation broadly (Simon, 1945/1997, pp. 324–325).

If the use of machine learning systems in administration were only evaluated based on their measurable efficiency to obtain certain outcomes, the extensive implementation of the models would be out of the question and any discussion on the rights and wrongs of the implementation soothed by appeal to fact.

Simon (1952) however maintains the view in an analytical fashion, which is seen as distinct from decision-making. He builds on the analytical separation between facts and values of the philosophical school of logical positivism. Values should be informed by the parliament and the factual attainment of those goals should be left to the administration. What is thus responsible for the administration to do is to strive to overcome their own rational limitation and orient towards objective rationality (Simon, 1945/1997, p. 66). Study of public administration is to establish methods to make administrators behave more rationally and evaluate the behaviour of administrations from a point of view that is objectively rational.

This same separation between facts and values is key to Simon's (1945/1997, p. 357) definition of administrative science. For him, administrative science is limited to matters of fact, the hypotheses of which can be said to be either true or false. This science might concern itself with the organisational behaviour of humans, the sociology of administration, or study the conditions under which certain outcomes are brought about with minimal resources required, the practical science of administration. In order to decide matters of fact in administration, Simon (1945/1997, p. 255) presents the criterion of efficiency as a value-neutral way of deciding between different approaches, seeing that for Simon (1945/1997) the goal of the administration is to effect political goals most efficiently with a limited set of resources. With the adequate study of administration and application of the efficiency criterion, administration can thus become increasingly objectively rational.

Democratic Administration

Waldo's (1952a) disagreement with Simon's (1945/1997) approach to administrative science, especially the value-neutral position provided to the efficiency criterion, originates from his different perspective on what administration is. While roughly agreeing on the goal of administration to be rational, Waldo (1948/2021) directs attention to the complexity of the practice of administration. For Waldo, administrations are made up of individual persons who are formed by their cultures and personality. The administrator cannot be reduced to some unit of labour power or the like. For Waldo (1948/2021), the irrational behaviour in administration is something that is inevitable that should be acknowledged in the science of administration.

In a later plea, Waldo (1952a) contributes to the development of a theory of democratic administration, providing it with a perspective from administration theory and a central position for the human administrator. Describing how private administration theory has been historically characterised by "a spirit both of cold, scientific self-calculation and of condescending good will toward the employee" (1952a, p. 83), Waldo (1952a) observes a change of tone towards a softer paternalism. He explains this by two shifts in thinking about administration generally. Firstly, functionalism has arisen at his time of writing. Authority by fulfilment of function has replaced authority by any other means, like seniority, gender, or rank. Secondly, there is a novel appreciation for the worker as a "whole – or, at least, more nearly whole – human being" (Waldo, 1952, p. 89). The Hawthorne experiments of 1925 have convinced a significant number of theorists of the importance of the subjective experience of the worker, with a personal history, embedded in a social environment that is significant to them in personal ways. Hereby the worker was no longer "an isolated, atomic individual; he is a member of a group" (Roethlisberger, 1925/1941, p. 75). This subjectification of the worker is important for Waldo's overall argument, as will be shown.

The challenge for democratic administration in early public administration theory lay not in a hard paternalism, but in the way theorists had put democracy at odds with effective administrative functioning according to Waldo (1952a). In a pursuit to curb the chaotic administrative practices in U.S. administration of the latter half of the 19th century, scholars critiqued fettered democracy and inefficient administrative practice. To address this, scholars rationalised highly centralised and institutionalised forms of administration, cutting out distributed decision-making as chaotic and ineffective. A cornerstone of this rationalisation of administration at the time is the separation of politics and administration, where the administration is to be optimised for the realisation of legitimate political decisions. This legitimation of political decision is derived from democracy, which thus does not play a role in the execution of the decision. This is a line of argument that we already

saw in the discussion of Herbert Simon (1945/1997). Waldo (1952a) aptly summarizes the adagio that this separation of politics and administration gives rise to:

“Autocracy during hours is the price of democracy after hours” (1952a, p. 87)

In this quote the hours refer to working hours of citizens and clearly indicates the way that the ideal of democracy is put at odd with effective functioning.

Waldo (1952a) identifies three trends that might allow for the growth of the idea of democratic administration in public administration theory. Firstly, the belief that politics can be strictly separated from administration is no longer generally accepted. Secondly, efficiency as a central concept of administration is increasingly critically treated in literature. Thirdly, the political effects of administrative means are increasingly recognised, such as the implications of tenets of centralisation for distributed decision-making capacity and thus democracy within administration. With the emphasis on these three trends, Waldo (1952a) identifies three central obstacles to the realisation of democratic administration, which respectively highlight the specific points of contention in his debate with Simon at the same time.

Waldo (1952a) develops a theory of democratic administration along four elements. First, it is a theory that recognizes the way that administrative organisation and practices are tied up with their societal context. Administrative means are made possible by economic and social configurations in society, and thereby hold specific ends in their very realisation and use. For example, fettered decision making then becomes a way to pursue the democratic ideal in itself. Second, instead of being solely a political ideal, democracy should be recognised as a practical program to be realised in everyday practice. To be a democratic administration then rests on the way the organisation recognizes the significance of each individual administrator and each citizen in the way knowledge, respect, and power are deliberately shared. Democracy cannot be reduced to “mechanical counterfeits” (Waldo, 1952a, p. 95). As a consequence, and third, the administrator has to in fact embody democracy, acknowledge their politically significant role in society. This should not be mistaken as a plea for activist administrators, it rather is concerned with the following:

“A civil servant in a democracy cannot properly discharge of his duties and responsibilities unless he has a firm appreciation of the meaning of democracy, of the dignity of the citizen, and of the concept of being a servant to the people.”

(Levitan, 1942, quoted by Waldo, 1952a, p. 90)

It is the attitude of the administrator, the personal commitment of them to the ideology of democracy and their sensitivity to and respect for the citizen, that the manifestation of the practical

programme of democracy depends upon. Yet attitude alone is not enough for its realisation. Fourth, this shared attitude among administrators must take form in the shared values, purposes, and activities of the administration. Authority in the organisation is exercised based on expertise, rather than position. Research for decision-making is done with the appropriate techniques of finding and sharing 'fact', while done 'in proper spirit' (Waldo, 1952a, p. 96). Taking action with the attitude grounded in shared commitments, the administrators together shape outcomes that are greater than each individual's contribution and each individual can identify with. This way "the individual is, not lost, but found" (Waldo, 1952a, p. 95).

Waldo's (1952a) work here is clearly aligned with Friedrich's (1940) work on administrative responsibility as both technical and professional. What Waldo (1952a) discusses is how this professional community is shaped by the collective action of the administrators, and the significance this professional community has on the political character they manifest. This positioning of the individual in the shaping of the professional community brings with it a responsibility, one that rests on an administrative self-consciousness, as is for example clear in Waldo's (1968) reflection on the role of U.S. public administration in the Vietnam war and the societal upheaval this caused.

Coming back to the matter of administrative science in light of Waldo's (1952a, 1948/2021) deeply political view of public administration, his critique on ordaining efficiency as a value-neutral criterion becomes understandable. Committing administrative decision-making and the resolution of internal dispute to the concept of efficiency as studied by researchers of an objective administrative science is anti-democratic, or in his words, it is to submit to autocratic rule.

Herbert Simon's conceptualisation of administrative science is clearly grounded in the school of logical positivism (Harmon, 1989; Simon, 1945/1997, p. 55). And while Waldo (1952b) shows to be aware of the philosophical critiques of logical positivism, he does not employ these critiques to develop his case against Simon's (1945/1997) commitment to efficiency. As Harmon (1989) observes in his reflection on the Simon/Waldo debate however, the developments in philosophy of science toward empiricism and behavioralism at the time were not supportive for Waldo's (1952a, 1952b) point either. However, now, 72 years later, with the development of "philosophy of science in practice", I hold that Waldo's work can finally be firmly grounded in a philosophical school. It makes the character of administrative science clear and illuminates the responsibility of public administrators.

2.3. Philosophy of science in administrative practice

Philosophy of science in practice is a school concerned with bringing together the work on traditional topics in philosophy of science like evidence, truth, or fact, with the use of knowledge towards practical ends (Ankeny et al., 2011). Instead of reducing administrative work to a logic of administration for analytical reasons as Simon (1945/1997) suggests, philosophy of science in practice integrates the two by taking interest in the interface between the analytical study and the practices in the context of concern (Ankeny et al., 2011). The value-based character of decision making in administrations that Waldo (1952a) defends, pointing out the limitations of administrative science, can find more systematic argument from work in this field.

First, what is meant with practice? According to Ankeny et al. (2011), introducing the Society for Philosophy of Science in Practice, a practice is a set of “organized or regulated activities aimed at the achievement of certain goals” (2011, p. 304). The organized or regulated character of activities makes it possible to discern practices from each other, they have a certain consistent or recurrent character. The activities serve to fulfil certain goals and not others, which gives practice a functional and value-laden character.

This clearly aligns with Waldo’s (1952a) challenge of Simon’s positioning of the concept of efficiency as a value-neutral criterion of administrative science, as illustrated when he points out in a footnote

“To decide is to choose between alternatives; to choose between alternatives is to introduce values.” (1952a, p. 97).

This claim by Waldo is echoed in the context of values in science, specifically in the argument of inductive risk (Douglas, 2000). What remains unclear however, is what implications Waldo himself would have attached to this observation concerning administrative science itself, aside from its inability to decide on matters of administration.

For philosophy of science in practice, importantly, the idea of practice extends to the scientific study itself. Ankeny et al. (2011) phrase it in the following way:

“Our concern is not only about how pre-existing knowledge gets applied to practical ends, but also about how knowledge itself is fundamentally shaped by its intended uses.” (2011, p. 305)

Notice how this approach of practices put to science itself sets up the character of knowledge as something that only exists as arising from human activity, and how the activities involved in producing knowledge have a goal too. With this intended use, or goal, the character of science itself and its resultant knowledge becomes value-laden.

Consider the similarity between this view of science and the way that Waldo considers administrative means as entwined with specific ends. Drawing this perspective of science into the context of administration, when the intention of scientific activity is to inform decision making in public administration, cannot be considered as distinct from the decision-making on what means to employ in the administration.

While the field considers science to be value-laden, it does not adopt an indifferent position towards the quality of knowledge, or a relativist approach (Ankeny et al., 2011). Scientific efforts thus do remain of importance for the ability to address problems faced and achieve goals. There is still knowledge that is more suitable for a specific purpose, and knowledge that is more reliable than others. It does give rise to the question how this differentiation between quality of scientific work can be made, and where it derives its authority from when it is no longer because of its 'truth' or its 'value neutral', 'apolitical', or 'objective' character. What then qualifies work as 'scientific'? Here, the scientist themselves and the scientific community play a significant role.

2.3.1. Objectivity and public administration

Inspired on the natural sciences as prime exemplar, science is often commonly viewed as concerned with the facts of nature, the irrefutable mechanisms of reality, like gravity. Because of the great capabilities that have been derived from the systematic experimental study of physical phenomena, many scholars in other fields aspired to take a similar approach to their subjects of study. This view relies on the same analytical distinction that Simon (1945/1997) wishes to make between fact and value in the administrative sciences.

Simon (1945/1997, pp. 358–359) is clearly convinced to bring the approach of the natural sciences to the social science of administration. To start off, Simon rejects the possibility that social science is different from natural sciences because it is claimed to involve ethical norms. Science is concerned with truth and falsehood, and this differentiation can therefore not be true. He breaks down the distinction between natural and social science along two dimensions. Firstly, social science is concerned with phenomena that are more complex than those of the natural sciences. Secondly, social science cannot engage research without regard for its 'objects of experimentation' (Simon, 1945/1997, p. 358), or human subjects. Simon (1945/1997, pp. 358–359) suggests to address the distinct features of social science by the systematic incorporation of the factors that influence human behaviour into the studies of social science. Thus Simon (1945/1997, pp. 358–359) views social science as natural science with a distinct research subject, with the challenge to incorporate the right factors that determine human behaviour.

Simon (1945/1997, p. 360) furthermore takes the activities of administrative sciences to the economic sciences. This too he separates into two kinds, the theory development of human behaviour in markets and the study of conditions of business behaviour that leads to the maximisation of profit. For the administrative sciences this would relate to the descriptive study of behaviour of administrators in the organisation and the development of theory about organisational conditions that most efficiently lead to the achievement of political goals. Just like economic theory, Simon thus requests a complete, objective rationalisation of administrator activity to inform the governance of administrations.

Values in Science

It is this perspective on truth, the 'independent observer', is criticised by Helen Longino (1990) in her work on values and objectivity. Specifically, Longino (1990, p. 65) criticizes the way that logical positivism situates the use of research method and evidence as a way to purge subjectivity from the hypotheses developed by the scientist. Longino (1990, pp. 65–66) contends that in order to relate evidence to the support or negation of the truth of a hypothesis, assumptions about how the evidence relates to the hypothesis have to be introduced. The support for the relation between evidence and a theory requires justification that involves personal, social and cultural values (Longino, 1990, p. 4). Here, the challenge of acknowledging values in science while upholding a differentiation between the quality of scientific works is faced.

To address this challenge, Longino (1990, p. 71) defends the claim that science derives its objectivity from the social character of scientific inquiry, specifically the way this enables criticism of knowledge among scientists. Science should not be regarded as something static, but as something that is practiced by scientists. These practices of scientists recast scientific methodology as social practices, instead of something that an individual applies to a question. Scientific knowledge is then not something independent from the scientist(s), but a social kind of knowledge (Longino, 1990, pp. 74–75). For this knowledge to be objective, the social process has to hold significance for the practices of scientists. To differentiate less objective from more objective knowledge, Longino (1990, pp. 76–79) outlines four criteria for transformative criticism in scientific practice: there must be recognised forums for criticism like academic journals and peer review processes; there must be shared standards of conduct that serves as the basis for critique, like the value of internal logical consistency; the beliefs held by the community of practitioners as a whole have to be responsive to criticism; and, intellectual authority should be shared equally among recognised practitioners, to keep unwarranted political influence out of the community. The degree to which these four standards for social practice are upheld in the community determine the objectivity of the scientific inquiry.

Longino's (1990) account of objectivity directs our attention to the importance of the interaction among scientists of holding each other accountable for upholding standards of practice. The relation between data and a specific claim requires specific interpretation and justification, which takes the method of data production into account. The public and professional scrutiny of these practices of generating evidence and justifying hypotheses provide an inter-subjective grounding for the objectivity of the practice. What then makes the work scientific is the way the scientist opens their propositions up for criticism and how they respond to this.

This clearly links to the way that Friedrich (1940) articulates the professional responsibility of the administrator and the way this requires responsiveness to public debate, in line with Waldo's (1952a) characterisation of administration as a political practice. With the criteria Longino (1990) puts forth for a process of intersubjective criticism, she provides direction for developing the institutional context and social practice to promote a methodological objectivity in administrative practice.

When trying to draw from this conception of objectivity for the purpose of characterising administrative responsibility more generally, it does not satisfy the dimension of technical responsibility of the administrator however. The technical responsibility of an administrator lies in their knowledge of administrative procedure, administrative technologies, and regulatory context. It can be argued that the way procedure and regulation manifests is dependent on the way administrators put this into practice and hold each other accountable to it. At the same time, procedure, technologies, and regulation seem of a more substantial, though not unambiguous, character than being entirely determined by the interpretation of the administrative communities. Thereby, it does not sufficiently address matters of technical responsibility that administrators face in the complexity of the large-scale administration.

In addition, Longino's (1990) distinction between those who are recognised as part of the community for intersubjective criticism and who are not becomes severely more complicated when considered in the context of the public nature of democratic government. The differentiation between subject matter that should be limited to the professional community of administrators and those which should be publicly debated is ambiguous and prone to exploitation. This also seems to effectively reintroduce effectively the differentiation between politics and administration, since for the mechanisms of intersubjective criticism to be effective issues effectively require the identification of a relevant community. When this concerns the public at large, we could consider it political, when this concerns matters of technical expertise of the administrators, we could consider it administrative. While it makes a persuasive argument for the institutional and practice criteria that the professional debate should fulfil, this approach does not uncontroversially satisfy the

characteristics of both the technical and professional responsibilities of an administrator that we have identified so far.

2.3.2. Normativity and scientific practice

To better acknowledge the substantial technical requirements that administrators have to fulfil, to avoid exploitation of differentiating communities depending on the matter of discussion, and to do justice to the argument made in chapter 1, of how administrators maintain a realm of discretion even in a highly digitised and automated context, let us scrutinise again what is meant with the term practice and how this might inform a notion of objectivity.

Practice as the basis for normativity

Remember, Ankeny et al. (2011) point to a set of activities that is regulated or organized to define what practices are. Turning to the question of responsibility, it is relevant to ask the question: how are these activities regulated or organised? Longino's (1990, pp. 17–18) work is clearly based on a view of practices as being social in nature. But this underwrites the neglect of the substantial character of administrative procedure, administrative technologies, and legislation regulation as just argued. Social practices and their discursive nature clearly matter, but this cannot determine practice entirely. Surely, the material environment of administrators including technologies like machine learning models, the situatedness of their offices, and the software programmes have an influence on their practices. Of similar certainty is that human administrators have a level of agency in this discursive and material context. How to conceptualise practice in a way that acknowledges this interlinkage of discourse, materiality, and agency?

Joseph Rouse (2015), part of the school of philosophy of science in practice, grounds his account of practices in naturalism. This means that his account of practice comes from a school of thought that seeks to understand humans in the world without appeal to any supernatural instances, is based on a scientific understanding of nature characterised by Charles Darwin, and tries to avoid the premise that naturalism itself is prior to that which is subject of its scrutiny (Rouse, 2015, p. 3). The co-constitutive relation between the organism and the environment herein is fundamental. In other words, without the right environment the organism would not live, without the organism there would be no fit or unfit environment. This characteristic of naturalism can be clearly identified when Rouse (2015) defines practices as:

“Practices instead [of being social regularities, red.] are composed of performances that are mutually interactive in and with partially shared circumstances.” (2015, p. 190)

Practices are not a set of activities or limited to social regularities to Rouse (2015, pp. 21 & 43), but made up of performances: meaningful, skilled acts of expression and interpretation. These acts of expression and interpretation are fundamentally conceptually significant performances, in both a linguistic and behavioural way. These performances are shaped in interaction with the discursive and material environment of the individual.

Rouse (2015, p. 49) then grounds the normativity of performances in the responsivity of a performance to the other's performance, which includes interpretation and expression. The responsiveness of the two gives rise to the mutual accountability. For this interaction between performances to arise, circumstances of the performance have to be partially shared for the performers to interpret each other's performance as meaningful (Rouse, 2015, p. 127). The first characteristic of a normative take on practice follows from this interactivity among the performances that make up the practice. In interaction performances reflect on each other, drawing issues into contention by changes in behaviour or phrasing with respect to the other. This interaction and mutual recognition between performances is what makes them conceptually significant and meaningful. The second characteristic of normative practice is the way the interaction between performances moves forward in time. Because performances in a practice are responsive to each other, it means that the performance of one now sets the stage for the performance of another later. Thus, the performances over-time determine how the practice develops and the consequences it has. This again reflects on the normativity of practice, constituting the third characteristic of normative practice, making normativity inherently varied across performances and partially indeterminate toward the future (Rouse, 2015, pp. 163–169). It becomes clear how the very idea of objectivity itself is indeterminate and evolves over time. Normativity, and what one might call objectivity, Rouse (2015, pp. 194–195) derives from an interpretation of ends of the performances that make up a practice. These goals of the performances, whether intentional or interpreted consequence, are the object of practices to which the issues that are at tension with each other in a practice can possibly relate to.²

² Considering the project in light of Rouse's (2015) elaboration on the mutual accountability between performances, I am assuming the accountability of administrators to me as a student of public administration and philosophy of science, or to me as a member of the general public, or to me as an individual interested in the topic of responsible use of AI in public administration, or the very integration of the three. Any way it is turned, I am trying to position myself in the practice of administrators in the Dutch government, but remain entirely dependent on their interaction with me and my work to be recognised as of any normative significance. Otherwise, this will remain a purely academic exercise between me as a student and my supervisors as professors.

Democratic Administration and Normative Practice

In this definition of practice, I find alignment with what Waldo (1952a) establishes as central to democratic administration and its justification. Concerning the first characteristic of normative practice (Rouse, 2015, p. 163), remember how Waldo (1952a) bases the democratic character of administration in the embodiment of democracy by the administrator, their recognition of citizens, and the shared character of administrator activity in this democratic embodiment. Waldo (1952a) captures the interrelation of individual activities in the following phrase:

“[H]e makes his individuality meaningful by contributing to decisions and actions which are what they are only by virtue of his contribution, but yet are different from the sum of the individual contribution” (1952a, p. 95)

The significance of the relations of the individual are made apparent here in two ways. Firstly, it is the contributions of the individual to collective actions make the person’s individuality meaningful. Secondly, that what comes out of their contributions is not just the sum of each individual’s contributions, but something different entirely. To attribute this to the way the administrators’ contributions interrelate, instead of something supernatural, remains true to the way Waldo (1952a, 1968) strives to find the human in administration and establish an administrative self-conscious.

The second characteristic of normative practice, concerning the move of practice throughout time, is something that is not directly discussed by Waldo. It does however feature in the way Waldo (1952a) sets his account historically when he mentions about the way grounds for democratic administration have evolved in the field of business administration:

“The consequences of action must be distinguished from the motives; but consequences bear on future motives as well as on further consequences.”
(1952a, p. 84)

Dealing with this dialectal interplay between action, consequences, and motives throughout time, Waldo (1952a) comes close to introducing a notion of responsibility based on it. This is clear when he later cryptically remarks on the way the Mayoites have reintroduced the humanness of the worker with the Hawthorne experiments:

“They have spread a leaven, and, if the ferment is handled skillfully, it may be possible to distill democracy from it.” (Waldo, 1952a, p. 89)

The Hawthorne experiments, and Mayoites generally, might have been motivated by increasing worker output, their consequences include an increased focus on the way workers are human subjects who are socially embedded and each have a formative history. Here shows how the motives

of actions should be distinguished from their consequences, as this has spread the metaphorical 'leaven'. Developing this attention to the worker subject further in line with the democratic ideals that should be put into practice, is the skilled handling of the ferment. Not developing the work into the direction of democracy might be considered irresponsible, although Waldo (1952a) does not make this explicit.

Lastly, the third characteristic of normative practice, which positions the substance of normativity itself in the development of practices over time, resonates with the work of Waldo (1952a) too. When he concludes his plea for democratic administration, he takes a moment to project a future ideal for society. One which realizes the ideals of authority by expertise and the fluid organisation of authority among people that follows from this, based on a shared understanding of what makes this possible. He goes on to describe the role of democracy in this society:

[T]he fundamental axiom of social mechanics in this future society would be: *The only thing which can legitimize authority in a democratic society is democracy itself.*" (Waldo, 1952a, p. 103) [Emphasis in original]

Clearly, Waldo (1952a) positions democracy as the normative context of a democratic society, thereby being the measure of anyone who wishes to influence the perform authority.

To say that Waldo (1952a) would follow Rouse (2015) in his commitment to practices as the basis for normative frameworks, like democracy, is unclear. In later work, Waldo (1980/2021) struggles with the topic of ethics in public administration, observing the decay of universal moral principles in the wake of the Vietnam war. In response, he did not stipulate a novel set of universal principles, but outlined aspects of administration for a democratic government in a constitutional state that form ethical demands of the administrator. His writing remains clearly reminiscent of a universally agreed upon set of principles, yet his phrasing of ethics in administration in terms of responsiveness to core elements of government shows his acknowledgement of the impossibility. Seeing Waldo's (1980/2021) advocacy for an administrator who is responsive to the foundations of contemporary society and the concerns that live among those who form this society, his work can be reasonably extended by the idea that the norms by which this administrative work is evaluated are dependent on their upkeep by administrators.

The common criticism of political administration, the fear of arbitrary rule (Finer, 1941; Hayek, 1960/2011, pp. 182–183; Strauss, 1984), can now be addressed with this new conceptualisation of administrative practice. It is this fear of arbitrary rule, as we have seen in chapter 1, that reinforces the call for reducing the discretionary space of administrators. With Rouse's (2015) account of

practices, what makes an administration political goes beyond the activist or subservient bureaucrat. Its political character is inherent to the way practices of administrators, politicians, citizens, media, and so forth, society broadly, are responsive to each other. It becomes clear then how the subservient administrator therefore has its own political consequences too, as it shapes a situation where the outsourcing of responsibility to others higher in the hierarchy is permitted, which reduces the responsiveness and reflectivity of the administrator. It so becomes clear too, that the pro-active administrator is not without grounds save their own 'opinion', when they advocate for a change in action. This administrator too has to establish grounds that are recognised by others in the administration in order to be heard. The dichotomy between the subservient and activist, or the neutral and political, administrator then shows no longer relevant and collapses.

When grounding Waldo's (1952a) work on democratic administration in the school of philosophy of science in practice, Waldo's (1952a) plea for the political administration is well attuned to the ramifications of the administrative profession rather than untrue. Where Simon (1952) has explained Waldo's (1952a) work on administration as plain wrong because it was not subjected to "a merciless discipline of [logical, red.] rigor" (1952, p. 495) or wrong as a consequence of his "loose, literary, metaphorical style" (1952, p. 496), the matter can now be regarded as a conflict between two different normative practices. Herbert Simon (1945/1997) is embedded in the practice of logical positivism, inspired by the achievements of mathematics, and Dwight Waldo (1952a, 1948/2021) is more closely part of practices of political theory, inspired by the impenetrability of human cooperative action for politics and administration. The fact that Waldo's (1952a) work is responsive to the activities of administrators themselves makes it more appropriate to investigating what it means for administrators to be responsible with the aim to contribute to their practice, instead of judge it for being not alike mathematics. It grounds Waldo's (1952a) criticism of value-neutral efficiency, as a commitment to autocracy, and shows how Waldo's (1968) concern for public issues makes his work, indeed, democratic.

2.3.3. Normativity and administrative practice

This is where the tensions between the theories of Herbert Simon (1945/1997) and Dwight Waldo (1952a, 1952b) have gotten us. I have attempted to ground Waldo's (1952a, 1952b) perspective of democratic administration in the school of philosophy of science in practice. Starting with a discussion on values in science, Helen Longino's (1990) critique of logical positivism was reviewed. The need for auxiliary assumptions to assess the relevance and significance of data to a hypothesis indicate the value-laden character of scientific assessments, including those based on efficiency. Longino's (1990) suggested way to then characterise objectivity is based on the way knowledge claims are opened up to transformative criticism in a professional community, for which she

proposes four social-procedural criteria. I argued that this firstly does not satisfy the technical dimension of administrative responsibility and secondly makes an ambiguous differentiation between members of (professional) communities which can be problematic in public institutions.

To acknowledge the significance of administrator discretion in the complexity of administration, as Waldo (1952a) based his argument in, the concept of practice was subsequently elaborated upon with the work of Joseph Rouse (2015). Firmly rooted in naturalist philosophy and the importance of language, Rouse (2015) typifies practice as skilled acts of expression and interpretation that stand in interaction with each other and depends on shared circumstance. The ends that these practices pursue give rise to normativity in this context. How practices become normative has been discussed, yet what this means for responsibility has not yet been touched upon.

Normative administrative practice

Grounding normativity in the goals embedded in performances of the practice, instead of the values one holds, responsibility lies in the way one chooses to reproduce this practice and the way this reproduction of practice draws subjects of the practice into contention.³ Seeing that normativity too derives from the practices of groups, the responsibility one bears is not only with respect to the ends that their practice pursues, but also the way that normativity, and thus objectivity, takes shape in this practice. This responsibility is always present in interaction with others, given that one cannot abstain from expressive and interpretative acts, yet partial because the practice has a history, each individual having their own capabilities, and the fact that one stands in interaction with others within a larger institution. What we have here is a view of responsibility that is located in the day to day actions of administrators, considers both discursive and material environment of an individual, including their history, capabilities, and social circles, and roots normativity in this very context of action.

The partial responsibility of the administrator thus lies in the way they interpret previous practice, (choose to) reproduce the practice and how this reproduction is of significance for the future continuation of the practice.

Take an example from the social benefit scandal. It can be clearly argued how the financial consequences for families, leading to children being placed under court-custody, was disproportional

³ In this perspective I must now include myself, as I am writing this academic work on the practices of administrators, yet I am present in the academic context of the University of Twente's programmes of Public Administration and Philosophy of Science, Technology, and Society. By upholding standards of methodology and critical (self-)reflection of these academic fields, I intend to make a thought-provoking contribution to the work of administrators with machine learning models. Any practical relevance of this work will depend on the engagement of public administrators with me and the contents of my work.

and the working of the machine learning models discriminatory. Administrators working on the realisation of this scandal have a partial responsibility, dependent on their context, in the functioning of the government administration in their approach towards benefit fraud and the consequences that arose from that.

Administrative responsibility

That practice itself shapes what it means to be objective has significant consequences for responsibility. Firstly, this means that an administrator, or any other attempting to make a significant claim, makes an active intervention into field of consideration by shaping what is considered in the field as objective. Being inconsiderate of the issues at stake in the practice of the field of consideration, while purporting to be objective, is not objective in that context and likely to be left unacknowledged in the field.

Secondly, an administrator acting in the administration is thus not just partially responsible for shaping the practice such that desirable consequences derive from it, they is also partially responsible for shaping what it means to objectively evaluate the practice. Here is where the responsibility of researchers in the administration comes into play. A good researcher deliberately and authoritatively engages in administrative practice to draw points into contention that are plausibly at odds with the ends the practice proclaims to serve (Rouse, 2015, p. 341).⁴

In order to be responsive in one's action to the environment one is, and to be responsible when doing so, one requires an awareness of their own performances and their consequences. This awareness requires reflection. To be unreflective of one's functioning would be to assume the insignificance of one's performances and the unambiguous interpretation of performances of others. Acknowledging one's active role as an administrator and being reflective thereof is thus essential for the administrator to take up their partial responsibility in the administration.

⁴ A good example of what it means to draw points of concern into contention is the way a public official voiced their concern about administrative misconduct in the social benefit scandal. In what is commonly referred to as 'memo Palmen', the strategic advisor on legal matter to the Ministry of Finance at the time elaborates a critique on the legal decisions of the tax authorities on the CAF-11 case. This case concerns the decision of the tax authorities to rescind the daycare benefits of 302 families who used the services of a specific childminder agency in 2014. The advisor investigates the case in 2017 in response to legal proceedings and the decision of the tax authorities to appeal the judge's decision. Palmen evaluates the practices of the tax -authorities in the CAF-11 case as problematic and criticizes the decision of the tax authorities to appeal the judge's decision based on her evaluation of the practices. Palmen then urges the board to intervene in the current mode of operation and reconsider their own position in the matter. After presentation of the memo and insufficient response, Palmen remains involved, albeit it so that it does not significantly influence the decisions of the board (Commissie van Dam, 2020, pp. 61–63).

The early attempts of Friedrich (1940) to articulate administrative responsibility in terms of the professional community of administrators gain further context and substance considered in this light. Especially his controversial position that an administrator holds a responsibility towards themselves and towards other administrators of the profession becomes clearly positioned in the way that it is important for individual administrators to reflect on their profession and their place in it. The way that administrative practice in a democratic society has to be grounded in a responsiveness to citizens deriving from political representation, direct interaction with them, and public discourse becomes self-evident as a characteristic of what it means to be democratic. By this definition, Finer's (1941) call for administrators wholly subservient to political representation, motivated out of fear for a technical bureaucratic rule, is actually likely to realize such autocratic rule in the way that it lacks reflection among practitioners and thus a responsive administrative practice.

Friedrich's (1940) inclusion of a technical responsibility is equally supported by the way that Rouse (2015) embeds practices in material and discursive context. Expertise in the procedural, legal, and technological elements of the administrative profession is important for the competent fulfilment of the role. Furthermore, at least a certain level of technical competence is required to effectively reflect on the consequences that the technical elements have for citizens, and thus be responsible for the practice as just defined.

If I then want to define what it means for an administrator to be responsible within the administration, it should include reflection on their performances as part of the administrative practice, responsibility of them and their performances to the appropriate actors, most notably the public and the professional community, the capability to reflect on how their performances in conjunction with administrative technologies shape administrative practice.

Consequences of administrative technologies

We have not yet touched upon the relation of administrative responsibility to administrative technologies. This too was of concern to Dwight Waldo. In the context of the Vietnam war, Waldo (1968) expresses this worry about a military budget allocation procedure, called PPBS, that aims to mobilize financial resources most effectively for the realization of combat resources. His concern is reminiscent of Scott's (1998) warning about the shortcomings of technical rationality:

"It [PPBS] has been the greatest technical or professional advance of this decade. It has received a great deal of attention and caused much excitement. It's the center of much activity. I won't argue its strengths and advantages. I will simply admit that it has them. But I think it's a serious question whether it doesn't cause systematic blindnesses and inhibit creative responses to environmental change

and challenge. Does it (despite sincere denial) attempt to solve political and ethical problems by turning them into technical problems thereby creating bigger political and ethical problems? Does it, in its attempt to reach firm conclusions on hard data, cause an undue restriction of vision, lead to overnarrow parameters and oversimplification of premises? Are some of our difficulties in the central city and in Vietnam thus related? I don't know the answer – I am not making accusations – but I think the questions are worth serious reflection” (Waldo, 1968, p. 368)

The way that Waldo phrases his concern in terms of blindness and the inhibition of responsiveness to the administrative environment places the implementation of this technical procedure directly at odds with the way responsibility has just been defined. It is this concern that I wish to now discuss in the context of machine learning models in administrative practice.

2.4. Administrator responsibility with machine learning

Considering that public administration in a democratic society has to be responsive to the general public, meaning each individual citizen in its operation, and is grounded in commitments to the constitutional state and democratic government, in this section I provide an argument for the responsibilities of the front-line public administrator with regard to the use of machine learning models in the administration. First, an argument is made for why the model should be regarded as a functional, epistemic entity instead of a representation of the world. Then, the responsibility of the administrator is specified by the consideration of two challenges deriving from the technical characteristics of machine learning models. The first challenge concerns the epistemic opacity of the model (Burrell, 2016; Sullivan, 2022), and the second challenge is the right decision for the individual justified case (Binns, 2022; Van den Hoven, 1998). I conclude that it is the administrator who holds the responsibility for the responsiveness of the model-based administrative practice to technical characteristics, professional norms, and the public, and thereby becomes an epistemic agent.

2.4.1. Models as epistemic entities

Remember how Russell and Norvig (2022, pp. 722–731) described five phases that are common among projects that aim to implement machine learning models: problem formulation; data selection; model selection, training, and evaluation; model testing; model monitoring and adjustment. They remarked how there is no single method or approach that is guaranteed to lead to successful implementation, it is mostly based on engineering experience. I will first discuss how these phases correspond with commonly considered phases that give rise to values in science, and in this case the resulting scientific model. In the second sub-section I will relate this view of scientific models to machine learning models

Models as mediating instruments

There are three aspects of scientific model construction process that are commonly considered to form its value-laden character. Firstly, the selection of the problem and the way it is formulated introduces the very consideration of the question and promotion of specific goals (Longino, 1990, pp. 83–85). This happens in phase 1 of machine learning model implementation, for example in the formulation of a loss function for the model to optimize on. This is notably different from the organizational goals that might underlie the implementation of a machine learning model (Russell & Norvig, 2022, pp. 722–723). Secondly, the evaluation of data as relevant for the problem and goal that have been formulated, alike Helen Longino's (1990, pp. 65 & 86) critique of logical positivism. This corresponds to the decisions made in phase 2 of the implementation project, data selection. Thirdly, the methods that are considered suitable for the approach of the problem, the testing of

model functioning, and the evaluation of model performance on the problem are all decisive in the eventual conclusions drawn from the data to address the formulated problem situation (Douglas, 2000). This concerns the methods deemed feasible and appropriate in phases three, four, and five of model implementation projects. In sum, problem formulation, data selection, and method selection give rise to the value-laden character of the resultant model functioning.

The model that results from this process can be said to have a certain autonomy as a consequence of these aspects of model development. By the entwinement of models with a certain purpose, models become partially independent from theory and data that it is based on. Simply put, models allow you to do certain things and not others. The model does not always give the answer one expects, even if this person is well acquainted with the data and the theory. This makes that a person, including the modeler themselves, can learn from the model that has been developed. It is this that can be characterized as the autonomy of the model (Morrison & Morgan, 1999). The approach the modeler takes in the model development phases just discussed, has a central role in the shaping of this autonomy of the scientific model.

The problem of underdetermination

The construction of scientific models is different from the construction of machine learning models in the way that machine learning models do not require extensive theoretisation of the subject that it is applied to for their functionality. The mathematical procedures based on data enable the development of models for specific problems without an adequate understanding of the problem. Nevertheless, machine learning does not escape the value-laden character through the extensive use of data. Even if the data can be said to be of considerable quality, there is not a single best model that derives from it. The resultant model is still partially autonomous from the data that is used to inform it. This is known as the problem of underdetermination of model construction (Karaca, 2021).

The consequences of the implementation decisions of modelers can be discussed at length and be of great value to inform the development of models appropriate for their context, yet the fact remains that the entire functioning of the machine learning model cannot be overseen by individuals (Lipton, 2018; Zerilli, 2022). Instead of considering this characteristic of machine learning models something indicative of its representative qualities, let us consider it as a functional object in light of a specific purpose that is to be interpreted by an individual. Or, to put it into the words of Mieke Boon, an important contributor to the school of philosophy of science in practice, “models tell a kind of story rather than being self-explanatory pictures” (2020, p. 31).

2.4.2. The problem of individual justice

What makes this object functional for the assessment of new data points, as described before, is the way machine learning algorithms create generalizations based on training data. As Russel and Norvig (2022, pp. 672 & 730) point out, this gives rise to the non-stationary problem and the long-tail problem. These consequences inherent to generalization give rise to the problem of ‘*einzelfallgerechtigkeit*’, justice for the individual justified case.

When considering the use of machine learning for fully automated decision making, it becomes clear how the non-stationary problem and the long-tail problem lead to problems of individual justice. The principle of individual justice comes from legal contexts and calls for the consideration of each case to be considered on its own, free from generalizations based on seeming similar cases (Binns, 2022). Rueben Binns (2022) elaborates how the argument for individual justice has an epistemic and a normative justification. The epistemic argument holds that one cannot determine how rules will apply to cases before considering the specifics of the case, since this investigation of each specific case is already required for assessing how the two cases are similar. The normative argument defends individual justice based on the unique character and autonomy of each human individual. Since machine learning models work based on generalization by definition, the principle of individual justice cannot be satisfied (Binns, 2022). It shows when we consider individual justice in light of the problems of generalisation.

Remember, Russel & Norvig (2022, pp. 730 & 731) explained the non-stationary problem as the situation in which the trained machine learning model no longer aligns with the new situation that has developed over time. The model will then fail to include all factors that are relevant for making decisions. To combat this, it is advised to set up protocols for updating the trained model, yet it is hard to know what the frequency of updates should be. What is more, is that the situation might change such that the data that has been selected and continuously collected in light of the problem situation does not represent this change. This complicates the situation further, requiring general evaluation rather than just updating of the model parameters. The newly developed situation is judged by the generalisations of the old situation and thereby cannot do justice to the individual justified case.

The long-tail problem concerns the representation of rare cases in the training dataset (Russell & Norvig, 2022, p. 730). As discussed, the limited presence of the case in the training data decreases performance of the model. However, the generalization that takes place here is the more significant consequence. The rare case is judged by the generalizations drawn from the cases dominantly

present in the dataset. The individual that thus represents an uncommon is judged by the standards of the common case.

2.4.3. The problem of explainability

Not only does the functionality of machine learning derive from its generalization between cases in training data to new cases, the way that machine learning techniques can be applied across different problem contexts without much theoretisation comes with the challenge of epistemic opacity. Epistemic opacity, as discussed before, concerns the way that the model and its functioning are not semantically interpretable. While this lack of explanation for the model output gives rise to problems for the ability of individuals to effectively appeal decisions made with the use or support of machine learning, it also obstructs reflection among administrators on the administrative practice that the model is part of. By obstructing reflection among administrators, epistemic opacity of machine learning models presents a problem to administrative responsibility as just defined.

In a widely applauded paper, Jenna Burrell (2016) defines and differentiates three kinds of opacity with regards to machine learning. Firstly, the algorithm might be proprietary and therefore not accessible. This is a simple, rights based opacity and is not relevant to our situation. Then, there is opacity that arises from the lack of technical understanding of the individual. This is very relevant for the ability to form an understanding and reflect on the functioning of the model as an individual, yet in the context of administration I consider this resolvable. The individual administrator namely does not have to face this alone. The sheer organizational scale of government administration enables the adequate facilitation of accessible technical education and the involvement of technical experts to provide this tailored technical understanding within the organization. The third kind of opacity however is not resolvable, the opacity that arises from the technical characteristics of machine learning models. Because of the fact that machine learning methods are based on mathematical algorithms, like neural networks, to train a functional model, it cannot be semantically determined what a model learns from the data that it is provided with. This inability to know semantically what the model derives from the data to achieve its functionality is commonly referred to as the ‘black box’ of machine learning models.

There are considerable efforts in the field of explainable artificial intelligence (XAI) to make the black box of the machine learning models interpretable. It is generally accepted in the XAI field that humans cannot fully understand the functioning of a machine learning model (Lipton, 2018). Techniques that are developed by the field are subsequently interpretations of partial functioning of the model (Baum et al., 2022; Lipton, 2018; Sullivan, 2022; Zerilli, 2022). Whether these interpretations hold any particular validity in relation to the actual process remains a question

(Lipton, 2018; Zerilli, 2022). Nevertheless, the interpretation might help administrators reflect effectively on administrative practice and makes it a worthwhile subject to pursue in research. The efforts in the field of XAI might help administrators reflect, yet the consensus among XAI scholars remains that explanation is partial and that models are a black box.

The black box nature of machine learning models challenges the responsibility of the administrator that is supposed to oversee use of a machine learning model for automation, or the administrator that is collaborating with the model. Since, for the administrator to be responsible for their practice, one has to be able to reflect on their practice. In order to reflect on the practice, one needs to be articulate what this practice entails and reason about its justification and consequences. The machine learning model functions in a mathematical way, not in a semantically significant way, and therefore cannot be properly articulated. Adequate reflection on administrative practice is thus obstructed by the use of machine learning and subsequently challenges the responsibility of the administrator.

2.4.4. Administrator as epistemic agent when working with machine learning models
Considering the use of a machine learning model as a part of administrative practice, it too has to be placed such that it can be reflected upon, and that it is responsive to the professional standards of administrative practice. Whether that concerns implementation such that the model makes decisions in an automated fashion, implementation of the model as a risk-based monitoring system, or as a decision-support system, each individual administrator involved bears responsibility for the way the machine learning model as an administrative technology shapes administrative practice and the ability of administrators to reflect upon that.

Considering the problem of individual justice just described, the professional standard concerning responsiveness to the public and the responsibility for administrative technologies should be upheld. Thus, the administrator, each individual involved in the development, implementation, and operation, has the responsibility that the administrative practice with the machine learning model is continuously appropriately responsive to the situation of the individual citizen.

Considering the problem of explainability just described, the administrator has to uphold the principles of good administration and thus the responsibility to design administrative technologies such that it facilitates adequate reflection on administrative practice. Furthermore, each administrator has the responsibility to use and develop the technical capability to engage with the machine learning model in such a way that it enables reflection on its role in administrative practice.

In these practices of (facilitation of) reflection, it is the administrator who continuously interprets and remakes the performances that make up administrative practice. These are strongly shaped by administrative technologies such as administrative procedure, information technologies, and legislation, yet these too are continuously interpreted in the administrative practices, such that their effect is not self-evident. Administrative responsibility when working with machine learning models then lies in the daily performances by which the administrator continuously interprets and expresses the administrative practice and administrative technologies that are part of this practice. Arguably, the problems of individual justice and explainability are examples of what should be actively addressed by administrators in their work with machine learning models for them to enable administrative responsibility when working with machine learning models.

With this specification of technology in relation to administrative responsibility, we can define responsibility of the administrator when working with machine learning to compose of the following:

For the administrator to be responsible when working with machine learning is to be reflective on their performances as part of the administrative practice, to be responsive in their performances to the appropriate actors, most notably the public and the professional community, to reflect on how their performances in conjunction with administrative technologies shape administrative practice, and to design administrative technologies to facilitate this reflection.

3. Research into Practices of Administrative Responsibility

As the last chapter in my effort to conceptualize good administrative practice with machine learning models, I want to empirically review the way administrators are considered responsible when working with machine learning models and contrast this with the definition of administrative responsibility developed. It is evident from chapter 2 why the involvement of empirical work is essential for my practice as a researcher to align with the practice of administrators. Since I do not have access to the work environment of administrators who involve machine learning in their daily practices, I am restricted to publicly available data of administrative practice.

I chose to use the public hearings of the parliamentary inquiry on fraud policy in light of the Dutch social benefit scandal as a main source of data for this research. In the time this scandal took place, the tax authorities used the so-called risk classification model (risicoclassificatiemodel, RCM). This is a machine learning method that will be the focus of this research. This chapter will thus investigate the way administrators practice the concept of administrative responsibility when working with RCM during its use from 2013-2019 as an exemplar case.

The research question I set out to investigate in this third chapter is: *What is the dominant material-discursive practice on the public administrator's responsibility when working with machine learning models in executive government organisations as practiced during the public hearings of the Dutch parliamentary inquiry fraud policy?* Ultimately, I aim to contribute to reflection on the material-discursive practices of the tax authorities with this study. The analysis will therefore focus on the identification of hurdles in material-discursive practice to the realisation of administrator responsibility in the tax authorities when working with machine learning models.

I will contrast this analysis with the definition of administrative responsibility as developed in chapter 2 and thereby answer the main research question of this project: *How relates the responsibility of the public administrator when working with machine learning models to the dominant material-discursive practice on the public administrator's work with machine learning models in executive government organisations as practiced during the public hearings of the Dutch parliamentary inquiry fraud policy?*

The chapter is structured as follows: first, a conceptual framework on the responsibility of public administrators is elaborated upon. Four identifiable personas of the responsible administrator are developed. Then, the methodology is made explicit, which is based in material-discursive practice. The method translates this into the different data used in this research and data analysis procedure. Subsequently, the discussion section presents a material-discursive analysis of administrative

responsibility practices during the parliamentary inquiry on fraud policy. In the conclusion, this discussion is reflected upon in light of the four persona's of administrative responsibility as set out in the conceptual framework. To answer the main research question, the discussion and answer to the third research question are drawn together with the earlier claims of chapter 1 and definition of administrative responsibility when working with machine learning of chapter 2.

3.1. Research Design

To conceptualise administrative responsibility as the research interest of this chapter, allow me to draw on the work set out in chapter 2. Using the conceptualisations of the responsible administrator as presented by Herman Finer (1941), Carl Friedrich (1940) in combination with Dwight Waldo's (1952a) and Herbert Simon's (1945/1997) views on the role of values in public administration, I will present four exemplary types of administrative responsibility. These four types will be subsequently augmented by my interpretation of Joseph Rouse's work on normative practice to establish identifiers of these types of administrative responsibility in the discursive-material practices of the parliamentary inquiry on fraud policy.

Starting with the works of Friedrich (1940) and Finer (1941), the vertical axis of the quadrant will consider the responsibility of the administrator. Allow me to remind you, Friedrich (1940) presents the responsibility of the administrator to lie in their pro-active, political and publicly responsive role as administrators, while technically well educated. What makes the administration then responsible is their adherence to their technical expertise and professional values. Finer (1941) presents the responsibility of the administrator to be captured in the way that administrators are passively deferring to hierarchy and external control on the bureaucracy. The main quality of the administrator is therefore subservience. Scholars nowadays often consider Friedrich's (1940) and Finer's (1941) position on administrator responsibility to be two sides of a continuous spectrum, representing the informal and formal dimension of responsible administrative practice respectively (Olufs, 2016). The axis on the responsible administrator will thus span from professional to subservient.

Moving to the works of Waldo (1952a) and Simon (1945/1997), the horizontal axis of the quadrant concerns different conceptions of the administration. Again, a brief reminder, Waldo (1952a) develops the idea of democratic administration based on the political nature of government administration. He argues that their daily practice of administrators should be imbued with the political ideals of the democratic state, in order to be truly democratic. The administration, and thereby the activity of administrators, for Waldo (1952a) is thus political. Simon (1945/1997) conceives of the administration as an apparatus that should give value-neutral execution to politically-determined goals, as guided by efficiency assessments. The organisation of administration should enable administrators to make increasingly rational decisions, which is the main subject of science in public administration. The axis on public administration spans from political to value-neutral.

To make the characterisations identifiable, I will establish persona's. Rouse (2015) has provided us with a view on practice that brings the human individual back, independent of the normative

ADMINISTRATOR TYPE QUADRANTS

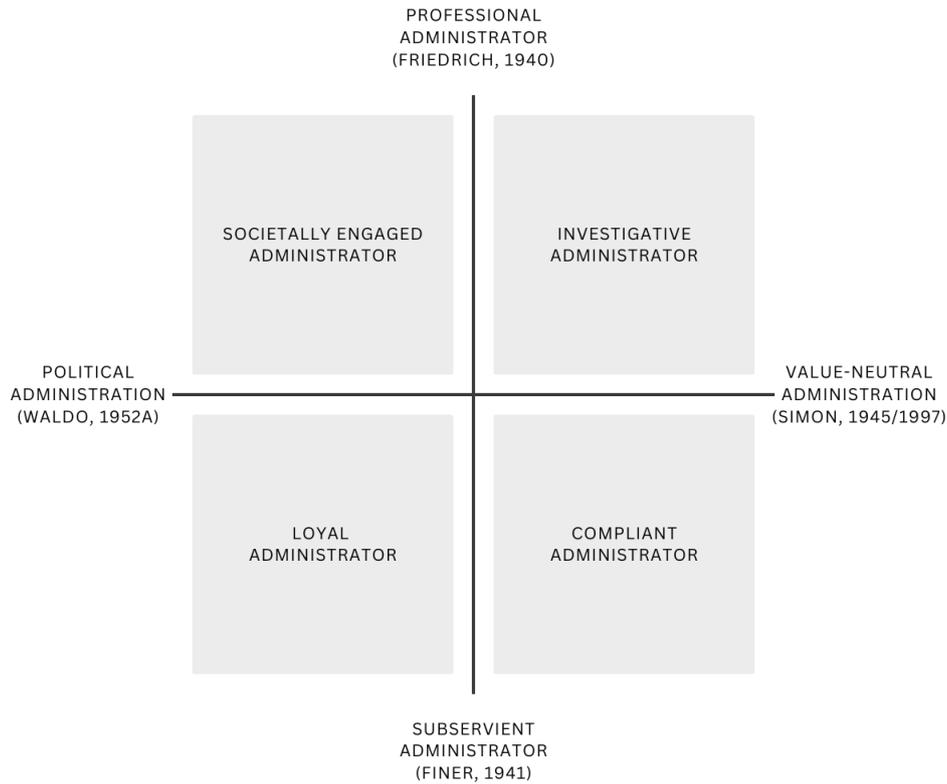


Figure 1: An axle system. The vertical axis spans administrative responsibility from Herman Finer (1941) to Carl Friedrich (1940). The horizontal axis spans an interpretation of public administration from Dwight Waldo (1952) to Herbert Simon (1945/1997). From top left moving clockwise: Q1 Societally engaged administrator; Q2 Investigative administrator; Q3 Subservient administrator; Q4 Loyal administrator.

context. This individual exercises agency by being responsive to certain aspects and not others, choosing to reproduce specific practices, and shaping contention around some points of the practice and not others. This will inform the characterisation of each persona: what subjects they are responsive to and the subjects they contend.

So, let us establish four persona's of administrative responsibility that can serve as exemplars. The quadrants can be seen in figure 1.

Starting top-left moving clockwise, quadrant 1 characterises the professional administrator in a political administration. It is the *societally engaged* administrator who is responsive to public debate, citizen needs and requests. The administrator considers themselves as part of realising the values of constitutional monarchy and representative democratic government. It is their view of the political system and their own morals that the administrator stays true to, even when this does not align with the view or instructions of supervisors. The societally engaged administrator manifests and defends that what they value, and thereby value public opinion and professional standard, within the daily practice administration.

Quadrant 2 characterizes the professional administrator in the value-neutral administration. Characteristic for this is the *investigative* administrator, who enforces norms and requirements as stipulated by procedure and research results. The administrator uses their research-attitude to draw conclusions and present conclusions to the professional community, including higher-ups. The administrator is sensitive to arguments made in public discourse, but distinguishes this from the emotions that come into play around government operations. According to the investigative administrator there is no organisational hierarchy where ever research is available, yet there is a clear hierarchy of knowledge. Claims that are based on inferior knowledge will be criticised by the investigative administrator.

Quadrant 3 considers the subservient administrator in the value-neutral administration. It is the *compliant* administrator who is committed to the rational design of the administration. The rational design and administrative research presides over that which the administrator themselves perceive and think of the situation. The compliant administrator believes that as long as administrators perform their function well, it does not matter that the case of an individual is handled by many different administrators. Commitment to the design of procedure, process, and hierarchy in the administration is based on the factual research that underlies its organisation and the way it is apolitical. The compliant administrator will not pursue what they think is right, but present the situation 'as is'. Claims that go against the compliant administrator's view of how the world is, will be criticised so long as it does not concern someone who holds more authority than they.

Quadrant 4 holds the subservient administrator in a political administration. This is the *loyal* administrator who is personally committed to the values and views whoever is in political power. Their personal commitment is to the values of those in power, descending through the hierarchy of administrators, to be captured in the assignment and motivations of their supervisor. If their direct supervisor is not in line with the way they consider the goals and motivations of their superintendent or politically responsible, only then will they obstruct the activity of their superintendent, yet they are unlikely to go higher up in the hierarchy. This is what it is to be responsible for the loyal administrator.

3.2. Case Study

The case is based on the report committee Belhaj (2024) who conducted the parliamentary inquiry on fraud policy in the wake of the social benefit scandal. I specifically focus on the use of RCM.

3.2.1. Social Benefit Scandal

Unparalleled injustice is a free translation of the name given to the report that resulted from a parliamentary interrogation by the Dutch parliament in 2020. The report detailed what was by then known as the social benefit scandal. Families who did not pay the required contribution to the daycare costs, or were believed to have unjustifiably received more benefits than they should have, were forced to pay back the entire sum of benefits they had received over that year, adding up to tens of thousands of euros in some cases (Commissie van Dam, 2020). In many cases this led to problematic debts, even resulting in 1115 children being placed in court custody after deciding the parents were unable to take adequate care of the child (Centraal Bureau voor de Statistiek, 2021). The parliamentary interrogation concludes on the violation of the fundamental principles of the constitutional state by the executive branch of Dutch government concerned with taxes, the legislature, and the judiciary. In response, the committee called for 'human measure' (menselijke maat) in administration (Commissie van Dam, 2020).

The temporary committee executive organisations, the committee Bosman (2021), was set up by the Dutch parliament to investigate underlying problems at executive organisations. Alongside the conclusion that the parliament and cabinet develop complex policies in which there is little consideration for the possibility to execute the policy, the committee concluded that there is a need for discretionary space of public officials. While this discretionary space is often there legally speaking, the awareness of this legal provision and the ability to make effective use of this provision is often lacking with the public official because of the legal complexity and perceived political demand. The committee concludes that the administrator should get more recognition for their professional capacity, and thereby more of a say in policy formulation and more freedom to engage with citizens in different forms of contact. In short, the committee considers the effective use of professional discretion by public officials essential in the formation of government practice that aligns with human measure, i.e. is more responsive to the citizen (Commissie Bosman, 2021, p. 10).

The parliamentary inquiry on fraud policy and service provision executed by the committee Belhaj (2024) followed up on the committee Van Dam (2020) and Bosman (2021) by asking the question: how was it possible for the social benefit scandal to take place? All three powers of government have failed according to the committee. The parliament and the cabinet failed to design, implement, and execute legislation of sufficient quality for effective execution and correction by the judiciary. The

judiciary failed to protect the rights of citizens. The executive failed to operate with consideration of the consequences for citizens. The three powers failed to uphold the fundamental rights of citizens and thereby the principle of constitutional government (Commissie Belhaj, 2024, pp. 5–7).

One of the main problematic aspects in the operations of the executive government was the tax authority's data analysis in risk-based monitoring practices. Risk based monitoring can be implemented in many forms, but it generally means that the selection of cases to be reviewed by public officials is made by some form of risk assessment. This can be done in various ways, for example through manually designed risk indicators and scores, as underlies System Risk Identification (SyRI), or by using data mining techniques like machine learning, this underlies the risk classification model. Because of the focus of this research on machine learning methods in administration, the implementation and use of the RCM will be the cornerstone of this case study.

3.2.2. Risk Classification Model (RCM)

From 2013 until 2019, welfare applications and mutations were monitored in a risk-based fashion using a self-learning risk classification model, RCM (Commissie Belhaj, 2024, p. 249; Rijksoverheid, 2021b; Staatssecretaris van Financiën, 2021). The RCM was developed to make a monthly selection of new welfare applications and mutations that have a high risk of mistakes at the time of request. The intention is to most effectively direct the limited work capacity of the department to monitor applications before payment by the government. This is important to the tax authorities, because their regular monitoring only takes place in the year after the benefits have been paid out, since the income statement of the citizen is then final. The initial intention of RCM was to avoid large differences between the money paid out and the money that a family was supposed to receive by law. This would then avoid the requirement of families to repay large sums of money (Commissie Belhaj, 2024, pp. 146–147; Rijksoverheid, 2021b, p. 27).

The RCM is a classification model based on logistic regression.⁵ This is a simple machine learning technique in which the features are hand-engineered and are given a score based on training data. This makes a functional model (see textbox). This model can be seen as a scorecard where each

⁵ Logistic regression is a supervised machine learning method that uses the logistic function to produce the probability from 0 to 1 that a case belongs to a specific class. It is therefore a common method for binary classification problems. In this case, whether the benefit application is likely to include mistakes or not. The features of the dataset, as provided by TVS, are represented by vector x . When a model is developed using this method, weights (vector w) for each feature of the dataset are determined in relation to the requested classes. In the training data, the correct class must be included to determine the weights of the model (Russell & Norvig, 2022, pp. 702–704).

$$\text{Logistic}(w * x) = \frac{1}{1 + e^{-w*x}}$$

indicator is provided a risk score. A new benefit request is then evaluated per indicator and assigned a cumulative risk score.

The data used to make the indicators originate from the Benefit Dispensing System (Toeslagen Verstrekking Systeem, TVS) within the tax authorities, and several social security institutions (Rijksoverheid, 2021b, p. 18). This data includes, among others, the personal identification number, nationality, data about someone's living situation, about someone's family situation, and information about previous interactions with the tax authorities (Rijksoverheid, 2021b, pp. 15–18).

The training dataset is based on cases from a wide variety of processes within the tax authorities. Cases are drawn from earlier risk classification projects, requests that have been screened in the regular assessment process, and requests that have been screened in the risk-based monitoring process (Rijksoverheid, 2021b, p. 23). An authorised employee of the tax authority's data analysis team compiles the training dataset and possibly develops indicators based on the available data. An example of an indicator is the distance between the citizen address and the address of the daycare. The training dataset and indicators are then implemented in the machine learning technique to train a model, and thus produce a scorecard. To evaluate the significance of the indicators, the Gini impurity is used (Rijksoverheid, 2021b, p. 26). This is a common evaluator of predictive performance in social credit scoring, also known as information value, and not to be confused with the Gini coefficient (Chakraborty, 2021; SAS, n.d.). Indicators of too little information value are excluded from the scorecard. A test run is done to assess the performance new scorecard, and when considered sufficient this is used on benefit applications that still have to be assessed. To check the effectiveness of this model, the evaluation of a model-selected sample and random sample from the total mutations is compared. If the model-selected sample is assessed to be significantly of higher risk by the evaluators, the score card is accepted and put into use (Rijksoverheid, 2021b, pp. 27–40, 2021c, p. 41).

In use, the model output is assessed by the 'Intensive, subject-oriented monitoring teams' (Intensief Subjectgericht Toezicht teams, IST-teams) (Commissie Belhaj, 2024, p. 252; Rijksoverheid, 2021b, p. 27). The public officials on these monitoring teams are provided with the risk score and the main indicator that resulted in the flagging of this case. This is implemented such that the official can correct potentially discriminating conclusions of the model (Rijksoverheid, 2021c, pp. 44–45). The one who does the assessment of the benefit application then proceeds in the conventional assessment process, assessing the available information and requesting information from citizens if needed. The assessor then ultimately decides whether to grant the benefit or not. The use of RCM

thereby effectively brings the common evaluation of a benefit application forward in time to the stage of application.

3.2.3. RCM within the tax authorities

The IST teams have been set up specifically to monitor applications using the RCM mechanism early in the benefit application process. The teams were realised in 2013, a time of financial austerity and great commotion around social benefit fraud. As such, the four teams were the result of a business case to combat fraud (Commissie Belhaj, 2024, pp. 145–147).

In practice the team is much alike a regular monitoring team of about 25-30 employees (Van de Bospoort, 2023), except for their operation with RCM. If there is reason for further action, the IST team, just like any regular team, informs a person from the screening teams. This person is then able to sanction citizens and determine intent/gross negligence of the citizen. The most severe cases are passed on to the financial intelligence and investigation unit (Financiële Inlichtingen en Opsporingsdienst, FIOD) for further research (Rijksoverheid, 2021b, p. 11).

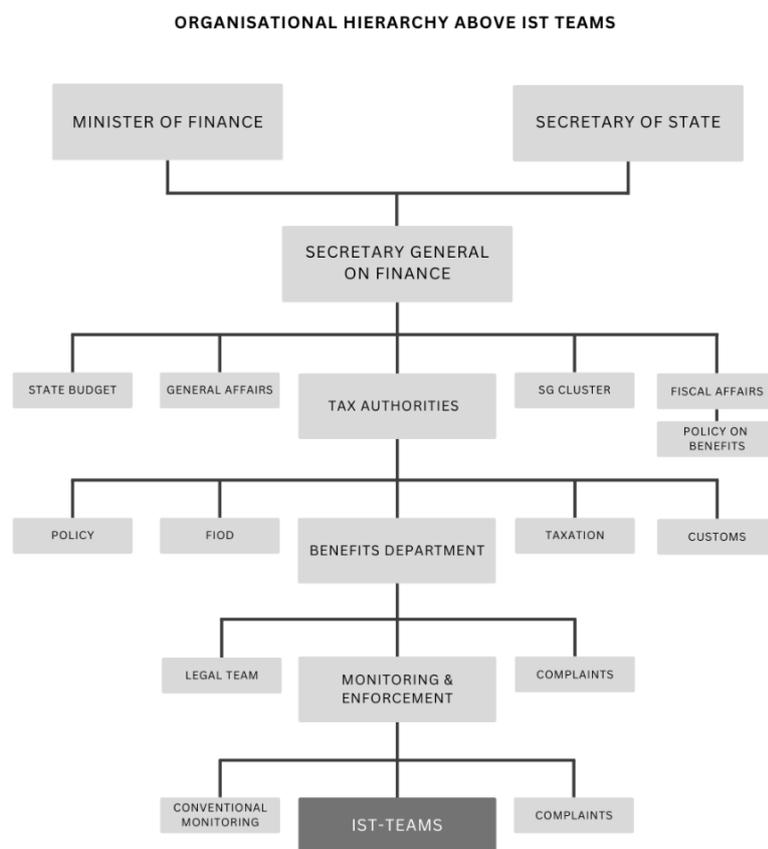


Figure 2: A tree-diagram of the organisational hierarchy above the IST-teams that handle high-risk classifications of RCM.

As depicted in figure 2, the IST teams are subsumed in the organisation of the tax authorities, which was part of the Ministry of Finance (Commissie Belhaj, 2024, p. 241). The IST teams are monitoring teams which function alongside the regular manual monitoring teams (Rijksoverheid, 2021b, p. 11). Each team has their selection mechanisms, but only IST deals with the outputs of RCM. The teams are part of the section monitoring-enforcement management (Toezicht – Handhavingsregie) (Rijksoverheid, 2021b, p. 11). This section is part of the department benefits (Belastingdienst/Toeslagen). The department benefits had a

capacity of about 1200 employees at the time, of which about half had tenure and the other half was temporary (Blankestijn, 2023). Other sections of the department at the time were, among others, the legal department and section handling complaints (Commissie Belhaj, 2024, pp. 433–437). These departments were a part of the tax authorities and each have a director. Within the tax authorities, there were among others the departments of regular taxation, customs, and FIOD (*Organisatieschema Belastingdienst*, 2014). A director-general was responsible for the tax authorities (Directoraat Generaal Belastingdienst, DGBel). Fiscal affairs was responsible for communication with the Ministry of Social Affairs and Employment (Sociale Zaken en Werkgelegenheid, SZW), which was the first responsible for the social benefits policy. The ministry in full was the responsibility of the secretary-general of the Ministry of Finance, which was politically headed by the Minister of Finance and their secretary of state (*Organogram Ministerie van Financiën*, 2014).

3.3. Method

This section describes and justifies the method used to analyse the public hearings of the Dutch parliamentary inquiry on fraud policy. First, the logic of the method is based on the earlier work in chapter 2. Subsequently, a translation of this logic is made into a practical method. This method lies behind the analysis that is presented next.

3.3.1. Methodology

The work from earlier chapters facilitates the development of the four persona's well. They will help me interpret data of the parliamentary inquiry in terms of administrative responsibility. The justification of my research approach draws from earlier work in chapter 2 as well.

The work of Joseph Rouse (2015) namely has scientific practices as a main object of concern, which I consider this thesis to be part of. In the way Rouse describes the origin and significance of practice, there are three main take-aways for my approach to this research.

First and foremost, individuals bear (partial) responsibility for the shaping of normativity in the (re)production of practices and their choice of drawing subjects into contention. What this means for the research is that I bear responsibility for the way this research product is formed theoretically, methodologically, linguistically, etc. This research is conducted by me, Leon van der Neut, and I give shape to this project and this report. The choices I make follow in part from my training as a student of philosophy, public administration, and my data analysis, to which I wish to actively relate myself continuously to make deliberate decisions about how I (re)produce the research practice. You may have noticed it in my writing-style earlier on, involving the first-person perspective and in combination with a non-binary singular third person perspective. During the empirical research of this chapter it means that I will actively reflect on my interpretations of the data throughout the analysis process.

Secondly, objective is that assessment based on the ends to which performances of a practice strive. This you may have noticed throughout the earlier chapters too. I do not attempt to establish a normative framework that exists outside of administrative practice, in the realm of administrative theory. I have attempted to build up the theoretical framework such that I can consider the administrative practice mostly on its own grounds. Acknowledging myself as an individual who actively interprets the situation, an inductive approach is thus difficult to defend. The opposite, a deductive form of working clearly imposes an interpretation on the administrative practice from my practice as an academic researcher. To involve the administrative practice as best as I can, while acknowledging my active interpretation, I will take an abductive approach, meaning reasoning to the a suitable explanation.

Thirdly, normativity of practices derives from their development through time. Practices have histories that are significant for the way they are today and thus significant to properly understand the practice. While individuals in the public hearing all encounter the same environment, the way they will speak about matters will differ because of the different historical contexts of the individuals. They have different backgrounds and experiences that shape the way that they subsequently talk in the material setting of the parliamentary inquiry. It is important that I take this history of the individual into account.

Fourthly, language and the conceptual understanding of language and the material environment derives from practices, which in turn shape the (re)production of practices. Or, in other words, how we perceive a situation and what we (can) do in such a situation is dependent on our conceptual understanding of the situation, which is formed by the way the situation is spoken of. This way the situation is spoken of in our context is called discourse. This discourse forms our understanding of the material environment and is formed by the material environment it is situated in. Discourse does not exist independently of the individual communicating and the environment this individual is situated in. In this complex interaction that brings about conceptual understanding, the individual's partial agency is situated.⁶

The historical dimension to the formation of practices in combination with the significance of the material environment of discursive acts, makes us sensitive to the significance of the material context throughout this historical development of practice. Concretely, what this means for the empirical research is that the analysis includes not only what is said by individuals, but also the material context that has historically shaped their practice and in which this is (re)produced. An administrator who has directly worked with data analysis tools and risk monitoring will discuss this differently than the executive who has ordered the work with the tools or the citizen who has been subject to scrutiny. This is emphasised by the concept material-discursive practice.

⁶ This complex interaction is also called intra-action (Barad, 2007). Rouse (2015) draws on this work to emphasize the way that phenomena are brought into being by practices embedded in a context. Intra-action is used to emphasize how features that we consider distinct are brought forth themselves in our material-discursive context. The name of intra action, in contrast with inter action, is used to emphasize the entanglement between the phenomenon and the continuous reconfiguration of the world. This brings together the observer's perspective and their material-discursive context in the way they conceptualise the world. From this perspective phenomena are formative of what an agent considers their world, and thus have an ontic character (Barad, 2007, pp. 147–149). For Barad (2007, p. 170), practices are a causal form of intra-action bringing forth phenomena considered material, which simultaneously reconfigures the material-discursive (im)possibilities, or world. In the ongoing dynamic of this configuration lies the ground for agency.

To summarise the methodological take-aways from Rouse (2015):

1. Conducting research responsibly requires active reflection from the researcher on the way they shape the project;
2. To get close to administrative practice, the conceptual significance of language should be evaluated in relation to the other performances in the practice and the practice's ends;
3. To make sense of practices, the history of a practice is essential.
4. Material environments are significant for the practices formed, making both historical and current material environments relevant aspects of the study. This is called material-discursive practice.

3.3.2. Research procedure

The four aspects that material-discursive practice makes us aware of, translate into the method of the research in the following way. Corresponding to the numbered aspects before:

1. To uphold responsible research conduct, I as researcher will reflect on my own presuppositions on the research outcomes and the effects of the analysis I provide.
2. The text analysis and coding per interviewee of the committee will be performed with consideration of the relevant context to the hearing, other people heard during the hearing, and the case timeline.
3. To aid interpretation of data, a profile for each person heard is made, mostly based on professional background.
4. While mostly a reason that explains the differentiation between the practices of interviewees, the material environment of the practice during the hearing will be involved based on audio/video recordings of the hearings. For each hearing a general impression of the individual's presence during the hearing is noted.

Data selection

The public hearings include a wide variety of stakeholders in the context of government practices around fraud policy. It includes citizens, lawyers, judges, professors, civil servants, ministers, secretaries of state, and administrators of different authority. The parliamentary inquiry chose to give a voice to these stakeholders on the matter of the excessively strict ways in which fraud policy was practiced. Inherent part of this practice was the extensive use of data analysis, risk profiles, and advanced analytics, including machine learning. Since the parliamentary inquiry committee considered each interviewee relevant for hearing on this practice, all 40 hearings are considered.

Steps of Data Analysis

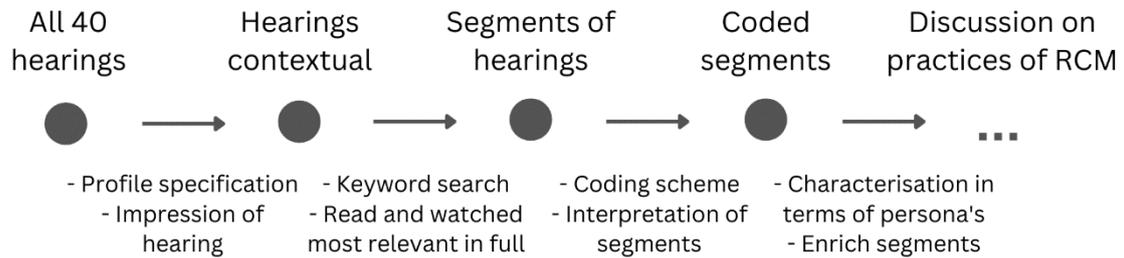


Figure 3: A flow-diagram that depicts the steps followed in data processing.

The hearings take place under oath. This makes the data of high quality. Interviewees are less likely to speculate on matters, as became clear when the transcripts were reviewed. The hearings have been held publicly and were livestreamed. The audio-visual recordings of the hearings and transcripts are made publicly available, and the use for research purposes is allowed (Licentievoorwaarden Audiovisueel Materiaal Tweede Kamer, 2019). The 40 hearings have a total volume of about 80-90 hours in audio-video recording, with approximately 90 pages of transcript per hearing. Because of this public character of the hearings, the interviewees will be referred to with their full name.

Data analysis

The data analysis follows the diagram as depicted in figure 3. Before segment selection and coding, the hearings are contextualised.

To contextualise the data analysis, three elements are taken into consideration. Firstly, the location of the hearings is significant. The hearings take place in the 'Enquêtezaal', a room designed specifically for the hearings of parliamentary research. The room is rather impressive (see figure 4, Tweede Kamer der Staten-Generaal, n.d.). The blue banner clearly indicates the official status of the room and its relation to the parliament. The picture is taken from the interviewee's point of view. The committee members are seated across, and audience can attend the hearing from the balcony behind the interviewee. Supporting staff of the committee is seated to the complete outer right and left, including waiters who provide the interviewee and committee with water when needed. Interviewees with none to little political experience are likely to be slightly overwhelmed by the setting.



Figure 4: The Enquêtezaal where the public hearings of the parliamentary inquiry on fraud policy have been held.

The other two contextualisations are interviewee-specific. A profile of each interviewee based on their professional background is made so far as publicly available, this includes the committee's reason for inviting the interviewee. As a last contextualisation, an impression is written down of the comfort of the interviewee in the 'Enquêtezaal' .

For the segment selection, a differentiation is made between those who are closely involved with the practices around RCM and those who are not. All those who have held a position in the organisational hierarchy as depicted in figure 2 are considered to be closely involved. The hearings of people who are closely involved are read in full to get a complete view of their hearing. With those people who are not directly involved in the practice of RCM, segments of the text are selected based on keywords relating to public officials, responsibility of public officials, and the use of algorithms and data analysis (see appendix 2). The use of keywords results in the selection of segments in which the topic is directly discussed. This excludes segments in which the topic of interest is indirectly discussed, but seeing the more indirect relation the operation of RCM, and the broader scope of the parliamentary inquiry than this specific research, makes this oversight unproblematic.

A base set of codes were developed based on the conceptual framework and earlier theoretical work, like the discretionary space of officials. Upon selecting segments codes are spontaneously developed further. The segment selection is focused on situations in which individuals discuss matters of the executive organisations, especially related to discretionary space, the role of

administrators, and responsibility. This focus is reflected in the codes developed and the frequencies by which the codes are used (see appendix 3).

After coding, an interpretation of administrator responsibility for the most important hearings is developed. The most significant segments for this interpretation are then aligned with the audio-video data of the hearing if not already watched in full earlier. Viewing the interaction of the interviewee with the committee enriches the text analysis and gives me a sense of the significance of what is said for the individual. The conception of administrator responsibility of the interviewee is then considered in relation to the quadrant of the kinds of administrative responsibility.

3.4. Discussion

The implementation of the Risk Classification Model did not go as planned. Against a background of operational and financial hardship, hope was put on a new ICT-architecture. The initial architecture developed upon the centralisation of benefits administration was not sufficient for the process and had to be replaced. The financial hardship increased the focus on digitalisation of operations and service. The RCM was in development to streamline the handling of new requests and mutations at an early stage in the process. When public controversy arose around fraud with the rent benefits by Bulgarian citizens, the department benefits was put under great scrutiny. In response, the department benefits introduced the RCM into their operations over the weekend.

3.4.1. Historical context

The administration of benefits was not really at its place in the tax authorities in the first place. The 1st of September 2005, the bill on income dependent arrangements (Algemene wet inkomensafhankelijke regelingen, Awir) is introduced. The administrative responsibility for the four forms of benefits in the Netherlands is centralised and allocated to the tax authorities. To realise this, the tax authorities establish the benefits department (Belastingdienst/Toeslagen). Blankestijn, a long term manager at the tax authorities including the benefits department from 2011 until 2018, remarks on the allocation of this responsibility to the tax authorities:

“A very clear opinion within the tax authorities was that the disbursement of benefits is really something else than levying taxes and collecting taxes. It was an alien task for us.” (Blankestijn, 2023)

Four months later, on the 1st of January 2006, the Awir enters into force and the department starts paying out benefits (Commissie Belhaj, 2024, p. 63). While the IT infrastructure was of high quality for collecting taxes, it did not have the required flexibility of administering benefits. The volume of assessments that had to be made was simply too large. About 8 million citizens receive benefits each month, and yearly about 400.000 new requests are made. Each of these citizens should inform the tax authorities of changes in their income and living situation, like giving birth to a child, getting a housemate, working more hours, receiving more income, etc. The number of mutations are thus vast (Blankestijn, 2023). In June 2007, one and a half year after the start of operations, the tax authorities decide to replace the ICT-system per the 1st of 2009 (Commissie Belhaj, 2024, pp. 239–240). This new system should integrally organise the process of paying out benefits, from registering a new application or mutation, the assessment of the request, and the procurement of the benefits to citizens. The director general of the tax authorities from 2009 until 2015, Veld, reflects on this period of introduction and what he encountered in 2009.

“The benefits department was, so to speak, slowly recovering a little bit in 2009. After the disastrous start of the benefits department – that was actually commanded by politics, which said: you have to start in 2006 – a huge chaos unfolded, because it was just not prepared. There were no IT-systems that you could use well.” (Veld, 2023)

This disastrous start of the benefits department translates into a defective process for paying out and monitoring benefit allocation to citizens. There is much ad hoc organisation required to keep the operation going. In 2009, the department faces backlogs for the finalisation of paid out benefits of three years. The introduction of the new IT infrastructure was delayed.

At the same time, the Dutch government was plagued by the global financial crisis. The subsequent economic recession has as a consequence that budgetary deficits of the Dutch government start to increase. Cabinet Balkenende IV (2007-2010), Rutte I (2010-2012), and Rutte II (2012-2017) introduce budget cuts, including on government administration, to combat the consequences of the financial crisis (Commissie Belhaj, 2024, pp. 280–281). Due to the stacking of the budget cuts, the tax authorities were expected to cut €400 million in their operations, just over 15% of its entire budget. Secretary of State on the Ministry of Finance in Rutte I and II, Frans Weekers, explains what this implied for the service provision and operations of the tax authorities.

Weekers:

“If there are less offices, that there are less locations where people can go to.
(...)”

That means that people in certain regions have to travel further to get to a counter of the tax authorities.

(...)”

Yes, you would prefer that you have more people and resources to fulfil the supervisory task that you have well, and sufficiently meet the sense of justice of the employees. It is thus without a doubt also the consequence of the budget cuts.”

Van Raan (committee member):

“Had more efforts also to be put into ICT-systems?”

Weekers:

“Way more efforts had to be put into ICT-systems.”

Around 2011 this meant that the benefits department was still facing backlogs from the rushed introduction of the administrative responsibility, did not have a new IT infrastructure, had decreased the number of offices throughout the country that citizens could visit, and could not scale up capacity to meet the challenge. It was not until December 2011 that the benefits department introduced their new IT infrastructure into operations, the Benefits Procurement System (Toeslagen Verstrekkingen Systeem, TVS) (Commissie Belhaj, 2024, p. 240).

With the introduction of TVS, it became possible to implement monitoring in early stages of the benefit request process. It understandably goes against the culture of tax collectors to host a process in which the supervision of lawfulness was not dependable. The employees share the complaint that there were “so many requests handled through the basement” (Weekers, 2023), meaning it was handled automatically by the IT infrastructure, without human inspection of the request. To realise this supervision at the stage of request and mutation, the department set out a tender for the development of a self-learning risk classifier in 2012. Having implemented TVS, 2013 is going to be the year of real-time monitoring (Commissie Belhaj, 2024, pp. 240 & 246).

After Deloitte is granted the tender, pressure on the tax authorities to combat fraud rise sharply. Since the 90’s, fraud with social benefits has been perceived as a significant societal issue in the Netherlands (Commissie Belhaj, 2024, p. 57). This becomes the subject of public controversy once more on April 21st of 2013 when media reports on a criminal organisation from Bulgaria which incentivises people who do not live in the Netherlands to request Dutch social security. The media frames this as ‘the Bulgarian fraud’ (Bulgarenfraude). This possibility originates from oversight in the municipal administration (Gemeentelijke Basisadministratie, GBA) in combination with the fact that the benefits department only monitors the rightfulness of the payment after it has been paid out. After the person leaves the country, the money that is not rightfully allocated cannot be returned (Commissie Belhaj, 2024, p. 60). The benefits system is considered to be severely lacking in the public eye. In response, the benefits department decides to speed up the implementation of the risk classifier. In the weekend of the 25th of April, the weekend of the coronation of Prince Willem Alexander, a team of people is gathered to realise the application (Commissie Belhaj, 2024, p. 247).

Blankestijn reflects on the decision to speed up the implementation of RCM:

“I have caused a lot of havoc in my own organisation by doing that.
(...)”

We did not have the capacity at all to process the work that came out of the model well – I am talking about the requests with a high chance of mistakes. That was novel work.” (Blankestijn, 2023)

3.4.2. Fraud or fault? – RCM output interpretations

The model developed for general monitoring suddenly becomes part of the government's strategy to address fraud, the most burning societal question at the time. Four teams, the IST-teams, are set up to evaluate the model output and meet a financial target of €25 million. After all, it is a time of budget cuts, meaning that the increase in capacity has to finance itself. While the model does not differentiate fraud from mistakes in the risk assessment of a request, it is spoken about as a method to combat fraud. With confusion in the IST-teams as a consequence.

The 'Bulgarian fraud' was so controversial that it had to receive government response. On the 10th of May 2013 Frans Weekers, the Secretary of State on the Ministry of Finance, sends a letter to the House of Representatives introducing the bill on benefit fraud combatting and fiscaliteit (Wet aanpak fraude toeslagen en fiscaliteit, Waftf). One of the nine measures that are announced reads 'no advance payment in case of increased risk of fraud' (Commissie Belhaj, 2024, p. 145). Aware at the time of the inability of the system to differentiate fraud from fault, Veld, who had to sign off on the government letter as director general of the tax authorities, remarks on this choice of words:

"Yes, that might sound more compelling than such a system could live up to. But, it was indeed the intention, and that was really clearly a wish of the House: to ensure that sure an advance payment was not allocated to people if there was even slightly possibility of fraud." (Veld, 2023)

The perceived need to address fraud is so high that the department chooses to frame its risk-based monitoring system in terms of monitoring fraud. Yet, the department still faces financial restraints. It cannot receive more funds to increase its capacity. Veld thinks of a smart way to still receive funds for more capacity, he proposes a business case. Two risk-based monitoring teams can be set up, the Intensive, Subject-oriented Monitoring teams (Intensief Subjectgericht Toezicht teams, IST-teams), with the capacity of about 50 permanent employees, in return for meeting the yearly target of €25 million in corrected unrightful payments. This is called the businesscase fraud. The perception was that the volume of fraud was very significant, meeting the target should therefore not be difficult, although there was never an adequate assessment of the actual volume of fraud that took place. Van de Bospoort, management team member of the benefits department, describes why the business case was introduced.

"It [the business case fraud, red.] naturally followed from the law and the Bulgarian fraud, so there was an apparent reason. The idea was that too many [requests, red.] nevertheless went through unlawfully and that several patterns weren't sufficiently recognised." (Van de Bospoort, 2023)

The IST-teams are meant to direct attention to the behaviour of specific citizens, instead of regularly reviewing only the request. However, what happened over time is that the attention of the IST-teams was drawn to the request itself more and more. The review of individuals selected by RCM was time intensive and did not yield significant results. Van de Bospoort describes the change in way of operating:

“What I saw was that the intention of Intensive, Subject-oriented Supervision actually was abandoned along the way. That had several causes in my perception. There were not many particularities that came to the fore from the manual handling; let me put it this way (...) And it took long as well. (...) So a strain was put on increasing the production somewhat. Ultimately that led to a narrowing of the handling with IST and it actually became more about the request and the question whether it was lawful. (...) [T]he whole intention that was there, also about the uncovering of fraud patterns, which originally was truly part of the plan, was actually not really the case.” (Van de Bospoort, 2023)

So, in the end, the team that was installed to assess the requests that the RCM indicated started out with the task to combat fraud. This while it was well-known among the technical team responsible for the RCM that the model cannot differentiate between fault and fraud. The ultimate success of the model in the pursuit of fraud was marginal, and together with efficiency-pressures resulted in the change of operation in the IST-team over time. Yet, the team still had a business case to meet and used the risk scores in the request assessment. The environment around the IST teams remains significantly focused on fraud.

The intention behind the development of the model is thus clearly confused in the presentation and operational intentions. Where the IST-teams attempt to combat fraud with the model, the developers design a model to identify risky requests. Koemans, manager Analytics at Deloitte who was hired by the tax authorities to continue the development of RCM, remarks on the intention of the model: “I perceived the model as intended to select high-risk-requests”. On the theoretical possibility to differentiate fault from fraud he puts forward that there is no statistical method to do so (Koemans, 2023).

3.4.3. It was you right? – Guaranteeing justified data processing

Whether the model works, however, remains out of the question. The need for an effective risk-monitoring instrument is high, and RCM offers that solution. When the performance of the model disappoints upon introduction, it is understandable to everyone. The earlier presentation of Deloitte presented a proof of concept with very high performance, but the benefits department still had to

develop a set of risk indicators relevant to the procedures of the tax authorities. The tax authorities are responsible for designing the indicators, Deloitte was responsible for selecting the most effective ones. At the time there was active legislation on processing of personal data, and these people were present during the initial development of the indicators. However, nothing was put on paper of the model development until three months later. This did not include a justification for the risk indicators. Whether the indicators, or the data required for them, were processed on justified grounds is not ensured.

From the tax authorities point of view, the machine learning method and accompanying software as acquired from Deloitte is seen as a product that is separate from the required risk. Technically speaking this is a view that makes little sense, seeing that the risk indicators are ultimately an integral element to the functional model. The quality of the model is heavily dependent on the quality of the risk indicators. Nevertheless, trust in the model does not waiver. When asked to reflect whether the introduction of the model might have happened to hastily Blankestijn remarks.

“The core of the model is that it truly has the capacity to do the selection well. That is the model that we acquired from Deloitte. That is just a proven program, that simply does what it has to do.” (Blankestijn, 2023)

It has been established by the Dutch Data Protection Agency (Autoriteit Persoonsgegevens, AP) that the benefits department illegitimately processed personal data for the operation of RCM, in part due to lacking justification of the processed data. Specifically, the processing of nationality of the citizen to determine Dutch citizenship was illegitimate. In addition, one of the problematically discriminating indicators of higher risk in the model was the citizen service number (burgerservicenummer, BSN), the age of which is encoded in the number. By processing the BSN and nationality as risk indicators, the model effectively discriminated against citizens without a Dutch nationality or with a migration background (Autoriteit Persoonsgegevens, 2020, 2021).

All those involved in the development and monitoring of the model have been asked by the committee about their attention for possible illegitimate processing of personal data while running the model. It is interesting to see how the formal division of tasks and responsibilities play a significant role in their explanations. I consider this to be very much in line with the responsibility conception of Finer (1941), relating to the subservient (Q3) and loyal (Q4) administrator types.

Koemans, described how it was Deloitte’s responsibility to perform the model design, the data cleaning, and the statistical indicator evaluation. The department benefits bore all the other responsibilities, elaborates the decision making and communication about the model, the security of

the IT-environment, and the rightfulness of the data processing. When asked whether Koemans ever informed with the department about the model's compliance with existing regulation on data processing, he responds that it was not their responsibility.

“I just sketched out for your colleague, the governance, the task division, in which these aspects were clearly allocated at the benefits department. During the term of the assignment, I have not doubted that this task division was lived up to or that this kind of aspects was considered for a single moment. In that respect we have surely ascertained ourselves of it.” (Koemans, 2023)

On the side of the tax authorities, the checks on data processing were lacking as the responsibility dissipated in a conjunction of hierarchy, task division, and assumptions. Veld was responsible for the tax authorities in which, next to RCM, some 1.554 other locally developed applications (lokaal ontwikkelde applicatie, LOA) were in operation. He remembers the presentation he was given about RCM and its functioning. He was confident that the processing was lawful because of the experience the tax authorities have with the processing of personal data for the purpose of risk-based monitoring.

“I have indeed said yes to that [to implement RCM, red.]. I believe that it was a plan of the director. That decision in itself was not my decision, but it has indeed been discussed with me and I gave my approval.

(...)

The first [the safeguards regarding processing of personal data, red.] did not come up, because the tax authorities already had broad experience with the development of programs for extraction and risk-selection. I thus have undoubtedly thought that it was alright.” (Veld, 2023)

Blankestijn is one step closer to the operation with the RCM, as director of the department. He shows cognizant of his responsibility for the lawfulness of the data processing in his department, since the audit department of the government holds him accountable for this. This is the case, even though he indicates that he had nothing to do with the selection of the risk-indicators, and also did not want to. Increasing the performance of the model was firstly the responsibility of Veringmeier, team responsible, and the member of the management team who had this portfolio. The changes to indicators to realise this performance increase were only shared with those who had to know, which was not Blankestijn. He just ensured to pass the internal audit, and therefore had ensured to him that the processing was according to the law. Upon reflection on the findings of the AP he remarks:

“And you know, when we brought this model live, I also had the conviction – I have to speak for myself – that we used data that we had in-house. We used our own data. So what is the risk of that?” (Blankestijn, 2023)

When asked why it was decided to implement the model at the time, without any documentation or risk assessment at the time, Blankestijn shows a clear line of reasoning based on the political context.

“We really gave priority to visibly addressing the whole situation that had unfolded.” (Blankestijn, 2023)

Veringmeier was ultimately the team responsible and the person in direct contact with Deloitte. He was the one in contact with the management team and Veld with regard to the RCM. He supervised the development of the model. What is interesting to note in terms of the responsibility distribution for the model development, is the way in which Veld limits his role to those aspects on which he has technical expertise. In his case, he mentions his experience in automation processes in organisations. Yet, when it comes to the technical details of the model programming, the responsibility resides with Deloitte. ‘I am but a humble fiscalist’, is what Veringmeier (2023) said about that. When talking about the poor initial performance of the model, the assessment is also not made by Veringmeier himself, since he lacks the econometrical expertise. He depends on his colleagues with the expertise for the affirmation that it is a good start of the model. Clearly Veringmeier limits himself to where his expertise lies, which is in this case procedural.

Regarding the data protection, Veringmeier has the same sentiment as Blankestijn. The fact that the information was already present within TVS assured him that the data processing was properly justified. When pushed on the safeguards that he might have upheld, Veringmeier falls back on the presence of legal experts during the weekend in which RCM has been developed.

“Again, it has been checked by these people [legal experts, red.] and it ultimately was concluded that the information we used was already in stock at the benefits department.

(...)

One of the legal experts had that subject [data protection act (wet bescherming persoonsgegevens, Wbp), red.] under their purview. Everybody looks at a discipline from their own domain. I believe that I indicated earlier that there is not a report or a memo from the coronationweekend of 2013 [the weekend RCM was developed, red.] in which a specialist indicates: I see no objections with regard to the data protection act. That does not exist.” (Veringmeier, 2023)

So, the situation that is created is that the team responsible depends on the insight of the technical, legal, and econometric experts in his team, and does not request a formal evaluation. Blankestijn takes the word of Veringmeier for the assessment of the Wbp and Veld does not question the matter. Neither does Koemans, who has direct insight into the kinds of data processed and must have also been knowledgeable of the reasons for processing. Yet, he has never doubted that the tax authority lived up to the task division that was made verbally at the start of the project. It is the collective deference to procedural agreement, hierarchy, and technical expertise that makes this situation one typically representative of a subservient (loyal or compliant) administrator-type.

While the risk scores had significant consequences. The risk scores that RCM produced namely have been shared beyond the IST teams. When a request was flagged as problematic by IST, and thereby passed on to the screening teams, the risk scores of RCM were added. The screening team was involved in the installation of in-depth research and was able to impose punitive measures on citizens (Commissie Belhaj, 2024, pp. 252–253). The screening teams collaborated with the teams to combat fraud facilitators (Combiteam Aanpak Facilitators, CAF). The risk score served as additional information for the investigative employees in this context. These teams in turn used the risk classification score to enrich information of external parties, like the GGD and police authorities, when they had reason to suspect a citizen or organisation of fraud (Commissie Belhaj, 2024, pp. 252–253). This practically meant that the risk classification scores contributed to the perceived certainty with which for example the GGD selected daycare organisations for greater scrutiny upon inspection. The owner of the daycare organisation Amira Children, Mohamed El Bali, remembers the way the yearly inspection of his business changed around 2013:

“At a certain moment, the inspections unfolded in a really weird way. Then we got an inspector with us, and they were then very surly. They searched for low hanging fruit and they were very unjust. That was new for us at the time.” (El Bali, 2023)

3.4.4. Reasonable, lucky, or unfair? – Screened by IST-team because of high risk score
So, the lawfulness of the data processing has been assumed at the start and has not been checked throughout the development of the risk indicators. But does that necessarily lead to discrimination? The reasoning among the benefits department goes that any effective risk-monitoring systems has to differentiate between people, i.e. discriminate. Therefore it is not problematic. Not just that, but citizens should be thankful for the extra attention they receive from the monitoring teams. After all, this avoids confrontation with high restitutions. This line of reasoning stands in sharp contrast with the one from the AP and the ombudsperson, who problematise the discrimination by RCM. The

discrimination is considered as even more problematic seeing the disproportionate consequences the government policy had at the time (Van Zutphen, 2023; Wolfsen, 2023).

The RCM was intended to screen requests at the moment of submission, significantly earlier than the other forms of monitoring then in place at the tax authorities. Van de Bospoort (2023) describes the role of the risk-based monitoring, from the citizen's perspective, as a way to ensure the correctness of the request. Blankestijn is similarly concerned with helping citizens through the process of requesting benefits. When asked discrimination against single parents, living in the bigger cities of the Netherlands, with a low yearly income, and a non-Dutch nationality, Blankestijn wishes to sketch a different narrative. A narrative in which the focus on this group is clearly justified by research. What becomes problematic in that narrative is the way that the tax authorities are presented as an organisation that purposefully discriminated against this group of citizens. Blankestijn lays out the line of reasoning:

“The problem that I have with that reasoning in which it seems as if we have hunted that down – that is how it feels for me – is that the essence of the legislation on benefits and the fact that the self-reliance of the population, which is influenced by the situation in which people reside, result in the case that a model which extracts mistaken requests, observes that more of those mistaken requests fall in the category that you mention. Maybe there are even more characteristics than those you mentioned. But you know, actually it is really good that these people are put out, because they do file a mistaken request.”
(Blankestijn, 2023)

For Blankestijn, it is a given that this population is more at risk of making mistakes, which makes the use of RCM and the practice within the tax authorities an aid to them. The use of non-Dutch nationality or BSN as a risk indicator is therefore not problematic, given that it was in the model with the intention to help people from this vulnerable group in filing their benefit request. The approach taken was research based and the functioning of the model is not to be questioned, it was able to identify mistakes.

Being research based, the question was not whether the approach was right, but whether the intent was correct. Both Blankestijn and Veringmeier defend their conduct as responsible since they were trying to help the people to file correct benefit requests. When Veringmeier was asked whether he thought the department responsibly designed and used the RCM, in light of the conclusions of the AP, Veringmeier responds:

“Yes, I am of the opinion that this happened responsibly. At the time, we made differentiating criteria to make distinctions, which runs the risk that things are right or wrong, I acknowledge. Later, I have obviously read, heard – that has been discussed as well – that these differentiating criteria can be explained as discrimination as well. That was never the purpose of the model. That was not the intent of the people at the benefits department, but that is ultimately how it has been perceived. The goal was to have differentiating criteria to classify as many requests early in the process, with the goal to prevent high restitutions.”
(Veringmeier, 2023)

It is a situation of the end justifies the means. The criticism on the means for being discriminatory can be explained away, because the ability of societal groups to file correct benefit requests is in fact different. So, differentiating between these societal groups is exactly what the model had to do. That the AP contends this claim of justified distinction by the model, as can be read from their report (Autoriteit Persoonsgegevens, 2020) and is reiterated by their chairperson in the hearing (Wolfsen, 2023), is disputed by the ones responsible for the model. According to them, actually, the ones selected by the model for review should be happy about that, because they submit a mistaken request, and the attention they paid to the application avoided the situation in which this citizen had to pay a significant restitution.

However, there is also reason to believe that the consequences of the model spread farther than just the selection for early-stage monitoring. The risk scores produced by RCM were first of all used as a source of information on the individual beyond the team who did the risk-based manual review. As mentioned before, the risk-score was used to enrich information of the police and GGD on people they had identified as possible frauds. Here, the risk score was no longer seen as related to the chance of making a mistake in the application, but related to the chance that a person defrauds the government. This is specifically a purpose for which the score has no indicative value, as emphasized by the quote of Koemans (2023) earlier.

The risk score likely had influence beyond the intended early-stage monitoring, because again, when IST passed a case on to the screening teams they included the risk score. For the tax authorities the human review was a way to mitigate possible discriminatory effects by the model (Rijksoverheid, 2021c, pp. 44–45). In contrast, the Aleid Wolfsen, chair of the AP, emphasizes that it remains unknown how the risk scores, and thus factors like nationality, were evaluated in practice when he says:

“That [the unjustified differentiation based on nationality by RCM] then weighed in, and we cannot observe in what way. Very little reporting has been done, also of the development of the Risk Classification Model. But it is present (...) That is not allowed.” (Wolfsen, 2023)

Due to insufficient logging or instruction on the use of the risk-scores in practices, it cannot be said how the risk scores weighed in the evaluation by human reviewers. This is a crucial point for the evaluation of the consequences of the effects of the RCM. It also cannot be assessed whether RCM played a role in the entry into the Fraud Signalling Provision (Fraude Signalering Voorziening, FSV), but it plausibly did.

FSV was an application within the tax authorities that was used to flag individuals who were suspected of fraud. This could be regarding personal taxes, business-related taxes, and benefits. FSV was thus used across departments of the tax authorities. Policies for access to the system or criteria for logging a person in the system were not present. FSV was accessible for about 4.500 employees within the tax authorities, from the person in direct contact with the citizen who could read the entries, to the senior request handler who could take people off the flagged list. The parliamentary inquiry committee concludes based on their research that FSV had effectively the function of a black list within the tax authorities. The effects for citizens were severe. Being flagged in FSV meant in some cases that an individual's benefits were rescinded without additional investigation, also when the benefits were considered rightfully requested upon inspection. In some cases it also meant that individuals were not granted a payment plan to make the financial pressure of significant debt manageable (Commissie Belhaj, 2024, pp. 260–266).

Citizens who are registered on the FSV also notice the effects of it in their interaction with the authorities. Dulce Gonçalves Tavares is one of the citizens heavily impacted by the government malpractice. She is a single parent with three children who faced a restitution of €125.000,- by the tax authorities for received daycare benefits in 2009. After believing that the child-minder agency she did business with appealed the decisions, she is confronted with confiscation of her property. When asked by the committee whether she ever had contact with the tax authorities to consider the consequences of these measures, she responds:

“No. The tax authorities never initiated contact. Every time that I was going to get in contact, it was not a good phone call, not a good conversation: “You have to pay!” Because the moment I gave my social security number, they knew instantly: no mercy. But later in my files all conversations between the employees and the fraud team were there. I could read all that back, how they actually dealt with us,

me and all those other parents of the same daycare: just punish those parents; no mercy, just everything at zero.” (Gonçalves-Tavares, 2023)

The screening teams that handled the requests flagged by handlers from the IST-teams worked closely with the FSV. It cannot be established how the risk score contributed to the decision making of the IST-team or the screening team handlers. Nevertheless, seeing the unregulated entry of citizens into FSV, it is plausible that the risk scores of RCM contributed to these effects, making its inclination towards a specific societal group problematic, and thus screening by the IST-teams a situation in which the citizen is at risk of being considered a fraud. It is in this context that Blankestijn and Veringmeier justify differentiation by the model by their intention to help this group of citizens. This makes them unresponsive to broader operational context in which RCM played a role in the department.

3.4.5. Situation incommunicado

It was not just the risk that a high risk score by RCM led to being entered into FSV, being selected for an intensive check by the IST-team was already a risk, seeing the level of scrutiny during checks and the disproportionate repercussions that a minor mistake could have. This scrutiny is a consequence of the broadened definition of fraud introduced in the bill on fraud (fraudewet) by the cabinet Rutte I, which entered into force in 2013. The bill considers the situation in which a citizen provides inaccurate information without significant reason to be fraud. Imputability of a citizen therefore has a minor threshold. A missing signature, mistaken date of birth or a missing receipt was enough to consider a citizen imputable (Commissie Belhaj, 2024, p. 104). At the same time, the tax authorities operate the rule of all-or-nothing with regard to daycare benefits. This means that if a parent did not provide accurate information, i.e. is imputable, the entire sum of benefits received is demanded back. In combination with the fact that benefits are first paid out and only later checked, a minor administrative mistake can lead of demands of tens of thousands of euros. This places citizens who are placed under greater scrutiny in a vulnerable position.

The all-or-nothing approach was a remainder of an earlier legal interpretation of the tax authorities in 2009. Legal ambiguity, a characteristic situation in which administrative discretion shows, led to uncertainty around the measure to be taken in the case that a parent does not financially contribute to the daycare. The department puts forward a legal interpretation of the law to the State Attorney. This interpretation reads that if the parent does not financially contribute, right to daycare benefits is rescinded in full. The State Attorney considers the interpretation viable, alongside an alternative interpretation in which the right to the benefit is not lost, but only decreased proportionately upon individual assessment. The tax authorities choose for the stricter interpretation. Blansjaar, policy

officer at the tax authority, recalls the panic at the department the moment they were about to win the lawsuit in which this interpretation was first tried at court in 2012.

“[W]e risk getting our way from the judge. What we meant by that is: we will thus orchestrate a bloodbath with this. (...) We have argued for it: if the problem is that the personal contribution has not been paid, just collect the personal contribution, so that 10% [from an earlier example, red.], and perhaps add a fine on that. (...) It was not listened to, not by our political leadership – our director general did listen, he agreed, but the political leadership did not – nor by the policy department, Social Affairs at that point.” (Blansjaar, 2023)

Blankestijn is director of the benefits department at that time. Several times has he put the issue of the all-or-nothing approach on the agenda on the political leadership. He is aware that the rule leads to disproportionate consequences for citizens down the line and tries to overcome the established jurisprudence via the political route. When the attempt to get it on the political agenda is successful for the third time, in 2014, he recalls the response in the House of Representatives by then Secretary of State on the Ministry of Finance Eric Wiebes as “The benefits department has no discretionary authority of its own to deviate from this legislation”, which Blankestijn interprets to mean “we just have to execute this the way it says.” (Blankestijn, 2023). When, in addition, a motion of the socialist party to moderate this mode of operations is rejected by a great majority in the house, Blankestijn decides to cease his attempts to change the rule:

“That was the moment for me at which I said: alright, this is what politics wants; I am a loyal official and I have brought it up three times. Now I do think: gosh, I wish I had just continued with this.

(...)

Every time I went the official route, as is befitting for a loyal public official. That almost sounds as solemn as to swear an oath. But it feels that way too, because I have experienced it like that (...) We namely execute what you all together think up, and we do that loyally, but we also have to indicate where it goes astray. I did that via the royal road [literal translation, means the proper way, red.]. Now, I am not someone who immediately takes to the Binnenhof [political heart of the Netherlands, red.] with a banner, but maybe we should have made way more noise ...” (Blankestijn, 2023)

Considering this decision from the four persona's of administrators, it represents a clear transition from a societally engaged official who attempts to address injustice, to the loyal official who follows political orders.

Policy officers at the Ministry of Social Affairs and Employment at the time are focused on a different problem with the way benefits are organised in the government. Becoming aware of the problems in the implementation of the Awir, the ministry first initiates research into the system in 2008. The conclusion in 2009 reads: the system has to be made simpler, the complexity leads to problems in its execution. One of the critiques is the payment mechanism of the benefits. The policy is namely designed such that benefits are paid in advance of the final check of rightfulness. This is one of the causes of the very high restitutions. In the years after 2009, research into the benefits system from various bodies have similar conclusions as the 2009 report. However, the conclusions are not acted upon. It is a time of political upheaval. In 2010 Balkenende IV resigns. Two years later, in 2012, Rutte I falls. The matter is researched several times with similar conclusions. Rutte II, a more stable cabinet, presents another extensive research into the benefits system in 2017. Again, it has similar conclusions. Sander Veldhuizen, senior policy official at the Ministry of SZW, reflects on the way the research findings and recommendations are received among other policy makers:

“From my perspective I did regard it with some amazement. I saw a significant problem with the benefits system, with immensely many restitutions. Everyone can imagine that a restitution of €10.000,- or more simply means that people end up in financial trouble. (...) And still, there were sufficient people who did not see it, or weighed it differently over the course of time, and who still said: are the purpose and necessity actually sufficiently clear?

(...)

Sometimes I think that for each public official with ideas, there are five others to talk him out of them.” (Veldhuizen, 2023)

The fundamental problems of the social benefits policy, and thereby the increased risk of making mistakes in the request, persist. In combination with the all-or-nothing approach and the broadened definition of fraud, citizens who depend on daycare benefits and make an administrative mistake are severely punished. In addition to these mechanisms, citizens who appeal the fines and the demanded restitution are confronted with a legal complaints department which is not responsive to their questions or arguments. The complaints filed by citizens are handled as a request for information, which is replied to with a standard letter that does not consider the arguments a citizen

presents in their complaint. The authorities then maintain the fine and restitution and expect payment. Legal recourse by citizens is thereby obstructed.

Pierre Niessen, a senior legal complaint handler at the tax authorities from 2012-2016, refuses to reproduce this practice and calls on his duty as a public official to ensure citizen rights based on the General Administrative Law Act (Algemene wet bestuursrecht, Awb). The pro-active attitude of Niessen is not appreciated within the department. It goes against the attitude of 'just follow orders' that was commonly shared within the department. He explains the consequences his pro-active attitude against this practice has within his team:

"Ultimately, I was working on an island. I was just left to my own devices by my supervisor. Who said: "Pierre, that is not according to our agreement." To which I responded: "Then I have advice for you, Leo. Either you file an official complaint against me, or I would rather that you no longer show up at my desk." Well, then nothing happened." (Niessen, 2023)

Officials who tried to step up against the injustices they perceived received decisive resistance from various sources. Blansjaar received resistance from political leadership and ran into a strict separation of policy and executive responsibility when voicing their concern to SZW. The advice on the all or nothing approach from the policy department of the tax authorities got stuck in the hierarchy. Blankestijn manages to get the topic on the political agenda, but feels his motivation wither when the Secretary of State at Finance publicly denies the discretion of the authorities on the topic and the House rejects a motion to soften the approach. Veldhuizen over at SZW saw plans to reform the benefits policy get lost in the transition from one cabinet to another and gets resistance from fellow policy officers who persist in their doubt of the purpose and necessity for reform. Niessen stepped up against injustice in the legal complaints department by refusing to follow orders, but did not receive a listening ear at the higher ups or with his colleagues. He became isolated from the others in his department in his decision to do what he thought right.

As was said earlier, it cannot be established how the risk scores that RCM produced were exactly used. However, given that scores were shared as a way of enriching information, it is plausible that the risk score was of some significance in the assessments made by application handlers and the teams concerned with fraud combat. It was in this context that the biased risk scores of RCM directed scrutiny towards single parents in the bigger cities of the Netherlands, with a low income, and a non-Dutch nationality.

3.5. I wish I had done something, and the conflict in an unresponsive environment:

Conclusion on sub question 3

The practical context of RCM is a complex interaction between officials, politicians, public discourse, legislation, operational policy, the judiciary, operatives, and supervisors. It is a context in which it is not possible to discern a single dominant material-discursive practice. The individuals involved in the situation relate to each subject differently, and could thereby be characterised as multiple kinds of officials at once. A prime example of this is the contrast between the way that Blankestijn motivates the illegitimate processing of personal data in RCM by research, clearly a move towards Simon's end of the scale, and the way that he actively attempted to get the all-or-nothing approach on the political agenda, in which he moves along the lines of Waldo's administration.

The complexity of this results in a situation where a qualification of individuals is not at its place. It is only possible to sketch the more general predispositions, exemplified by the practice of specific officials, and the way this contrasts with the generally perceived ideal course of action. What can be concluded upon this analysis is that persistence by public officials in addressing injustice, in terms of the societally engaged administrator, is desired. It is worrisome and contradictory however to see that officials do not receive a listening ear when they take exactly that initiative to address injustice.

In *'It was you right?'*, it is illustrated how the responsibility for the insurance of citizen rights in the personal data processing of RCM evaporated in the formal hierarchy and task division. The explanation that is put to the situation is intuitive, 'all the information is in-house, why would it be against the law?', yet the reading is technically incorrect. Director-general Veld and director Blankestijn are satisfied with the explanation. Koemans, the consultant from Deloitte, never doubted that the tax authorities lived up to the task division which included the legal compliance of the operation. The team-responsible at the tax authorities Veringmeier also pushes away responsibility. All those involved in model development, which included legal experts, did so from their own expertise. He was a fiscalist after all. The explanations all depend on hierarchy and task division, whether assumed based on expertise or agreed upon, which makes the situation closely aligned with how Finer (1941) described administrative responsibility.

In *'Reasonable, lucky or unfair'*, it is elucidated how the inclination RCM has towards single parents from bigger cities, with a low annual income, and a migration background is justified by the benefits department. As Blankestijn lays out, it is believed that this is in fact a group who is more likely to make mistakes in their applications. He refers to policy research that justifies this specific attention for the group. To him, it is the framing of the situation as discrimination that is not right, to the detriment of the department. The intent is to help this group, which is well-justified based on

research and put into practice in an effective way using RCM. Given the combination of the insistence on research and the dependence on hierarchy and task division, the practice can be characterised as the compliant administrator.

In the same section it is described how the data protection agency, AP, contests the research that the department uses to justify their focus on the specific societal group. They expect more prudence of the authorities when it comes to processing personal data. There should have been formal evaluations of the personal data processing by RCM. Those officials involved are expected to show more initiative in the matter, as is expected from Koemans too. The unjustified discrimination against a specific societal group is considered problematic in itself, but has plausibly also led to grave consequences for these people, considering the use of RCM risk scores as a source of information in context of systems like FSV and the all or nothing approach. A more pro-active attitude from officials is expected in the matter alike the societally engaged administrator.

'Situation incommunicado' describes the various efforts of officials to address the injustices of the government malpractice and the significant resistance they faced from political leadership, other policy officials, and colleagues in response. The moment the all-or-nothing approach is installed, Blansjaar and Blankestijn recognise the gravity of the consequences and take initiative to mitigate this. However, it does not go beyond the political leadership of the Ministry of Finance who remains neglectful and is not picked up by the Ministry of SZW. It never reaches the Council of Ministers. In their own case, policy officers at the Ministry of SZW, as Veldhuizen describes, attempt to reform the policy on social benefits with extensive research yet do not succeed. The system is still in place at the time of writing, 15 years after the first research report. In yet another situation, complaint handler Niessen, actively resists government malpractice concerning the handling of complaints and ends up isolated. His activity in spreading the word on the malpractices publicly eventually leads to several external investigations and apologies by the government nine years after his first resistance to the practice.

The great contradiction plays out when this is seen in light of the most commonly shared reflection among administrators, I wish I had done something, persisted, or just known that this was going on, I might have made a difference. Mark Rutte, Prime Minister of the Netherlands from 2010 until 2024, sighs and wonders why he did not hear of the publication of the ombudsperson which lays out a significant case of government malpractice in 2017, "I find it serious that I personally missed such an important signal, because otherwise it could have been addressed two years earlier. Still, that is eleven years too late, after 2006, when this started." (Rutte, 2023). Director-general Veld reflects on

the fact that the department failed to live up to its responsibility towards citizens, especially the all-or-nothing approach.

“The lesson I have learned from it, is that you actually sometimes have to push the red button nevertheless. Even if policy and politics and legislation and jurisprudence say “this is how it has to happen”, you can maybe still say at a certain point: I simply won’t do it.” (Veld, 2023)

With Veld there were many others who expressed similar sentiment during the hearings, and it was this awareness of officials that was explicitly called on by the National ombudsperson which should function as a guarantee of rightful action by the government towards citizens (Van Zutphen, 2023). To conclude that the administrators who stepped up to address injustices were faced with an attitude of other administrators and political leadership who were not responsive to their call, indicates a problem of responsibility within broader administrative practice.

To then bring the discussion back to the main question of this chapter, it can be concluded that the dominant material-discursive practice regarding the responsibility of administrators expects that administrators are self-thinking, critical individuals who step up against unjustified government practices. This is however in direct conflict with the way administrative practice at the benefits department is recalled in the context of the social benefit scandal. Those who stepped up did not get a responsive ear, and the practice around RCM remains explained and justified based on research, common sense and the underlying intent.

At the same time, the critical attitude expected of the administrator in the broader context of the social benefit scandal is not reflected in the practices that involve RCM. The way the model was developed is defended by those involved based on the organisational hierarchy, task division, and difference in technical expertise. The bias of the model towards single parents from the larger cities, with a low annual income and a migration background is also defended as a research-based and logical distinction, claiming that this group is more likely to file faulty benefit requests. The increased risk of severe consequences that these individuals were plausibly exposed to as a consequence of the use of the risk-score as a source of information within the organisation is dismissed. The people who review the output are considered able to mitigate the risk for discrimination and disproportionate consequences. All the while there is a culture within the department in which officials who speak up meet unresponsive colleagues and political leadership. This is combined with the framing that the model is able to identify risk of fraud, while technically it is not able to do so. This characterises the dominant material-discursive practice of those involved in the development of RCM during the public hearings of the parliamentary inquiry of fraud policy.

3.6. The palpable omission:

Conclusion on the main research question

The general view of administrative responsibility as practiced in the parliamentary inquiry on fraud policy clearly expects of administrators to be responsive to situations of injustice towards citizens. Whether it is expected that administrators are responsive to each other is less clear, although the importance of this becomes clearly visible in the conflict between the desired action and the way initiative was not responded to in the administration. Concerning the practices around RCM, and especially the data malpractice, this reflection is less present. The differentiation can be justified based on research, and the possibility that this contributed to discrimination and disproportionate consequences against a specific societal group is put aside by those involved. Allow me to briefly review how far we have come, before I move to an answer of the main research question.

In chapter 1 we concluded that administrators have discretionary space in highly digitised environments. They have a significant influence in how legislation is interpreted, how this interpretation is proceduralised with regard to data use, algorithm development, and software design, and how these systems are implemented within the administration. The promise of digitalisation to automate away officials has to be considered in light of this nuance, which introduces administrative responsibility for the digital infrastructure and still involves administrators. Similarly, administrators bear responsibility for the implementation, operation, and use of the RCM.

In chapter 2, the definition of this responsibility in the context of machine learning was explored and deepened with a discussion of philosophy of science in practice. After a review of a common critique on logical positivism in extension of Herbert Simon's (1945/1997) work, Dwight Waldo's (1952a) political interpretation of the administration is extended by work on normative practice by Joseph Rouse (2015). This highlights the importance of responsiveness of administrators to stakeholders of significance, like fellow officials and citizens, and reflective action. Reflection is a prerequisite for reproducing practice responsibly and the normativity that it promotes. Officials are thereby also responsible for the collective production of what is considered good or bad administrative practice.

By drawing this together with the functional principles of machine learning methods, we gave shape to what administrative responsibility means when working with machine learning models. The principles of generalisation and epistemic opacity introduce the problems of individual justice and explainability respectively. In order to deal responsibly with this technology, the administration should be responsive to citizens and reflect on the impact of administrative technologies on their operations in light of the problems their techniques introduce.

As a prime example of current practice around machine learning models in administration and questions of administrative responsibility, the public hearings of the Dutch parliamentary inquiry on fraud policy (Commissie Belhaj, 2024) were analysed. The dominant material-discursive practice of administrative responsibility during these public hearings, when reflecting on the disastrous consequences of government practices, clearly expected pro-active public officials to address the injustices that took place. However, at the same time, officials who drew the injustices of the practices into contention were met with decisive resistance by colleagues and political leadership. The problem of irresponsivity to each other remains unacknowledged during the hearings.

Let me now draw in the section '*fraud of fault?*'. The section describes how RCM was presented as an instrument to combat fraud, while the officials were aware of the technical limitations, the case that it was not able to differentiate fault from fault. The political pressure was so high that a forceful response was expected, in which RCM fulfilled a key task. The teams who mainly evaluated the requests with high-scores were teams set up financed by the business case fraud, in which the teams were intended to uncover systematic misuse of the benefits. By doing so, they had to earn the money their operations cost. Considering this situation in combination with the way the data malpractice with RCM led to an unjustified inclination of the model to select a specific societal group, the framing and plausibly use of the model is problematic for four reasons.

It is problematic because it lacks responsiveness to the generalisation and epistemic opacity that takes place in the use of the model, which gives rise to the problem of individual justice and explainability. The problem of individual justice most clearly comes to the fore in the section '*Reasonable, lucky, or unfair*'. By basing the generalisation partially on personal characteristics, in an organisation that operated under severe efficiency strain, upheld strict information integrity requirements, and felt obliged to impose disproportionate punitive measures, the use of the risk-scores has plausibly led to unjustified scrutiny of, and consequences for individuals in that societal group. Although it is not possible to review the operational use of the risk-scores because of the lack of logs and/or instructions, that it was shared with other organisations as a way to enrich information on an individual suspected of fraud tells us that the model output was likely misinterpreted and disadvantaged people with a high-risk indication. The lacking and unresponsive communication of the authorities with the citizen, as exemplified in the cases of El Bali and Gonçalves-Tavares, is illustrative of this.

While the problem of explainability was not inherently present in the RCM since it used a logistic regression model, not a neural network, the way the risk indicators are developed for the model still do not mitigate the epistemic opacity of the model functioning. The model risk-indicators are not

provided with a justification of their relevance to the purpose of the model. In the operation of the model after development, one could say that the predictive capacity, based on the Gini statistic, was the main justifying factor for the use of risk-indicators. The training data of the model thereby effectively becomes the only formal reason to include the risk indicator in the model. The indicator thus lacks a justification that is external to the model, which makes the functioning of the model epistemically opaque and thus encounter the problem of explainability.

Why the administrative practice with regard to machine learning models can be considered problematic, is for the same reason as why I would consider the broader administrative practices at the time of the grave consequences of the social benefit scandal as problematic, namely that the administrative practice is unresponsive to problems central to its execution. It firstly unreflectively dismisses the problem of individual justice when it puts aside allegations of discrimination as being research-based and well-intended. It secondly does not respond to the lack of justification, and thus explainability of the model and its risk indicators, in what becomes a consistent appeal to hierarchy, task division, and expertise. The practice therefore faces the problem of explainability.

More generally, a third problem arises when the reflection on the administrative culture emphasizes the need to pro-actively step up, but forgets to bring in the necessity of being heard, should stepping up have an positive influence. *'Situation incommunicado'* exemplifies what happened to administrative initiative in a context of unresponsive colleagues and political leadership, initiative was ceased or persisted in, both to the personal detriment of the initiative taker. Although the required change seems only marginal in retrospect, it is unlikely that more initiative from the side of administrators would have made a difference without an administrative and political context that is more responsive to their calls.

Lastly, and perhaps most problematically, the practitioners do not take responsibility for the framing of the model in terms that do not align with its technical capacities, as described in the section *'fraud or fault?'*. That this disjunction between public discourse and technical limitation remains unproblematised upon reflection by those involved is not understood by the researcher. There is common awareness among those involved of the inability of the model to distinguish fraud from fault, within the development team of course, but also higher up in the hierarchy. That the framing of the model as identifying fraud-risk remains uncontested. The framing latched onto political discourse well and was justified given the large pressure that was exercised to combat fraud. This is problematic when it is considered in light of the importance that discourse has for the establishment of norms in practice. Were the model capable of identifying fraud risk, the framing of the model output as fraud risk would not be inherently problematic. Yet, the output of the model which is

incapable of differentiating fault from fraud, is interpreted and plausibly acted upon as fraud risk by request handlers, other authorities, and politicians. Administrators in this case failed to mobilise their technical expertise to maintain a consistent normative framework in the context of RCM, and thereby neglect their responsibility to upkeep their perspective of what good administration means.

So, after this conclusion, how might this inform a responsible attitude of a public administrator when working with machine learning? For the administration to be responsive to a changing context, it is important that points of the practice are drawn into contention continuously. This comes with two requirements. Firstly, that individual administrators reflect on their daily performances. An awareness of how one shapes and is shaped by the broader administrative practice is necessary for responsible conduct. With an awareness of this role, one can draw into contention that which one considers problematic in the practice. At the same time, for points to be a matter of contention in the practice, there is a responsivity to other individuals required. The administrator should thus secondly be responsive to that which others point out and contest in the practice. This reflection, awareness, and responsivity are similarly criteria for responsible conduct in relation to machine learning models. It makes that administrators should be reflective of the administrative technologies operated in administrative practice and the way these technologies transform the practice. Drawing on the technical competences of an administrator, they should evaluate administrative technologies by the way it enables reflection, awareness, and responsivity among practitioners. Administrative technologies that obstruct the responsibility of the administrator, like results from the epistemic opacity of RCM, should be scrutinised and dealt with accordingly. It is only with the active positioning of each administrator in relation to machine learning models that they can realistically be responsibly used in the administration.

4. Acknowledgements

This thesis is not something I could have realised without the many great people around me. I would firstly like to thank Mieke Boon for being my mentor, motivator, and inspirator during my time at the University of Twente. I greatly appreciate her critical and inquisitive attitude at the times we spoke, always leaving me fascinated regardless of what we discussed. I would like to thank Ringo Ossewaarde, for challenging me to keep this work grounded. I am indebted to Ben Kokkeler for his support and insights during various cups of coffee in the earlier stages of this project when I still pursued my ambition to do an ethnographic study. I would like to thank Wouter van der Veen and Anneke Exterkate from the department Data Fundamentals and Analytics (Df&A) of the Dutch tax authorities for their willingness to share with me about their work. I want to thank Dani Smith for sharing a fascination for society and Dutch politics. I want to thank Roos Vlaar for our endless discussions on topics relevant to this thesis and her support when reconceptualising the project at times.

I also wish to thank all the musicians who have made the music I listened to while I worked on this thesis, especially: Kiefer (Superbloom; It's Ok, B U; Between Days), Surprise Chef (All News Is Good News; Education & Recreation), Ryo Fukui (Scenery, シーナリイ), Charlie Parker (April In Paris), Roy Hargrove (Earfood; Diamond In The Rough), Manu Katché (The Scope), Erik Truffaz (Lune rouge), Amelie Lens (Stay With Me), Air (Moon Safari), Everything But The Girl (Eden), Alfa Mist (Structuralism), Louis Cole (nothing), and Cory Wong (Starship Syncopation).

This thesis used [Qualcoder v.3.5](#). This is a free, open-source software for qualitative data analysis. I would like to thank Dr. Colin Curtain, i.e. CCBogel, from the University of Tasmania for the development of the software and the swift on-call implementation support.

Lastly, I wish to thank all my teachers and fellow students at the PSTS MSc-program over various cohorts for the space we collectively shaped to pursue our ideas. Thank you all.

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6. Appendices

6.1. Appendix 1 – Machine Learning

What is machine learning

Machine learning is a subfield of AI that uses data to develop and improve functionality of a model (Russell & Norvig, 2022, p. 669). There are many different methods developed in the category of machine learning. Some methods require the dataset to include the answer that the model should give for a specific data entry. Adding the answer to the dataset is called labeling and is often done by human labelers. These methods are called supervised. Other methods do not require such labels in the dataset and are called unsupervised methods. The characteristics of a datapoint are called features (Russell & Norvig, 2022, p. 671). An important method and often used for machine learning is the neural network. Neural networks are made up of different layers of nodes. A node in one layer takes in the output of the nodes in the layer before and applies a mathematical function to this. In connection with each other, the network can be seen a complex function that separates datapoints in a high dimensional space, to relate data input to the desired data output (Russell & Norvig, 2022, p. 805). The sub-class of machine learning that centres on the study of neural networks with many layers after each other is called deep learning. Deep learning has been a significant breakthrough for the use of machine learning on complex tasks, since it does not require the definition of features of datapoints by an engineer (Russell & Norvig, 2022, p. 44). Instead of having to make an extensive architecture to define datapoints, so called feature engineering, and enable successful functioning at a task, deep learning models infer features from complex data like images or audio automatically. The success of ChatGPT is a recent hallmark of AI functionality, which is a kind of deep learning (Russell & Norvig, 2022, p. 927). This ability of deep learning models to engage in such complex tasks as conversing in a human-like manner, has sparked optimism about the functionality of machine learning models generally.

Working with machine learning

It is widely accepted that machine learning holds significant functionality for organisations broadly, including public sector organisations. Where this functionality plays a role however, often remains unclear. To provide a sense for the ways in which machine learning is used by public sector organisations, I will give three examples of current or intended use by the Dutch government.

A mostly automated application of image classification models is found in the Dutch land registry. Here, a model has been trained to update the land-use maps of the registry based on satellite imagery. Its main purpose is to produce boundaries of land-use on the maps with greater detail than

its current form. An employee of the registry feeds satellite imagery into the model and checks its outputs (Kadaster, 2024).

A direct decision-support system is found in the offices of the Dutch Immigration and Naturalisation services that register persons who do not reside in the Netherlands. To support the officer at the counter for registration, an image recognition software compares the photo on the passport with the person standing in front of the counter. This is a system that is used to prevent so called 'look-a-like fraud', where a person presents themselves as a person who they are not. This support tool can be used by the officer at their discretion (Rijksdienst voor Identiteitsgegevens, 2024).

As a last example, a machine learning model is currently in development at the social security bank to facilitate risk-based monitoring of citizen compliance. The social security bank is responsible for paying out welfare to those citizens who need support. With the machine learning model, they assess the chance that a citizen does not provide accurate information about their living situation. The attention of the supervisory teams will be directed to those citizens who are assessed to have a higher risk of non-compliance than others (Sociale Verzekeringsbank, 2024).

Machine learning techniques are thus used for a wide variety of functions, in a variety of implementations. In the various implementations there are clearly human administrators involved, who all have a different relation to the machine learning model.

6.2. Appendix 2 – Keywords for search

The coding was done in [Qualcoder v.3.5](#). It was case insensitive and the list of keywords was tested on the first three hearings and actively updated. The dataset had minor inconsistencies due to the conversion from .pdf to .txt., which had a better workflow in the Qualcoder coding software. This meant that special characters were reproduced in encoding and spaces were spuriously distributed throughout the transcript. The inaccuracy of special characters was not problematic for the keyword search since no keyword included special characters. The spontaneous placement of spaces throughout the transcript meant that some mentions of the terms have been missed. After a laborious keywords search in 4 transcripts where I tested all different spacing of each keyword and only received one relevant hit, I decided to accept the minor oversight this data imperfection might result in and stopped the labour-intensive process.

Related to the public official		
Ambte* (-naar, -lijk, -narij, ...)	Profession* (-eel, -al, -ele, ...)	Functionaris
Bestuurder	Collega	Medewerker
Related to responsibility		
Verantwoord* (-, -e, -elijk, ...)	Betrouwbaar	Inspect*(-ie, -eur)
Toezicht	Behoorlijk	Bestuursrecht
Reflect* (-ie, -ief, -eren, ...)	Uitvoer* (-en, -ing)	
Related to algorithms and data analysis		
Vooroordeel	Discriminatie	Risico*(-profiel, -analyse, ...)
Syri	RCM	Model
Applicatie	Gegevens	Data
Digita* (-al, -le, -alisering, ...)	Analyse	Dienstverlen* (-er, -ing)
bestand	bias	

6.3. Appendix 3 – Coding scheme

In the end I developed 68 codes while reviewing the transcripts.

Code	Total segment count
Ambtelijk contact	53
Ambtelijk initiatief	49
Ambtelijke loyaliteit	3
Ambtenaar	45
Ambtenaar hiërarchisch	37
Antifraudebox	2
Beeldvorming	34
Beleid los van praktijk	18
Besluit tot risicogestuurd werken	2
Bestandskoppeling	9
Bias	23
Businesscase Fraude	22
Capaciteit	30
Communicatie door overheid	5
Contact met burger	33
Controle mechanisme Hot/Hor	2
Definitie GGD Risicoprofiel	2
Digitalisering	35
Discretionaire ruimte beleidsvorming	105
fatsoenlijk bestuur	12
Feiten motivering	4
Fout	16
FSV	13
Gegevens	97
Hot/Hor	3
Influence of formal setting/oath	12
Interventie Ede	1
IST Teams	5
Keuze tot specificatie nationaliteit	1
Model	4

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Motivatie persoonlijk	10
Motivering besluit	21
Naleving	2
Onderbouwing maatschappelijke noodzaak gegevensdeling met CBP	2
Onderzoeksmotivering	2
Ontwijken van verantwoordelijkheid	29
Ontwikkeling model	10
Ontwikkeling van normativiteit door tijd	5
Opzet Grove Schuld	8
Patroon vaststelling Somalische Nederlanders en consequenties	1
Persoon in de verantwoordelijkheid	28
Perspectiefconflict	4
Professional	13
Professionele achtergrond	1
RAM	6
Reflectie	35
Responsief	69
Risicoclassificatiemodel	45
Risicogestuurd handhaven in de praktijk	30
Risicoprofiel	16
Risicoprofiel ontwikkeling	16
Risicoselectie	15
Scheiding uitvoering en beleid	82
SyRI	21
Technische kennis	24
Toezicht	40
Uitvoerders	6
Uitvoering van Beleid	53
Verantwoordelijkheid	52
Verantwoordelijkheid burger	11
Verantwoordelijkheid overheid	58
Verantwoordelijkheid Uitvoering	171

Verantwoordelijkheidsverdeling	100
Verantwoording	3
Vertrouwen	11
Vertrouwen in het model	6
Verwijt	2
Werken met model	7

6.4. Appendix 4 – Full list of hearings analysed

Interviewee	Date	Progress	Interviewers	Reason for committee to invite individual(s)
Gerda en Jurgen Deceuninck	20230906	all keywords	Belhaj en Azarkan	We zullen dus stap voor stap ingaan op uw problemen met de Belastingdienst, uw ervaringen als gedupeerde en de gevolgen daarvan voor uw gezin. Als toeslagenuder die verdacht werd van fraude, bent u met strenge financiële maatregelen geconfronteerd. Zoals ik al zei: u bent uw huis kwijtgeraakt en uw kinderen zijn vanwege de problemen met de Belastingdienst uiteindelijk elders ondergebracht.
Goncalves Tavares	20230906	all keywords	Simons en van Nispen	U bent een van de toeslagenuders, door de Belastingdienst onterecht als fraudeur bestempeld. In 2013 werd beslag gelegd op uw inkomen en werden alle toeslagen stopgezet. U moest een bedrag terugbetalen van €125.000. Ik wil graag stap voor stap met u ingaan op de problemen die u met en door de Belastingdienst heeft ondervonden. U werd met strenge maatregelen geconfronteerd.
Van Atteveldt en Roozendaal	20230906	all keywords	Van Raan en Belhaj	U heeft samen met een aantal collega's voor de enquêtecommissie, op basis van openbare bronnen zoals Kamerstukken en mediaberichten, een breed onderzoek gedaan naar 30 jaar sociale zekerheid in Nederland en de rol van de media en de politiek daarbij. Hier gaan we in dit verhoor nader op in.

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Herderscheê	20230907	All keywords	Aartsen en Azarkan	<p>U bent geruime tijd werkzaam geweest als journalist, eerst bij Het Financieele Dagblad en daarna bij de Volkskrant als politiek redacteur. U heeft de afgelopen 30 jaar veel geschreven over sociale zekerheid en over politiek. In dat kader willen wij</p> <p>het vandaag in dit verhoor met u hebben over hoe u aankijkt tegen de rol van de media in het algemeen en ook over het effect op de politiek en de sociale zekerheid in het bijzonder. Wij zijn ons terdege ervan bewust dat u uiteraard niet namens alle media of d\xe9 media zou kunnen spreken, maar gelet op uw jarenlange ervaring en deskundigheid is deze commissie ervan overtuigd dat u daar zinnige dingen over kunt zeggen.</p>
Rutte	20230907	Read in full	Van Nispen en Belhaj	<p>U was van 22 juli 2002 tot 17 juni 2004 staatssecretaris van Sociale Zaken en Werkgelegenheid in de kabinetten - Balkenende I en II. W e horen u vandaag over deze functie, en u komt nog een keer terug vanuit uw functie als minister -president. In dit verhoor willen we het met u hebben over de volgende zaken: het fraudebeleid in de sociale zekerheid en het Handhavingsprogramma 2003 -2006, ri sicogestuurd handhaven, de oprichting van de Landelijke Stuurgroep Interventieteams, de groepsgerichte aanpak van Somalische bijstandsgerechtigden en de bescherming van persoonsgegevens.</p>

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Sabir	20230908	read in full	Simons en Maatoug	U was van 2011 tot 2014 werkzaam als projectleider bij het ministerie van Sociale Zaken en Werkgelegenheid. Daar hield u zich bezig met het project Fraudeaanpak door bestandskoppeling en. In dit verhoor wil de commissie het met u hebben over de totst andkoming van het wetsvoorstel F raudeaanpak door bestandskoppeling en en het Besluit Systeem Risico Indicatie.
Tomesen	20230908	All key words (as written down in notebook)	Slootweg en Belhaj	u was van 2011 tot 2018 lid en vicevoorzitter van het College bescherming persoonsgegevens, later Autoriteit Persoonsgegevens. Daar hield u zich onder andere bezig met de bescherming van persoonsgegevens in de sociale zekerheid. In dit verhoor wil de commissie het met u hebben over de ontwikkeling van en aandacht voor de bescherming van persoonsgegevens, de besch erming van persoonsgegevens in relatie tot het bestrijden van fraude, en de omgang met adviezen van het College bescherming persoonsgegevens.
Derks	20230911	All Keuwords	Slootweg en Azarkan	u was van 2009 tot 2017 werkzaam als beleidsmedewerker bij de overkoepelende brancheorganisatie voor de publieke gezondheid en veiligheid in Nederland, de GGD GHOR, meen ik. Daar hield u zich bezig met het toezicht op de kwaliteit van de kinderopvang. In dit verhoor willen we het met u hebben over de ondersteuning van de GGD bij he t toezicht op de kinderopvang, in het bijzonder de gastouderopvang en de samenwerking met de Belastingdienst.

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Dijksma	20230911	All key words (as written down in notebook)	Aartsen en Azarkan	U was van 22 februari 2007 tot 23 februari 2010 staatssecretar is van het ministerie van Onderwijs, Cultuur en Wetenschap in het kabinet -Balkenende IV. U was daarbij onder andere verantwoordelijk voor de kinderopvang. In dit verhoor willen wij het graag met u gaan hebben over de invoering van de kinderopvangtoeslag en het gebruik, oneigenlijk gebruik en misbruik daarvan
Krug	20230912	All keywords	Maatoug en Belhaj	u was in de periode 2004 tot 2011 bij het ministerie van Sociale Zaken en Werkgelegenheid werkzaam in de functie van directeur Handhaving en administratieve lasten en later in de functie van directeur Naleving. In deze functies hield u zich bezig met handhaving binnen de sociale zekerheid. In dit verhoor willen we het met u hebben over uw betrokkenheid bij het fraudebeleid. U heeft sinds 1977 bij het ministerie van Sociale Zaken en Werkgelegenheid gewerkt, met een kleine onderbreking in de jaren 1999 tot 2001.
Schiet	20230912	All key terms	Simons en van Nispen	De commissie wil het om te beginnen met u hebben over uw werk als projectleider implementatie fraudeaanpak. U bent in mei 2011 gestart met deze functie bij het ministerie van Sociale Zaken en Werkgelegenheid.
Krom	20230913	All key terms	Van Raan en Van Nispen	U was van 14 oktober 2010 tot 5 november 2012 staatssecretaris van Sociale Zaken en Werkgelegenheid. In dit verhoor wil de commissie het met u hebben over de ontwikkeling van het fraudebeleid, de totstandkoming van de fraudewet en de invulling van het

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				begrip "verwijtbaarheid". Het gaat dan om verwijtbaarheid rondom de fraudewet.
Kamp	20230913	All key terms	Azarkan en Belhaj	u was van 14 oktober 2010 tot 5 november 2012 minister van Sociale Zaken en Werkgelegenheid in het kabinet -Rutte I. In dit verhoor wil de commissie het met u hebben over de ontwikkeling van het fraudebeleid, de totstandkoming van de fraudewet, de invulling van verwijtbaarheid onder de fraudewet en de gevolgen van de fraudewet voor fraudebestrijding bij de kinderopvangtoeslag.
Karabulut	20230914	All key terms	Van Raan en Slootweg	U was Kamerlid voor de SP van 2006 tot 2021. U heeft de kabinetten -Balkenende III tot en met Rutte III meegemaakt. U heeft zich in die periode met veel onderwerpen beziggehouden, waaronder sociale zaken. In dit verhoor wil de commissie het met u hebben over de Kamerbehandeling van de invoering van de fraudewet en de aanpassing van de fraudewet, die in de periode 2012 -2016 plaatsvond.

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Samsom	20230914	All key terms	Van Nispen en Aartsen	U bent in maart 2012 gekozen tot partijleider en fractievoorzitter van de PvdA, en u was lijsttrekker voor de PvdA bij de Tweede Kamerverkiezingen in september 2012. In die hoedanigheid was u betrokken bij de formatie van het kabinet -Rutte II. Vervolgens was u tot december 2016 fractievoorzitter van de PvdA in de Tweede Kamer. In dit verhoor wil de commissie het met u hebben over onder andere de formatie van het kabinet -Rutte II, de visie op fraudebestrijding in de sociale zekerheid en het toeslagenschandaal.
Bruins	20230915	all keyterms	Maatoug en Belhaj	u was van 2012 tot 2017 voorzitter van de raad van bestuur van het Uitvoeringsinstituut Werknemersverzekeringen, het UWV. Daar was u eindverantwoordelijk voor de organisatie en de uitvoering. In dit verhoor wil de commissie het met u hebben over de wijze waarop het UWV in die periode vorm heeft gegeven aan het fraudebeleid in de sociale zekerheid.
Gerritsen	20230915	All keywords	Maatoug en van Nispen	U bent ruim 30 jaar actief geweest binnen de sociale advocatuur en u bent daarin altijd werkzaam geweest binnen het domein van de sociale zekerheid. In dit verhoor wil de commissie het met u hebben over de sociale advocatuur in Nederland, met name het domein van de sociale zekerheid en de cliënten die u heeft bijgestaan. Daarnaast komt de relevante wet - en regelgeving, zoals de fraudewet uit 2013 en de wijze waarop deze wet is uitgevoerd door verschillende uitvoeringsorganisaties, aan bod.

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Kemperman	20230915	all keyterms	Aartsen en Slootweg	U was van maart 2007 tot april 2017 directeur Bezwaar en Beroep bij het UWV. U was daar onder andere verantwoordelijk voor de uitvoering van bezwaar - en beroepszaken, het Centraal Mediation Bureau en het Juridisch Kenniscentrum. In dit verhoor wil de commissie het met u hebben over de wijze waarop het UWV in die periode vorm heeft gegeven aan fraudebeleid in de sociale zekerheid en over de werkzaamheden van uw divisie Bezwaar en Beroep.
Dikmans	20230922	all keyterms	Simons en Azarkan	U was van december 2012 tot juni 2019 directeur Uitvoeringsbeleid en Naleving en later directeur Stelsel en Volksverzekeringen bij het ministerie van Sociale Zaken en Werkgelegenheid. Daar hield u zich bezig met het socialezekerheidsstelsel, handhaving en fraudebestrijding. De commissie wil het in dit verhoor met u hebben over uw betrokkenheid bij het fraudebeleid.
Rottier	20230922	all keyterms	Van Nispen en Van Raan	U bent sinds 1995 actief als rechter en sinds 2002 als rechter werkzaam bij de Centrale Raad van Beroep. In deze rol houdt u zich bezig met het socialezekerheidsrecht en spreekt u recht in hogerberoepszaken. Allereerst wil ik u enkele vragen stellen over uw functie van senior raadsheer en over de organisatie waar u werkt, de Centrale Raad van Beroep.
Asscher	20230925	all keyterms	Azarkan en Aartsen	U was van 5 november 2012 tot 26 oktober 2017 minister van Sociale Zaken en Werkgelegenheid en vicepremier in het kabinet -Rutte II. Vanaf 14 maart 2017 was u demissionair minister. In dit verhoor willen we het onder meer met u hebben over fraudebestrijding in de sociale zekerheid, het gebruik van

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				persoonsgegevens bij fraudebestrijding en de opvolging van signalen en adviezen.
Heerma	20230925	all keyterms	Van Nispen en Van Raan	U bent sinds 2012 Kamerlid voor het CDA. U heeft zich als Kamerlid met veel onderwerpen beziggehouden, waaronder ook Sociale Zaken. In dit verhoor wil de commissie het met u hebben over onder meer de uitvoering en de aanpassing van de fraudewet.
Niessen	20230925	read this interview in full. Coded while watching and listening to the hearing (1.5 speed)	Van Raan en Belhaj	U was van 2012 tot 2016 werkzaam als bezwaarbehandelaar bij de Belastingdienst op het kantoor in Oss. Daar hield u zich onder andere bezig met het afhandelen van bezwaren tegen de invorderingsrente voor het project invordering toeslagen van de Belastingdienst/Toeslagen. In dit verhoor wil de commissie het met u hebben over de werkwijze van het belastingkantoor Oss bij het afhandelen van bezwaren tegen de invorderingsrente en uw meldingen over deze werkwijze. Naar aanleiding van een onderzoek van KPMG naar uw meldingen heeft u in 2021 excuses gehad van staatssecretaris Van Huffelen, omdat uw meldingen ten onrechte niet serieus waren genomen. De commissie heeft veel aanvullend materiaal van u ontvangen dat uw meldingen van misstanden onderstreept, waarvoor dank. Voordat u bij het project invordering toeslagen ging werken, werkte u als medewerker bezwaar bij de Douane.

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El Bali	20230926	All keywords	Aartsen en Belhaj	u bent vanaf 2008 directeur/eigenaar van gastouderbureau Amira Children. In dit verhoor willen we het met u hebben over uw gastouderbureau en de problemen die u met de dienst Toeslagen heeft ondervonden sinds 2008.
Veldhuizen	20230926	All key terms	Slootweg en Belhaj	u bent tussen 2008 en 2019 als ambtenaar van de directie Arbeidsmarkt en Sociaal -Economische Aangelegenheden van het ministerie van Sociale Zaken en Werkgelegenheid betrokken geweest bij verschillende openbare en vertrouwelijke beleidsonderzoeken over het toeslagenstelsel. In dit verhoor wil de commissie het met u hebben over uw betrokkenheid bij diverse interdepartementale onderzoeken over het toeslagenstelsel en de opvolging van deze onderzoeken door de tijd heen.
Blansjaar	20230927	read this interview in full	Azarkan en Maatoug	U was van 2005 tot 2012 beleidsmedewerker Handhaving bij het directoraat -generaal Belastingdienst en van 2013 tot 2015 coördinator bij datzelfde directoraat -generaal. In dit verhoor willen we het met u hebben over de taken van het directoraat -generaal Belastingdienst en de relatie met de Belastingdienst en de Dienst Toeslagen. We willen het ook met u hebben over de problemen met de gastouderopvang in de jaren 2008 -2009, de gevolgen van de fraude met toeslagen door Bulgaren voor de Dienst Toeslagen, en de gevolgen van de Wet aanpak fraude toeslagen en fiscaliteit voor burgers.

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Mattijssen	20230927	All keywords	Maatoug en Slootweg	U was van 15 november 2008 tot 14 oktober 2010 directeur Kinderopvang bij het ministerie van Onderwijs, Cultuur en Wetenschap. Daar hield u zich onder andere bezig met de kwaliteit van kinderopvang en het professionaliseren van de gastouderopvang. In dit verhoor willen we het met u hebben over de invoering van de kinderopvangtoeslag en de onvoorziene groei in het gebruik daarvan, de signalen van misbruik en oneigenlijk gebruik van kinderopvangtoeslag, en het toezicht op de kinderopvangtoeslag.
Moreira Moreno	20230927	All keywords	Aartsen en Simons	u bent 24 jaar oud, woont in Rotterdam en werkt in de gehandicaptenzorg. U bent ook een van de kinderen van wie de moeder door de Belastingdienst destijds onterecht als fraudeur is bestempeld. U bent sinds uw tienerjaren geconfronteerd met de ingrijpende langdurige gevolgen van het toeslagenschandaal. U hebt uw opleiding moeten opgeven om snel aan het werk te kunnen gaan om uw moeder en jongere broer financieel te ondersteunen. Vandaag wil de commissie graag stap voor stap met u ingaan op wat dit voor u en uw gezin heeft betekend en wat de gevolgen daarvan zijn.

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Blankestijn	20230928	read this interview in full	Simons en Azarkan	<p>U was van 1 september 2011 tot 1 december 2018 directeur van de Dienst Toeslagen van de Belastingdienst . U was daarmee de hoogste baas van de Dienst Toeslagen. Op 18 november 2020 bent u gehoord door de parlementaire ondervragingscommissie Kinderopvangtoeslag over uw betrokkenheid bij het toeslagenschandaal. In dit verhoor willen we het graag met u hebben over de volgende zaken: de werkwijze van de Dienst Toeslagen, de verhoudingen met de Belastingdienst en met de verantwoordelijke beleidsministeries, de aandacht voor de rechtsbescherming van burgers en het gebruik van het risicoclassificatiemodel door de Dienst Toeslagen.</p> <p>U werkt sinds 1984 voor de Belastingdienst, als mijn informatie correct is, meneer Blankestijn. U heeft daar verschillende leidinggevende posities bekleed. U heeft de toevoeging van de Dienst Toeslagen aan het geheel van de Belastingdienst in 2005 meegemaakt.</p>
Van de Bospoort	20230928	read this interview in full	Maatoug en Azarkan	<p>U was van oktober 2016 tot maart 2019 lid van het managementteam Toeslagen bij de Belastingdienst. Daar hield u zich onder meer bezig met handhavingsregie, communicatie en dienstverlening. In dit verhoor willen we het met u hebben over de volgende zaken: de behandeling van toelagenaanvragen en het toezicht op deze aanvragen, de businesscase fraude en de aandacht voor de rechtsbescherming van burgers.</p> <p>De commissie wil het om te beginnen met u hebben over de Dienst Toeslagen en over hoe de Dienst Toeslagen aanvragen behandelde.</p>

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Van der Vlist	20230929	read this interview in full	Aarts en Azarkan	U was van 2011 tot juni 2020 algemeen directeur van de Fiscale Inlichtingen - en Opsporingsdienst, afgekort de FIOD. In dit verhoor willen we het onder meer met u gaan hebben over de volgende zaken: de werkwijze van de FIOD, uw samenwerking met de Dienst Toeslagen bij de fraudeaanpak, de verschillen tussen toezicht en opsporing en tussen strafrecht en bestuursrecht, en het gebruik van de Fraude Signalerin g Voorziening.
Weekers	20230929	All keywords	Van Raan en Van Nispen	U was van oktober 2010 tot januari 2014 staatssecretaris van Financi\xebn in de kabinetten -Rutte I en II. In die hoedanigheid was u verantwoordelijk voor de Belastingdienst en daarmee ook voor de Dienst Toeslagen. U bent op 23 november 2020 gehoord door de parlementaire ondervragingsco mmissie Kinderopvangtoeslag over uw betrokkenheid bij het toeslagenschandaal. In dit verhoor wil de enqu\xeatecommissie in aanvulling op uw verhoor daar met u ingaan op de verhoudingen tussen de Dienst Toeslagen en het ministerie van Sociale Zaken en Werkgele genheid en op de fraudebestendigheid van het toeslagenstelsel.
Koemans	20231002	Read, watched, and coded in full	Maatoug en Simons	U werd van 1 juni 2013 tot 4 juni 2016 als manager Analytics van Deloitte ingehuurd door de Dienst Toeslagen van de Belastingdienst. Daar hield u zich bezig met de doorontwikkeling van het risicoclassificatiemodel van de Dienst Toeslagen en het overdragen van kennis over de werking van het model aan medewerkers van de Dienst Toeslagen. In dit verhoor wil de commissie het met u hebben over de opdrachtverlening aan Del oitte, de samenwerking

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				tussen Deloitte en de Dienst Toeslagen en de werking van het risicoclassificatiemodel van de Dienst Toeslagen.
Veringmeier	20231002	Read, watched, and coded in full	Slootweg en Azarkan	u was van september 2011 tot april 2018 verantwoordelijk voor het team Handhavingsregie en Intelligence van de Dienst Toeslagen. In dit verhoor wil de commissie het met u met name hebben over de ontwikkeling van het handhavingsbeleid van de Dienst Toeslagen, de samenwerking met het Combiteam Aanpak Facilitators en de ontwikkeling en het gebruik van het risicoclassificatiemodel door de Dienst Toeslagen.
Veld	20231003	Read, watched, and coded in full	Maatoug en Azarkan	U was van juli 2009 tot oktober 2015 directeur -generaal Belastingdienst. Daarmee was u de hoogste baas van de Belastingdienst, waaronder de Dienst Toeslagen, de Douane en de Fiscale Inlichtingen - en Opsporingsdienst vallen. U bent op 18 november 2020 gehoord door de parlementaire ondervragingscommissie kinderopvangtoeslag over uw betrokkenheid bij het toeslagenschandaal. In dit verhoor wil deze enquêtecommissie in aanvulling op uw verhoor door de parlementaire ondervragingscommissie Kinderopvangtoeslag, in het kort ook wel de "POK" genoemd, met u ingaan op de aansturing van de Dienst Toeslagen, de omgang met klachten en bezwaren over toeslagen en de

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				fraudebestrijding door de Belastingdienst en de Dienst Toeslagen.
Cooijmans	20231004	All key terms	Van Nispen en Azarkan	U bent vanaf 1996 rechter en tussen 2012 en 2016 heeft u als bestuursrechter bij de rechtbank Rotterdam kinderopvangtoeslagzaken behandeld.
Rutte	20231004	All key terms	Azarkan en Belhaj	U bent sinds 2010 de minister van Algemene Zaken en de minister -president van Nederland, en vanaf 7 juli 2023 demissionair. In deze rol bent u verantwoordelijk voor de coördinatie van het regeringsbeleid. In dit verhoor willen we het met u hebben over onder meer het fraudebeleid en de inhoudelijke ontwikkelingen met betrekking tot de aanpak van fraude, gegevensuitwisseling en rechtsbescherming.
Van Ettekoven	20231004	All keywords	Maatoug en Van Nispen	U bent sinds 2017 voorzitter van de Afdeling bestuursrechtspraak van de Raad van State. In dit verhoor willen we het onder andere met u hebben over de rol van de Afdeling bestuursrechtspraak van de Raad van State, de systematiek en interpretatie van wet - en regelgeving in kinderopvangtoeslagzaken en signalen naar en terugkoppeling door de Afdeling bestuursrechtspraak.
Van Zutphen	20231005	All keywords	Belhaj en Van Raan	u bent vanaf 2015 de Nationale ombudsman. In dit openbaar verhoor wil de commissie het onder meer met u hebben over de rol, positie en bereikbaarheid van de Nationale ombudsman, over de aandacht voor en opvolging van uw rapporten en uiteraard over de

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				rechtsbescherming van burgers.
Wolfsen	20231005	All keywords	Van Nispen en Aartsen	U bent vanaf 2016 voorzitter van de Autoriteit Persoonsgegevens. De Autoriteit Persoonsgegevens is de onafhankelijke toezichthouder op de rechtmatige verwerking van persoonsgegevens. In dit verhoor wil de commissie het onder meer met u hebben over het belang van de bescherming van persoonsgegevens en de gevolgen van de schending hiervan en de opvolging van adviezen van de Autoriteit Persoonsgegevens.