

**Campaigning by Numbers: The Role of
Data-Driven Practices in Civil Society Organisations**

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Submitted for the degree of Doctor of Philosophy in Political Science

2019

Corrections submitted 2020

Declaration

I, Amber Macintyre, hereby declare that this thesis and the work presented in it is entirely my own. Where I have consulted the work of others, this is always clearly stated.

Amber Macintyre

23rd December, 2020

Acknowledgements

I am incredibly grateful to the amount of people who have believed in me and supported me over the last few years. Due to a few circumstances, I have had the opportunity to work with five supervisors over the period, and each has contributed a different perspective to this project. I am grateful for the first two years of supervision from Andy Chadwick, whose knowledge and enthusiasm for the field of political communication is inspiring. Chris Watkins, from the Department of Computer Science, provided technical expertise, and a perspective outside of political science that helped clarify my ideas early on. I am grateful to Ben O'Loughlin for jumping in to be the primary supervisor half way through the project. Ben had already provided important feedback, alongside James Sloam on my advisory panel, both of whom placed my work in a broader literature that I would never have known otherwise. I am grateful for the support from Ursula Hackett who stepped in for the final years and not only brought me energy at a time when I was struggling to see a route forward, but also provided excellent challenges to my theories, consequently strengthening my ability to defend my ideas. Finally, I could not have come this far without Cristian Vacarri, who supervised the project from start to end. An expert not only in the field, but in the rigour required to achieve high standards of research, Cristian has been vital to my growth as a researcher, and I can only hope to keep learning from his work.

I could not have done this PhD without the generosity of The Leverhulme Trust. My work has also benefited from the research environment at Royal Holloway. Particularly the PhD program in the Politics and International Relations Department which was run by Professor. Julia Gallagher, which provided opportunities to discuss research ideas and experiences with fellow PhD students. Through this, I met the *Assorted Cool Kids* who it has been an honour to journey alongside. Emily Harding, Thomas Waterton, Naomi Grotenhuis and David Ventura have provided solidarity, mutual proofreading, dance breaks, PhD festivals and a countless number of *pomodoros* together, all of which have brought a lot of pleasure to the PhD experience.

An ethnography requires the researcher to embed themselves in a community and for me this would not have been possible without the openness and generosity of the staff in both organisations. I am grateful to Thomas Schultz-Jagow who agreed to let me carry out the research at Amnesty and I am thankful to Dorota Wanat who took time out of her work to help me get settled at Amnesty and carry out my research. I am grateful for the openness of Stephanie Hankey who let me carry out the research despite not knowing much about me beforehand.

I am grateful to my mum, Mairi Macintyre. The quality of my work, and my ability to take criticism, would not be possible without her 'red pen' proof reads. She is an inspiring conversational partner, relentless cheerleader, and an incredible support through the highs and lows of life decisions. I am also grateful to Alison Kakoura who gave me enthusiasm for finding the right words to express myself. Finally, I am grateful to every single person - friends, colleagues, and sometimes strangers - who have listened to me repeatedly try to formulate my research question, theory and findings - thank you for your intrigue which made me feel this research has a place in the world.

Abstract

This research examines common claims about how personal data is used in political communication, focusing on civil society organisations (CSOs). Two ethnographic case studies are carried out to investigate the differences between a traditional membership-run CSO, Amnesty International, and a grant-funded CSO, Tactical Technology Collective. The findings are threefold. Firstly, new civil society organisations, such as Avaaz, 38 Degrees and Change.org, assert that data-driven technologies support their audience-led models. However, both organisations in this research engage in data-driven practices to persuade the audience to support the strategy set by organisational staff, corroborating the critical claims that data-driven practices reinforce expert-led models. Secondly, rhetoric around the uptake of new data-driven practices has been based on the assumption that distinct data-driven ways of working have become normalised. The findings show, however, that these two CSOs still rely on deliberation, personal judgement, and relationships to make strategic decisions. Finally, decision-making surrounding data-driven practices can be influenced by the opaque role of data scientists and data technologies. The findings show how placing these agents outside of strategic decision-making affects the organisation's ability to manage personal data consistently across projects. The research is significant in understanding the complexity and nuance in the adoption, and rejection, of new data-driven practices. Further, the research makes a case for practitioners and researchers alike to be cautious about claims that data-driven practices support audience-led models, and to be open to the benefits of expert-led models.

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Chapter 1. Data-Driven Campaigns: Success Stories and Scandals

I began my journey towards writing this thesis in 2013 when I started the role of Digital Activism Coordinator at the International Secretariat of Amnesty International (Amnesty). Amnesty is a civil society organisation (CSO) and their vision is to create “a world where human rights are enjoyed by all” (Amnesty, 2019). To achieve this, Amnesty runs campaigns on a range of topics using different tactics. For example, Amnesty lobbies to abolish death penalty laws runs public education programs on sexual and reproductive rights, and petitions to free prisoners of conscience. The role of Digital Activism Coordinator was created to encourage and support campaigners to use social media, mobile applications (apps) and other digital technologies to engage with their audience. At the time, stories were emerging from the wider campaigning sector about their successful use of data-driven technologies to support their work. The main protagonists of these success stories were recently founded CSOs, such as Avaaz, MoveOn and Change.org. These CSOs attracted attention due to their unique model as digital membership organisations consisting of fast-moving large-scale membership, participation and fundraising (Horstink, 2017). To achieve this model, the organisations’ tactics are reliant on both technology and personal data. Staff collect and host email addresses, create profiles on individuals or groups to target them with personalised messages and track how many people engage with their web or email content to optimise their communication tactics. Digital membership organisations claim to use these data-driven tools to support audience-led models of decision-making. David Karpf (2017) creates the term *analytic activism* to describe this specific data-driven approach to engage a large-scale public audience in decision-making within CSOs. Amnesty introduced the role of Digital Activism Coordinator because they wanted to engage in analytic activism too.

In the same year of the creation of the Digital Activism Coordinator role, Amnesty also

established a team to campaign on the topic of technology and human rights. One of the team's first major campaigns was created in response to Edward Snowden's revelations of mass surveillance. Snowden exposed the data-driven surveillance programs being carried out by government security bodies across the world including the NSA in the US, GCHQ in the UK and the ASD in Australia. In the name of national security, the surveillance programs can and do collect the content of people's unencrypted emails, text messages and video calls as well as metadata such as what time calls took place and to whom the messages were sent. The agencies not only search through past messages to investigate crimes, but also analyse data to create profiles of who is likely to be involved in criminal activity, and find patterns in the data to predict the likelihood of where future crimes may take place (Lyon, 2015). Amnesty's campaign, framed by the organisation's focus on human rights, argued that the activities were in breach of the right to privacy and the right to freedom of expression (Amnesty International, 2014). Furthermore, Amnesty criticised government surveillance for being ineffective which violates one of the components of privacy laws that any data collected must be necessary and proportionate to the aim.

My role as digital activism coordinator involved analysing and profiling people's online behaviours and constituted a "systematic and routine attention to personal details, whether specific or aggregate, for a defined purpose" (Lyon, 2015, p. 13) - the definition of surveillance. This crossover between surveillance and analytics made me feel uneasy in my role. There are some clear differences between Amnesty's data practices and those of national security agencies. Amnesty's reasons for engaging with the data is to communicate campaigns, rather than for national security. If either Amnesty or the national security agency wanted to use the data for reprehensible purposes, the national security agencies have more authority and resources to achieve these goals. However, the criticisms levied at surveillance were not levied at the goal of security, or the national security bodies resources, but rather at the violation of privacy and freedom of expression created by the constant monitoring of activities. It was not clear whether my work could be distinguished as respectable analytics, rather than immoral surveillance

I was not the only one feeling concerned about the overlap between analytics activism and surveillance. In 2015, when I began the scoping phase for this research project, I attended a digital campaigning conference for practitioners called the e-campaigning forum (ECF). Most of the agenda is open, created on the first morning by the attendees through a discussion of current ideas, problems and questions they have around digital campaigning. One attendee proposed a session titled “creepy or crafty” to discuss whether it was creepy for them to be monitoring people’s activities and behaviours online, or a crafty way for them to improve their campaigns. The session was well attended, and various topics were covered ranging from personalised commercial adverts, the difficulty of writing easy-to-understand privacy policies, and the effectiveness of measuring human rights impact from email open rates. No one left with a clear answer on which practices were creepy, and which were crafty. There was also little connection between how participants felt affected personally by advertising campaigns of private companies and how they, as campaigners, use data to improve their organisation’s communication with their audiences. They were missing questions that could bridge the critical views they had in one instance to their optimism for the role of data in their communication practices in the other.

This research aims to present a framework to help distinguish which data-driven techniques are acceptable, such as those proposed to listen to large-scale audiences in analytic activism, or unacceptable, such as those used to monitor and control populations in mass surveillance. The framework builds from the theory of data justice (Dencik et al., 2016) to evaluate and proscribe how CSOs can take into account the impact of data-driven practices on the shape and functioning of society. I examine the specific context of the values which are deemed acceptable within political communication practices to understand the impact of data-driven tactics. Drawing on perspectives around critical data studies, political communication and CSOs’ representation models, I consider the impact of data-driven tactics on a CSO’s ability to effectively carry out decision-making either through an audience-led model or an expert-led model.

I build on the framework through an ethnography of two CSOs, Amnesty and Tactical

Technology Collective (Tactical Tech), which are audience-led and expert-led respectively. The findings show that while those engaging with analytic activism claim to be using data to try to improve their audience-led campaigns, these two organisations engage with data practices rarely, and when they do, almost solely when running expert-led campaigns. The organisations still run supporter-led campaigns but without engaging data-driven methods. The engagement with data-driven practices is also only associated with situations where the logic already overlaps, such as in fundraising or when working with online platforms. However, data is not as prevalent as is proposed in previous literature, as both organisations are concerned with the impacts of data-driven approaches on both audience-led and expert-led models.

The findings demonstrate a need for more research into the distinct nature and utility of both data-driven practices, and alternatives to data-driven practices, such as qualitative, deliberative and subjective judgement based approaches. This will help build a better picture of both how we can conceptualise data-driven practices, and how to understand, and limit, the sense of their inevitable and prevailing use, in order to present a more comprehensive framework for when and how to engage with them. The findings also demonstrate how the attributes of contexts in which data-driven practices are used for expert-led models, correlating with the attributes of surveillance in which the political representative monitors and manages the public. This not only raises questions of how digital membership organisations achieve their model in practice but also brings to light the benefits of expert-led models for CSOs, which the staff demonstrate support for, whether supported by data-driven methods or not. Finally, the organisations maintain consistency and control over their engagement with data if they integrate the expertise of technology into roles, rather than classifying certain groups as technocrats.

1.1 More Than A Tool: Data Logic

Analytic activism and *mass surveillance* are paradigmatic of a set of ways of working which have become pervasive across society in the last fifty years. These practices involve using technology

and information in a distinct manner and range across different sectors including data-led criminal investigations, insurance systems reliant on data representing people's shopping habits, and computerised hiring systems that analyse data to narrow down large numbers of CVs to a few candidates for in-person interviews (O'Neil, 2016; Sánchez-Monedero, 2019). Data-driven tools are also found in our personal lives including wearable technology such as Fitbit, that tracks our steps during the day, smart home systems that monitor our electricity use, and apps that help track and manage our sleeping patterns.

These new data-driven practices have been researched extensively across sectors. For example, Bollier (2010) collates research on how health care organisations have used data to track the spread of illnesses (see also Lazer et al., 2014), and how data has become informative when assessing cost and quality of different care options based on personal needs and tracking the development and utility of drugs. Dyche (2012) describes how a retail chain improves their knowledge of customer's purchasing habits and consequently increases their profits through data collection and analysis on customer behaviours. Bronson and Knezevic (2016) review and demonstrate how the analysis of large data sets has changed operations within the food and agricultural sector. Statistics are increasingly used by governments to provide evidence for policy and regulation (Rieder and Simon 2016). The research sector has changed their operations to adapt to include these new data-driven practices, both in deciding the priorities of what to research and how the research itself is being conducted in universities; data scholarship was first framed as "data-intensive research" in policy initiatives that began early in the 2000s, including eScience, eSocial Science, eHumanities, and eInfrastructure (Borgman, 2015).

Most relevant to this thesis is the ubiquitous use of data in communication practices. Communication professionals collect and analyse data on people's demographics, behaviours, and interests, in order to create personalised and targeted messages so as to persuade people to carry out a desired outcome such as buying a product or voting for a specific political representative in an upcoming election (Kreiss and Howard, 2010; Anderson, 2011; Nielsen, 2012; Chadwick, 2013; Hersh, 2015; Kreiss, 2016). This project specifically focuses on CSOs,

where data is being used in organisations for knowledge and research, the management of people (Hall, 2019), as well as political communication as documented by Karpf (2017) and Dennis (2018).

Across all of these sectors, data-driven practices have developed since the 1960s due to a substantial increase in the quantity, variety and accessibility of computer and internet capacities which have made the collection, hosting and analysis of data faster, easier to carry out and more affordable. The technologies used to create and analyse data have three notable capabilities which are important to understanding the distinct nature of how they have been adopted across sectors. Firstly, technology has been developed that can extract or create data from objects through sensors, for example, when a button is pressed, a thermometer registers the temperature, or when a person clicks on a link to open a website in their browser. This is commonly termed datafication: actions and reactions are represented as data which is held in a computerised database (Cukier and Mayer-Schöenberger, 2013). Secondly, databases and servers can host an increasing variety and quantity of data with much more precision and speed. To give a sense of the scale, in 2014 Axciom, a database marketing company, held over 3000 data points per person for 97% of the 320 million citizens of the US population (Federal Trade Commission, 2014). Finally, technologies have developed to connect large databases and use analysis techniques for finding patterns and predicting new data points from those already collected (Lyon, 2015). For example, one important new technique is the use of algorithms to predict future data points, such as using how a certain geographic region voted in previous elections to predict how they, or other similar regions, will vote in a future election.

The type of data that underpins this work, and which is referred to in this thesis, can be represented in “units of any size, whether pixels, photons, characters, strokes, letters, words” (Borgman, 2015) and other individual units which can be saved in databases or spreadsheets. This thesis focuses on personal data. Personal data is a representation of any aspect of a person or persons, including their demographics, behaviours or attitudes and has traditionally, and legally, been reserved for data associated with an identified individual such as linked to a name

or email address. However, now due to the scale of data, types of data, and ability to connect the data, the personal data driving the practices outlined in this thesis, and forming the object of inquiry, includes anonymised statistics about groups of people such as website traffic, migration statistics or event attendance numbers. Personal data is defined as a collection of any number of single data points that represent any aspect of a person or a group of people in a machine-readable format. Data-driven practices will refer to the computerised collection, analysis and hosting of this type of data, the details of which are outlined and discussed throughout the thesis.

However, these data-driven practices are not just defined by the format of information or the tools used. Across different fields of study, there have been various attempts to analyse and document the approach to data practices as more than a single method but as a distinct cultural phenomenon. To define data practices as more than a method, scholars have compared them to various other socially significant concepts. Toonders et al (2013) compare the vast quantities of data and their value with the economic value of oil (Toonders et al, 2013) and Lessig likens the effect of the algorithms that process the data to the power of law (Lessig, 1999). Martin and Norman (1970, p. 24) poetically write “The gothic spires [of churches] have been replaced with monuments to electronics” as tall radio masts and towers appeared on skylines and took cultural significance in the late 1960s. Nick Couldry (2014, p. 887), describes the new engagement with data technologies as the *myth of big data*, writing that big data is “now increasingly influencing science, corporate and governmental agendas” and adds that “its domain is simply: everything - the entire extent of the data we generate as we live and interact”. From oil to religion, to mythology, data-driven practices have been weighted with great importance to the functioning of society.

Different fields of study have also identified values which shape engagement with data-driven processes. Critical data studies scholars, boyd and Crawford (2012, p. 663) define the popular term *Big Data*, not just as large data sets but also as a “widespread belief that large data sets offer a higher form of intelligence and knowledge that can generate insights that were previously impossible, with the aura of truth, objectivity, and accuracy.” Another area of

literature which conceptualises data practices is surveillance studies. Shoshana Zuboff (2019) describes, in her book *The Age of Surveillance Capitalism*, the behaviours surrounding data practices in the context of well-established economic values and practices. Values around data practices are based on how profit can be made, in particular, how data in vast quantities can be created by managing the behaviours of customers and collected in exchange for free products such as functions of Facebook and Google. The data is considered important because it is believed to support the ability to manage people's actions, to encourage them to buy a product or to engage with a service.

The final area of literature which this research draws from is political communication which has considered the role of data practices within a growing interaction with science and technology studies. In the introduction, I described *Analytic Activism*, Karpf's term for the use of data by CSOs to engage with their different audiences whether they are members of the organisation, campaigners or the general public. Analytic activism, as Karpf (2017, p. 4) writes, also goes beyond data-driven tools to "new tactics and strategies, new organizational learning routines, and new avenues for mass political engagement". Zynup Tufekci (2014, p. 2) describes data practices in electoral campaigning, which she terms *Computational Politics*, as the application of "computational methods to large datasets derived from online and offline data sources for conducting outreach, persuasion and mobilization in the service of electing, furthering or opposing a candidate, a policy or legislation". Tufekci's and Karpf's definitions uphold the idea that the current use of data does not simply involve new technologies assisting previous ways of working, but that the technologies have changed the modus operandi of the CSOs' campaigns and political campaigns. In both cases, the scholars present that within campaigning, the behaviours are different, the activities are different, the staff are different, and all of this due to the new distinct values placed on the role of data.

Whether the phenomenon is called 'analytics activism', 'computational politics', 'surveillance capitalism' or 'big data', the terms aim to capture something that is consistently and distinctly more than just the new technologies of data practice. However, the terms also fall

short in various ways. The use of the term big data is limited because big data came from a very specific use in technical discourse as a quantity of data that has to be processed by more than one computer (Kitchin, 2014). Even boyd and Crawford (2012, p. 663) recognise some of the data encompassed by their use of the term Big Data “are not nearly as large as earlier data sets that were not considered Big Data (e.g. census data).” On top of this, big data is also a term that has been widely used as a catch-all term for any new data-driven practice, unrelated to the necessary condition of two computers, and without referencing explicitly the shift in reasoning or cultural behaviours and habits. Analytic Activism and Computational Politics are limited by framing them within a specific discipline, either activism or election campaigning respectively. This does not account for the pervasiveness of common data-driven practices across sectors. There needs to be a unique term that can not only overcome the ambiguity and the limited nature of these definitions but can also support the understanding, and critical review, of a cross-disciplinary phenomenon.

I propose an ideal type, which I term *data logic*, to understand the phenomenon. An ideal type, defined by Weber (1949, p,90) is “the one-side accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent, concrete individual phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified analytical construct.” In this case, data logic is a consolidated set of one-sided principles that can determine what is consistent across data-driven practices. An ideal type cannot be found as a single entity in reality, but allows for the systematic characterization of instances in that reality, and therefore enables researchers to scrutinise the specific elements that make up a phenomenon, in this case, new data practices.

In chapter 2, I describe in detail the ideal type of data logic. In particular, I show how the principles of data logic influence what types of information and outputs are created and accepted by groups engaging with data-driven technologies. This description includes how the term logic is used based on previous political communication and organisational theories that use the term: “institutional logic”, “logic of collective action” and “media logic”. Logic is used across these

theories to describe a common and recognisable approach to the validation of behaviours and knowledge shared by a group who engage with them and subsequently can be used to identify the group's distinct way of working. Logic, importantly, can be codified as a set of principles, as an ideal type can, to identify, and if desired, to perform, the behaviours which will be accepted within the group.

The principles which determine the shape of data practices are already well documented by scholars across critical data studies, surveillance studies and political communication. In some cases, scholars have already collated explicit lists of principles. For example, Karpf defines three principles of Analytic Activism that shape the values and behaviours which distinguish this approach from alternative and older campaigning approaches: a culture of 'testing' everything from email subject lines to larger strategies; using digital tools to 'listen' to a public audience; and aiming for a large and broad supporter base of 'scale' over a narrow expert group (Karpf, 2017, p. 4). In another case, Tufekci (2014) describes six dynamics given the titles: big data, computational methods, modelling, behavioural science, experimental science and the power of platforms and algorithms. I synthesise the relevant conceptual developments of the rise of data practices into four principles, which can be seen in table 1.1. Data logic is the ideal type that comprises all these four principles.

Table 1.1: The four principles of data logic

Principle	Belief	Behaviour
Quantification	It is possible to represent anything in numbers	Using numerical targets as goals, databases of members or audiences to represent audiences, and metrics for evaluation
Scale	The more data the better	Always seeking to collect more data and framing success as a numerical increase
Technical standardised processes	Standardised processes involving technology are the best way to achieve results	Technology experts, databases and software carry out the collection and analysis of data
Algorithmic Reasoning	Outputs can be controlled through rule sets	Modelling and testing, adjusting inputs and processes to arrive at desired outputs

CSOs have been using personal data before the elements of data logic were adopted. For example, voluntary groups organised during World War I and World War II (Skocpol, 2013) traditionally hosted members' contact details, identifying membership numbers, and the history of the members' relationships with the organisation. Fundraising organisations have used personal financial data from individuals for processing donations. Humanitarian organisations, such as the International Federation of Red Cross and Red Crescent Societies, founded in 1919, have collected and analysed personal data relating to people's movements and behaviours to determine where their work will be most effective. The development of the data technologies, and accompanying logic, has increased the quantity and variety of data and subsequently the number of contexts within CSOs within which personal data can now be used.

CSOs can use data-driven technologies to optimise and personalise communicating their messages. For example, they can track what content and format of emails generate the most click-throughs, when someone clicks on a link that takes them to another webpage, to their website. They can target individuals directly through their email address, and personalise the

content based on any personal data they have gathered on them, such as demographic details or their previous interactions with them on social media or email. They can also use tools to track and analyse what people are saying on social media to try to understand public opinions which can then be used to shape the organisation's strategies.

The data logic present in *analytic activism* is valued so highly some newer organisations define themselves by their reliance on new data-driven technologies. MoveOn defines itself, amongst other principles by its reliance on “rigorous data science and testing” (MoveOn, 2011). Care2, an online petition website, is helping CSOs reach new audiences by being able to use personal identifying data to “behaviourally target your audience” (Care2, 2018). Avaaz, an internet-based campaigning CSO, is reliant on contact and survey data as their strategy is created by yearly all-member surveys and their “campaign ideas are polled and tested weekly to 10,000-member random samples” (Avaaz, 2017). These revealing self-proclamations demonstrate that CSOs not only use a wider variety and larger quantity of data but also define their work by the integral value of the data. Data has always played an important role in decision-making but now there is a data-driven way of working which involves a distinct and recognisable way in which data is put at the centre of not only their operations but in the case of many of the new CSOs the identity of the organisation itself. These practices will be unpacked in more detail in chapter 2. In the case of this research, data logic, an ideal type of the phenomena of data practices, is the object - central to mass surveillance or analytic activism - and the question is: how can campaigners and researchers consider when the elements of data logic are acceptable or unacceptable? To do this, it is important to understand how we are evaluating what is acceptable or not.

1.2 Acceptable and Unacceptable Engagement with Data Logic

In 2012, boyd and Crawford asked “Will large scale search data help us create better tools, services, and public goods? Or will it usher in a new way of privacy incursions and invasive

marketing?” (boyd and Crawford, 2012, p. 663). At the e-campaigning forum, the group session examined the difference between ‘creepy’ ethics or ‘crafty’ tools. In addressing concerns of data-driven practices there are often two elements: are data practices effective and are they ethical? Sometimes, as in these two examples, these are pitted against each other resulting in a cognitive dissonance in which practices are effective for audience-led models and at the same time violate privacy in expert-led models. The subsuming of the issues in these questions make it difficult for any political representative attempting to evaluate the acceptability of data practices. Furthermore, the ability for anyone to investigate these practices is criticised due to the lack of transparency and ownership, and consequently, the agency over data-practices. Across these criticisms, there are three testing points which demonstrate the different ways in which data logic is considered unacceptable, and by contrast, what is acceptable: its effectiveness in creating knowledge, its impact on the relationship between the data collector and data subject, and the agency of these two roles in decision-making within data practices. These three issues are introduced in the following paragraphs.

Data logic is a method for producing accurate information

Data logic defines the characteristics of the ways in which information is created and communicated by groups engaging with data-driven technologies. Critical data studies scholars such as boyd and Crawford (2012), Raley (2013), and Kitchin (2014), argue that the principles that define data practices are flawed, and do not lead to accurate information or effective practices due to a variety of problems in the processes of creating and analysing data. This may be because quantifying certain subjects in order to represent them is difficult or impossible, or because there are errors or biases in the process, and subsequently the data. One reason, for example, is because easily accessible data, created by recent data technologies, may lead to errors in information is because it has been collected in response to one question, but is being used to answer a different one. For example, ‘how many Twitter accounts used a hashtag in their

tweets in the last week?’ is very different to ‘how many people used a hashtag on Twitter in the last week?’ as some of the Twitter accounts may be bots - automated accounts run by code rather than under a person’s control. Furthermore, datasets from any social media platform are provided by the company themselves, collected based on the set up of their platform and to represent the aspects of people’s engagement which the platform company would like to measure. This is likely to be based on questions of how the company can produce more engagement for themselves or to gain profit - such as clicks on ads or time spent on the platform. These datasets are then analysed by people using the platform to find answers to different questions, such as for academic research or by a CSO’s communications team, but in neither case does the researcher or communication professional get to set the questions that create and collect the data. As is highlighted in research method studies: minor changes in the format and aim of the question can change the results dramatically.

The decisions that affect data points can range from small to large and across various parts of the process, such as what action from the user will create a data point and what the data point represents about the user’s intentions. A principle of data logic is that there are standardised universal processes that unearth the same universal information, but every process to create data is unique. Raley (2013) emphasises this by calling the term raw data an oxymoron: to get data it must have been in some way processed, and cannot be ‘raw’. The data is, by its nature, a model of reality, and this model has to be created through a process. These issues can lead to more substantial consequences than mistaking a few bots for people; for example, there are cases of social profiling gone wrong leading to the arrests and investigations of innocent people.

Inaccurate information is also created due to personal biases, as opposed to statistical bias, in the people setting the parameters to collect and analyse the data, covered particularly in studies of algorithmic decision making (Sánchez-Monedero et al, 2019). Kitchin (2014) describes how, within a group of technical experts, each would tackle a problem differently.

Some of these differences in approaches can be based on the biases towards the type of code the programmer likes to use, the approach to problem-solving the programmer takes, or the software the programmer uses to write the code. On top of that, people's backgrounds and experiences influence their decisions too. As boyd and Crawford (2012, p. 673) draw attention to, technology and management staff are still, for the majority, from a same demographic group and "as feminist historians and philosophers of science have demonstrated, who is asking the questions determines which questions are asked." People's backgrounds, different approaches to problem-solving, the code and software they use, and other factors can lead to the same questions being addressed with different processes, algorithms, and producing different datasets. Any specific datasets cannot be considered to be a universal, standardised result.

CSOs are engaging with data from social media, website traffic, and using other large scale personal data to improve their communications without any of the questions or caveats of quantitative methods research, such as ensuring a focused sample group or ensuring the question they want asked of the data is the one that framed the data. Critical data scholars argue that when data logic is the approach taken, the information it generates replaces those which are created through more traditional approaches, such as qualitative and intuitive approaches. However, the information created through data logic is not always superior as it is not representative of what it claims to represent, and can be inadequate or even harmful when contributing to the organisational knowledge - tacit or codified. These criticisms target not the principles of data logic such as trusting the technologies to carry out standardised processes, to create accurate information, through mostly quantified metrics.

The balance of decision-making power between the data collector and the data subject

The most common criticism of the collection and analysis of personal data practices is the violation of the right to privacy between the data collector and the data subject. The data

collector in this case is the CSO. The data subject is the person who the data represents. Two scandals, brought to light by whistleblowers, have highlighted this issue to the wider public: Edward Snowden's revelations of mass surveillance being conducted by several governments worldwide and Christopher Wylie's exposé of Cambridge Analytica's use of personal data to support political campaigns. The former was discussed in the introductory paragraphs. The revelations prompted public engagement with the issues of the right to privacy and the right to freedom of expression violated by the government's non-consensual collection of data of all citizens - whether innocent or guilty. The scandal raised concern about how much power is held not just by security agencies, but also by communication companies. The companies behind the communication technologies creating and hosting personal data can learn a lot about the people using the technologies and can pass that information on to whoever they like.

The second scandal happened in 2018 after Christopher Wylie brought forward information about the digital campaigning firm he worked at, Cambridge Analytica. The now insolvent firm was investigated for their nefarious use of data to profile and target citizens during contentious and polarising political campaigns. The practices were nefarious both in the eyes of the law, due to the alleged illegal collection and retention of data from a Facebook app, and in terms of what is socially acceptable: media reports, and campaigners condemned the use of psychometric profiling to target people during contentious political campaigns. The firm used psychometric profiling which involves grouping people by their personality types, in this case using the OCEAN model which defines people by their openness, conscientiousness, extraversion, agreeableness and neuroticism. This profiling technique differs from other types of profiling such as demographic profiles or location-based profiles. To target people with information based on their personalities, a sensitive and debatable aspect of personal information, during a political campaign, was received with a lot more controversy than demographic or location-based profiling techniques being used to personalise advertisements for commercial products and services.

The Cambridge Analytica scandal sparked some of the first government-led, worldwide investigations into how personal data is being used in political campaigns, what impact this use might have, and consequently whether the practices should be regulated further (Digital, Culture, Media and Sport Committee, 2018). The scandal amplified the efforts of academics and practitioners already attempting to answer these questions. In particular, issues of mass collection of personal data have been covered substantially in the field of surveillance studies. In 1988, Clarke coined the term ‘dataveillance’, subsuming the term surveillance, associated with criticisms of privacy violations and inappropriate levels of control and management from the data collector, with the specific practices surrounding data technologies. Dataveillance is a term often used by scholars describing mass data collection practices in surveillance literature (Espoti, 2014; van Dijck, 2014; Lyon 2015; Lupton and Michael, 2017). The association of data collection and analysis, as a form of surveillance, and therefore raising issues of monitoring and control of people's behaviours, opinions and activities, remains one of the most talked about.

From these approaches, the right to privacy and the right to freedom of expression are the two political rights most commonly brought up in the face of mass data collection and analysis. These are key in campaigns on the topic of big data and surveillance, such as Amnesty’s campaign mentioned in the introductory paragraphs. The right to privacy can be broadly defined as the right to space, communication, experiences, and thoughts free from interference from others (Westin, 1968). The right is inherently wrapped up in the right to freedom of expression. As Snowden (2014) expresses the importance of his own revelations, “under observation, we act less free, which means we effectively are less free”. If our right to privacy is violated, and we are monitored in all our behaviours and activities, by consequence our right to freedom of expression is violated too.

These rights are an important part of our political rights, embedded in both national and international human rights laws, which makes it more pertinent that they are being violated by governmental or political bodies, which is at the foundation of the criticisms from surveillance

studies scholars. The problem is not just the right violated, but who is violating that right and for what reason. The most well interrogated of these relationships are those between the government security bodies and citizens; between commercial organisations and customers (Martin, 2012); or between commercial organisations and citizens (Zuboff, 2015). Scholars have examined the relationship between institutions such as Facebook, rely on the relationship with their users (Oboler et al., 2012) or how data brokers rely on producing economic values from the personal data (Crawford and Shultz, 2014). The issue is also raised in the critical literature on the use of data in political communication. The Cambridge Analytica scandal exemplifies aspects of this issue as people focused questions on the ethics of profiling and targeting people for political gain, with ambiguous consent. Tufekci (2014) describes the practices of data in political communication in terms of personalisation and targeting people to create palatable propaganda to generate consent-engineering. The issue is who is using the data - a group who would wish to politically represent citizens - and how - to target them to win votes, rather than to represent them. The criticism targets the imbalance of power between the data collector and data subject, arguing that the actions of the data collector are often to centralise power, to the detriment of the people they are meant to represent. The target of the critiques from surveillance studies is not necessarily the violated rights, but the trust in the data collector, transparency of the data collector's actions, consent from the data subject, and whose interests the data collection is in.

These criticisms bring into question the social contract between citizens and government: the citizens agree to the actions of the government, but only if they accept that these actions are in the best interest of the citizens. Literature focusing on government surveillance concentrates on the balance between privacy and national security. The mass collection of data without consent is argued by the government, and proponents of their approach, to be in the best interest of the people they represent for national security. However, campaigners and critical surveillance scholars argue that the violation of privacy, and the management and control of people, are not worth the gain. There is no transparency, no consent, and the interests seem to benefit the

government over the individual's rights to privacy. There is an argument for a balance between the data collector and data subject. In terms of political communication or commercial organisation, there is an argument they should also be thinking responsibly about the rights of the data subjects they work with. This may not be for national security, but in the case of commercial firms, that they would provide products the data subjects want, or in the case of CSOs or political parties, that they will represent the wants of the data subjects.

The decision-making agency of the data collector and the data subject.

The final concern regarding data practices that I address in this thesis is the agency over decision making surrounding data practices. Agency is our ability to control how we make sense of what is happening around us and to us, so we can have the ability to have control over how we act. As Couldry describes agency is about “making sense of the world so as to act within” (Couldry, 2014, p. 891)”. Gamson et al., (1992) uses the phrase *meaning work* to describe how agency is the ability to generate meaning for ourselves. Milan writes about agency is the process in which people make sense of the world around them, and adds that “agency is not one and given, nor is it static; rather, it is the ability of social actors to variably engage with and react to the context in which they are embedded that empowers them to change their relation to structure.” (Milan, 2018, p. 152). Agency data subjects or data collectors to understand how decisions have been made, their capacity to change them, and to have control over that change.

Data-driven processes have three components which take away agency from the data subjects and data collectors: the technocrats, the software, and the data double. These terms are all explored further in the second chapter. The technocrats are the technical experts who are given the power to use the tools. The term originates from the term technocracy, used by Smyth (1921) to define a system in which politicians' decisions are no longer made by policymakers or lawyers but by scientists and technologists. The term is used to describe those working with data

technologies working alongside politicians or on services which facilitate the way society functions, such as public debate on social media, or economically through bitcoin and other fintech solutions (Sadowski and Selinger, 2014; Pencheva et al., 2018). Technocrats can refer to either those who support this form of governance or, as is taken for this project, the experts in the roles making the decisions. The technocrats working within or alongside CSOs range from roles with the expertise to write the code, such as programmers, to roles working directly with the data, such as data scientists, or roles handling the software, such as social media managers. All make decisions at different stages of the process about how data will be created, analysed, and presented to others.

Software is the term for any program or operating system used by computers. Software is a broad term, which in this research covers a program which may collect, host or analyse data. The concept of agency for software usually focuses on algorithms - and algorithmic decision making (Kitchin, 2014), described further in chapter 2. Decision-making power might be delegated by allowing an algorithm in a piece of software to analyse data to generate profiles on people, or the data-driven algorithms running which content is promoted on social media platforms to choose what content to present or engage with. I broaden this term to 'software' as the trust might not just be in the algorithm but in a computer program. This is most commonly a database, for example, and decisions about what data to collect or how to analyse it will be entrusted to what the database can handle or deliver.

The data double is a representation of a person or a group as data to be hosted in a computer database. This may be created and gathered from organisations recording certain actions of individuals, such as what someone posts on Facebook, what news articles they read, or what they purchase in a grocery shop (Hedenus et al., 2017). These can either be connected to individuals at the point of collection, or they may be gathered anonymously, to create likely profiles of different people grouped by different characteristics such as gender or location, and then the anonymised profile is attached to an individual and becomes their data double. As

described by Haggery and Ericson (2000) there is a surveillant assemblage in which various practices are used to gather data by surveilling people's activities and reassembled to create the data double. Sometimes the term data shadow is used to describe the same collection of data traces of an individual such as by Howard (2010) or Kitchin (2014). The same data double may be created of large group activities, for example, 100,000 web visits may be used to represent the website's audience without being connected to any specific individual. I use the term data double to refer to the representation of an audience or constituent in a database which may be made up of information collected directly from the individual, information that has been inferred from them and others who share some of the same data points such as demographics or commonly carried out activities. This is explored further in chapter 2.

The main focus of these criticisms so far from scholars has been on the data subject's agency. As Milan (2018, p. 508) focuses on the user's experience, or the activists, in how they can gain back agency in and able to create their own "self-directed action - real or perceived". When it comes to data, agency entails subjects' ability to understand how decisions have been made, their capacity to change them and to have control over that change. For those engaging with data logic, there is a trust in the technical processes in which important decisions - on what data to collect and how - are delegated to technical experts, and at times even to the software, they trust in. For example, social media platforms have both defined what a users experience would look like online, and how the platforms are embedded into many other sites has driven many others to make sure their websites can adapt to be a platform or to incorporate their platforms, a platformization according to Helmond (2015, p. 1). In each of these parts, the agency of the person engaging with a tool, such as with a platform, is removed from their own agency, in place of that of the tool, technocrat or data double.

This lack of agency is also relevant for data collectors as a person within an organisation may trust the data double above their own instincts or ideas, or above the stated opinions of the person it represents, and therefore delegate their agency to the data or the algorithms that create

the data. For example, they may trust the data to represent the person who is applying for insurance, or whether someone should be stopped and checked by security, rather than an examination of them in person (O’Neil, 2016). The trust in the algorithm to have produced the right data, and for the data to be superior to their own instincts or arguments, may take away from their agency to make a decision.

Importantly, there is a substantial lack of transparency around these three agents, the processes they are involved in, and what decisions they make (Pariser, 2012; Tufekci, 2014; Kitchin, 2014). Due to the lack of transparency, it is difficult for a data subject to understand where another has made decisions on their behalf. It is also difficult for the data collector to be able to understand where their own agency has been removed, as they trust black-box algorithms, and delegate decisions to technical experts, to make decisions. This makes it difficult for either group to understand if the data is effective, or representative, both important for the two issues above. The lack of clarity affects the ability of those working with the data to be able to manage the effectiveness of the data, and whether the data support their expert-led decisions or audience-led decisions; and for the data subjects, as well as campaigners and researchers, to examine them to hold them to account - including for this research project which influences the research questions, as outlined in the following sections.

1.3 The Research Problem, Aim and Questions

This research project aims to address how to assess which data-driven political communication practices in CSOs are susceptible to the criticisms raised above. There are several theories which aim to address concerns with data practices, namely data ethics, data protection, data activism, and data justice. Data ethics examines the decisions around moral and ethical decisions about how best to use data, in particular in the programming that creates, analyses, and presents the data (Floridi and Taddeo, 2016). The approach of data ethics begins to address what questions to

ask to understand if data practices are encroaching on unacceptable practices but do not present a comprehensive framework for organisations to make decisions beyond the technical processes themselves. Data protection is a legal framework which covers many of the technical aspects on how best to handle data, such as the recent European General Data Protection Regulation (GDPR). The guidance relates to that which is within legally enforceable limits such as how to gather consent and for how long to retain data after the initial collection. These legal frameworks only tackle very specific issues, and the law has often not caught up with the most recent technical developments and uses of the tools. Both data ethics and data protection focus on the second criticism regarding the violation of privacy and other risks of security for data subjects.

Data activism begins to move away from specific technical aspects of regulation and the violation of the right to privacy and includes the third criticism outlined above: how individuals can reclaim their autonomy. As Milan (2018, p. 152) describes, data activism looks to ‘bring democratic agency back’. There are two methods in particular for individuals to address this loss of autonomy, either they can turn dataveillance around and use it to monitor and track the behaviours of those in power, or they can take ownership of their own data and retain the economic power and technological ownership of their data. Nonprofits and companies alike have proposed technical systems that would allow people to own their own data and choose when they share it, who with and what compensation they would receive. However, the technical solutions proposed have yet to be easy enough to use or had enough economic value to be adopted.

The final, most recent proposal, to tackle concerns with the consequences of data-driven practices is termed data justice. The aim of data justice is to provide a “conceptual foundation for exploring how data-driven surveillance implicates different understandings of social justice” (Dencik et al, 2016, p. 9). To achieve this Dencik et al. (2016, p. 9) describe how the frameworks should take into account political agendas, interests and power relations within data-driven cultures and the “is and *ought to be* organized in relation to digital infrastructures – on social, political, economic, cultural and ecological terms – that can consider and develop the

meaning of justice in this context.” Data justice provides a more comprehensive approach to the issues of data-driven practices combining those associated with surveillance with the democratic consequences for political and economic rights (Dencik et al, 2016; Heeks, 2017; Taylor, 2017).

This research builds from the approach of data justice and develops the theory. This research will look at the use of data in political communication, and bring questions of ethics and justice to the area of the use of data in communications and the structural model organisations have with their audiences. I will examine the concept of *is* and *ought* of justice through separately addressing the effectiveness of practices and their consequence on the political communications model. This thesis also develops a framework to examine data practices from the perspective of the data collector, the CSO, rather than from the data subject or an outsider critical approach.

The Problem and The Framework

In 1970, Martin and Norman (1970) had already begun to raise concerns about data-driven practices in their book *Computerised Society*. The pair highlighted many of the criticisms outlined above, including the ineffectiveness of the logic in automating and quantifying complex objects such as language and the dangers of omnipresent surveillance, writing that The National Data Center is “one of the most dangerous ideas ever to come from the bureaucratic mind” (Martin and Norman, 1970, P. 303). Fifty years later, these same problems are still being raised, and yet the data-driven technologies are still increasingly being used, necessitating a continued interrogation of data practices. This continued use of data practices is an important characteristic of the problems.

The increasing development of data technologies has been deemed, by critical scholars, an unquestioned and unavoidable engagement with data logic. An inevitable prevalence of data

practices is integral to many of the criticisms listed above, as the issue is not just that these practices lead to ineffective practices but that they are adopted without questioning their effectiveness. boyd and Crawford (2012), Kitchin (2014), and Couldry (2014) do not just point out the flaws in the principles of data logic but emphasise how the principles of the logic are faithfully followed without interrogation. Dencik and Cable (2017) use the term surveillance realism to highlight how the adoption of data-driven practices are accepted as an inevitable social order. This idea is also presented by Zuboff's (2015) concept of surveillance capitalism which accredits the inevitable progression of the use of these tools to their economic value. This thesis puts this perspective at its foundation: the question is not just whether the practices are acceptable or not, but given the sense of inevitable adoption, how can an organisation take agency over the decisions they make with data. Furthermore, in both of these theories, the assumption is not only that people are engaging with the data-driven tools as if it is unavoidable, but also that use of the tools is synonymous with the values which guide surveillance. This research also addresses how this can co-exist with the praise for the use of these techniques in audience-led decision-making models in digital membership organisations.

I present a framework which provides options that can help evaluate data-driven practices based on the different contexts that exist between and within organisations. The aim of the framework is not to suggest when the practices are fundamentally wrong. Instead, the framework aims to demonstrate the areas in which there may be correlation or gaps between CSOs values and functions, and those of data logic. The framework allows an evaluation of where practices sit in relation to the criticisms of data practices outlined above and the organisation's purported aims. This evaluation can demonstrate whether the organisation's activities are actually in line with their aims and ultimately increase the ability for an organisation to take control of the choice to engage with data logic. To arrive at this point, it is first important to unpack a particular dichotomy that makes addressing the question of what justice would look like for data practices in political communication more difficult, and show how a theory from political representation

and communication can address this problem.

Discussion around the effects of mass data collection has regularly focused on government surveillance. Justifications for why the data collection has taken place have largely relied on the benefits that the collection and analysis of personal data can hold for national security. Those who advocate for privacy argue that the data collection is not legitimate not just because it is a violation of privacy, but also because it is not effective. This is the first manifestation of the dichotomy presented in the literature: the argument on either side is founded on whether the data collection is in the best interests of the data subject, but in one case the data collector is the expert, and in the other case the rights of the data subject take priority. This approach reflects a 'social contract' approach, as initially put forward by political theorists such as Hobbes (1651) and Locke (1689), in which we understand the role and relationship between the government and the citizen. In one case, the data subject will trust the collector as an expert to decide when and how to use their personal data, but in the other case, the data subject retains decision-making over what happens to their data.

The social contract approach has also been applied to commercial settings to describes how private firms have to make decisions about what data to collect ethically, based on what they are promising, and form an invisible, social, contract with their audiences based on the trust it will be used to benefit the product or customer (Martin, 2012). Martin (2012) connects this approach of the social contract of data practices to Nissenbaum's (2009) concept of contextual privacy: there are contexts in which a person may accept someone collecting their personal data based on what they believe it is for, what they will receive in turn, and how much the data subject trusts the data collector. Therefore, it is important to evaluate not just what the organisation will do with the data, but whether they can effectively achieve this; only when we know what our responsibilities are can we also know how to fulfil them effectively.

The relationship between the data collector and data subject and their agreement is the

main concern of both critical and optimistic approaches to data in political communication. The main approach of critical perspectives, such as in the case of Cambridge Analytica, has presented the actions as parts of a dystopia in which political representatives can use data to support their expert-led model, by ignoring, manipulating or pacifying the citizens they claim to represent. However, research on the use of technology by CSOs has often focused on how effectively CSOs can decentralise power to those they represent, and whether they have been effective or not (Karpf, 2017; Dennis, 2018).

Returning the concept of data justice from Dencik et al., (2016), and to understand the “is and ought to be” of the role a CSO performs with their audience, it is important to understand what the data collector’s responsibility and role is, in the case of this research, in regards to political communication. The data collector is the political representative. Political representatives speak, advocate, and act on behalf of their constituents whose opinions and perspectives they represent. The data subject is their constituents (Pitkin, 1967). A CSO is an organised association of paid staff and/or volunteers, typically considered separate from government and state, who represent a group of people’s interests. There are many different categorisations within this definition such as depending on different relationships with the state (against or supportive), different arrangements and structures (more paid staff or more volunteers, country-wide or locally based), different funding (through membership, or volunteered time, or funded by the state or for-profit organisations), or different ways of securing the desired interests including through campaigns, advocacy or services (Cohen and Arato, 1994; Edwards, 2014). Whatever structure the organisation takes, the CSOs will represent a set of people’s interests. To perform their role in this representation they must undertake political communication to both listen to people’s needs and interests, and communicate back to people, both inside and outside the representation group, in order to achieve their goals (McNair, 2003). How the CSOs go about political communication is fundamental to how they approach representation and their function as an organisation.

By drawing on the traditional political theory, the trustee and delegate models (Wahlke et al., 1962), it is possible to address how data can be used in both the contexts of expert-led and audience-led decision-making. Trustees are political representatives that work on the premise of expert-led decision making, and the subsequent management of constituents. Delegates are political representatives that work on the premise of audience-led decision making, which they facilitate and implement. The theory of these models presents that responsible leadership involves political representatives carrying out a mix of both trustee and delegate depending on the context (Wahlke et al., 1962). The trustee and delegate models, while for political representatives, also translate to how CSOs function, given the function for a CSO to represent the interests of their constituents, and, as will be shown in chapter 2, also balance these two roles in their organisations.

A contemporary structure for representing people's interests has developed in the form of digital membership organisations. As described in the introduction, these digital membership organisations use data-driven technologies to represent as many people as possible. The online progressive engagement network (OPEN) is a network of these organisations and is paradigmatic of the development of new CSOs. On their website, they present their significant shared values and use the term "people-powered" which they define as "large scale participation" (OPEN, 2018). The organisations' usually have a membership who set the agenda, and in many cases, anyone from a public audience can implement their own campaigns. Change is believed to be created through this collective and public-led activity. This is the audience-led delegate model. The delegate model is also seen in traditional membership organisations, which also run on a member-led model, though without the reliance on technology. In the delegate model, the CSO listens to the audience to understand what changes they would like to create and how they would like them to be implemented and facilitate this happening.

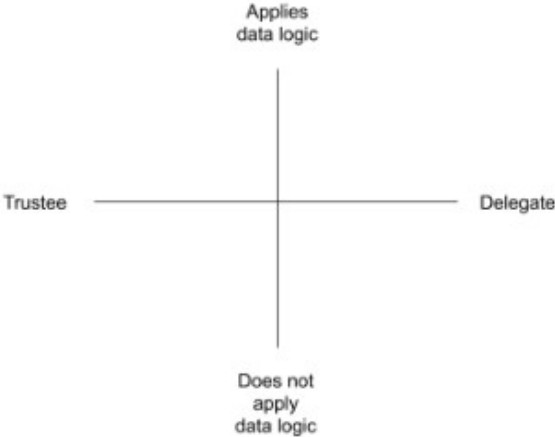
This is in contrast to organisations which rely on staff-led structures (Skocpol, 2003). These organisations rely on political representatives within the organisation working with

experts in other organisations to create change. This is the expert-led trustee model. In the trustee model, a specialist manages a topic within an organisation, either by skill (a fundraiser decides what to do and carries this out) or by topic (a Sri Lankan policy expert decides what to do and carries this out). The staff listen to their audience to profile them either to understand their needs or to understand what would be persuasive to engage them in mobilisation to support the decisions made by experts.

Both models have limits and benefits. The trustee model can lead to an extreme where experts manipulate people to support and engage with their decisions. The delegate model can lead to decisions being led by a majority and popularity, and ignore minority rights or long-term needs. By understanding how both models are valid at different times, the discussions about how data can best be used can be more open. The question is not, are data practices used to centralise decision making, and are therefore unacceptable, or decentralise, and therefore acceptable, but instead, what context are they being used to deliver either and is it the model which the organisation and their audience have agreed to?

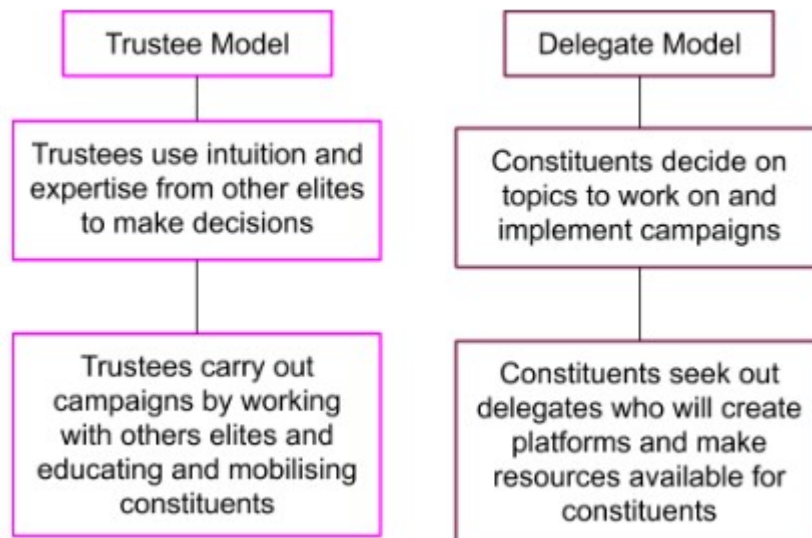
To begin to distinguish between which practices support different aims, and consider their effectiveness in achieving that, I present a framework shown in figure 1.1 below. The framework allows practices to be placed against whether they support audience-led or expert-led decision-making models, and whether they fall into the practices following data logic or not. This framework does not dictate whether it is right or not to engage with data logic, but allows practices to be mapped, from which the practices can be evaluated as to whether they were right for the intended aim. The framework also allows organisations to decide where they would like to be placed and work out what their practices should be or evaluate whether their practices line up with their aims.

Figure 1.1: Framework for the Use of Personal Data in Political Communication



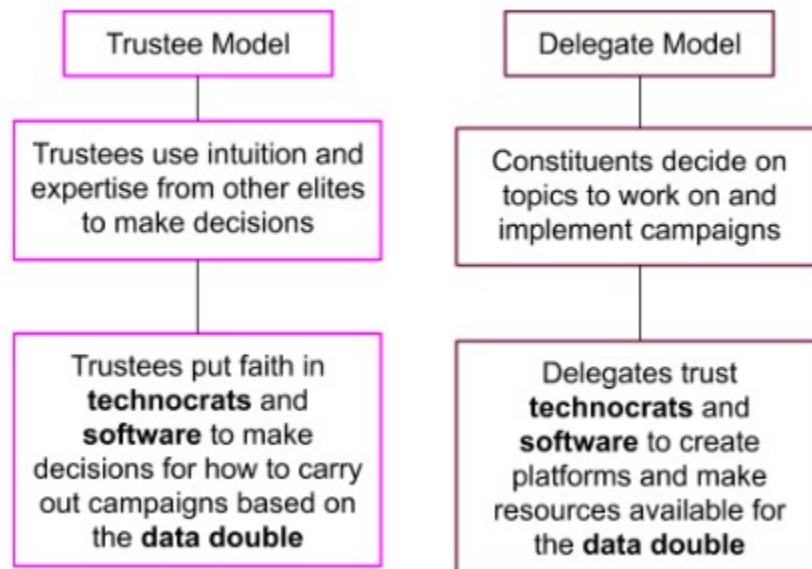
This framework covers two areas of the criticisms: has data logic been applied, so as to interrogate their effectiveness in creating knowledge, and are they being used to support a trustee or delegate model. As described above, there is also the third layer of criticisms, targeting the agency that anyone has to make decisions with how to use and engage with data. When examining this using the approach taken within political communication, this third strand of criticisms impacts the process that defines a role as a trustee or delegate. This classical decision-making model for political representation involves two actors, CSOs and the audience, see in Figure 1.2 below.

Figure 1.2 Traditional Decision-Making Roles in the Trustee and Delegate Models



There are three parts in the process which have an impact on decision-making outside of the classic models which I will explain further in chapter 3: technocrats, software and the data doubles, as shown in figure 1.3 below.

Figure 1.3 Decision-Making Roles which have been Disrupted by Data Logic in the Trustee and Delegate Models



Even if the organisation is not actively following the logic, the organisations must engage with these parts of the process, risking handing over agency to the technocrat, the software and the data double. These agents are not bias or error-free, and influence decisions and their impact beyond the effect of a ‘neutral’ process. Research into data practices so far highlights that it is particularly difficult to assess practices due to their opaque nature, meaning much of the practices remain a mystery (Pariser, 2012; Kitchin, 2014; Kreiss and Howard, 2010). Therefore, it is difficult to understand how these three agents interact with, or disrupt, the decision-making processes. The agents can affect the ability of the management of the organisation to achieve their desired outcomes and how an organisation can evaluate where they are placed on the framework.

The Research Questions

This research aims to build on concepts of data justice to understand what is an acceptable use of data by CSOs. The different options available to a CSO are presented in the framework set out above. The aim of carrying out empirical research is to build on this framework. The first two research questions deal with the first two sets of criticisms, and two axes of the Framework, regarding the impact of the data described in the framework: whether it is effective, and what is used for, to centralise or decentralise decision-making. The third question deals with the criticisms regarding the lack of agency created by the practices and values impacts the implementation of decision-making.

- 1. Are both the expert-led and the audience-led models in CSOs supported by data-driven practices?**
- 2. What are the main factors that guide the decisions made by CSOs regarding their engagement with data practices to support either the expert-led or audience-led models?**
- 3. Is decision-making regarding data practices devolved to agents other than the staff or constituents within either the expert-led or audience-led models?**

By answering all three questions, it is possible to build on the theory of data justice in political communication for CSO organisation. Through two ethnographies, it is possible to consider what practices the CSOs undertake, for what reasons, and for what purpose to test and shape a practice-based framework. Two cases are chosen in relation to the first two questions. The first justification for the two organisations chosen based on their representation model, one of which is expert-led and the other of which is audience-led. Secondly, the two cases are chosen due to their potential for aversion to data practices which can help test the points in which data practices have this inevitable prevalence and help examine, in particular, the question regarding the agency to choose to engage with the practices.

1.4 Thesis Plan

In chapter 1, I introduce the increasing capacities of data technologies which are accompanied by a sense of the inevitability and necessity of their use in campaigning. I describe the phenomena of these pervasive ways of working as an ideal type, which I term data logic. I also introduced the criticisms of the trust in data to develop knowledge, the use of data within different models of representation, and the agency political representatives and constituents retain, or lose, in data-driven processes. I described how there are few frameworks in the current debate, and those that exist have not yet provided a solution for navigating the contradictory nature of the practices. I have presented a case for a framework building from the perspective of data justice to evaluate the practices of CSOs which is at the basis of the questions for empirical research.

In chapter 2, I examine what is already known about the use of data practices. The review of the literature draws on other political organisations which utilise data for communication, namely media outlets and political parties. I develop further the theory of the ideal type of data logic to understand the influence of data-driven practices. In particular, I examine the advantages and disadvantages of the rise of the nature of data practices and their impact on organisational knowledge. Secondly, I present the application of a political communication theory, the trustee and delegate models, to understand how to navigate the issues associated with data use and political representation and communication. I go on to describe the details of how data practices manifest in organisations under these two models. Finally, I explore the criticism that the obscurity of data practices disguises the decision-making role of agents I describe as technocrats, software and the data double. I show how these three agents are a particular issue for the field of this research, political communication, which is based on the premise of a relationship between the CSO and the audience, whether as trustee or delegate. Decisions made by either the CSO or the audience can be disrupted by the role of the three agents. There is little understanding of how

to involve the agents, or how they are already involved. They are part of what appear to be opaque systems and examination into their role is required.

In chapter 3, I introduce the methodology for testing the framework. I present a justification for the ethnographies based on the need to examine both values and behaviours combined for the development of theory. I also present the limitations and mitigations of the approach. I justify the choice of two case studies based on the two strands of the framework: firstly, a CSO critical of technology with an expert-led structure and a traditional CSOs with a member-led structure. This way, through two case studies, the inevitable uptake of data logic and the support for the two different models can be examined.

In chapter 4, I describe the findings regarding how the organisations engage with their audiences, acting either as a delegate or a trustee, and how their use of data relates to these. The findings show that despite the claims of new CSOs that the use of data-driven tactics supports their delegate roles, the delegate organisation rejects the use of data for this role based on its negative impact for a delegate model. There are a few cases in which data practices are engaged with at Amnesty but which are associated for the most part with the trustee role. The trustee organisation, however, also rejects data for the dominant role based on the negative impact of data-driven practices for their role as a trustee and their relationship with their audience.

Chapter 5 addresses how data is not prevalent or widespread and is engaged with as a logic only in a few consistent circumstances. The tools, combined with the principles, are only seen in use with online platforms, fundraising, and when it is perceived to be important to external authorities. In the first cases, data logic is complementary to how these spaces function and in the latter case, there is a perception others would like to be presented with information created through methods of data logic. The chapter also outlines the reasons data logic is rejected and how qualitative, intuitive and deliberative methods, as well as important relationships, are seen as necessary for navigating complex opinions. Further, intuition and relationships are

trusted for complex strategic decision-making. Such decisions are far from data-led.

At the end of these first two empirical chapters, it is clear there is still a difference between the two organisations in which one engages in data logic far less than the other. In chapter 6, the relationship with each agent, the technocrats, the software and the data double is described. The findings show the integration of the technocrats impacts the use of the software. The knowledge of the newer organisation allows them to navigate how to integrate the concept of technocrat into their other staff roles, therefore incorporating them into decision-making leading to a consistent rejection of data logic. The older organisation, however, does not integrate the agents into decision-making in clear ways either giving them no control or full control over decisions which leads to a situation where data logic is adopted in certain teams and completely rejected in others, based on the values of those teams.

In chapter 7, I present how the findings relate to each other and how they contribute to our current knowledge. The research question as to which roles in representation can data practices support is answered by showing how they are associated with either trustee or delegate role, but the principles of how they are carried out are associated with the risks of each style of representation: the potential for manipulative techniques of trustees and the populist and reactive extreme of delegates. The second research question as to what factors influence the data practices to show that the staff member's pre-formed values guide the decisions, and only those whose logic would already align with data logic engage with the logic. Finally, the third research question regarding how decision-making can take place is addressed by the findings which show the separation of the concept of a technocrat at Amnesty leads to a separation of knowledge and ownership over decision-making which is not apparent at Tactical Tech, who retain a consistent control of their use of data.

Chapter 2. Data Logic, Political Communication and Agency

In this chapter, I will analyse and synthesise previous literature on the use of personal data in organisations, in particular in political communication. I will describe how data has been used in political communication, by drawing particularly on research about the use of data-driven technologies in news organisations and political parties, as well as the little that is known on CSOs. From this, I will develop a framework to analyse the use of data in CSOs. I will also draw on the descriptions and analysis of new large-scale data-driven methods to examine and demonstrate the elements that distinguish new computer-reliant data practices from other data practices. I will demonstrate how an ideal type, a consolidated set of principles which capture a consistent phenomenon which may manifest differently across contexts, is a useful way to conceptualise the elements that make the practices distinct (Weber, 1949). I term the ideal type *data logic*, using the word logic to highlight the influence of new data practices on organisational knowledge. I use the ideal type of data logic in my research to understand what elements make up the new and distinct data practices in CSOs.

In the second half of the chapter, I will examine how these tools are praised or criticised based on the models of political communication they support. On the one hand, the data-driven methods have been praised for supporting the broadening of reach of political communication to involve more people in a decision-making process - an audience-led model. On the other hand, criticisms are levied at the same methods due to the capacity for a political representative to use data-driven methods to circumvent the scrutiny of those they represent - an expert-led model. I propose this theory as a framework for examining data practices which can help us understand what data justice looks like for the strategy and operations of CSOs. For this, I will demonstrate

how a political communication theory, the trustee and delegate model, can help show the benefits and consequences of both the audience- and expert-led models, and build a more nuanced version of them for researchers. Importantly, the theory allows an examination of how organisations can conceive their role and is, therefore, a useful perspective to take when examining the organisation's decisions.

I will combine the characteristics of data logic, and the behaviours that distinguish an audience-led model from an expert-led model and I show how these can be visualised on a framework. By placing CSO practices in the framework it becomes possible to examine the consequences of these practices based on their engagement with data logic, and the model of political communication the practice supports. I go on to explore the consequences of the delegation of the political representatives' and constituents' agency to technocrats, software and the data double within data-driven processes, and the impact this may have for political communication.

2.1 Data Logic: An Ideal Type of Data Practices

In the introduction, I presented how scholars across different fields have argued that the values and behaviours of individuals and groups engaging with data practices are distinct. The theories differ slightly across different disciplines and approaches, and one of the contributions that I make in this thesis is to generate from them an overarching concept that incorporates their key elements. I propose that these different conceptualisations can be reconciled by creating an ideal type: a set of simplified and comprehensive elements that represent the key characteristics of a phenomenon, but that may not all be found at once within any single real-world context (Weber, 1949). I refer to the ideal type of how data practices have been adopted as *data logic*. In the first

half of this chapter, I will describe the elements that constitute the ideal type of data logic.

I use the term logic to describe the ideal type to draw attention to how scholars from different disciplines stress the importance of data practices in informing knowledge in organisations or fields of discipline. In their conceptualization of data practices, boyd and Crawford (2012, p. 663) describe a “widespread belief that large data sets offer a higher form of intelligence and knowledge that can generate insights that were previously impossible, with the aura of truth, objectivity, and accuracy”. Hilbert (2016, p. 136) uses the analogy of a microscope as a comparison to data practices because they both provide “an unprecedented level of fine-grained detail” to any object of inquiry. Mayer-Schoenberger and Cukier (2013, p. 96) claim big data is “a great infrastructure project” of information like Diderot’s 18th-century *Encyclopaedia* and has led to “an essential enrichment in human comprehension”. Couldry (2014, pp. 887-888) describes how data practices are “changing the terrain on which all large institutions (including governments) can claim to tell us the way things are” due to “what validates new types of evidence and expertise”. These scholars highlight that individuals and organisations engage with data practices because they believe they will provide accurate, objective, and detailed information, and subsequently knowledge, about the world around us and ourselves.

There are various ways of examining knowledge. The study of knowledge originates in the field of philosophy, where there is a distinction between *episteme* (scientific knowledge), *techne* (art and craft), *phronesis* (intuitive practical wisdom), and *praxis* (theoretical practical wisdom) (Aristotle, ca. 350 B.C.E./1999). Sociological studies also distinguish between types of knowledge, instead often using the terms *explicit* and *tacit* knowledge. Explicit knowledge, also known as codified knowledge, corresponds most closely with *episteme*, and can be explicitly

written down and backed up by the scientific method. Tacit knowledge is much closer to *techne*, the ‘know-how’ of an engineer or craft worker. Polanyi (1966) presented the concept of tacit knowledge to highlight the importance of personal judgement, and as a necessary counterpart to explicit knowledge. Rather than opposing each other, these two types of knowledge are interlinked. Tacit knowledge plays an important role in the generation and application of explicit and codified knowledge. Latour and Woolgar (1979), for example, describe how scientists' personal judgements, their tacit knowledge, influence their choices when deciding what research to invest in and publish, and thus in the generation of explicit knowledge. Explicit knowledge published and shared over time informs our experiences and evidence which consequently can build up support for, or undermine belief in, our tacit knowledge, which this explicit knowledge may also change.

This thesis examines organisational knowledge. Tsoukas and Vladimirou (2001, p. 974) write that organisational knowledge is tacit, in contrast with “a narrowly Cartesian understanding of knowledge” which privileges “‘pure’ knowledge” or explicit knowledge. Instead, individual know-how and social interaction are important for defining organisational knowledge. For example, ‘news values’ are not codified in newsrooms, yet most journalists working in news organisations make fast decisions about what is and is not news. These decisions are largely consistent across individuals working for the same news organisation because the news values have been internalised (Galtung and Ruge, 1965; Harcup and O’Neill, 2001; Harcup and O’Neill, 2017). While the focus of my thesis is primarily on values within the CSOs, and as such, tacit knowledge, I will also find these values in the explicit knowledge which as mentioned above both informs and is informed by tacit knowledge. For example, in the news organisations, their

tacit knowledge regarding news values will manifest in explicit knowledge such as the news that is published or in the evaluation reports they write for themselves or funders.

Across these types of knowledge, there are also different ways to understand what, within any body of knowledge, will be considered valid or not. Different scholars have connected data practices with different parts of knowledge validation. Raley (2013) draws on the term *ontological privilege* to describe how knowledge formed from data practices, once created, is often seen as superior to other types of knowledge. van Dijck (2014) describes the influence of data practices in terms of a *paradigm*. A paradigm is a frame which validates the processes that create knowledge. van Dijck highlights that there has been a “gradual normalization of datafication as a new paradigm in science and society” (van Dijck, 2014, p. 198). Marres and Weltevrede (2013) and Kitchin (2014) use the word *epistemology* to describe how data practices have become a method of making sense of the world and constitute new processes of knowledge production. Lewis and Westlund (2014) also describe how big data is changing the epistemological premises, and consequently knowledge, of journalism. Kitchin (2014) also describes data practices as the “articulation of a new empiricism” drawing attention to how the practices present a new method for measuring what we can sense and experience around us. Across these conceptualisations, data methods have been connected to the creation of accepted knowledge.

Instead of ontological privilege, paradigm, or epistemology, I draw on the term logic as the concept to examine how organisational knowledge is considered valid. The term ‘logic’ has several advantages all of which are outlined in the following paragraphs. Firstly, my use of the term “logic” draws upon previous theories of how knowledge is embedded in organisational

practices - in particular in relation to tacit knowledge. Secondly, logic can be considered an influential way of thinking, but one which interacts with other logics. Lastly, logic is defined by a set of principles which can help understand the phenomenon as an ideal type which represents the elements which make up the practices. I will draw on how the term has been used in three influential approaches to political communication, political science, and organizational studies: institutional logic, media logic, and logic of collective action.

This concept of logic helps understand the connection between accepted ways of working, which are demonstrated in studies of data practices, and their conceptualisation in relation to knowledge. Logic is a consistent set of values that shape tacit knowledge and consequently patterns of behaviour and activities by individuals in a group, such as the news values described above. Knowledge in organisations is commonly referred to as "institutional logic". The term is attributed to the work of Friedland and Alford (1991, p. 243), who define institutional logic as:

patterns of activity by which individuals and organizations produce and reproduce their material subsistence and organize time and space. They are also symbolic systems, ways of ordering reality, thereby rendering experience of time and space meaningful.

Institutional logic is the set of accepted methods and tools for ordering reality and the information about it within an organisation. The patterns of behaviours also manifest in commonly accepted processes including distinct formats and channels of communication. Based on this definition of institutional logic, the term logic has become a conventional term to describe consistent patterns of activity which are distinct within organisations (Thornton and Ocasio, 2008). There can be different logics between different institutions and organisations, and there

can be more than one logic within an organisation.

The concept of institutional logic is appropriate for understanding the distinct nature of data practices because they are commonly associated with the patterns of behaviours, formats of information, channels of communication, and common activities within an organisation. Karpf describes analytic activism (2017, p. 4) as a “change in organizational structure, processes, and work routines”. Karpf goes on to highlight a consistent and recognisable set of practices associated with this change such as systematic testing of all communications and team structures with technical expertise guiding campaign communications. Tufecki (2014, p. 2) describes a “set of practices” surrounding what she defines as “computational politics” which also includes testing communications and their effect on people’s behaviours as well as the collection of large quantities of data. Similar to institutional logic, data logic is a set of tacit values which allows staff to decide whether a process, a behaviour, a communication or an output is valid within their organisation.

The term logic is also used to identify formats and methods for ensuring the validity of information by political communication scholars Altheide and Snow (1991) who create the term “media logic”. Media logic is a distinct set of practices which have developed within media organisations including the format and channel of communicating which implicitly proscribe which information is considered valid. As Altheide and Snow write (1991, p, 294) media logic is “the rules or codes for defining, selecting, organizing, presenting, and recognizing information as one thing rather than another (e.g., ‘the evening news’ and not a ‘situation comedy’, or a ‘parody of news’)”. Media logic is the assumption that information will be valid when presented through the common means of news organisations and journalists, based on the formats dictated by news

values and other criteria by which media organisations assign value to different types of content. Just as we can use the information formats privileged within news organisations to detect the presence of media logic, by examining the formats of materials chosen and used by staff in an organisation it is possible to understand how to measure data logic too, such as quantified metrics or large quantities of testing of email subject lines. Similar to media logic, data logic entails a way of thinking about organisational processes that require individuals to make decisions and assign value to different practices, endeavours, and types of content.

Mancur Olson (1971) used the term logic in their concept of the “logic of collective action” to capture the reasons why people take part in actions that would lead to the benefit of the broader group they are part of. Here, logic entails the common reasoning that dictates when it is beneficial to take part in collective action, and what contexts and situations lead to people taking action based on group interests or individual interests. In the same way, the logic around data practices entails the reasons and justifications that are given for taking part in data practices. The term “logic” can help point not just to characteristics, but to justifications, such as those captured by Dencik and Cable (2017) and Zuboff (2015) that frame the argument that data practices are engaged with pervasively and inevitably.

The concept of logic is also useful because it is used in contexts where there is an influence of one standard over others. For example, van Dijck and Poell (2013) describe how the principles of “social media logic” - programmability, popularity, connectivity, and datafication - influence the processes and ways of working in a wide variety of areas including print news and broadcasting, as well as more broadly law and order, social activism, and politics. Schwarz (2017) creates the term “platform logic” to describe the consistent patterns of how online

platforms function across different disciplines - information systems management, design studies, and critical political economy - and their influence on how other aspects of the web are designed and used. Media logic, mentioned above, is shown by Altheide and Snow (1991) to have influenced the ways in which politicians have changed their production processes and communication formats to fit those of the media. Hjarvard (2008, p. 113) defines mediatization as “the process whereby society to an increasing degree is submitted to, or becomes dependent on, the media and their logic”. For example, politicians host press events or produce press releases which are both formats that serve the needs of media organisations, and these kinds of adaptation practices are evidence for the mediatization of politics (Esser and Strömbäck, 2014).

Karpp (2017) describes how activist organisations interact with data based on “messy, flawed, incomplete organisational logics”. In some cases, the characteristics and values of other logics may be complementary and in other cases contrary to the principles of data logic. Commentators have argued that in situations which they describe as “surveillance realism” or “surveillance capitalism” that the principles of data logic will not be rejected, but will instead alter or replace any competing logic (Zuboff, 2015; Dencik and Cable, 2017). To understand the ways of working around data practices as a logic not only allows us to explore how the new data technologies interact with the other logics within an organisation, but how they might have changed or adapted those other logics to incorporate or accommodate the principles of data logic.

Finally, the term logic originates in analytic philosophy and mathematics in which it is used to refer to a series of steps that can be taken to ensure the validity of an output. These origins of the term are helpful to both understand how there are principles which guide the data

practices, as well as how these principles make up the elements of the ideal type of data logic. Some scholars who have examined data practices have already named some such principles explicitly. For example, Karpf defines three principles that shape the values and behaviours which distinguish analytic activism from other forms of activism: a culture of testing, prioritization of listening and demand for scale (Karpf, 2017, p. 4). Tufekci (2014) describes six principles of computational politics including big data, computational methods, modelling, behavioural science, experimental science and the power of platforms and algorithms. I have taken the different relevant conceptual developments of the rise of data practices, mainly derived from the political communication, critical data studies, and surveillance studies literature, and synthesised them into four principles which together constitute the ideal type of data logic as defined in this thesis (see table 1.1 in chapter 1) These principles are: quantification, scale, standardised processes and algorithmic reasoning.

I shall now describe these four principles in more detail. This description is accompanied with the key criticisms of how these principles may skew the development of knowledge, at times rendering the activities and knowledge produced from them ineffective or inaccurate. This assessment shows not only how the principles change or affect the type of information that is formed and used in organisations, but also how it alters our understanding of the effects this form has, and why it is important to be cautious of these forms. From this exploration, we can identify when organisations are engaging with data logic, as well as consider the effects this may have on an organisation's knowledge.

Principle One: Quantification

The first principle of the ideal type of data logic is that information can, and should, be expressed in a quantified format. This principle is expressed in the collection of data in a numerical format where possible. For example, by measuring someone's fitness by collecting data from the action of someone taking a footstep on their Fitbit as a single quantified count, which adds up to how many 'steps' someone has taken in the day. The principle of quantification can also manifest as phrases or words accompanied with unique identifiers which allow computer-based technology to identify any data point. This allows the data to be separated from other data, counted and then re-connected to other data points. This format is dictated by the technologies which collect, store and process data. For example, electoral registers can use a unique identifier to connect someone's name, with their address and whether they are registered to vote while also being able to count any repeats, such as how many people are at the same address, and how many people are registered to vote.

This research project examines personal data and I will find the principle of quantification visible in the use of databases of individuals and their personal information, or in statistics and other numerical representations of individual's or group's demographics, behaviours, and attitudes. For example, political parties use databases to collect information about an individual's name, postcode, interest, and hobbies. Personal information can be collected and turned into an appropriate format in various ways. The data may be created from traditional forms of data collection such as opinion polls and surveys. In these cases, the audience usually directly hand over information about themselves willingly and through a transparent process in which they are aware of the question. There are also indirect sources, known as latent or trace data, which is generated by individuals as they go about other activities. This data is collected from various

routine practices including but certainly not limited to, social media activity or website traffic, as individuals navigate their way online, or location data and financial transactions as they navigate their way offline.

The value behind these activities is the belief that machine-readable, and consequently quantified, data can represent reality effectively and neutrally. Quantified information can appear neat, which makes it appear accurate and objective (Kitchin, 2014; boyd and Crawford, 2012). van Dijck (2014, p. 199) describes this value as an assumption of “a self-evident relationship between data and people”: you can know about a person if you know the data that represents them. This ‘knowing’ is a measurement of what people do, rather than why they do it. As editor-in-chief of *WIRED*, Chris Anderson (2008) wrote:

Out with every theory of human behaviour, from linguistics to sociology. Forget taxonomy, ontology, and psychology. Who knows why people do what they do? The point is they do it, and we can track and measure it with unprecedented fidelity. With enough data, the numbers speak for themselves.

Anderson refers to fundamental ideas of forming knowledge - taxonomy, ontology, and psychology - as is central to descriptions of the influence of data practices. Anderson also reflects on the fidelity of numbers, as if they are more faithful to reality than other forms of measurement. Kreiss (2016) demonstrates for political parties, the goal is to create a unified and comprehensive overview of a person and how she can be expected to react to different types of communications.

The principle of quantification has an effect on what evidence is and is not considered valid when making arguments to persuade people to make a decision. This use of quantitative

data as evidence is solidified in the *McNamara Fallacy* which describes the phenomena of putting weight on quantitative evidence above all others in decision-making. Nowotny et al., (2001) describe how there has been an increasing use of statistics as evidence to drive what policies are adopted in areas such as healthcare, education or law enforcement. Rieder and Simon (2016) also describe an increased interest from policymakers to use quantified metrics to support any policy decision they make. News organisations review their success by counting how many articles they publish, how many times the article is read online or how many unique visitors were received, rather than a qualitative approach such as looking at comments or running before and after focus groups (Anderson, 2011). CSOs use this principle to represent audience members by their identifying data, such as a membership number, often in a customer relationship management system (CRM), a database that by connecting different bits of data creates a representation of who an individual is: the number of emails they have opened and petitions they have signed will be recorded, the topics they are interested in, their membership history, and so forth. This data can also then be counted on its own so the organisation can evaluate how many members are opening emails, or are in a certain age group, or are also donating.

However, quantification is not a flawless method of representing information. Many aspects of reality are too complex and cannot be quantified (Kitchin, 2014; boyd and Crawford, 2012, p. 667). Moreover, data can contain errors which come about due to various reasons such as technical malfunctions or due to the choices of the programmers collecting and analysing the data. Furthermore, data is often collected from people's online activities. These activities are based on a very specific context, and are also collected without the individual knowing, and as they are going about a routine part of their day. The results of this data may differ from what

someone would express if asked what they want, or how they would behave in a different context. While some people believe that this is not an important criticism—for instance, Mark Zuckerberg, co-founder of Facebook, said that to have a different image for work friends to co-workers shows a lack of integrity—others, such as Eli Pariser (2012), point out there are important differences between our current and aspirational personalities. The ‘what we do’ and ‘who we want to be’ are only two of many complex ways of defining people. The lack of contextual nuances in data, which may be useful for measuring simple objects or breaking down large objects into smaller parts, is a problem when it comes to measuring the complexities in people.

These difficulties in breaking down complex concepts into distinct countable units are not just an issue when the goal is to measure and predict people’s behaviour, but also when attempting to measure social change. As Karpf (2014, pp. 12-13) writes:

The Obama campaign...did not use analytics to ask its members to set its priorities. The goal of an electoral campaign is simple and transparent: Win on Election Day. The goal of a social movement organization is far more complex and fluid: Build power to create a more just society.

The evaluation of the goals of CSOs – a safe environment for women for example - is not as clear as a win or loss of an election, which can be measured as a numerical goal – the number of votes. While there have been many attempts to quantify social change, there are many recognised issues with these attempts: there are too many elements which contribute to whether something has led to social change happening, and too many factors within any given moment to evaluate whether it is now in an optimum situation. Karpf (2017) refers to this as the analytics frontier:

the complexity of social change and the vision of long-term outcomes is currently too difficult to formulate in questions and answers that can be represented in this form of data. The use of the word frontier is Karpf's way of presenting the issue optimistically suggesting that in the future, through experimentation and analysis, new data processes can become useful for measuring public opinion for long-term change.

Principle Two: Scale

The second principle that underlies the ideal type of data logic is that more data is always better than less data. This principle pertains to the collection of large quantities of data, analysis with more data, and the presentation of success by demonstrating a high number of whatever action is measured. The use of the term 'big' in the popular term, *big data*, does not always technically refer to a specifically large amount of data. Rather, the historical and technical use of the term is defined in reference to the large-scale nature of data practices (Mayer-Schonberger and Cukier 2013; Schroeder, 2014). Several scholars also name scale or other ways to refer to the large quantity of data, as a principle of data-practices. For example, Tufekci (2014) describes a draw towards big data and activities that involve the collection and analysis of large quantities of data as part of computational politics. Lyon (2015) describes the shift in the collection of individual data to mass data as it is easier to monitor a population rather than a set of targeted individuals. Karpf (2017) describes 'growthiness' which involves new tactics created for the sole purpose of increasing the quantity of data available for analysis. Data technologies have allowed for formulated rule sets, which can perform millions of automated operations per second, cutting down on the time and resource involved in collecting and analysing data. This means that

technologies are able to generate, host and analyse large quantities of data (Lohr 2012; Kitchin, 2014). Borgman (2012, p,4) even goes as far as to say that “[f]or the first time, scholars can ask questions of datasets where $n = \text{all}$ ”. Previously, this data would have either been impossible to gather or incredibly resource-intensive.

The principle of scale has manifested in large centralised databases like that of Acxiom's which holds over 3000 data points for 700 million people, including 96% of the American population (Federal Trade Commission, 2014). The profiles are connected to an individual through their name, email address or other identifying information which organisations usually manage through the use of database programs such as CRMs. The principle of scale also results in the development of mass data technologies that track many peoples' actions at once to generate profiles for individuals and groups (Lyon, 2015). The principle of scale is not only based on the potential of technologies to generate, host and analyse data at this scale but also because there is an assumption that increasing the scale of the types and quantity of data will always lead to more accurate results. To represent that certain information is high value or to show something has been a success, higher numbers are used, and to evaluate whether success has been achieved the quantity of whatever is measured is assessed, with the higher amount being considered a success. For example, digital membership organisations may identify whether they have been successful or not through quantified measurements of people's actions. They may represent the effectiveness of their communication strategies and campaigns through how many emails have been opened or how many people have shared their posts on Facebook, how many people have signed up to be members, or how many signatures they received on their petitions. This is demonstrated in the screenshot from Avaaz's website in figure 2.1 below.

Figure 2.1: Avaaz's website homepage shows the use of quantified metrics in order to represent themselves (Avaaz, 2019)



However, data sets can be too large and varied to analyse them, as there are too many false patterns and, especially given that data now often comes from many different places such as social media metrics or data brokers, it is difficult to know if the sample is representative or inclusive enough to carry out effective analyses. Errors are amplified by the inability of technology to recognise any errors outside of the rules it has been given (boyd and Crawford, 2012). This principle also manifests as a tendency to collect as much as data as possible, sometimes more than necessary, with sometimes important consequences for democracy. As Lyon (2015) demonstrates, this may involve governments tracking all journalists and academics under the banner of the importance of 'national security'.

The principle of scale is also an issue due to the fact that it is treated as an end in itself, rather than as a means in service of a purpose. Some organisations collect data ritualistically, assuming it will reveal its use once collected. Often, more data is collected than the data collectors know what to do with. Furthermore, scale is not always considered the most useful

measure for success. In particular, it may encourage the collection of simple actions such as signatures, rather than longer-term or more focused actions of engagement. In addition, there will be a temptation to collect the numbers which show scale, rather than those which are better proxy indicators for the aims the organisation set out to achieve.

Principle Three: technical standardised processes

The third principle underlying the ideal type of data logic is a trust in technical standardised processes for gathering and analysing data. These processes are technical, in that they use computer technologies, and standardised in that they can, and will, run the same process over repeatedly to collect and analyse the data. In her account of computational politics, Tufecki (2014) describes how data is processed through standardised and automated methods far more rapidly and accurately than any previous human-processing method. Kitchin (2014, p. 4) and boyd and Crawford (2012, p. 667) discuss how these processes gain their authority as rational, reliable and even benign through the attributes of technical, standardised and automated. These processes consist of technical experts, such as programmers, technology companies and data scientists, as well as computer programs collecting and analysing the data. As van Dijck (2014, p. 204) highlights, those who are engaging with these practices trust not just “in the objectivity of quantified methods” but also “in the independence and integrity of institutions deploying these methods—whether corporate platforms, government agencies or academic researchers.” Faith is placed on the objectivity of the computer processes, including those who control these processes.

Parasie and Dagiral (2012, p.862) write how in data journalism, the “structured” nature of

information in databases can support journalists in collecting, analysing and presenting information. The structured nature, also reliant on the premise of quantification, allows for automated analysis. The automated processes also collect data with the same ‘rule set’ throughout. Often then, a programmer or data scientist, working with the software will describe their interpretation of the data which will also be taken as standardised. CSOs engage with this principle in their political communication when they gather and analyse data through processes involving data scientists and the algorithms they devise for data collection, processing, and analysis. This may involve data specialists analysing their social media analytics and website traffic. This principle may also involve trusting an algorithm to process the information in a database to provide valid results for the data analysis—for example, allowing a CRM to dictate what information an organisation will collect or host on individuals, or relying on the algorithms of a social media platform to create profiles for organisations to target their audiences.

The trust in technical and standardised processes is criticised due to the fact that the processes can still have errors within them, even if they are standardised, which are amplified by the large-scale and rapid processing that computer technologies can afford. For instance, Kitchin (2014, p. 4) argues that algorithms tend to be treated as “technical, benign and commonsensical” and “purely formal beings of reasons” despite the fact that they have been created by people, consequently containing bias, and can include and magnify any errors. Devolved agency to the processes means those who wish to use the data lose control over understanding the processes that have produced and transformed it during the analysis. The systems can be ill-equipped to recognise problems as there is a faith in the process to produce valid results, rather than checking both the process and the final result.

Principle four: Algorithmic Reasoning

The fourth principle of the ideal type of data logic is faith in algorithmic reasoning. This principle focuses not on the process but on the method of taking input through a series of rules, to create an output. This is how algorithms function. Kraemer, Overveld, and Peterson (2010) define an algorithm as “a finite sequence of well-defined instructions that describe in sufficiently great detail how to solve a problem” (Kraemer, Overveld, and Peterson, 2010, p. 251). There is an input of data, processed through these instructions, and an output is generated. By changing the input data or the instructions, the output is managed and controlled. Being able to control outputs through inputs and instructions is the basis of the principle of algorithmic reasoning.

One of the most commonly referenced manifestations of this principle is predictive modelling techniques which allow organisations to predict future patterns (Raley, 2013; Lyon, 2015). The principle of algorithmic reasoning manifests in the modelling and prediction of information from the data, such as the future actions of individuals (Lyon, 2015). This is possible as Couldry (2014, p. 887) points out, because big data is “vital to discovering complex patterns in huge datasets”. These patterns are used to predict future data points - which in turn are translated back into a predicted action an individual may take. Raley (2013), Kitchin (2014) and Lyon (2015, p. 86) discuss how models are used to understand and predict the future actions of individuals and to assess what might create change in behaviours to achieve desired outcomes. For example, through analysis of data on demographics and voting history, political parties predict how people are likely to vote in any upcoming elections, and can then target communications to groups based on the predicted and desired behaviours (Kreiss, 2016). One of

the most famous examples of this principle was research that analysed data on a variety of activities on Facebook and on that basis was able to successfully predict age, family situation, sexual orientation, religious and political views, and personality traits (Kosinski et al., 2013).

In Parasie and Darigal's (2012) research on data journalism, they show how data-driven methods are used to connect and analyse data to generate new information which becomes the source of their news. To do this, the journalist must rely on algorithmic analysis to produce good results, or as Meyer (1973, p,4) puts it to "find facts" and "infer cause". Outside of the use of algorithms, there is also the use of data to measure, and guide, success. Organisations may set goals in numerical forms and assess ongoing improvement by examining the ability of their tactics (cause) to achieve numerical targets (effect) which, combined with the first principle, is considered representative of a real-life effect (Karpf, 2017). In association with personal data, the principle of algorithmic reasoning is seen in the use of a mix of behavioural science for understanding, changing, or controlling the behaviour of individuals or groups (Tufekci, 2014). In communication, for example, A/B testing is a common practice. A/B testing involves two or more tactics which are carried out in a controlled context and their impact, and success, measured by individual data. This method is the basis of constant experimentation and is used to create and test predictions and hypotheses of the effects of different communications on people's behaviour (Karpf, 2017; Tufekci 2014). Karpf (2017) describes how CSOs measure the responses from the audience to the organisation and fine-tune their communications accordingly to achieve the desired response. For example, instead of an expert choosing a single headline for an online article, CSOs carry out A/B testing where they present different headlines to different segments of the audience and measure which headline gets the best results. CSOs also use

theories of behavioural change for public education campaigns, for instance around environmental topics, in which they assess what form and content of the message will change people's behaviours to take a more active role in environmental campaigns.

This type of cause and effect reasoning is not useful in contexts which are complex, including social change and human behaviour. Lyon (2015) argues that this approach can lead to dangerous practices in policing in which pre-emptive decisions are made around what may identify someone who may commit a crime, even if they have not yet, and may never, commit a crime. These people are ultimately treated with suspicion on the basis of data-driven predictions. In CSOs, the applications of predictive algorithms may not be so extreme, but if the future is predicted through what has happened in the past, designs around how to create social change will be greatly limited. Most of the data which is input into the processes, and the rule-sets, is based on the past, and can still only produce extensions of what we know already, not what we do not know yet. As a result, the space for imagination and creativity is compressed (Pariser, 2012).

Furthermore, large and diverse datasets can encourage organisations to see patterns and create models that are neither realistic nor effective for their intended goals (boyd and Crawford, 2012) and, relatedly, can generate an illusory sense of a connection between inputs and outputs. This is a particularly important criticism for CSOs given that many outcomes of social change initiatives take years to show their effects. Organisations need more creative methods to understand the unpredictable and unexpected nature of social change. This is particularly true when much data is collected from the inputs that tech companies dictate, which may not be so clearly connected to social change. For example, a 'react' and 'share' reaction on Facebook is not always an endorsement of the content or the organisations and does not represent deeper

engagement, even though it may be used to build profiles of individuals' interests.

Summary: Data Logic as the Research Object

Data logic is an ideal type which consists of the four principles which shape a recognised and accepted way of working with information: quantification, scale, standardised processes, and algorithmic reasoning. The principles of data logic have become pervasive across various fields, including communication. These principles are adopted as a logic, as they influence the ways of working in an organisation based on a belief about how the principles contribute to knowledge. These principles are adopted despite substantial criticisms of their effectiveness in developing accurate and useful knowledge. Data logic is not only shaping the ways of working of new CSOs but has prevailed across older organisations too, changing their tactics if not their strategies. By examining the distinct ways of working as a set of principles, I will identify the contexts in which new data practices have been adopted within CSOs. By identifying the principles CSOs engage with, I can evaluate the circumstances where data logic has had an effect on organisational knowledge. This can support a critical review of these practices, based on the criticisms outlined above, and the consequences of the effect of the principles, particularly in their contribution to organisational knowledge. The next question is: in what contexts is it acceptable for CSOs to engage with these principles in relation to political communication?

2.2 Political Communication and Data: The Trustee and Delegate Models

In the first half of this literature review, I described the elements which are consistent across descriptions of how new data practices work. I synthesise these into four principles which form an ideal type that I term data logic. There are two further characteristics which are integral to descriptions of data practices but rather than consistently appearing together as part of the practices, the values contradict each other. These two antithetical characteristics can be found in the differences between the practices described in the introductory paragraphs: ‘*analytics activism*’ and ‘*mass surveillance*’. On one side, Karpf (2017) proposes that an element of analytic activism is “listening” and useful for organisations who wish to be audience-led: organisations use data-driven methods to listen to more people outside of the organisation and involve them in decision making. For example, the digital membership organisations described in the introductory paragraphs believe that data-driven methods to support the involvement of large membership bases in organisational decision making. On the other side, *mass surveillance* data practices consist of monitoring what people do and through this monitoring asserting control over their behaviours, which reinforces the decision-making power of the data collector - an expert-led model. The former of these practices is praised by scholars in political communication such as Karpf (2017) and the organisations themselves, while the latter is criticised by scholars in critical data studies and surveillance studies such as Tufekci (2014) and Lyon (2015). The tension between these two points is the starting point this thesis takes as a framework for understanding not only how data is used, but also how it can be used in a *just* manner within the context of political communication.

In this section, I will describe the practices associated with audience-led and expert-led

models. I will demonstrate how the responsive leadership theory of political representation and political communication, outlines two models, the trustee and delegate models, and that these models can be helpful to understand these two sides of new data practices within political communication. By bringing together this theory, and the ideal type of data logic, I present a framework from which I can examine elements within CSOs and determine how they are using data practices. I demonstrate what the practices may look like in CSOs by drawing on literature from other areas of political communication such as news organisations and political parties. By placing the practices within the framework, it is possible to evaluate their consequences for political communication in CSOs.

2.2.1 Data Justice in Political Communication

As described in the introduction, there are several approaches to addressing issues with data practices that include the features of data logic. These approaches include data ethics, data protection, data activism, and data justice. This thesis builds from the concept of data justice, which presents a comprehensive approach to considering the social and ethical impacts of data-driven practices (Dencik et al., 2016; Tayler, 2017). Tayler (2017) describes three main approaches in data justice. The first approach, presented by Johnson (2014) posits the importance of open data initiatives in which data about governance and political bodies is made available for researchers and the public to interrogate. The second approach, from Heeks and Renken (2016), examines how data on social and political inequalities and needs can help support decisions in the international development sector regarding priorities and allocation of resources.

The third approach to data justice is the most relevant to this thesis and is developed and presented by Dencik et al. (2016). Dencik et al. (2016, p. 2) start their research problem from the “implications of the Snowden leaks for political activists”. This is a similar motivation to my own for conducting this research, in which I consider how NGOs balance their criticisms of data practices used for mass surveillance, such as those revealed by Snowden, and their own data practices. Dencik et al.’s (2016) article highlights the ‘disconnect’ between the critical views of surveillance which many activists hold and how activists undertake participation in activism through data-driven practices. The authors propose that due to the prevalence of tools such as Facebook and Google, and their utility for connecting, communicating and organising people, it is difficult for activists to undertake any counteraction to the surveillance entailed in these tools. This view aligns with the experiences outlined in the introductory paragraphs of this thesis between Amnesty’s digital engagement strategy, and desire to engage with data-driven methods, and their campaigns against the collection of personal data for mass surveillance.

Activists are not only at risk due to data practices such as mass surveillance, but must also consider these same principles in their strategies, tactics and actions. Data justice aims to build a framework that can allow those critical of data practices to find ways to counter them despite their prevalence. Dencik et al., (2016) and Tayler (2017) reflect that solutions to justice within data practices are limited. The authors describe how solutions focus on that which can be controlled by the technical or legal elements. However, they do not handle broader questions of what values the practices align with, and consequently what systems of governance they generate. Data justice should “examine the ideological basis of data-driven processes” and situate the specific form of governance that stems from their ideology, within the structures of

how we already understand and agree on “how society is and ought to be organized” (Dencik et al., 2016, p. 9). For this, Dencik et al. (2016) present the need for data justice so as to support the examination of the implications of data-driven practices across a variety of problems from privacy to self-censorship, profiling, biases, and economic inequalities.

The need to examine a collective approach to data justice is also emphasised by Taylor (2017) in her development of a data justice framework. Taylor (2017, p. 8) argues that data justice needs to move away from an individual rights approach, towards a collective and group approach to “how fairness should be determined and whether justice can be realised.” She presents a synthesis of the different issues of data collection including privacy, open data, transparency, discrimination, and autonomy, and the need to find a way to address them all consistently. She presents a *capability framing* which suggests that those who wish to engage with data justice should focus on “what functioning they value, and what capabilities they wish to prioritise” (Taylor, 2017, p. 10). For example, debates around privacy usually focus on how the rights of an individual are exchanged with governments for the benefit of national security (Lyon, 2015). The argument on either side is whether this benefit of national security is worth the personal data. This is in line with a contextual privacy approach (Nissenbaum, 2009) in which the functions and needs of the context are what defines whether an individual would want to pass their personal data. This context brings up the idea of what model of governance and what functions people are engaged in. This is how Martin (2012) refers to the social contract approach, in her article on the use of data in commercial organisations. Personal data can be collected in the context of improving products – either on behalf of the data subject’s request or at the direction of experts creating the products and services. I take this approach of considering

the functions that are valued by CSOs, combined with Dencik et al.'s (2017) approach by considering this function in relation to their role within structures of society - and the way in which data-driven practices can affect these.

CSOs collect data on a variety of different audiences they represent such as members, supporters, beneficiaries and followers, to perform a function. A useful starting point to understand what is expected of their function is to examine what is celebrated about the use of data in analytics activism and the concerns raised regarding mass surveillance. Firstly, analytics activism is best seen in digital membership organisations, such as Avaaz, MoveOn and 38 Degrees, who describe themselves as 'people-powered' to highlight their model of large-scale participation from a public audience and in which their members set and implement the agenda of the organisation. To achieve this, the CSOs depend on methods which demonstrate the principles of data logic. CSOs use behavioural data to track what content people engage with and use this information to further design engaging content. CSOs also use social media data, petitions and surveys to represent people's opinions which guides what they decide to work on. The staff also use contact data to keep in touch with these individuals. CSOs also use data to represent themselves, such as in the image from Avaaz's website above (figure 2.1) which aims to demonstrate their success by how many members they have, how many 'actions' (such as petitions or single activities within a campaign) have been performed, and the number of campaigns which have taken place. These numbers are used to demonstrate their success to outside groups in order to have more persuasion power in their campaigns and to draw more support from a larger public.

Whichever way the organisations use the data, whether to measure the success of their

content and channels, to represent the opinions of their audiences, or to represent themselves, the data contributes to their mission for their campaigning to be led by the subjects of the data – the members and activists associated with the organisation. Karpf presented how new organisations were prompting a shift within the field of CSOs, writing that they are “creating field-defining shifts in membership engagement and small-dollar fundraising practices” (Karpf, 2017, p. 2). Not only have new organisations been established with these ways of working from the outset, but other arrangements of CSOs including older non-technology era organisations and those with expert-led structures have also taken on many of these tactics – not just methods which contain elements of data logic set out above, but the organisations have also changed their goals and structures to ‘listen’ and involve more people in decision making.

The praise, and influence, of data-driven techniques for mobilisation, not only came from digital membership organisations but also the use of the techniques in Barack Obama’s election campaigns for President in the US in 2008 and 2012. Obama’s election campaigns were highly praised not just by other political campaigners but also by CSOs because, among other things, they created well-resourced data teams who used personal data to profile and target individuals in order to mobilise large-scale support (Ambider, 2009; Issenberg, 2012). The techniques were so popular that they became, to use Kreiss’ term for the phenomenon, a prototype which others attempted to reproduce for their own mobilisation campaigns (Kreiss, 2016). While political parties’ election campaigns have different goals to CSOs’ campaigns, they often share tactics including mobilisation and fundraising: at the E-Campaigning Forum two years before the ‘creepy or crafty’ session described in the introduction, Amelia Showwater (2013), former Director of Digital Analytics of the Obama campaign, presented lessons on how to use data-

driven tools to support mobilisation campaigns. Notably, what was impressive about the use of data in the Obama campaign was the speed and scale of involving people in campaigns, the audience-led model which is also positively attributed to the methods of digital membership organisations.

However, critical scholars have argued that data practices have the opposite effect on structures of representation, supporting and reinforcing the decision-making power of the data collector in an expert-led model. Martin and Norman, writing in 1970 when computer-based data practices were developing, referred to the George Orwell novel in which surveillance technologies create a dystopian society: “Can we avoid creating with greater subtlety and intricacy some of the facets of Orwell’s 1984?” (Martin and Norman, 1970, p. 17). This dystopian future involves a model in which a group of political representatives manage and control people through surveillance and behavioural management techniques. The connection between data practices and this expert-led model is captured by the popular use of the term dataveillance (Espoti, 2014; Lupton and Michael, 2017). Clarke (1988) created the portmanteau ‘dataveillance’ to demonstrate that the issues raised by the collection of data are the same as those in surveillance. These are criticised because of their association with the violation of the privacy of the data subjects and the use of the tools to monitor people with the aim to control their behaviours. For example, Lyon (2015) uses the term dataveillance when presenting how governments have used data collection and analysis techniques to the detriment of the privacy and social rights of citizens, as described above, in the name of national security.

Dataveillance is associated with government surveillance, rather than communication, but the criticisms are similar to those levied against the use of the data-driven practices in political

communication too. These critiques focus on how political representatives collect and analyse personal data to influence and manage their constituents. Tufekci (2014, p. 3) suggests that data-driven practices amplify the negative effects of public opinion research, developing an argument by Adorno:

Soon after public opinion research started seeping into politics, cultural critic Adorno called the forms of “classifying, organizing and labeling” as a form of propaganda in which “something is provided for all so that none may escape.” In other words, Adorno feared a public sphere in which politicians correctly identified all subcategories of voters and served each of them with a palatable message.

Political representatives aim to use data to understand what content is most persuasive to their desired audiences, and individually target them to gain their support so as to achieve the goals that the political representatives themselves want to achieve. At their extreme, these data practices bypass citizen engagement by personalising and targeting messages and avoiding the public discourse that is the necessary function of their role in society.

On the one hand, data is used to ‘listen’ to people so they can lead the strategy of the organisation, such as in the digital membership organisations. This is an audience-led model. On the other hand, the strategy is set by political representatives who in turn persuade the audience to behave in line with their vision. This is an expert-led model. This two-sided debate is reflected in various other contexts within CSOs, and in political communications and technology and information literature. The following table 2.1 shows various terms used across previous literature which align with these two models.

Table 2.1: Different terms for centralised and decentralised structures of decision-making in political communication

Area of discourse	Expert-led	Audience-led	Published by
Economic, social and political rights CSOs	Professionally run advocacy organisations	Membership groups and organisations	Skocpol (2013)
Development aid CSOs	Protection of individuals based on expert-led decision-making	Empowerment of individuals facilitation their own decision-making	McCormack (2011)
Political Communication	Trustees who use information on the electorate to make decisions for them	Delegates who listen to the electorate to implement decisions on their behalf	Wahlke, Eulau, Buchanan, and Ferguson (1962)
Media and communications	Experts broadcasting media	Peer to peer creation and sharing of media	Chadwick (2013)
Activist campaigning	Mobilisation of support for professional led interests	Organising of support to empower citizens to lead change themselves	Han (2014)

The table shows various ways of understanding similar opposing perspectives of audience-led or expert-led models. For example, in economic aid CSOs, this kind of relationship is commonly referred to as paternalism versus empowerment (McCormack, 2011). In paternalism models, there are experts and there are citizens, and the former decide and

implement, what the latter need. In empowerment models, citizens are trusted as the experts themselves and the role of organisations is to support the decisions made by the citizens by providing the resources they request or supporting frameworks and forums within which citizens can make decisions. Skocpol (2013) describes the two types of social and political rights CSOs. The first type refers to older membership organisations built for and by broad groups of people who would come together to represent and achieve the group's interests. Later, in the 1990s, a wave of staff-led advocacy organisations emerged. These organisations are structured by professional staff who are fully in control of what is worked on and how it is achieved and funded by large grants or small personal donations from people who do not have power in the everyday operations of the organisation. From these concepts, I draw on the trustee and delegate models proposed by Wahlke, Eulau, Buchanan, and Ferguson (1962).

2.2.2 The Trustee and Delegate Models and Responsive Leadership

The trustee and delegate models are two sides of the responsible leadership theory. The theory was presented by Wahlke, Eulau, Buchanan, and Ferguson (1962) though the principles within the models can be found in other political theory and communication literature such as Lippmann (1922), Bernays (1928), and Burke (1949). The models are based on the relationship between a political representative and those they represent, mirroring the two dichotomous elements described in data practices – trustees mainly monitor and manage their constituents whereas delegates listen and respond to their constituent wishes. These models will be described in more detail in the following paragraphs as I highlight three benefits of the model for this project over the aforementioned mirroring of the approaches to data practices and CSOs representation

models: firstly, while this theory has only been applied in empirical research to politicians, the responsive leadership theory is broad in scope and allows for a cross-examination between different representatives who undertake political communication; secondly, the theory allows an examination of how the staff within CSOs view their own role; finally, both models are presented under the umbrella theory of responsible leadership which proposes that representatives will take on either an expert-led or audience-led model in different contexts, allowing a more nuanced understanding of the use of data practices.

In the trustee model, political representatives are, or work with, skilled independent experts to make decisions. These experts are assumed to have the ability to reason and make clear judgements (Burke, 1949). These trustees do not believe that constituents have the ability to effectively contribute to long-term decision-making, priorities and decision-making as they are not sufficiently educated to a level in which they can make decisions on political issues. At the extreme, the public is seen as incapable of being educated or making educated decisions as they are uninformed, prone to change their mind, easily swayed by misinformation, and often contradict themselves. Instead, political representatives make decisions on what the right strategy and policies are and how best to implement them. The representatives then inform the audience and mobilise the constituent's support for the decisions. To manage this role, trustees have to work alongside skilled media and communication professionals (Lippmann, 1922; Bernays, 1928). Once experts have made a decision, they will communicate with the public to persuade or inform them of the validity of the decision.

Trustees value data-driven practices for understanding how best to gain support from constituents for the outcomes decided by professional experts in the organisation. In her theory,

of computational politics, Tufekci (2014) draws a connection between political representative's use of new data practices and Bernay's proposal that the public is controlled through communication as opinion research has become "bread-and-butter of political campaigns in the post-war West" (Tufekci, 2014, p. 3). The collection of personal data is not only now available through opinion polls and surveys, but also through practices showing many principles of data logic such as social media and website analytics, location data, and data derived from shopping transactions. This information is then used to adapt messaging to personalise it to audiences. This personalisation may be achieved through framing the messages based on the audience's preferences and therefore introducing salient issues or the language the audiences are most receptive to so as to encourage them to behave and feel in a certain way (Entman, 2007, p. 164). Personalisation of the message is supported by the capacity to target individuals or small groups through data-driven platforms and communication channels such as Facebook or email which allow audiences to be identified and segmented.

In the delegate model, on the other hand, representatives place responsiveness to public opinion as central to effective operations and are comparatively passive agents who deliver the wishes of the constituents (Wahlke, Eulau, Buchanan, and Ferguson 1962; Jacobs and Shapiro, 2000). A central premise of this model is that citizens have the capacity to be informed and empowered and can make decisions for their own self-governance (Dewey, 1966; Jacobs and Shapiro, 2000). Representatives adhering to the delegate model will facilitate, to the best of their ability, the capacity for their constituents to set priorities, and desired outcomes and to decide the order of these priorities and consequently where funding and resources are invested. Representatives will engage with political communication to listen to the constituents and to

communicate how effectively their choices have been implemented.

Delegates will collect data on the opinions of the audience, through the same methods as the trustees such as opinion polls, social media, or data around people's movements and habits. This data will be used to understand what the audience wants so as to create appropriate strategies and tactics to achieve this. The representatives will also provide the resources requested by the audience including data-driven tools to help them research the topic themselves and data-driven platforms on which they can share their opinions or ideas. The delegates will design and provide the tools and channels for the audience and will iterate the design of the tools based on data showing how people interact with the tools. Delegates will also use data to help publish audience-created content and encourage peer to peer sharing. The organisation's role is to be an effective channel for the visions and goals of the audience, and the organisation justifies the use of data to help support or carry out citizen's visions and initiatives effectively.

This delegate approach is the one proposed by those conducting Karpf's (2017) *analytic activism*, such as digital membership organisations. The trustee approach represents the elements of data practices which are criticised such as in Tufekci's (2014) concept of *computational politics*, such as seen in the scandals of Cambridge Analytica's involvement in various political elections. However, as demonstrated here, there may be those that support this model, and furthermore, both models of representation come with problems. The organisations can realise their role as experts and their responsibility to educate or motivate their audiences to act in certain ways so instead of the audience-expertise led structure, there is a staff-expertise led structure. For example, there are CSOs who hire staff for their expertise in a particular topic, and it is these staff who decide the strategy and design the campaigns of the organisation. The staff

will then run behavioural change or education campaigns, or if their work is advocacy-based, look for funding or mobilise support for their staff expertise-led decisions in the form of petitions or demonstrations. This can be particularly useful around unpopular campaigns or ones that take a long time to change such as the campaign against the death penalty or for gay marriage in the US.

There are still criticisms levied at each model. The trustee approach is criticised on the principle that persuasion and mobilisation will turn into coercion, either accidentally or purposefully, and a person should never be coerced into a belief or action even it will be better for them because their innate rights and freedom are more valuable (Mill, 1861). The use of data often leads towards manipulation and malicious consent engineering (Turow, 2013). In particular, in the trustee model, there is a violation of specific rights, such as privacy and freedom of expression. Dworkin (1972, p. 65) describes this as an "interference with a person's liberty of action justified by reasons referring exclusively to the welfare, good, happiness, needs, interests or values of the person being coerced". These are the same rights that are at the heart of criticisms of the use of data in this way, as described in Tufekci's (2014) criticisms of the use of data to personalise messaging to engineer consent. However, the delegate model also receives criticism. If citizens have control over decision-making a variety of problems can ensue. For example, a 'hyperdemocracy' may overemphasise utilitarian benefits over important minority protections or citizens' emotional decisions may take precedence over reason (Hecklo, 1999). Further, constituents may request more benefits and support from their government than can be supported (Jacobs and Shapiro; 2000). In the delegate model, fast and quick data collection, as well as large-scale participation, may lead to many of these problems.

The responsible leadership theory suggests that representatives acting as responsible leaders will both be trustees and lead constituents, and at other times take the role of delegates and be responsive to constituents. For example, a trustee model may be more likely to be embraced in times of national security, deciding between conflicting goals and leading initiatives (Jacobs and Shapiro, 2000). The representative or delegate model is where the politician steps back from a leadership role and carries out actions mainly based on responsiveness to public opinion (Jacobs and Shapiro, 2000: 298). This is an important contribution to understanding the use of data technologies and engagement with the principles of data logic. The trustee model is the model described in the use of data for surveillance, and there are many criticisms of the use of data this way. On the other hand, the audience-led model of membership organisations is praised, and the use of data seen as good only when it is supporting this model. By examining this political communication theory I can demonstrate how both sides, trustee and delegate, are a viable model for representation and there is a time and place for both. Taking this balanced approach can help move discussions away from a space in which organisations can only discuss data uses if they are for supporting audience-led models, by both showing the potential negative consequences of use of data to support an audience-led model, and the potential positive uses for using data to be expert-led. The theory of responsive leadership helps understand data-driven practices with more nuance, moving away from a model in which only the gathering of public opinion to facilitate an audience-led model has been celebrated, and showing that there are good arguments for using a trustee model at times. In the next section, I will describe in detail how these models can be applied to the data-driven practices in political communication of CSOs.

2.3 A framework for examining the use of data in CSOs

In the first half of the chapter, I showed how a set of data practices have emerged that have a consistency I argue is best understood as an ideal type, which I term data logic. Data logic involves trusting the process of quantification, scale, process and deduction as practices to validate outputs and information. Next, I demonstrated how the adoption of these principles can be interrogated from the perspective of data justice. To do this, I introduced the trustee and delegate models. The theory does not present one model to be right or wrong but instead focuses on how the organisation views their function and role with the audience which may change depending on the topic. I will describe which CSOs practices show principles of data logic and whether they fall into the trustee or delegate models, as shown in the two quadrants of the framework in figure 2.2 below. This ability to clearly distinguish practices will allow for analysis of the consequences of how CSOs engage with data. As there is only limited empirical research on what the data-driven actions of CSOs look like, I will also outline what has been documented in other areas of political communication such as from media and political parties to demonstrate these models and their use of personal data.

Figure 2.2: The current use of data-driven methods in CSOs which will be investigated in this research



There are two concepts which help understand the functions of CSOs which will help support the analysis: the planning cycle and the ladder of participation. Firstly, CSOs work with a planning cycle, shown in figure 2.3 below, which demonstrates the process the organisation follows from analysing an issue to developing a strategy, planning and delivering relevant projects and campaigns and evaluating their success, which feeds back into the first stage of analysis of the issue. When analysing the topic and setting the strategy, staff make decisions about what they want to work on either through their own expertise, in the expert-led trustee model, or through analysis of public and membership opinion, in the audience-led delegate model. The planning and delivery stage is when the CSOs implement the projects and campaigns to achieve the goals set in the strategy which involves activities such as fundraising,

mobilisation, and advocacy. During the evaluation, the staff will consider how successful their tactics were, and analyse whether the problem has changed which in turn feeds into the next cycle starting once again with setting a strategy.

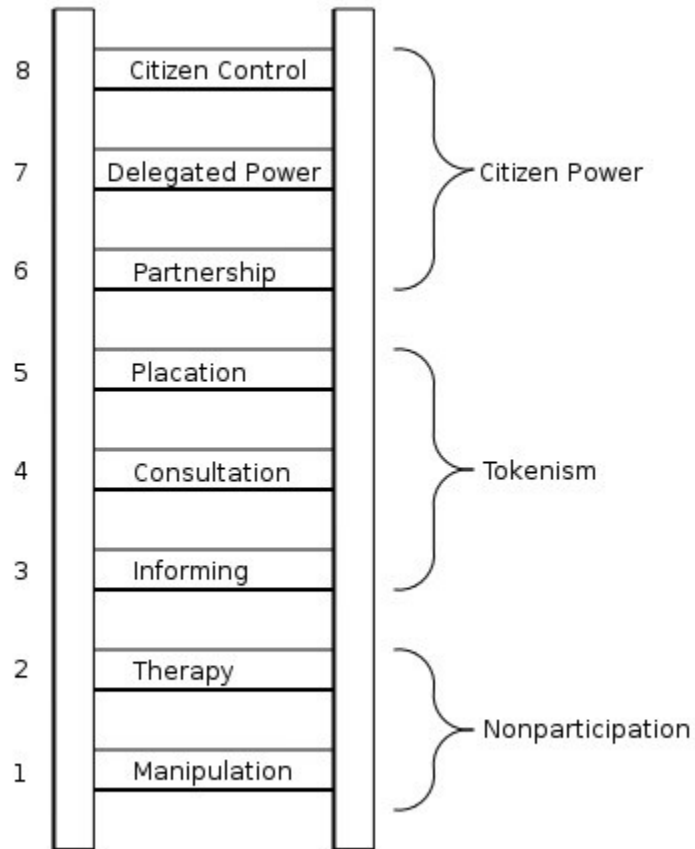
Figure 2.3: The campaign planning cycle from the website of the National Council for Voluntary Organisations (Brennan, 2017)



Secondly, engagement is measured in CSOs by frameworks which are classically drawn from Arnstein’s Ladder of Participation shown in figure 2.4 (Arnstein, 1969). This ladder demonstrates a linear progression from the least participation from the audience to full citizen control. While those following this ladder work on the premise that an organisation would aim for the top of the ladder to facilitate audience-led approaches, there are alternative adaptations to demonstrate the importance of groups who are ‘informed’ and ‘consulted’, the approaches that would be used by a trustee organisation. The language of both Arnstein’s ladder, and adaptations

of it, will be used to discuss audience-led delegate models and expert-led trustee models.

Figure 2.4: Arnstein's Ladder of Participation (1969)



2.3.1 Delegates and Data Logic

Organisations who wish to run an audience-led model carry out the role of a delegate. For example, digital membership organisations profess to engage with data practices to support their 'people-powered' audience-led model. These CSOs perform a delegate role and facilitate, to the

best of their ability, the capacity for their constituents to set the priorities for the organisation's long-term and short-term plans. Online surveys and opinion polls are used by CSOs to facilitate the participation of a large number of constituents in a setting a long-term strategy. Due to the principle of scale, made possible by data technologies, the surveys can collect more information than before and databases can host input from these surveys. Further, computerised processes can collect, process and visualise the information from the surveys and polls quickly. CSOs engaging with data logic will assume that the more people involved in decision-making the better quality their strategy. For example, Avaaz supports a large membership to make decisions through the collection and analysis of their personal data. Avaaz has an annual membership survey in which emails are sent to members to ask their opinion on the organisation's priorities and campaign ideas for the following year (Karpf, 2017, p. 44). MoveOn, another campaigning organisation, uses a tool called PileOn which sends a petition to 1000 members asking if they think MoveOn should further support this campaign. An agreement is represented by a signature on the petition which becomes data that reveals the level of support for that campaign (Karpf, 2017, p. 89). The larger the quantitative representation of support, the more likely the organisation is to take on that campaign. The members guide not only what outcomes MoveOn work towards, but also what priority the campaign is for the organisation, and therefore what percentage of staff time and organisational budget will be put towards the project. The data technologies allow the CSOs to engage with a numerically larger and more real-time constituency.

CSOs not only use tools which collect data so directly such as opinion polls and surveys, but also use indirect methods to gauge the public opinion of their constituency. These tools

gather 'latent' or 'trace' data through automated collection practices. The data is processed and analysed to produce assumptions about the profiles and opinions of the audience, without them knowingly disclosing any information. This personal data is collected from a variety of places, including but not limited to data from social media metrics, website traffic, google analytics and lists the organisations can buy from data brokers that can include further information such as financial status and demographic information. The data can be connected to an individual such as by connecting it to an IP address, tracking cookie or account login, but is most commonly collected, presented and analysed en masse. These aggregate collections of data include the number of likes on a Facebook page, watches on a YouTube video or emails opened. These aggregate statistics can be connected to other information such as common demographics or other behaviours and may be turned into profiles which can be applied back to the individuals.

The advantage of indirect data for CSOs who wish to perform a delegate role is that it can represent the opinion of a larger constituency (Karpf, 2017) than just those that respond to surveys. The observation is covert and automated, and therefore requires no extra effort from the citizen other than conducting their usual activities, as well as less effort from the collector who does not need to be present when the data is collected. This routine and automated method mean that the collection of data can happen continually without risking consultation exhaustion from the group. The organisation can monitor individuals in almost real-time and understand their response to priorities all year round, rather than what might have previously been quarterly or annual collections of data through surveys.

Furthermore, the data collected can appear to create seemingly genuine opinions through these automated processes, as they are collected and analysed from behaviours that are carried

out when people are not watched, rather than the potentially aspirational answers given when answering direct polls and surveys. For example, data can not only be collected on how many people support a topic by signing a petition but also what framing in the headline or images prompted the significance of the topic to the citizen. The capabilities of new technologies also include segmenting this data after collection to understand nuanced differences between the behaviours and the activities of individuals and groups, allowing for nuanced feedback. For example, an organisation can understand the sentiment from those in a specific region or of a specific gender. Kreiss (2016, p. 146) demonstrates, for example, how data around these demographics can be segmented to personalise messages to different groups in political elections in the US.

The use of this indirect data for contributing to what topics the organisation will prioritise is also seen in newsrooms. In particular, Anderson's (2011) study of newsrooms revealed how audience metrics, such as click-throughs, read-throughs and shares of articles, are replacing the expertise of editors in deciding the topics to be covered, contributing to a shift in their role to delegates, rather than traditional trustee role of journalists in some of these organisations. The fast and constant collection of data, allows for the audience to impact the priorities of the newsroom and the production of news each day. The faith in quantitative metrics, in which a higher number gives priority, is also manifested in an increase in the number of 'most read' sections on news websites. Another example of the use of these metrics in newsrooms is the now-defunct UpShot, a blog run by Yahoo. Articles for the blog were only written if the data, gathered from quantitative monitoring of search queries and click-throughs on the Yahoo platform, showed that these topics had gathered large-scale interest (Pariser, 2012: 71).

CSOs' use of indirect data is documented by Chadwick (2013) and Karpf (2017) who both demonstrate how indirect data is used as “iterative feedback” in which content is shared and then adapted constantly depending on the response of the audience, represented in online analytics data. CSOs implement their strategy through the use of tactics and tools such as protests, advocacy and petitions. Delegate CSOs work to support their constituents in creating and leading the implementation of these actions. The organisations will support the content created by citizens - their petitions, their protests, and their campaign plans. CSOs can then use data to increase their capacity as delegates that facilitate and encourage constituents to be involved in shared decision-making, implementation and accountability for the activities which will achieve the long-term goals. CSOs also use supporter journeys, a term that captures a plethora of tactics that encourage individuals to move through activities that require anything from a minimal commitment to full participation and have shared ownership of delivering outcomes. Data practices assist the institutions to carry out this activity as they allow them to form profiles of constituencies and retain their personal data including demographics, behaviours, interests and networks, in a CRM. The organisation can use the data to record preferred activities of individuals, track their development and help create personalised opportunities for individuals to be directly involved in implementing change (Han, 2014). Ultimately, an organisation aims to have, as described in Kreiss's (2016) research on data use in election campaigns, a whole unified person in their database.

A fuller representation of the person can support the creation of better-personalised opportunities for individuals to become leaders in the movement. These leaders can be involved and champion the movement of other activists, as shown in Han's (2014) research on activists.

Those who lead this would follow Han's (2014) distinction between transactional mobilisation and transformational organising, respectively 'getting people to do stuff' and developing their capacity for organising and leadership. The transformation needed for civil society movements and community building is created through actions such as chanting in crowds or decisions made with the involvement and input of people from across class and geographical boundaries (Skocpol, 2013; Ahlquist and Levi, 2013). Mobilisation neither supports these activities nor creates the kind of relationships with the constituents that even trustees need to maintain in long-term movements and to have communities that will mobilise regularly (Skocpol, 2012). This can lead to shallow movements which ultimately do not come together over the long-term to create change. Instead, delegates will use data-driven tools to lead constituents to a position in which they can be leaders and can invest in their community. To do this, delegate CSOs can also condense and visualise the data for constituents, so not only decision-making but accountability for creating change can be shared with them.

2.3.2 Trustees and Data Logic

The trustee model for civil society organisations values data for understanding how best to gain support from constituents for the outcomes decided by professional experts. Trustees do not believe that constituents should be the ones to contribute to long-term decisions, priorities and decision-making. Instead constituents are there to support these decisions through joining membership or signing a petition. This is less well documented for CSOs, as the literature focuses on the success or failure of CSOs in supporting the decentralisation of decision-making power. Further, the practices of trustees that apply data logic can mostly be described by drawing

on principles in the literature which is critical of data-driven practices. However, there is some demonstration of when the trustee model is considered acceptable from the perspective of political representatives and organisations in studies of news organisations and political parties.

Anderson (2011) shows how some journalists hold a paternalistic view of the audience - a trustee approach which downplays the capacity of the audience. The journalists limit the impact of audience metrics on their decisions on what content to write about and publish. Instead, data-driven methods are used to find ways to share the expert-led content to a wide audience. This same practice is documented in other cases. In 2012, The New York Times did not allow journalists to see how many people clicked on their stories, trusting instead their considered editorial expertise to choose and write the content (Pariser, 2012). Further, Finley (2015) documented a growing dismissal of the significance of online comments which may not even be read by people running blogs or news sites.

CSOs will rely on their own experts to make decisions on the strategy of the organisation when performing a trustee role. The organisations will then implement these decisions by engaging with other authorities and experts to create desired social change - commonly referred to as insider campaigning. However, the CSOs may also require a larger public audience which can be supported through data practices. To do this, they rely on mobilisation events such as elections, protests and online petitions (Kreiss and Howard, 2010). The numbers of participants who attend these events are used to represent the size of their constituency. Actions are measured as quantitative data such as the amount of signatures collected through petitions or emails sent to a local MP from their constituents on a particular topic. The data measured may be more passive or latent such as YouTube video views or Facebook likes and shares. The value of this

information is seen in media publications presenting ‘viral hits’ as news stories in themselves. These numerical figures can be a powerful way to gain access to, and authority with, other experts such as government officials. Data can also reveal the demographic make-up of the audience which may reveal, for example, an important constituency to the experts they wish to persuade.

By using data to profile the constituency, trustees can also develop personalised persuasive content to encourage the audience to take part in these activities (Tufekci, 2014, p. 2). The profile can represent an individual’s or group’s demographics, interests, sentiment and behaviours which can be used to predict and test what is most persuasive to constituents to mobilise them to carry out the actions the organisation has deemed necessary to create change (Skocpol, 2013; Han, 2014). As Tufekci describes, data is used by political representatives “to profile people, sometimes in the aggregate but especially at the individual level, and to develop methods of persuasion and mobilization” (Tufekci, 2014, p. 2). Jacobs and Shapiro (2000, p. 301) document how Republican and Democratic party staff use data to find the most salient arguments to educate the public and win their support. Kreiss (2016) show how the data is used in US elections to target them to persuade them during get out and vote campaigns. This is supported by the data logic principle of causality, in this case, the use of behavioural science and testing to understand how best to achieve their aims. The data is used to create the appropriate messaging to persuade constituent support for the goals of the trustees.

Trustees will create profiles from personal data they have collected to represent those who are already supporters, likely supporters and those who are not supporters. Hersh (2015) describes the tool Catalist which predicts voters’ partisanship based on more than 150 data points

and predicts a value for the voters' support. Kreiss (2016) shows US-based political parties use of predictive modelling scores for individuals based on characteristics shared with others and anything the organization could gather on that individual through direct or indirect data to categorise their audience by their level of support for the party. The Obama campaign relied on these models to categorise voters who supported Obama, those likely to turnout, and those likely to be persuadable and responsive to specific types of appeals (Kreiss, 2016). In Kreiss and Howard's (2010) research of Obama's campaign they also showed how tracking cookies were used to follow people after they left the visitor section of the website to present them with adverts relating to their preferences such as an advert about education policy if they look at parenting websites. The Obama campaign also used testing on the website to gather data on effective colour, size and order of information that had the most impact on individuals to remain reading information from the site and donate (Kreiss and Howard, 2010). The organisation can also evaluate the formats and content of communication to see what framing works best to encourage action, support or behavioural change. The organisations can use data from polls and surveys to find the right language and salient arguments to educate the audience and win their support. They can use trace data they have collected and used to assist in persuading their desired audiences or useful audiences for achieving their goals to support them. They can also utilise data to improve the chances of their content being found by the desired audience and formatted or written to be received by the audience in the desired manner such as through the tool of search engine optimisation (SEO) (Frary, 2015).

The evaluation as to whether tactics will succeed was previously decided by the gut instinct of experts whereas now testing provides evidence for decision-making (Issenberg, 2012).

Trustees can use the metrics instead of tacit knowledge for the basis of evaluating the success of tactics. New data technologies allow monitoring and evaluation to be done in real-time now, seeing feedback from individuals immediately. Organisations can test the reach and engagement quality with their products to understand if they are having the impact they expected to have. Within this, it is possible to see the use of data as not a method to reflect on the people, but as a reflection on the quality of the content or the format. For trustees, this is particularly important as they can measure the success of their attempts to change behaviour in real-time. As Karpf recorded from one member of staff “Without the data and math and tools, I’m 93% an idiot” (2017, p. 110). Instead, the staff in these scenarios were excited to learn what the data showed did work. Kreiss describes a successful use of data where the staff of the Obama campaign considered “political metrics, we had communications metrics, and we had fundraising metrics” but their primary goal was 51% of the vote and with the data used strategically, this was where success could be measured (Kreiss, 2016, p. 52). Trustees can show support for their decisions, and create further support for their decisions, create behavioural change needed for their campaigns and test how effectively they have managed to carry out their decisions all through the practices associated with data logic.

2.3.4 Summary: Data logic and political representation

The new data technologies, and associated principles of data logic, are praised and criticised based on two distinct outcomes of their use. Firstly, the principles that guide data-driven working practices are seen as synonymous with the production of valid outcomes. Secondly, new data practices are viewed as either supportive of a delegate role in which the organisation hands the

power to set strategy over to their audience. They are inherently associated with the centralisation of strategy-setting power. I reframe the critical approach relating to political participation as the responsibilities of the organisation shift depending on whether they want to take more control or to share power - a choice the organisations have to make. I have taken the political representation theory, trustee and delegate, and used this to create a set of principles which helps us to understand the new data practices. This reveals that the organisations can take on either form of representation, although there are negatives and positives to both approaches. To build on this theory it is necessary to test tension points within the framework. In particular, as the most documentation has been on how the data is used to support new CSOs in the delegate role, which has potentially negative consequences, and little attention has been paid to CSOs who may choose an expert-led approach. There is a third tension based on the third element of criticism: the mediation of data-driven processes alters the relationship between a representative, whether delegate or trustee, and the audience. As described in the introduction, it is also important to consider the additional roles involved in making decisions, given that an important aspect of data-driven practices and the trust in data is that decision-making power is given to three agents - the technocrats, the software, and the data double. The potential impact of these agents is described in the next section.

2.4 Agency and Decision-Making in Data Logic

As described in the introduction, scholars argue that there is a *surveillance realism* in which data practices are adopted as the status quo along with *faith* in their ability to produce accurate results (boyd and Crawford, 2012; Dencik et al., 2016). Ultimately, as the processes are trusted with

little interrogation, decisions are made by agents within these processes: the technocrats, who are the technical experts who operate the technologies that collect and analyse the data, and the software, which contains algorithms which collect, process, store, analyse and present the data. Furthermore, as is described in the section above on data logic, the quantified metrics are treated as authoritative over and above other forms of data (Raley, 2013), leading to a situation where the data double of a person may hold more authority than they do. Not only are some of these situations problematic in themselves, in that decisions are made with a lack of transparency and hidden biases which cannot be interrogated, but the role of these three agents also has an important consequence for political communication. Traditional political communication theory considers the representatives' communication with constituents, at times working alongside traditional media. The trust in data practices, however, leads to a situation in which technocrats and software can make decisions without the awareness of the political representative, and the data double likewise represents the audience without their consent or awareness (see figure 1.3 in Chapter 1). These issues are explored further in the following sections.

2.4.1 Technocrats

Firstly, political representatives entrust decisions on what data to collect, and how to analyse and present the data, to technocrats. Technocrats have the technical expertise to operate data technologies. Technocrats can carry various job titles such as data scientists, programmers, social media officers and analysts. As Karpf says (2017, p. 167) "The work of digital listening falls primarily on the analysts, technologists, and strategists who are gathering and rendering the data accessible." This can be expertise in data analysis techniques, in the creation of software which

hosts and analyses the data, or knowledge of how to operate data-driven platforms, such as Facebook or Google Analytics.

The technocrats make several decisions within CSOs. For example, they make decisions about how to gather data - usually including a decision on how best to represent the object as data. They also decide how best to host the data, which will require decisions about what data they are collecting and what form it will take. The technocrats also make decisions about how to analyse and visualise the data to other staff, such as managers in the CSOs. They might collect and analyse the information from other platforms like google analytics and present relevant information to the content makers such as researchers and campaigners in the CSO. Technocrats may also be consultants the CSO hire to help them decide what to do with the data or what data they might need.

When staff engage with the principles of data logic, technocrats are part of the standardised processes which are treated as if they are unbiased. However, there are many indications to show that technocrats are not a neutral part of the process. Technocrats can affect all aspects that they have control over as each person will have a different perspective and make choices about the data: “The design decisions that determine what will be measured also stem from interpretation. For example, in the case of social media data, there is a ‘data cleaning’ process: making decisions about what attributes and variables will be counted, and which will be ignored. This process is inherently subjective.” (boyd and Crawford, 2012, p. 667). They are biased, driven by agendas of their own or due to their passive biases such as their financial position or upbringing. Trusting the technocrats is problematic for trustees and delegates who would have faith that their, or the constituents', values have been accurately carried out from one

part of the process to another. By recognising the agency of the technocrat CSOs could understand how the technocrats' biases affect outputs and incorporate this into decision-making. The technocrat is an added layer of decision-making which can prevent transparency.

Transparency is also important for constituents to decide whether they would like to continue investing in the civil society organisation, with time, money or other forms of engagement. The data-driven platforms that CSOs engage with, however, are guarded about their data practices (Pariser, 2012) making it difficult for the CSO to make promises on how their audience's data is used. Constituents engage with the delegates or trustees on the basis of trust that appropriate measures will be taken to protect their privacy, but due to the complexities and inadequacies of trusting technocrats, this cannot be guaranteed. Furthermore, the security of data is a constant arms race and nothing can protect from a determined data miner or a subpoena from a government (Gallagher and Greenwald, 2015). Government programs have been used to tap cables to gather uploads and downloads from YouTube, Google and Facebook (Lyon, 2015). This is particularly important when civil society organisations collect sensitive data on people's political interests that could be used against them in the wrong hands. Environmental campaigners, journalists, human rights activists and aboriginal peace protesters, have all been tracked by the state (Korff and Brown, 2012; Lyon, 2015). There may be no way to fully secure the data, but the representatives, whether trustee or delegate, should be aware of the risks the data is under and technocrats can create an opaque layer between the CSOs and that knowledge.

2.4.2 Software and algorithms

The second entity is not a person but a technology. The agency of algorithms is becoming a more commonly recognised issue, particularly due to the development of machine learning. In these cases, decisions are made by the analysis of an algorithm which applies a ruleset to inputted data to create new data - and therefore new information is designed by the decisions within the algorithms. These algorithms are trusted as a ruleset - rather than due to the person who created them. As Kitchin writes: “Algorithms search, collate, sort, categorise, group, match, analyze, profile, model, simulate, visualize and regulate people, processes and places” (Kitchin, 2016, p,11) - as does software, or any code that shapes the form and function of the software. The decisions the algorithms make are becoming further removed from a human agent as machine learning algorithms can redesign their own processes to create new outputs.

On top of this, I broaden the understanding of the impact of algorithmic agency to software in general – the best example of this is a database. People will have to make decisions as to what can fit into the database system they are using. For example, staff using a CRM system to host information on their constituents not only have to fit the information they have into the specifications of the CRM system they use but also may choose to collect information based on the suggested fields of the database. In CSOs, for example, there is trust in CRM systems. These are databases that host information about constituents, including their email address, actions carried out by the constituents and demographic information. Further, the databases are becoming more likely to offer analysis that may profess to help provide further information about individuals such as their other hobbies or interests. The staff in CSOs may also trust the analysis provided by the algorithms on platforms such as Facebook and Google analytics tools, placing

their faith in algorithms to generate profiles on individuals and types of audiences which are becoming commonly targeted by CSOs and political campaigns.

Algorithms and software also carry seeming neutrality, as is seen with technocrats. As boyd and Crawford argue the approach of these tools (2012, p. 667) “attempts to remove itself from the subjective domain through the application of a dispassionate process whereby hypotheses are proposed and tested, eventually resulting in improvements in knowledge.” This removal from subjectivity is part of the algorithm or software’s claim to provide an authoritative form and method to create valid information. In particular, software requires information to be reduced to a format that is possible to contain and process in a database; software dictates what format the information will take. This is problematic because, as Kitchen (2014, p. 8) puts it, “The notion that nearly everything we do can be broken down into and processed through algorithms is inherently highly reductionist”. There are a variety of inadequacies that can come about when trying to evaluate how to turn complex questions into answers that can be solved with a system that requires everything to be eventually coded as a one or zero. Even with the qualitative surveys, some form of coding is usually needed to manage the analysis when it reaches a certain quantity. This usually involves framing the questions in ways that are easy to represent in a unique numerical value (for example yes=1 and no=0) or other forms of coding where the organisation either chooses themes and indicators or trusts a program to find trends and associations. This can be an issue, as described earlier, for evaluating objects that require context - change and understanding people may all be too complex to reduce to singular values (Kitchen, 2014; Karpf, 2017).

The algorithms also maintain consistency in their process even when things are wrong

because while they have agency, they do not have awareness. For example, one organisation that gave over decision-making power to algorithms is the media organisation, Gawker news. Here the 'Big Board' lists articles and numbers representing how many times the article has been read allowing all writers to understand what people are reading. This then influences editorial judgement as well as human resource decisions as those who stay at the bottom too long lose their job. The organisations that relied too heavily on the algorithms of search engine optimisation targets ultimately failed including Demand Media and Yahoo's Upshot, or the tactic was removed such as Gawker News' Big Board as they believed it was leading to the wrong motivations and values in producing content, and not improving their profits in the long-term. Databases require money, time and expertise to run, and people can end up using creative methods for storing data (Anstead, 2016; Kreiss, 2017, p. 135). These methods might involve excel spreadsheets or online spreadsheets through Google drive services which results in less secure systems and increasing the likelihood of data breaches. Software has a similar problem, in this way, to technocrats, because it creates a layer of decision-making power which can prevent transparency around decision-making and security. This use of the software happens even if CSOs do not want to follow data logic but only have certain tools available. This is why understanding where the software comes in decision-making processes is fundamental to understanding how well any data justice framework can be applied.

2.4.3 The Data Double

The data double is the third agent to consider when CSOs engage with the principles of data logic. The data double is the representation of a person's or group's behaviours, activities,

demographics, or other attributes in the form of data. Other terms have also been used including the data shadow and data traces. As with software, the data double is not a person and does not choose their agency, and instead is given agency by political representatives allowing the data to lead decisions. There are various forms a data double can take such as an individual's contact in a database or a profile of a group of 'those who live in London' or 'those who are interested in refugee rights' or 'those who vote Labour'. The data double is used not only from an organisation's perspective but also our own, as we can measure our steps on a Fitbit or on apps on our phone, or in our work by the number of people reached by our publications. As Couldry argues, "we have become accustomed to giving accounts of ourselves in such data-saturated ways" (Couldry, 2014, p,890). CSOs can measure their communications such as 100,000 visitors to the website, how many times articles were read and how many people donated, as well as understand the demographics or other interests of their audience.

The data double is useful for organisations – instead of having to ask people what they want or like they can look at the data double. For example, they could look at their responses to a survey but there is less action required from the audience if the organisation can, instead, look at latent trails they leave behind on Facebook or email or petition signatures to understand what topics they like most. This can be seen as helpful to engage with people who would not normally have the time to engage with an organisation. Examining a person's data double can also be helpful when trying to understand what a person 'really wants'. The way that people react and respond to a website for example, the amount of people that reply to a call to action, or read an email, or click through to the website, shows to the organisation what content and format is most interesting and engaging for an audience. In user design terms it helps show what is the easiest

journey. The organisation can use this to place the donation button in the best place or use the best headlines to get the most results. It has been suggested that in some cases the data double is trusted over and above the constituents, in data-led decision making. As Hersh (2015) argues politicians do not make decisions based on actual voters but perceived voters, those who are made of available data.

However, people are difficult to simplify and it is difficult to use data to represent the audience's opinion. Descriptive data is captured from current actions and modelling is applied to predict the aspirational vision of the future for those individuals or groups. However, revealing what is happening in the present, or the immediate past, neither captures what an individual might want for the future nor ideas that are outside current thinking and therefore innovative. The problem with the data double is that in this case, it is a numerical representation of an individual or group's opinion. Public opinion is contestable in how and whether it can be represented and there are a variety of formats it can take. Karpf (2017) terms the difference between these as Opinion 1, the opinion voiced when asked directly, and Opinion 2, shared "without the urging of a pollster" such as activism through attending protests and rallies or writing to authorities. As Karpf presents, opinion 2 is a limited concept when in fact much more than overt political activities are captured by indirect data such as opening an email or retweeting a news article. This is perhaps better captured in the distinction between what people say they want, aspirational opinion, and what people's actions currently convey, descriptive opinion (see also Pariser, 2012). The ease of collection of indirect data may create a reliance on a type of opinion they did not plan to use.

The data double may also not be an accurate representation as it can fail to properly

account for resource-rich individuals or organisations manipulating the opinion being measured (van Dijck, 2014: 200). This can include paid workers, volunteers, rogue individuals or bots who may Tweet or comment on Facebook with a consistent or disruptive message. Financially stronger organisations can also afford access to analytics from data companies and pay for prioritisation which algorithms then take into account when sorting information, such as on Google and Facebook. By doing this, they can gain better insight into where and when the most effective advertising spaces should be used (Kreiss and Howard, 2010; boyd and Crawford, 2012; Chadwick, 2013, p. 197). The public opinion then is not of a broad constituency opinion, but a privilege driven opinion. For civil society organisations, this means that their attempt to draw authority from their ability to represent opinion could be based on false claims to represent, listen, or speak for a broad constituency.

The organisation acts as a delegate or trustee on the basis of a relationship formed on consent and trust. The data double is not a good enough representation of an individual to give consent to form the relationship. Constituents rarely have the opportunity to opt out of data collection and security through anonymisation cannot be assured due to techniques such as triangulation that have become possible with large quantities of data (Lyon, 2015; Rutkin, 2015; Rita Raley, 2013). This is particularly true for indirect data which may have violated the privacy of individuals as some is collected and sold without actually obtaining any consent. In addition, although some online spaces are more obviously public, such as Twitter or open forums, some are more obviously private, such as emails and private Facebook accounts. Monitoring of data across these spaces violates individuals' privacy, minimizing the space for intimate and private conversation for the development of ideas and opinion. A private opinion shared in a private

space is as important as public opinion shared in public space. A private opinion should be free from the view, and undesired influence, of other citizens, civil society, governments and corporations. This is vital to allow people the intimacy and creativity to build an informed sense of self and society (Clarke 1997; Kreiss and Howard, 2010; McGarvey, 2011; Odoemelam, 2015).

Insights from the data may be used for legitimising the actions of the organisations as delegates but if it does not truly reflect the citizen's public desires the data will lose value as it leads to decisions not intended or authorised by the constituency. The data double is also often created without the explicit knowledge or consent of the individual for this use of their data. For example, so-called “public data” from public internet platforms (boyd and Crawford, 2012), usually reveals actions in relation to questions asked by the platform for furthering their goals, for example, what business Facebook aims to generate compared to the political preferences a campaigning organisation might want to trace. This is also relevant as more and more data is purchased or transferred from other organisations, departments or private companies (Kreiss and Howard, 2010). This is an issue for trustees and delegates as the data double is not actually the individual themselves, but a representation of them based on whatever the question asker wanted to know - such as what would bring the platform more revenue.

A limited understanding of the constituency does not allow delegates to give this constituency access to full or complex activities, instead can only provide them with limited opportunities. As Han (2014) describes this is the important difference between transactional mobilisation and transformational organising, respectively ‘getting people to do stuff’ and developing their capacity for organising and leadership. Following data logic will lead to a

necessarily transactional mobilisation rather than transformational organising, though the latter should be the priority of delegates. Furthermore, there is a tendency in data logic to seek growth, scale and higher numbers. A focus on scale creates the risk of putting more focus on mobilisation activities rather than leadership activities. Data logic may encourage a focus on recordable information. Simple actions are easier to record against an individual's profile and offline activities can be more difficult to capture, such as protests, or complex leadership activities and conversations with friends and family. However, the other issue of reductionism relates to the entity of the data double, not only are actions simplified, but individuals are represented in simplistic ways that do not capture them as a whole person.

As Hersh (2015) refers to this, decisions are based on "perceived voters". This can lead to the issue of groups of people being targeted on the basis of limited data, as data can regularly be wrong, due to inaccurate technical systems and reliance on imperfect machines, and because it is difficult to categorise aspects of humans in ways possible for machines to understand. As Hersh (2015) describes in his description of political parties use of databases, the representations of individuals is often inadequate due to the decision about which data to collect, how to use it, and how it is stored which is at times held in inadequately supported databases that are not used effectively. These representations lead to people being wrongly targeted or some being missed out because they do not fit the groups created by the categories (Hersh, 2015). This misrepresentation is an issue for civil society organisations who wish to create meaningful relationships with individuals when these relationships are based on simplified information and a reductionist view of the individual, the data double, necessarily simplified by the process of databases and algorithms that these processes rely upon. A focus on the data double then means

actions are not on behalf of individuals, so trustees lose their legitimacy, and may not have the desired impact anyway.

2.5 Conclusion

This research project was inspired by a desire to find a way to understand how the influence of new data practices, which have led to mass surveillance and associated violations of privacy and freedom of expression, could also be utilised in CSOs. The data practices have also been presented as advantageous in their use in CSOs to empower them in their engagement with civil society. These data practices have a distinct nature, which can be understood as an ideal type, data logic, made up of four principles - quantification, scale, standardised processes and algorithmic reasoning. Despite criticisms, data logic has become increasingly influential on how organisations form knowledge, including for political communication. I question how these practices influenced spaces where they are not already prominent and how data logic works with existing institutional logics. Political representatives may engage with these practices to support either of two traditional models: the trustee model, which is expert-led, or the delegate model, which is audience-led. These two models of expert-led or audience-led are both seen in the descriptions of the impact of data practices in political communication, as well as in the categorisations of CSOs. The trustee and delegate models are beneficial to support an understanding in which organisations may take on either model, and there are strengths and weaknesses to both. Whether the organisations take on a trustee role or a delegate role when engaging with data logic, they will also devolve decision making to the agents within the data processes - the technocrats, the algorithms, and the data double. If CSOs do not account for the

role of the three entities, these entities can negatively impact their ability to carry out their desired role as delegates or trustees because it can lead to inaccuracy and a lack of transparency. Whether data logic supports or hinders the ability for organisations to carry out either an expert-led or audience-led model based on the concerns laid out in this chapter is at the heart of the research questions for the empirical research explored in the next chapter.

Chapter 3. Methodology: two ethnographic case studies

In this chapter, I begin by examining the characteristics of the research problem: the study of the alignment between the values of an organisation and their personal data practices. In doing so, I provide a justification for the choice of an ethnographic approach as the most appropriate for this research which investigates and develops a theory around practices which are constantly changing and under scrutiny. I present the two case studies I choose as having unique features which can be compared to the research problem: both organisations have a potentially conflictual relationship to new data-driven technologies and each has a different approach to their relationship to their constituents. Amnesty is audience-led and a traditional organisation. Tactical Tech is expert-led and campaigns for a critical approach to technology. I describe the tools of ethnographic research and how I utilise them. I also outline an evaluation of the risks and limitations of ethnographic research and how they are mitigated in this research. I also include a section on the indicators and measurements of the research, specific to the questions relating to the organisation's self-perceived role in representation, their approach to data logic and their relationship to the agents embedded in data processes.

3.1 The Research Questions

In chapter 1, I presented the aim of this research: to assess what indicators can be used to differentiate between acceptable and unacceptable data practices, which in turn can be employed to create a data justice framework for civil society organisations. By reviewing the literature, in Chapter 2, I presented three different sets of criticisms levelled at the outcomes of data practices.

The first set of criticisms deals with data logic's effects on how organisations form knowledge, and whether the knowledge that derives from these data practices is the most useful in all contexts. The second set of criticisms highlights the problems raised by connecting the collection and analysis of personal data with surveillance and questions whether data practices can be used to support an audience-led, delegate model, or only an expert-led, trustee model. Based on these two models, I derive a framework which presents exemplary practices and principles for how CSOs engage with data in either governance model. This framework can identify what CSOs' data practices are and evaluate them against their purported aims, as well as relevant theoretical debates. The third set of criticisms addresses the inability of organisations to make autonomous decisions when using data logic, given the role of technocrats, software and the data double, to whom decision-making is inevitably delegated to when data logic is adhered to. These three criticisms lead to the following three research questions:

1. Are both the expert-led and the audience-led models in CSOs supported by data-driven practices?
2. What are the main factors that guide the decisions made by CSOs regarding their engagement with data practices to support either the expert-led or audience-led models?
3. Is decision-making regarding data practices devolved to agents other than the staff or constituents within the expert-led or audience-led models?

By answering these questions, I can test and build on a framework to address data justice for CSOs who wish to engage with data-driven methods.

3.2 The Advantages of an Ethnographic Approach

To answer these three questions, I adopt an ethnographic approach. Howard (2002, p. 553) defines ethnography as the “systematic description of human behaviour and organizational culture based on first-hand observation”. The research inquiry has three characteristics which I argue make ethnographic research the best approach to tackling the problem. Firstly, the research questions aim to develop theory concerning data practices, a task for which an inductive and qualitative approach is best suited for. Secondly, an ethnography is useful for assessing both practices and purported values in a group or organization at the same time. Finally, the use of technology and the study of organisations are both sensitive topics and studying them requires an approach in which the researcher is embedded within the organisation. These issues are explored further in this section.

Before describing the advantages of an ethnographic approach for addressing these three attributes of the research problem, it is helpful to outline what other methods could have been used for this research and their limits. This discussion not only helps to show why I did not use these tools but also brings to the forefront aspects of this study that make it particularly suited to ethnographic research. There are various methods to understand practices or values in an organization. Practices can be documented through process mapping, interviews, and document review. However, these methods are separated from the values, beliefs, and other individual or collective factors that drive or guide these behaviours. Mapping processes alone would not provide the information needed to draw conclusions useful for analysing the theoretical frameworks that explain why certain data practices take place. To understand the values, beliefs and other personal factors that guide the actions of individuals, I could have conducted

qualitative interviews or surveys. However, these research methods would not document whether and how these purported values are reflected in current practices. The aim of this research is to understand how practices, namely data practices, are carried out and whether they align with the staff's values and perceptions of their own role vis-a-vis their constituents. In addition, this research examines the actions of staff within an organisation who may be self-aware of how they should appear to others. This is particularly true around their use of technology, an area which is under public critical review. Therefore, methods which are as close as possible to members of staff's everyday working routines and practices are best suited to capture any differences between how people talk about what they do and what they actually do.

The first reason why I chose an ethnographic approach is that I aim to develop a theory for understanding which data practices are acceptable for CSOs to undertake. The criticisms of data practices which need to be addressed are complex and overlapping, and to this end, I have proposed a framework that includes a separate analysis of the role of different agents (technocrats, software, and the data double) in carrying out data practices. I believe it is important to secure a nuanced and comprehensive understanding of the interrelations between all three criticisms to build theory which can unpack and reformulate understandings of data practices. To build this theory, empirical research should have adequate space to examine the connections between these different aspects and for challenges to the proposed framework. For this theoretical development, an ethnographic approach allowed me to examine the context surrounding the findings, which can help develop a comprehensive theory. Halperin and Heath (2012, p. 290) outline how the exploratory and inductive nature of ethnographies make them particularly useful for understanding “difficult to define or multifaceted phenomena”. In this

case, the research involves three theories (data logic, the trustee and delegate models, and the three agents) which are not only complex in themselves but have rarely been separated to put into dialogue with each other in this way. This research aims to uncover whether theories around data practices hold up in practice or the observations reveal contradictory or additional values and behaviours that would suggest the theory should be changed. This endeavour requires that the researcher is embedded in a relevant community to understand these decisions and practices. This is only possible through the long-term and real-time observations that are an important component of ethnographic research.

The second requirement of this research which an ethnography is particularly well suited to is to understand the connections between the values held by CSO staff and the practices they carry out. Context is not a singular moment: team dynamics, resources and emotional states are a few of the many aspects that constitute, and constantly change, the context in which decisions are made. A major tenet of an ethnographic approach is thick description (Geertz, c1973.) which puts behaviour in context, capturing and describing the details of a situation: the atmosphere, environment, personalities, relationships as well as values, beliefs and attitudes expressed. Therefore, an ethnographic approach can document values and beliefs in relation to practice rather than independently of each other. The context-heavy descriptions will help us understand how different data practices come about. The documentation of behaviours and attitudes helps comprehend how an organization's desired outcomes align with its data practices. This approach can provide an understanding of nuanced power dynamics and differences in values and behaviours between individuals (Boswell et al., 2017). By embedding myself in the field as an ethnographer, I could also gain access to intimate or hidden spaces and unscheduled activities

(Munck & Sobo, 1998) which increases the number and variety of contexts I could assess.

The hidden contexts I was able to observe as an ethnographer are important for the final characteristic which defines this research and the need for an ethnographic approach: the study of elites and technology. Not only are elites, the CSO staff, more likely to wish to present themselves in a certain way to outsiders of the organisation, those using technology are also keen to either show their successful engagement with these tools, or their keen awareness of privacy concerns. There are so many public criticisms of the use of personal data and approaches to data are therefore a particularly sensitive topic. Therefore, practitioners involved with data practices may be inclined to overstate their understanding or their ethical assessment of the topic. An ethnographic approach is particularly well suited to shed light on the context and decision-making of the elites (Halperin and Heath, 2012, p. 298). An ethnography can achieve these goals, not only by opening up for scrutiny normally hidden meetings and spaces but also by being carried out over a length of time. The time duration of an ethnography is useful as practitioners' desire to be seen to be doing the right thing will fade as they have to carry on with their work and their behaviour will normalise over time (Nielsen, 2012). The data can be collected in real-time with first-hand observer status to understand what practitioners say they do as well as what they actually do in practice (Halperin and Heath, 2012, p.298).

Combining these characteristics, an ethnography supports building a practice-based theory. In particular, a space to develop theory is particularly important for researching technology and political communication, given that many assumptions of this field are drawn from research into traditional communication methods (Karpf et al, 2015). An ethnographic approach can help demystify the use of technology by engaging with it to the extent that the

ethnographer embeds herself in a community, first to become familiar with it, then to extract themselves from it and communicate new insights about this community, and the broader field it belongs to, to others (Boswell et al., 2017; Halperin and Heath, 2012, p. 298). There is a mystery implicit in the nature of data logic itself: faith is placed in data to provide the truth, unquestioning black-box algorithms and opaque processes (Kitchin, 2014). There are parallels in this research with Latour and Woolgar's ethnographic study in *Laboratory Life*, where they argue (1979, p.13-14) "It is sometimes discouraging that although we dedicate our lives to the extension of knowledge... the work of individual scientists, or the work of scientists in general, is often understood only in a sort of magical or mystical way." This research aims to demystify the similarly blind trust for the work of data scientists and algorithms that is common in contemporary public debates. To achieve this goal, my study aims to unpack what goes into the decision-making and processes by which important CSOs employ data practices.

Ethnography is a particularly helpful method to investigate elites' values and practices because links between elites' behaviours and their assumptions have often provided inconsistent findings, highlighting how complex the connection between elite behaviour and values is (Boswell et al., 2017). Researchers have employed the ethnographic method to show that technology and its use by different political elites is complex and multifaceted and often defies simplistic assumptions. For example, Nielsen's *Ground Wars* (2012) presents an ethnography which challenges the understandings of political campaigning, uncovering an account of the importance of personalised communications for political campaigning and the complex assemblages that are required to enable these endeavours. The ethnographic approach can support the inductive research necessary to develop new ideas in a field where the disruption

brought about by new technologies threatens to unsettle many key assumptions (Karpf et al., 2015; Bennet and Pfetsch, 2018). An ethnography can be particularly helpful in this effort as the open questioning style of an ethnographer's approach gives space for answers that are not entrenched in previous knowledge (Howard, 2002). Ethnography allows for ideas and concepts to be documented in the language of the observed participants, thus making available data that is outside of the theoretical framework.

3.3 Limitations, Risks and Mitigation Strategies

There are drawbacks to all social science research methods and ethnographies are no exception. Ethnographic research in particular relies on less standardised analysis and instead places greater emphasis on the interpretations of the researcher (Halperin and Heath, 2012, p. 302). Importantly, interpretation is also a necessary and valued aspect of ethnography: "what is interpretive of is the flow of social discourse; and the interpreting involved consists in trying to rescue the 'said' of such discourse from its perishing occasions and fix it in perusable terms" (Geertz, 1973, p.23). Halperin and Heath (2012, p. 290) describe the value of ethnographic interpretation for meaning-making as "a valuable addition to knowledge in its own right". Hence, in my analysis, I did not aim to remove interpretation but accounted as best as possible for the potential of biased interpretations on my part. However, decisions in both qualitative and quantitative research always require some forms of interpretation which can bring in biases, for example when the researcher makes decisions on what data to collect, what to retain and how to analyse it (Latour and Woolgar, 2013; Gelman and Loken, 2014; Boswell et al., 2017).

In presenting my analysis, I outline as clearly as possible the prompts or metrics of what is being measured, as well as specifying how they are drawn from the literature. Furthermore, while emotions do not necessarily dominate the research simply because it is interpretative (Geertz, c1973.), and in this case, as a researcher who has worked at the organisations I am aware that while I may have biases, I do not have an agenda to prove the success of any organisation or technique. Nevertheless, I recorded my own experiences and emotions in the field notes so I could reflect, to the best of my ability, where my own biases may have occurred. A threat to the ability of the ethnographer to interpret evidence without bias is that by immersing herself in a community, the researcher can end up “going native”. As a result, the researcher can become unable to balance between good relations and the capacity for critical analysis (Halperin and Heath, 2012, p.301). This problem could obstruct the ability to make the necessary critical and theoretical analysis of the work. I limited this risk by continuing conversations with academics, including my supervisors and within academic spaces such as conferences, so as to retain the aspects of my identity as a researcher that allow for critical analysis. Finally, I triangulated my ethnographic data by gathering observations, interviews, document reviews and comparative fieldwork together to allow for cross-analysis of any findings.

The purpose of observation is to avoid aspirational answers given in interviews and surveys; observation can counteract, to some extent, participants’ giving their desired response (Boswell, 2017). However, an ethnographer's presence can also have an impact on the organisation, especially as I was being open about my purpose which may have led the participants to provide answers based on what they perceived to be desirable (Bryman, 2004). The ethnographer may also impact what work the organisation is doing by providing information

from their research or feedback. Again, the value of ethnography is also in this ability to both observe and participate. As the researcher, I could mitigate the effect by accounting for my actions and reflecting on my role and the interactions with me within the analysis and presentation of the findings (Howard, 2002, p. 555). Another possibility was to document data practices at the start and end of my fieldwork to record differences over time and the role I might have played in causing them. However, simply finding and documenting some of the data practices itself took the whole time of my research, so instead, I examined in interviews and observations if the language I had used was being picked up and reflected in future conversations. There are also potential harms to participants, which were clearly outlined in my consent form outlined in Appendix C. Everyone taking part had the option to remain anonymous and to review anything they are named in before publication of the thesis or future publications. All information was kept in an anonymised and encrypted format.

It can be complex to draw generalisations from ethnographies. The rich and deep nature of the observed data, valuable for understanding the context, also reveals the specific aspects of the research that make it less translatable to another context. Further, the fieldwork observations sacrifice control over the situation, potentially making it unrepeatable (Howard, 2002, pp. 557-558). This is particularly true when researching technology, which provides challenges of its own. Karpf (2012) highlights that the speed of change in digital technologies, which he terms “internet time”, creates complexities for research, among which the risk of quickly becoming irrelevant because the technology it focuses on changes in the timespan between fieldwork and publication. I took great care in documenting the specific features of organisations and context, including the time and technologies in use during my fieldwork, to allow anyone looking at the

research to understand if parallels can be drawn to another context and different developmental stages of the relevant technologies. The replicability issue will also be dealt with through the comparison of the two cases, considering the commonalities and differences in each organisation.

3.4 Case Studies: A Comparison of Two Ethnographies

Comparative ethnographies have previously been used to examine attitudes and behaviours of individuals from various backgrounds and with different approaches to the same phenomenon (Blumler and Gurevitch, 2002; Burnham et al., 2008; van Biezen and Caramani 2006). Alongside the rich data of ethnography relating to values and attitudes, differences and similarities between different organisations can be explored surrounding new data technologies. The research problem has two important elements which I draw on to choose the case studies. The first element is to understand how data is used in relation to its support for either an audience-led delegate or expert-led trustee model by choosing an organisation which would be expected to predominantly act according to each model. The second element is to understand the unquestioned adoption of data logic, for which I choose two least-likely cases (Gerring and Seawright, 2007), that is, two organisations that are unlikely to have extensively adopted data logic. This choice enables this study to explore tensions around the adoption of data logic and areas where data logic prevails, even amidst a relatively hostile context. This approach also helps further scrutinize theories that have been well documented in contexts more favourable to the use of data logic than the ones I study. The least-likely case studies I focus on will help test the assumptions of these theories in a more robust way than studies of most-likely cases have been able to do (Rodriguez, 1998).

To this end, I chose two organisations that correspond to, and understand themselves as embodying, the trustee model, Tactical Tech, and the delegate model, Amnesty International. The decision to describe Amnesty as adhering to a delegate model and Tactical Tech as trustee was made prior to the start of the research. I classified these organizations based on their governance structures, style of campaigns, and public-facing materials. There has already been descriptive research on the use of data to support CSOs that mainly perform the delegate role (such as Karpf, 2017), but little on how a trustee organisation may use data undertaking the practices synonymous with surveillance. Not only can examining a trustee organisation help shed light on how they might use personal data but by comparing both, it is also possible to examine whether these practices can be distinguished as demonstrated in the framework presented in the literature review. The case studies can also help confirm how data logic is understood and performed in an organisation with older logics, helping identify when data logic is complementary with older logic or when it is contradictory and therefore exclusive from older logics, and therefore when and where data logic has influence. Secondly, I choose an organisation which was founded in the digital age, but which has an openly critical approach to surveillance, and therefore will show what values are influential when an organisation navigates the prevailing influence of data practices. Amnesty International, the delegate organisation, is a traditional organization with practices which predate the advent of data logic. Tactical Technology Collective, the trustee organisation, approaches technology with a critical approach at the forefront of their campaigns.

Amnesty International

The first case study is Amnesty International (Amnesty). Amnesty is an international non-governmental organisation campaigning for human rights. The organisation started in 1961 when Peter Benenson published an article in the *Observer* newspaper calling for an appeal to action to release two Portuguese students who he believed to be unfairly imprisoned. The organisation grew as people around the world became interested in setting up and running their own active groups with the same aim of working on prisoners of conscience and later a broader set of human rights campaigns. Amnesty's brand is well-known and their successes range from campaigns freeing prisoners of conscience to policy change such as the ratification of the Arms Trade Treaty in December 2014 in which over 100 countries signed to agree to strict rules on international arms transfers.

The structure of Amnesty International enables the organisation to perform a delegate role on an international scale. Within a federated structure, the international office conducts research, facilitates the setting of the organisation's agenda and the activities of the national offices. The international office is situated in London and five other regional offices. There are over 70 national offices around the world and members are registered as part of these offices. The majority of their funding comes from members while the rest is made up of a few specific grants and large one-off donations. The agenda is set at the International Council Meeting which is made up of around 500 delegates elected by members. Amnesty is also a case which may demonstrate tensions in where data logic is influential because they are a traditional organisation, founded in 1961, and has developed practices using traditional communication methods and accompanying logics. Further, Amnesty has run influential campaigns on the unethical use of

data in surveillance techniques from various governments. For example, after the Snowden revelations on mass surveillance by the UK government, Amnesty joined other CSOs in a lawsuit against the GCHQ for surveilling Amnesty staff. The campaigns place privacy and freedom of expression as central rights to the organisation's values and within staff knowledge when they make decisions on how to use personal data.

Tactical Technology Collective

Tactical Technology Collective (Tactical Tech) was founded in 2003 to serve human rights defenders by improving access to information about how best to engage with technology. Originally, the organisation performed a meta-role within civil society working to support other CSOs and activists in their use of technology. In this capacity, Tactical Tech's staff served as experts designing tools and resources for other CSOs to navigate the use of technology in their work, such as *Maps for Advocacy* a tool for understanding how to use online digital maps, and other online media, to carry out investigations and *Security in a Box*, a resource for activists to learn how secure their information. Recently, Tactical Technology has shifted their focus to include a public audience. For example, the *Data Detox Kit* is a public education tool on how to protect our personal data and *The Glassroom* which is a public-facing art and education exhibition for the public to learn about wider context and impact of digital technologies.

Tactical Tech's governance and finance structure enable the organisation to predominantly perform a trustee role. Firstly, the organisation is governed through a supervisory board, who approve the strategy and long-term work plans created in conjunction with the staff

in the organisation. Secondly, Tactical Tech is funded through foundations and grants in which money is provided for specific projects or core funding which supports the organisation's overall maintenance. By examining their practices, I hope to be able to test the ability of a trustee organisation to effectively engage with data practices without falling foul to the risks associated with surveillance. Tactical Tech originally worked on projects which aimed to support activists and NGOs in using technology strategically in their work. Strategically using technology involved a critical questioning of the risks involved too, which has become an increasing part of their work including creative projects on various risks of technologies such as the violation of privacy, misinformation, and the role of big-business in ubiquitous technologies.

3.5 Indicators

In this section, I describe the indicators, drawn from the literature, which I use both for guiding the collection of data and for carrying out analysis of the data. Due to the nature of ethnographic approaches, analysis is not only carried out when coding the findings but also when choosing what contexts and scenarios I should follow (Saldana, 2015). Furthermore, the nature of the research can change based on inputs from the context over the period it takes place. The object of research does not change, but the terms and indicators change based on the language and contexts of the organisation. To give objective structure to interpretive observation, I extrapolated from the literature a variety of metrics that enabled me to structure the gathering and analysing of field notes—two activities that in ethnographies often blur into each other (Halperin and Heath, 2012, p.303; Hammersley and Atkinson, 2007). In this section, I lay out the principles which guided the questions I asked, as well as detailing how I used the measurement

tools I developed. A detailed table of indicators can be found in Appendix B.

Constituency Communication: To understand whether the organisation desired to perform a trustee or delegate role when using data, I examined their perceived relationship with their audience. I looked for indicators of these patterns in the language they use around their constituents (members, activists, supporters, donors, audience, constituents) as well as where constituents sit in terms of decision-making processes, and when and how the organisations decided to interact with constituents. I also asked what members of staff considered their relationship and advantage to the audience was, as well as what they looked to benefit from when communicating with their audience. From this starting point I began to develop codes specific to the organisations - for example, at Amnesty there were commonly used terms to describe constituents based on the action they provided for the organisation, such as donors who provide donations, or action takers for those who sign petitions. These are detailed in the findings in chapter 4. Further, Amnesty regularly referenced themselves as a movement or an institution, and through these symbolic terms, I could examine the rest of their work. These concepts and labels, on reflection, fit well into the themes already set out from the literature of organisations who are staff-led and those who are constituent-led. The staff at Tactical Tech did not term their audiences so clearly leading to a need for a more nuanced approach to understanding their relationship with different audiences. Their relationship with their audience was found in examining practices, for which the participant as observer role within the ethnography was particularly useful, coded in relation to what their outcomes were in accordance with the ladder of participation (Arnstein, 1969). As is shown in chapter 5, the organisation had several

relationships from public audiences, expert investigators, partnerships with CSOs and media relationships, which they involved in different ways in their decision making processes.

Data Logic: To examine the principles of data logic, I looked to the parts of the organisation in which communication with the audiences was important and examined the tools and techniques used. This inquiry allowed me to get a sense of what I was looking for - what software they were using, what tools they used and when they were used. From this standpoint, I could look at the values, attitudes and emotions surrounding these. I focused on documenting any instances which show value in the four principles surrounding data practices: *quantification* - where anything has been described as a numerical value; *scale* - where there is a tendency to prioritise large quantities of data; *technical standardised processes* - use of algorithms or other technologies to process data; and *algorithmic reasoning* - a belief in the ability to control outputs by engineering the right process of testing or optimisation. As I examined scenarios where the data practices might be expected to be found in decision-making, I could also examine both the tools and the values that are present when organisations did not engage with data logic. The analysis was guided by the object of study - situations where data logic is present, and situations where it was not. The coding around these instances was inductive, allowing an understanding of the different values and principles surrounding the level and style of engagement with data practices. In both organisations, I was clear about the object of the research - data technologies - and would be guided immediately by people's reactions illustrating where they believed this was very clearly a part of their work, or where they believed it was not at all. At Amnesty, I examined situations where reference to data logic was present, whether it was because it was present or because it

was explicitly rejected. At Tactical Tech I examined the use of data practices in communication of a few different projects, from the strategy-setting to implementation level. My fieldwork at Tactical Tech was enlightened by the research I had previously conducted at Amnesty, so I could look to the same spaces to see if the two organisations used data in the same way.

Agents in decision-making: I also examined who was involved in decision-making with attention to the role of three agents: the technocrats, the software, and the data double. I investigated how the elites in the organisation relate to the agents, such as whether this relationship is conscious or accidental, and what values guide the decisions that lead to these relationships. For the technocrats I looked for data scientists, programmers working with the data and people who work with data-driven channels such as digital communications roles. At Amnesty, as with the instances of data logic, the staff themselves guided me in relation to the people they believed to be in control of data and those who did not. Their signposts guided my areas of analysis and methods of coding based on the job roles and practices of these staff members. At Tactical Tech, I went in expecting to find a similar division of labour among the staff, but as I ended up finding a very different language and set of relationships, I had to start with the technologies and work backwards to see who had the expertise to use them.

For software, I looked for the expected programs that had already been documented in previous literature: Customer relationship management systems, mailing lists, analytics software, and online platforms such as Facebook and Twitter. In terms of the organisations' relationships with software, I examined at what point in decision-making they were engaged with, and as a participant as observer, I was in a particularly privileged position to understand within the

process at what points and what values led both organisations to engage with different tools. As software tools are not human-agents, I did not seek to follow them, but the individuals around them, to document their attitudes and emotions when engaging with the technology.

Finally, for the data double, I looked for representation of the organisation's audiences' behaviours, demographics and opinions. I used the common understanding from the literature to know what to look for: in particular, profiles in databases, website analytics, and social media metrics (Kreiss, 2016; Karpf, 2017). At Amnesty, as I was initially assigned to a specific project, this project provided further ideas of the data double around metrics of representing the whole organisation - in line with how new CSOs use data - such as membership numbers or number of donations. These additional indicators were added into my code guide. At Tactical Tech, where quantified metrics turned out to be rare, I examined audiences and associated data the organisation used to consider what the alternatives to quantification were. I also directly questioned the organisation on why it decided not to use data to assess the values and perceptions relating to the absence of data logic and data practices. The ethnographic approach allowed me to assess the empirical validity of these claims in actual practice. In both organisations, these approaches enabled me to examine the values of those using the terms, creating codes from their terms and then creating ways to connect these to understanding themes.

3.6 The Method

An ethnography involves various tools as part of the method and generally take place over weeks, months, or even years. Various tools can be used in conjunction, which together forms

the specific ethnographic method design. The set of tools is adaptable for gaining proximity to different contexts (Ridge-Newman, 2014, p.44). The tools include overt and covert participant observation, ethnographic interviewing, memoirs, focus groups, archival research and surveys (Hammersley and Atkinson, 2007; Halperin and Heath, 2012; Boswell et al., 2017). As Hammersley and Atkinson (2007, p.45) write:

Ethnography usually involves the researcher participating, overtly or covertly, in people's daily lives for an extended period of time, watching what happens, listening to what is said, and/or asking questions through informal and formal interviews, collecting documents and artefacts – in fact, gathering whatever data are generally available to throw light on the issues that are the emerging focus of inquiry.

For this research, I will combine first-hand observation, formal and informal interviews and collection of written texts over several months in the two different organisations.

I conducted both observations and interviews to collect stories and obtain personalised detailed information on attitudes and values. The information in these stories built the picture of where I would next sit for observations and with whom I next conducted interviews. Informal conversations provide signposts for topics, individuals, groups or other contexts within the organisation that require more in-depth observation (Howard, 2002). I also reviewed internal documents to understand how information is presented and communicated between the individuals under observation as well as their conversations and behaviours. I considered each source of data I observed - individuals or groups, official documents and informal texts such as emails - as agents and actors in their own way that interact with others within the organisation. The observations were collected through the traditional method of field notes. I wrote notes every day reflecting on my role as a researcher, what I observed and what I believe this meant. I

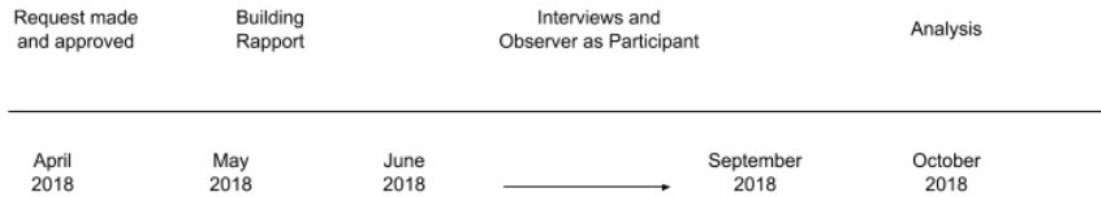
used indicators described later in this chapter to guide what contexts I pursued and which people I chose to interview.

The stages of the research were gaining access, building rapport, observation, interviews, and analysis. At Amnesty, I had access to the organisation for three days a week for six months. This stage took place from September 2017 to March 2018, as shown in Figure 3.1 below. In December, I was not able to conduct research as consistently due to the holidays of staff, as well as my own. At Tactical Tech, I carried out research from their office in Berlin over three days a week for four months which took place from May to September 2018, as shown in Figure 3.2. There was a time before each of these ethnographies took place in which I was in contact with the organisation to gain this access. The analysis took place after each ethnography ended.

Figure 3.1 Timeline of research method carried out at Amnesty



Figure 3.2 Timeline of research method carried out at Tactical Tech



Gaining Access

The first stage of the research was to gain access to the organisations which, given that an ethnography can be quite invasive, can be difficult (Hammersley & Atkinson, 1995). At Amnesty, I had previously worked at the organisation from August 2011 to August 2015. My previous connections with staff and knowledge of how the organisation works gave me an advantage in first accessing someone within the organisation. I initially sent my proposal to an ex-colleague who worked there to ask for their advice on my approach. They advised that I changed some of the language to be more in line with the current internal language of the organisation - referencing specific audiences and teams such as the growth and membership team. I then contacted a senior manager with the revised proposal, with the aim to gain

permission from the managerial level. This approach had two advantages, firstly, to ensure that the research had consent from someone who could represent the organisation and secondly, to ensure that I carried the authority of management if anyone was nervous about my presence in the office or meetings.

The senior management met me with another staff member who worked on technology education for the organisation, and who as a result they believed would be most relevant for my research, to discuss what my research would entail. The staff were concerned that I would not have anything to do once inside the organisation, and would require their time to support me, but I reassured them by explaining that I would make contacts myself and do my own desk research. So they would understand where I would be working, I was placed as an observer to a specific project, named “Goal 5”, that staff thought most relevant to my research. Starting from this meeting, I began taking notes as part of my observation. Though the staff accepted my role as a researcher within the organisation quickly, logistical issues such as identifying who would be the main contact for my work and providing me access to the building meant it took almost two months before I could officially start the research.

At Tactical Tech, I was already in touch with the organisation because I had previously carried out a few days of research work for the organisation at the end of 2017 and the start of 2018. In March 2018, I approached the organisation, with less knowledge of the staff as I did at Amnesty, but already with a contact, and asked if I could carry out research with them from their offices in Berlin. In this case, I provided the manager with an overview of the aims of the research. The manager agreed, saying that they assumed I would not be able to do too much as they do not use analytics very much, but that they welcomed transparency. I took this

information on board to note the usefulness of a least likely case who are open to discuss their rejection of data logic. The agreement involved me continuing work at the organisation during the three days a week I was also carrying out observations, and I, therefore, travelled to Tactical Tech's offices in Berlin. From this meeting, I began to take ethnographic notes.

Building Rapport

The next stage of the research in both organisations was to generate rapport with the staff. This endeavour required impression management, in which I ensured the staff trusted my intentions and were comfortable with my presence (Gengler, 2018). At Amnesty, the offices are over four floors and there are over 100 staff. I sat on the fourth floor with the team I was allocated to and within that space, I reintroduced myself to old colleagues and I introduced myself to anyone I did not know. I would explain my research in a broad way which I perfected over time, to allow both those with technical and non-technical expertise to understand why I was there and what I was doing. This introduction described my interest in how the organisation uses data such as from online analytics. I spent some time in the first few weeks conducting desk research, allowing the team to become used to my presence. During this time, I was also presented with introductory documents such as team overviews and templates used by the team. However, it took a couple of months before I was invited to any meetings. This lack of access to meetings was because of the sense that the meetings would discuss sensitive topics that I was not yet to overhear and because the staff were often busy and would not invite me to a meeting unless I requested access.

The Tactical Tech office is smaller, with between 25-30 staff over two floors. When I began, I sent an email to all staff to describe my background and my research, also ensuring

everyone knew I was available to talk if they had any questions. I went for lunch with staff members to get to know the team, and the staff members often approached me first. As I had just recently done work with the office and continued to work on projects while there (described further in the next section), many of the staff were keen to get to know me in relation to these projects, and during these meetings, I would also begin discussing my research. I introduced my research with the same broad description I used at Amnesty and found that people at Tactical Tech were often quick to provide their own opinions which turned into conversations about research, data and transparency. Both Amnesty and Tactical Tech welcomed the transparency that my research could provide on their activities and were keen not only to support my research but to understand its meaning for their own work.

Observer as Participant and Participant as Observer

As Delamont (2004, p. 218) writes, ethnographies are about watching and interacting with people to understand what they are doing, thinking and saying in order to capture how they understand the world. To do this, I carried out first-hand observation in both organisations. First-hand observation within an ethnography allows the researcher to create a systematic description of behaviours in a certain context, such as within a community or organisation (Howard, 2002; Brewer, 2000). To carry out observations, there are various roles a researcher can take in an organisation, outlined succinctly as four types by Gold (1958). The complete participant is a member of a community and conceals their role as a researcher from the group, allowing covert documentation of their behaviours and preventing any changes that might happen due to the awareness of an observer. The participant as observer is a member of the community and the

group is aware of them as a researcher. In this case, the participant participates in activities as part of the group and can engage with the values of the group through these methods, but the group are aware of their role as a researcher. The third role swaps these terms as observer as participant. The researcher can be in the same spaces and activities as the participants but she is there predominantly to observe rather than to participate. Again, with this role, the participants know that the researcher is there but do not consider her as one of them. Finally, the complete observer is hidden from the participants in some way and watches their activities from outside. In this case, the participants will not know the research is being carried out and the researcher cannot interfere with the participants' activities.

For this research, I take on both the role of participant as observer and observer as participant at Amnesty and the role of observer as participant at Tactical Tech. I took on both at Amnesty as the opportunity arose later in the research to take on the second role as they offered me work for a month. I took on the role only of observer as participant at Tactical Tech as this was the prerequisite for the access to the organisation, but this also allowed me to get more involved in meetings and decisions from the start and allowed for a shorter time to integrate into the practices and begin observation. The roles allow me to embed myself within the community of the organisation so I can observe not just the outcomes or face value of decisions but also understand the beliefs at the heart of them. I can ascertain the meaning of signals not just in the content of language or emotions which align easily with the content expressed, but also the nuances of their cultural expressions. These two roles allow me to interact closely with individuals in the organisation, and understand group activities, without becoming overly involved or depended upon by the organisation (Adler and Adler, 1987). This involves active

observation, informal conversations and detailed field notes (DeWalt and DeWalt, 2002). I also did not wish to go for either observer role which would involve observation without making myself known as a researcher. This is, in part, this research is important to me partly because of my own concerns regarding privacy. I am aware that to examine the collection and analysis of data, I too must go about the collection and analysis of data. To carry out the collection of data from anyone without their consent, which under no circumstances I could argue would be proportionately necessary, would go against the principles I have highlighted in the literature review.

At Amnesty, between September 2017 and February 2018, I took the role of participant as observer. I spent most of my time sat with the strategy end evaluation team on the fourth floor, which was close to the fundraising team, and due to this spent most of my time with these two teams. I then managed to have interviews or join meetings with digital communications, IT, and campaigns. It took just over a month before I was invited to meetings, and overall, attendance to meetings was restricted, partly down to a desire to ensure the meetings could flow naturally and discuss sensitive content without an observer, and partly due to my ability to push for more information and access, which increased as I became more embedded in the organisation. I was initially invited to some meetings relating to the original project I had been assigned to and an additional two meetings relating to data plans. When I did attend a meeting, most documents relating to it were shared with me.

During March, the strategy and evaluation team at Amnesty asked me to carry out some qualitative data analysis on the annual organisational evaluations, at which point I became an observer as participant. The team already had a budget set aside for extra resources during the

analysis stage and asked me to perform these tasks as I had been sat with the team during the last few months. I carried out analysis over a few weeks, sitting and working with the team. This helped me gain access to meetings that I was not able to see before and to take part in a day-to-day task they have allowed me to understand the organisation's decisions from within the process. I continued to journal every day reflecting on the critical questions arising from my literature review to remain focused during this time. There was little perceptible change in the staff's attitudes and behaviours expressed around me but there was more access to meetings and decision-making moments.

At Tactical Tech, I took on the role as observer as participant during all four months. Taking an observer as participant role allowed me faster access to meetings and a shorter time to build rapport. As the office is small I found myself able to talk across all teams - which are organisational, cross-project or project-based. As I was also working at the organisation, I attended all staff meetings and all meetings around the one project I worked on as a researcher. During the time I worked three days a week in the office simultaneously carrying out research and working for the research project. I carried out the tasks set for the work objectives I had, interacting with data myself when it was part of the expectations of the job role. I used my position to embed myself in the context and observe other teams and focused the field notes on my reflections on the values and culture in the organisations, and the observations of practices of teams and projects around me. Spending no time at all as participant as observer, I found it hard to separate myself from their values and the consequences based on the literature described in the analysis section.

Interviews

I used semi-structured, open-question interviews both to discover what areas might be of interest for deeper discussion and observation and to unpack participants' attitudes and uncover actions within processes that might not be visible. I used open-ended questions which are useful to allow the participants to reflect their point of view in the way they would prefer to, framing knowledge in their own way, and consequently also providing space for them to reveal unexpected details (Aberbach and Rockman, 2002, p.674). At Amnesty, I conducted 21 interviews, varying in formality depending on the seniority of the individual. The more senior the role, the more the format adhered to a traditional question and answer format, whereas members of staff who were less senior were comfortable enough to have a more relaxed discussion. The flexibility of format and venue for interviews supported comfort and ease of communications, ranging from in a local coffee shop or within a meeting room at the organisation. At Tactical Tech, I conducted eight interviews, which cover a third of the staff, with the same structure of questions as at Amnesty and varying in the formality of location depending on the seniority of the individual, again from cafes to meeting rooms, based on their preference. The interviewee list for both organisations can be found in Appendix A. The questions which I used to initially guide the interviews were guided by the indicators, explored in the next section.

Analysis

Ethnographic research leads to a body of evidence generated and analysed through indicators. The final corpus of texts which I analyse includes a collection of field notes from my observations and interactions with staff, documents from the organisation, and the transcripts

from the interviews with staff. Every few days I would write a journal entry to reflect on what my findings so far might mean, where to guide my next actions as well as my role as an ethnographer. These indicators guided the questions I asked in interviews and the areas I tried to observe in the offices of both organisations. Finally, the indicators guided my analysis, in which I begin with a theory of the framework and the data agents, building from the literature. The choice of ethnography allows to explore and interrogate the data before and after it is coded, including the aspects that contradict the theory and expectations, and thus allowing for the development of theory, and therefore themes, as the research continues. This combination of top-down deductive and bottom-up inductive analysis was crucial to help develop new concepts and theory, as well as testing existing ones. I iteratively coded the written up-interviews, field notes and documents as I incorporated them into my corpus. I do not, in the final analysis, quantify the coding. The codes mainly constitute a guide for connections between themes, practices and values. While it may be significant if a code appears far more than another, I present these results with the context which gives them significance. If something only appears once, I look to see if it is an anomaly or culturally important, albeit rarely made explicit, through the analysis of values available due to the nature of ethnography research. This endeavour became more difficult during my time at Tactical Tech in Berlin, which was further away from the academic community I was a part of, and when I finished the research it took a while to take space from the notes to analyse their meaning.

3.7 Summary

I have shown how an ethnographic approach is best suited for this research, as it attempts to

assess the use of data practices against different organisational and societal desired outcomes, evaluating attitudes and values against behaviours and activities. I have shown how the two case studies of Amnesty and Tactical Tech compare against the framework and discussed their appropriateness as organisations to examine. I outlined which tools of ethnography I have selected and how I went about using them for my data collection. I set out the indicators, drawn from the literature, that is a descriptive guide for collecting and analysing data from field notes, interview questions and coding. I also reflected on the limitations of this research, including my own experiences.

Chapter 4. Data Logic and Political Representation

In this chapter, I explore the findings of the first research question: are both expert-led and audience-led models in CSOs communication practices supported by data logic? The literature review revealed that research on the nature of data logic within political communication focuses on either one of these approaches, expert-led or audience-led. Firstly, critical data studies and surveillance studies literature describe how the uptake of data technologies is innately connected to data collectors using the techniques to monitor and control an audience in an expert-led model (Tufekci, 2014; Lyon, 2015). Yet, Karpf's (2017) *Analytic Activism*, and digital membership organisations themselves, are optimistic about the use of data to support audience-led activism. I draw on the responsive leadership theory, which consists of the trustee and delegate models, to understand the nuanced benefits and disadvantages of the expert-led and audience-led models respectively. While all organisations are expected to enact both models at different times under 'responsive leadership', I have chosen two organisations and each predominantly corresponds to one of the two models. Tactical Tech has the structure of a trustee model in which decisions are made by professionals and they are funded by grants given from other expert-run organisations, whereas Amnesty has the structure of a delegate model whereby the staff facilitate the members to contribute and lead decisions on the strategy, and the organisation is mostly funded by members of the public. By examining an organisation more closely aligned with each model, it is possible to understand whether both models are supported by data logic and what values lead the

staff in the organisations to use data logic to support either model.

The findings demonstrate how the balance between the trustee and delegate models is achieved and maintained differently in the two organisations. Understanding this balance provides a starting point to delve into the other findings regarding the different data practices within the organisations. While both organisations did predominantly align with the expected models, Tactical Tech with a trustee model and Amnesty with a delegate model, both organisations also demonstrated a responsive leadership model, where they undertake delegate and trustee functions in different contexts. Understanding what the organisations choose to take into account when choosing which role to support with data-driven methods builds nuance, from the organisation's perspective, into the benefits and disadvantages of the expert-led and audience-led models. Both CSOs want to listen to certain groups who are already on board with their overall mission to guide their strategy, and in these cases perform a delegate role, but that organisations believe there is an advantage to persuading people to demonstrate support for the decisions they have already made and those who do not already agree with them, in a trustee role. This is a useful starting point, given that most literature so far has focused on the benefits of technology for audience-led models in CSOs such as Karpf (2017) and Dennis (2018). This research begins to build the theory and justifications for the use of data-driven technologies to support an expert-led, trustee approach for CSOs.

Neither organisation uses methods reliant on elements of data logic to support top-level strategy decision making in either the trustee or delegate models. The findings reject the concept that data-driven practices have become prevalent such as is presented in the theory of surveillance realism (Dencik et al., 2016) as resistance to these data-driven methods is at least

apparent in both these organisations at the top level of their strategy. However, both organisations use data-driven methods to support some elements of their work in which they carry out the trustee model, particularly at Amnesty. These findings support one argument of the critical data studies and surveillance literature, (Lyon, 2015; Tufecki, 2014; Clarke, 1997), that when data collection and analysis are undertaken it will always be used to reinforce the power of the data collector. This also challenges the claims of new CSOs documented in Karpf's *Analytic Activism* (2017), that their ability to be audience-led is founded in tactics reliant on data-driven technologies. While new membership organisations purport to use data to support their delegate model, the audience-led organisation, Amnesty, does not utilise data-driven methods to perform a delegate role. Instead, Amnesty relies on traditional deliberative and qualitative practices. Tactical Tech who predominantly functions within the trustee model, do not use data-driven methods in most of their work. Instead, Tactical Tech relies on their staff's intuition and expertise. Tactical Tech does use data in a few specific moments to support their trustee model, specifically to represent their support to external funders. Amnesty, however, uses data-driven methods actively to support most of their work when they perform a trustee role, specifically to increase the number of people they represent and to support their fundraising strategies.

The final set of findings describe how the organisations decide when to use, and not use, data-driven practices to support either model. Staff in both organisations recognised how data-driven methods could support either delegate or trustee models. However, based on their respective models believe that data would encourage the negative aspects of these models: using methods driven by the accessibility to large quantities of personal data available online in their strategies would lead to a populist-driven approach to topics lacking a deliberative approach

which could incorporate minority views in the delegate model, and a manipulative, coercive and opaque leadership in the trustee model. This awareness of the normatively more troubling sides of their respective models, and how data-driven practices may lead to these sides, is important for recognising that not only is there an active aversion to data practices in some spaces, that there are various ways to carry out an audience-led organisation, in which the direct democracy of technology may not be the right approach. The findings also demonstrate how the trustee and delegate models are useful for not just understanding how the organisations perceive their own roles, but also the risks of those roles when employing data logic.

4.1 The Internal Balance Between the Trustee and Delegate Models

The ‘responsive leadership’ theory proposes that a political representative will carry out the trustee and delegate models in different contexts. Amnesty predominantly take a delegate role and have audiences who they listen to in that role, but they also take a trustee role at times to mobilise people to support the decisions made by the former group. Amnesty’s relationship with each of these audiences is defined in their strategy document, using their own terms, and managed by different teams. Tactical Tech predominantly takes a trustee role, in which the staff make decisions and inform and mobilise partners, media and the public but at times some partners take more of a dominant role in designing strategy or creating a product at which point Tactical Tech take a delegate model. The times the staff in either organisation take on each role is dependent on team members skills, type of product and aim of the project and is therefore different in each context. The process of distinguishing the moments different roles are taken is important to understand how each is then associated with different data practices and the benefits

of each model for the organisation.

Amnesty details the definitions of their different audiences in an internal document called the standard action report (SAR) guidance notes. These guidance notes are used by national offices to help them fill in standard action reports which are annual reports to the international office to provide information on their “impact, growth and accountability” (Amnesty, 2016b). This information is used by the strategy and evaluation team at the international office in their monitoring and evaluation of Amnesty’s work. The audiences outlined in this guidance note are members, donors, activists and followers. The distinctions between each of these audiences are outlined below. Amnesty play a delegate role with, in their terminology, members, and sometimes activists and beneficiaries. With donors, followers, and again sometimes activists and beneficiaries Amnesty performs the role of trustee.

Amnesty perform a delegate role, predominantly with their members. Members are defined by the statute of the organisation and are formally given a role in the governance of Amnesty. According to the statute, Amnesty defines their members as (Amnesty International, 2017):

A person who contributes to and shares the Vision, Mission and Core Values of Amnesty International may become an individual member:

- a. by joining a section or structure where they live and paying a membership fee (if applicable) to that section or structure; or
- b. if there is no section or structure where they live by paying a membership fee (if applicable) to the International Secretariat, to become an international member.

There are three steps to obtaining the status of member: registering interest in doing so,

donating regularly, and providing a single identifying piece of data such as an email address. In some cases, for various reasons, the fees are waived. In this way, the member-led nature of Amnesty International begins from a different starting point to the new CSOs: members in the new CSO structure usually only have to register interest and give over a contact detail. Furthermore, and significantly, an Amnesty member is defined as “a person who contributes to and shares the Vision, Mission and Core Values.” (Amnesty International, 2017). Through this statement, Amnesty already secures a membership who aligns with their core values. A senior manager in their governance team reiterated the importance of this in an interview. He said they must “adhere to amnesty” and “contribute to amnesty” (Interview 5190). The organisation is happy to directly represent these individuals’ opinions through a delegate role.

Secondly, Amnesty takes the role of delegate only sometimes with ‘action takers’ or ‘activists’ (hereon referred to as activists) who are defined as individuals who are interested in the organisation, have taken an action (such as sign a petition) and have permitted for Amnesty to contact them (Amnesty, 2016b). These people are not members as they have not fulfilled the requirement to register as one and/or donate. This audience is usually connected with contact data such as an email address, social media account, mobile phone number or postal address. Activists are mostly, however, treated as constituents who do not make decisions but support the organisation with whom the organisation play a trustee role through education and mobilisation practices demonstrated in this chapter. Some people might take action, such as by attending protests, but who have not handed over contact details and are therefore not included in this audience for Amnesty. If these people have been recorded, it will as *followers*. Followers are defined in their SAR action report guidance notes as “People who are interested in the

organisation and human rights issues” (Amnesty, 2016b). Examples are provided in the document to explain that this definition includes Facebook fans, Twitter follows, and YouTube subscribers. The organisation performs a trustee role with this audience.

The organisation also performs the trustee role for the audience defined as donors: “ALL individuals, major donors, and trusts and foundations that have contributed financially within the year of reporting” (Amnesty, 2016b). There is a lot of overlap between donors and members: to be a member you have to donate regularly, and if you donate regularly, you only have to register interest in becoming a member to become one. The guidance notes confirm the overlap by clarifying donors includes members who pay their membership fees. Different teams in the organisation manage the relationship with the different audiences, even when it is the same person. For example, someone who is a member and a donor may receive some communications from the campaigns teams and different communications from the fundraising team.

The audiences at Tactical Tech are not defined in a single clear document as Amnesty’s are but instead described in different documents and within the staff’s values, uncovered in interviews and observations. This is partly because they are a smaller organisation. This is also partly as a trustee-presenting organisation they do not need to clarify decision-making processes for the sake of internal or external communications or to distinguish the role of members from other audiences. Tactical Tech staff take either a delegate or trustee role depending greatly on the project and staff members involved. Whether the staff performed the functions of a trustee or a delegate role changed per project, or even within stages of a project, rather than between clear teams or audience titles. The values and skills of the staff also influenced how they would engage with their audiences.

At Tactical Tech, the co-directors create the strategy with input and approval from the board and staff, and the management and staff decide together on what new projects will be carried out. Even if the staff engage with partners or stakeholders such as other CSOs to include them in decision-making, the staff still have the final formal decision. For example, in some cases, partners are consulted to understand their needs or to contribute content to a project, but ultimately the staff are the experts who design and approve the overall project outputs. Tactical Tech also performs the role of trustee with a broad public audience. This audience includes website visitors, people who follow them on social media, and attendees to their events. The public audience is quite new at Tactical Tech but becoming more important as the organisation increases the number of public-facing projects, addressing the perceived need to normalise issues of technology at a public level.

Tactical Tech does perform a delegate role in certain circumstances with partners such as trainers, tech activists and other experts in the field and intermediaries who can disseminate the work further. The organisation works with these partners as a delegate to enable them to be involved in the creation of projects. For example, in the strategy-setting stage, some partners may be involved in co-designing and creating products, described throughout this chapter. Secondly, in implementing the work or materials, the organisation would sometimes turn to partners to understand how they like to co-opt the materials into their plans giving them control and working for them. As a communication officer said in a meeting “Tactical Tech mobilises but it isn’t the movement itself” (Observation Day 10). The organisation relies on partnerships with organisations who have larger audiences who incorporate Tactical Tech’s work, which through a partnership is accountable to Tactical Tech but not managed by Tactical Tech, and as

such Tactical Tech performs a trustee role when preparing the content, and then a delegate role where partners design for themselves the outreach of the materials.

4.2 Data Logic Absent in the Delegate Model

Both organisations reject methods that demonstrate elements of the ideal type of data logic when making decisions about their strategy. Both organisations, instead, set their strategies using methods which demonstrate elements contradictory to those of data logic. Amnesty, the delegate organisation, uses qualitative and non-standardised deliberative methods to involve their members in decision making. The use of these methods is something seen in both their practices and in interviews. Tactical Tech, the trustee organisation, relies on the expertise and intuition of staff to create their strategy. Again, this is both seen in the observations of their practices, as well as in interviews.

As the new data-driven practices are publicised to support new CSOs in performing a delegate role, if they are influential, Amnesty would be expected to engage with the same principles to support their delegate role. To examine whether the elements of data logic can support a delegate model, I look for two sets of characteristics. Firstly, I look for features and manifestations of the principles of the ideal type of data logic in the organisations' practices, work plans and values. Secondly, I look for language and practices which demonstrate their approach to their audience, specifically looking for descriptions of audience-led approaches such as involving members opinions in strategy setting, empowering members and activists to run their own campaigns, and demonstrating accountability to the membership. The prompts for

observations and interview questions were open and allowed the organisations to frame the relationship with their audience in their terms (see Appendix B). I found Amnesty, as expected, predominantly takes a delegate role. They perform this role, as will be shown, with little use of methods of data logic and at times a clear rejection of the principles of data logic. Instead, Amnesty facilitates member-led decisions through the collection of opinion through traditional qualitative and deliberative approaches to integrate different opinions of staff and members. The observations and interviews at Tactical Tech demonstrate that staff sometimes take a delegate role, although usually with a small expert audience of partners. I will discuss this briefly in this section to demonstrate the commonality that the methods they use to perform the functions of a delegate are irreconcilable with the principles of data logic such as using face-to-face collaborative discussions to design strategy and outputs.

Amnesty's long-term strategy is created and decided upon through an approach which is dependent on deliberation and qualitative methods, both of which are contrary to the principles which make up the ideal type of data logic. The methods the staff facilitates with their constituents are face to face discussions in which both the conversation and decisions are captured in minutes, summary notes or other formal documentation such as written recommendations, decisions, resolutions or policy documents. Deliberative conversations are held with various stakeholders including experts, staff or volunteers, beneficiaries, activists and members to discuss the strategies together. These stakeholders then create collaborative documentation in which draft policies and strategies are proposed and other people can contribute to the content. I will show how they use these methods, contrary to those found in organisations engaging with data logic, to support an audience-led approach to creating their

international strategies, national strategies and in some cases in designing their campaigns to implement the strategies.

Amnesty's long-term international strategies are referred to as their global goals. At the time of writing, they have five global goals for a four year period from 2016-2019. These cover all aspects of the organisation's work, from research, to campaigns and operations, and are titled and summarised by Amnesty as (Amnesty International, 2016):

- Goal 1: reclaiming freedom: "A world in which everyone knows and can claim their rights"
- Goal 2: equal rights for all: "A world in which human rights and justice are enjoyed without discrimination"
- Goal 3: responding to crises: "A world in which people are protected during conflict and crises"
- Goal 4: ensuring accountability: "A world in which human rights abusers are held accountable"
- Goal 5: maximising our resources and engagement: "We will be a truly global human rights movement of people defending human rights for all".

These five global long-term goals are set at a bi-annual International Council Meeting (ICM). This is the first method documented in which the organisation takes an approach which is traditional and not influenced by data logic. The ICM happens every two years and had taken place the summer before I began. The details of how the ICM works were described to me in

interviews, informal discussions and seen in both internal and public-facing documentation.

I conducted my research at the international office of Amnesty, where the staff are responsible for facilitating the creation of the international strategy including the running of the ICM, evaluating the progress, impact and success of Amnesty's work as well as for conducting research and ensuring the cohesion of international campaigns. There are over 70 national offices made up of staff and volunteers, who are accountable to both the international office and to their national members. The ICM is attended by a few select members from the national offices. Between these members, staff from the international office and guest experts, approximately 500 people attend the ICM.

Elected members and experts come together to form working groups across the different topics the organisation has been working on and is thinking of working on in the future. In these working groups, the group discuss and negotiate from their various positions to incorporate their opinions and develop ideas ultimately creating draft strategies and policies around certain topics. These meetings are also where members make decisions around governance and accountability, such as electing the board, reviewing finance and defining terms such as *member* or *local group*, which affects who can take part in decision-making and who can represent the organisation. On the final day of the meeting, members vote as to whether to accept or reject the decisions and policies. This deliberative small-group approach is far from the quantified format, large-scale of input and standardised and algorithmic reasoning approach to producing information of data logic.

Furthermore, the national offices take these strategies and plan for how to achieve these

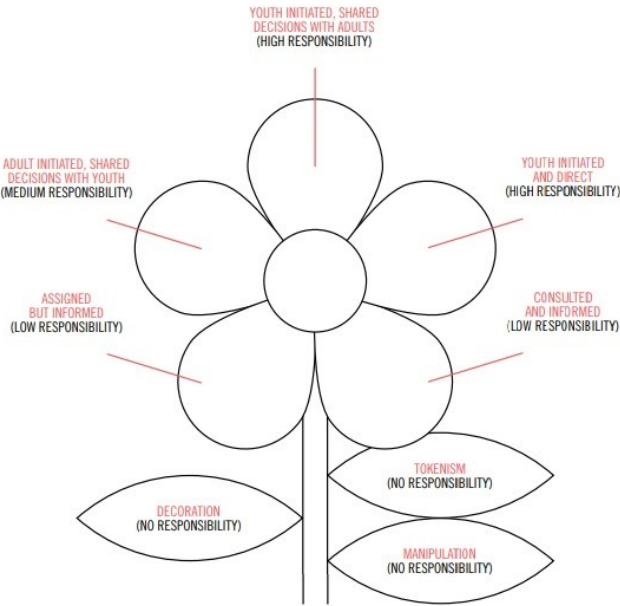
overarching goals. The national offices of Amnesty consult with their members through various forums, especially annual general meetings (AGM), to make decisions on what campaigns to run. These AGMs also take the format of face to face discussions and collaborative documents between the board, staff, members and other stakeholders they might choose to bring in, including activists or beneficiaries. The outcomes of these AGMs are captured in formal written documentation such as resolutions and policy documents. These documents are created through collaborative processes, which again, display an approach which is not standardised nor formulaic to perform a delegate role, and not demonstrative of the methods or principles of data logic.

The international and national strategies are implemented through various functions within the organisation including research, campaigns, fundraising and activism. While I chose to investigate Amnesty as an organisation demonstrating a delegate structure, in observations and interviews it was clear that the performance of the delegate role is not omnipresent at the implementation stage of the organisation's work and instead sometimes the staff within Amnesty take a trustee role. There were few consistent factors or, through the scope of my investigation, observable factors which influenced the choice between delegate and trustee role of the staff. This mostly seemed to relate to a combination of the skills of the staff member, the value they placed on the importance of involving their audience, and whether the staff had the time. In this section, I will describe those staff and projects which followed a delegate model, and later in the chapter address those which followed the trustee model.

Amnesty's method for carrying out the delegate role at the implementation level of their campaigns is institutionalised in a single common term, active participation, used across internal

documents, and through the appointment of a staff member to be responsible for supporting active participation across campaigns. Active participation is a collective term for a set of methods which are used by staff to consciously involve constituents as closely as possible in decisions in creating and implementing campaigns. They also have other tools and forms for promoting work. For example, in a toolkit produced to support national offices in their relationship with youth constituents, they present a flower of participation, seen in Figure 4.1 below, created based on the ladder of participation to show the different levels of involvement of a youth constituent to encourage medium and high responsibility from the constituents (Amnesty International, 2018). The top-level petals are high responsibility, and it describes the lack of involvement quite harshly, such as tokenism, decoration and manipulation.

Figure 4.1 The Flower of Participation from Amnesty’s Toolkit for Youth Strategies outlines the possible levels of involvement of youth-constituents in decision-making



In interviews and informal discussions staff discussed the use of many different methods to encourage their constituents to take high responsibility, all of which as qualitative and deliberative as those used to set the strategy. Some of the main techniques they described include focus groups, long-form communications through email or face to face conversations. The staff then use the information they gather through these methods either to create the necessary content or services or to create forums or spaces for the constituents themselves to create and share content and services. These practices are qualitative data collection approaches, antithetical to the quantitative metrics of social media or website analytics. The processes are also unique to the project, staff and individuals in the audience involved, rather than the automated processes which are standardised and based on algorithms. The practices engaged with to perform the delegate role at Amnesty are far from the principles of data logic.

Although Tactical Tech is predominantly a trustee organisation in structure, I observed some projects in which the staff performed the functions of a delegate. Team members also referred to decisions being made by partners or the significant contribution of communities and networks in interviews. One staff member from the management team referred to some of their projects being “beneficiary-led” (Interview 29478). The staff often have formal partnerships with MoUs as well as more informal relationships with networks. The partners are people or organisations who work on related topics, and whom they work with across all their projects at different levels with shared decision-making power. Tactical Tech holds a bi-annual retreat outside the offices to discuss strategy and organisational processes. At one retreat, during a discussion of the necessary aspects of the grants, a staff member who works on the grants and funding said that “our theory of change is working with partners” (Observation Day 30). The

partners are also experts rather than a mass public audience, such as another CSO, a public institution such as a library or a media organisation. Although overall the organisation retains a trustee model through this approach, as these partners are other experts, the staff perform a facilitating delegate role with the partners and I examine these situations to look for similarities or contrasts with Amnesty's values.

Tactical Tech staff also use traditional methods, based on principles contrary to those of data logic, to carry out the functions of a delegate model. When consulting with partners to set the strategy Tactical Tech uses a loose set of methods including to host discussions and face to face meetings where the partners come together to design and create products including deciding what content is needed, writing the content and deciding the needs that will determine the format of the content. The organisation takes the role of delegate often in projects which involve the creation of tools that help other CSOs and activists. These tools include Gendertech, an online education platform which shares resources and workshop plans on gender and technology, and 'Security in a Box' which presents different tools to be used for digital security (Tactical Tech, 2019). In two projects similar to the concept of these projects, I observed during my time at the organisation. The staff held a face to face workshop, run in a series of *sprints* (Interview 01938), named after the tool from the project management technique, Agile, which emerged from the technology field. Sprints involve face to face workshops where they invite people either through open calls, or through their activist networks, and then the participants produce the final product as a group. These sprints are not standardised and small scale unlike the principles of data logic.

For other projects, Tactical Tech hands over decision-making power at a later stage of implementation, producing content which they make accessible for people to adapt, rather than

controlling where and how it is used. The staff send materials to other organisations for them to re-design and re-create, as they feel it is important to delegate decision-making around implementation to the partner's discretion. Tactical Tech remains open to requests for different formats and makes their projects available for download to be adapted and modified as wished. Furthermore, when it comes to dissemination they translate based on partners requests and work with partners to make sure the content is relevant using locally relevant examples and assuring the language is inclusive of the audiences which the constituents themselves guide in decision-making. In particular, by waiting for requests from partners, the staff are not using the deterministic algorithmic reasoning of data logic, but an approach based on whether other people decide to get in touch. The dissemination of their content is done through relationships and conversations, rather than standardised and deductive methods.

Amnesty have formal qualitative methods including annual or bi-annual meetings for setting the strategy and an active participation approach in some of their projects at the implementation stage. Tactical Tech performs a delegate role in some of their projects by involving partners at the design and creation stage, and in some projects allowing for control over the use of the final product. Both Amnesty and Tactical Tech, when carrying out a delegate role, rely on small-scale contribution, deliberative and qualitative methods including discussions and meetings which are captured in internal documentation. These methods are based on principles which oppose those of quantification, scale, standardised processes and algorithmic reasoning which make up the ideal type of data logic, showing how data logic is now engaged with to perform a delegate model.

4.3 Data Logic Absent from the Trustee Model

Some critical data studies and surveillance studies literature argues that not only is data logic becoming ubiquitous, but that these data-driven ways of working are synonymous with surveillance methods which are used to manipulate, subvert or pacify constituents to achieve self-serving aims of political representatives (Tufekci, 2012; Dencik et al., 2016). I presented the trustee model to present a view of an accepted expert-led approach, the trustee model in which expert staff provide information constituents need and take control over decisions on the basis that this has been entrusted to them. Tactical Tech has a structure which supports a trustee model: they are funded by grants, staff have control over decisions on the strategy and project plans and they are only accountable to a supervisory board. Tactical Tech, however, does not use data logic in either the acceptable realms of the role of trustee or in the ways which are criticised. Instead, the staff rely on their own expertise and intuition to make decisions. As with the delegate model, findings from Amnesty also show a few ways in which they take on a trustee role show and in which they also utilise intuition and expertise instead of data-driven methods to support and test their decisions.

Confirming their performance of the trustee role, a manager described their choice of a staff-led structure in an interview by way of comparison as to why they decided not to have a membership when founding the organisation (Interview 61394):

at the beginning we knew we didn't want to have membership...we wanted to maintain Tactical Tech to be fully flexible international organisation and we've seen a lot of membership organisations whose flexibility, was maybe not compromised, but minimised to satisfy a certain type of membership and we thought that's fine, that's how you decide to run the organisation but we thought for us to be able to move from topic to

different topic we can't do that.

The founders' reason for their decision to not have a membership remains to underpin how the organisation works: the staff make decisions about which topics to work on choosing them as they go, rather than having a membership deciding an overarching long-term strategy. Projects are chosen through the direction of the senior managers' decisions based on the capabilities and expertise of staff and grant opportunities. The senior management makes final calls which shape the organisation's choice of grants and final project outputs. The result is several different projects across different grants running at the same time, where ownership is between staff members and one of two senior managers and is accountable to the board and the relevant grant organisation.

Staff trust the guidance from management who use intuition, built from their experiences and knowledge, to choose what to work on next. Various staff members confirmed this trust in the manager's ability to recognise trends in various informal conversations, and engagement with work from staff often comes with a recognition that the topics they are working on are not just topical but at the forefront of discourse. For example, in one interview a one project staff member said: "the organisation has the reputation it has because it has been able to uncannily pick the next project" (Interview 15398). The staff member goes on to describe the choice of the managers to create a project, *The Glassroom*, in 2018. The project aims to make discussions of technology easy to engage with through art in a public exhibition and comes about at precisely the time the topic becomes a public issue. Staff at Tactical Tech were observed to also make decisions based on their expertise. This does not utilise methods of algorithmic reasoning to make the decisions or any standardised processes. The lack of data-driven methods at the

strategy-setting stage is not unexpected for the trustee model where experts make decisions, whereas data is usually representing the audience, and therefore would be used by trustees in the stages of implementing and communicating these decisions, and evaluating their success.

Tactical Tech does not look to profile and target people with the data - the methods associated in particular with the negative aspects of a trustee organisation, which can be used to subvert audiences by targeting some with personalised messaging and ignoring others. In reference to these techniques, one staff member who worked on the website describes the mass amount of data used in startups and the music industry to test and follows up with “tactical tech just fundamentally disagrees with a lot of that” (Interview 15398). Their reasons for disagreeing are discussed in detail further in this chapter. Surrounding their decisions about how they conduct outreach of their content, products and services, the staff trust that as their content is good, interested people will come to them or will be amenable to being presented with information. The staff believe that, as they are both experts and have established rapport, people will come to them.

To reach new people, the people who already know of them will pass this information by word of mouth, traditional media outlets or through reference to Tactical Tech’s materials in the partner’s work. As one manager expresses in a meeting where they are planning a new project “we don’t reach out to people, we let them come to us” (Observation Day 5). A staff member working on the communications of a project said they are not interested in “using [their] audience to market our products, rather give them information” (Interview 01938). She goes on to give an example of this by the value she perceives the organisation to place on the newsletter which is sent to an email list, as opposed to their social media because the people who are on

their email list have “specifically asked they can find out, but on social media it’s like, well you follow us but...it feels a bit less genuine” (Interview 01938). For the staff in the organisation, the audience comes to them because they like what the organisation does and ask to hear more, rather than because the organisation has decided they need to hear it. Staff also had other mailing lists which each team kept for their specific partners or communities. Then when something needs to be outreached, it is sent around the office to ask people to send it to their networks for which they are responsible for maintaining themselves.

This is the same mentality they have for social media. As described above, the staff do not use metrics to decide on content, they also do not use metrics to profile the audience in order to disseminate the information. Instead, they rely on their intuition and expertise, and trust people can choose to engage with them on the channels in their own way if they are interested in what content the organisation shares. A manager runs the Twitter pages and describes it as (Interview 61394):

our Twitter is basically everything that happened from a personal, professional point of view, a bookmarking system that is looking at interesting content that is related to Tactical Tech work very broadly and related topics so that would include news, research, reviews, references all this kind of stuff and the reason I am sharing that with people sometimes is basically to, I know they are following Twitter...it is a collection of things, so I read a lot and I share that freely.

He saw Twitter as a tool for curating news content, and through this, saw his role to curate what Tactical Tech wanted to share and discuss. Further, he wraps up personal and

professional, showing his expertise at the centre of what he is doing, rather than based on the audience's wants and needs. The manager also explains he did not see any need to explore any tools from the platform to advertise or profile the audience as it is up to the audience if they wanted to read what is going on. The staff member who controls the Facebook page also says they are not interested in using the targeting or profiling methods associated with the platform, instead, they prefer to share content and allow others to use the platform as they would like.

Tactical Tech staff do not use the methods associated with data logic such as metrics on social media or a/b testing content or headlines to decide how to communicate their projects and campaigns. Instead, the staff either consider themselves or others in the organisations as experts in design. A manager said in a group meeting we “need it to look good, that's what we have experience at, that's what gets people passing something round” (Observation Day 18). The staff member who predominantly manages the design and website outputs confirms that this is what they are good at because of their expertise and said in an interview that they work from “an educated, not gut reaction, but an educated understanding, an innate understanding of what is going to work and what is not going to work” (Interview 15398). The approach of using educated understanding is not replicable as the standardised approach associated with data logic. Further, they are not afraid to experiment with new formats - such as the aforementioned exhibition, The Glassroom - based on their principles blended with what could be considered a creative intuition. Basing innovation on their intuition and expertise, rather than what would be dictated by trends in data differs from the algorithmic reasoning principle with data logic.

Trustees look for feedback to test the success of their instincts and assess if changes need to be made to the implementation of their strategy. The staff do not engage with the principles of

data logic but instead, they rely on external professional evaluators and qualitative feedback which the staff view as a guide within their decision-making, rather than instructive to their decisions. The senior staff member whose job involves assuring the quality of the outcomes of the projects explains how the organisation works with expert external evaluators. This shows that as trustees, there is trust in other professionals and experts, rather than the public audience, in the evaluation of their work. The other group which has an important role in the evaluation of projects are the grant funders who make requests on what information Tactical Tech need to provide to be accountable to the grant they received. Confirming that this still does not involve the quantification and scale of data logic, the staff manager who manages this work explained that they “don’t include mass-scale data collection” (interview 15398). They use some metrics around how many people they have reached but they focus on either personal anecdotes or qualitative feedback from partners, or public measures such as what has been published rather than personal interactions.

Even these evaluations, however, are not instructive but instead were one of many factors which guide the staff’s decision. The factors vary in their level of importance for each staff member, in balance with their beliefs on the topic and their trust in the evaluation. One staff member who also worked on grants, and worked across different projects (interview 36724) explained the role of the feedback of the external evaluator saying:

we do look at it and read it and think about it, and it does inform decision but it also could inform more, but it's tricky because why is that data of interviewees of external partners more valuable than what people in the organisation believe to be true? Or best? And of course, it's a relationship.

This quote is demonstrative of an attitude held by the staff across all the projects who

recognise it is important to listen to this feedback, they ultimately rely on their own judgement calls. This is seen in meetings where decisions are made based on the strength of confidence of staff members, and their articulation from them on the importance of the topic, with few references to previous evaluations and no references to audience metrics. This nuance in how they respond to feedback, taking it in but also relying on their judgements was also confirmed during an impact workshop, in which the staff reviewed how they are measuring the impact of their work. They discussed qualitative surveys and feedback cards and talked about how positive and negative feedback is helpful, but it is not always to be taken on board as there are so many different opinions around the issues (Observation day 12). They rely on these expert evaluators as one of many factors, and while they report website metrics and social media metrics to grant funders sometimes, they do not often and do not use either of these as justifications for their decisions about future projects.

Findings from Amnesty parallel the findings of the importance of intuition and expertise in decision-making in situations where Amnesty perform the role of a trustee. As with Tactical Tech, Amnesty does not stick to one role, and at certain times take on the role of a trustee, though, as was observed, only after the broad strategy was set by members would staff in the organisation decide the plans for some projects and prioritisation of resources. Prioritisation both involves deciding what work they will be carrying out and how many resources are allocated to each project. In these contexts, the staff use their judgement and qualitative feedback. At Amnesty International, this is referred to as resource allocation management. When it comes to prioritisation, though there are criteria, as shown in table 4.1, there is no set weighting on the priority criteria.

Table 4.1: The priority criteria used by Amnesty to guide decisions presented in a conference to other CSOs and academics

<p>The priority criteria</p> <ol style="list-style-type: none">1. Gravity of problem2. Amnesty value add3. Relevant across regions4. Clarity of the proposed outcome5. Human rights impact
--

A staff member on the team described that these criteria are treated as themes to guide the conversations, however, the final decisions are, as with Tactical Tech, made in ways that can be documented qualitatively, but not an exact process (and therefore without algorithmic reasoning) nor with external evidence (such as quantified metrics). Instead, the staff member says “there is no scientific method” and decisions on priorities are made through three parts expert analysis, consultations with members and intuition. Concerning the last part, the staff member from the strategy and evaluation unit says “the element of subjective judgement is necessary” (Observation Day 36). While the five criteria give a sense of opportunity for calculation she is explicit that “It’s very difficult to have any mathematical equation” to help balance these: final decisions are made on judgement calls. This concept of judgement is far from the standardised and algorithmic reasoning approach of data logic.

Tactical Tech does not use data-driven methods to test their decisions or get feedback from their constituents to feed into their strategic decisions. Instead, Tactical Tech carries out the role of a trustee organisation with reliance on the education, experience and intuition of the staff.

These are also the factors that guide their decision-making on designing and sharing communications, relying on their expertise to create content worth reading and their established work providing reasons for people to seek out their work. They still make this available on social media or other tools which could rely on data, but do not use data-driven techniques to profile or target the audience and instead rely on the audience to come to them. Findings from Amnesty's performance on a trustee role around prioritisation of resources also show a reliance on intuition, though they are more likely to negotiate with others to come to decisions rather than on the strength of their expertise alone. This shows a rejection of the standardised techniques which rely on algorithmic reasoning associated with data logic to support the role of a trustee. However, these methods were used within a few circumstances, described in the following section.

4.4 Data Logic Supports The Trustee Model

Both organisations reject the use of data, for the most part, for their dominant roles as trustee or delegate based on their belief that the use of the data practices would lead to the risks associated with the roles: too responsive to popular and non-representative audiences as delegates or manipulative and putting people's privacy at risk as trustees. However, the principles of data logic are present in some parts of both organisations. In particular, data logic is found substantially in some parts of Amnesty to support the aspects of their work in which they take the role as trustee - to persuade constituents to mobilise in pre-decided activities or donate, or to represent the support they have, or success they have, to others. Tactical Tech does use some of these techniques, mostly in the same case to represent the support of their projects or the success of their tools. When data logic is used, it demonstrates the aspects which are also commonly

associated with surveillance, but as shown in the organisations' justifications, support the expert-led functions within the organisations.

Mobilisation

Amnesty uses methods driven by the principles of data logic to support the aspects of their work in which they are a trustee in the situations in which Tactical Tech instead used their design principles and expertise. Amnesty use the practices associated with algorithmic reasoning and standardised practices, such as a/b testing and profiling, to test and develop content for their communications in which they aim to inform large-scale quantified constituents, often to motivate them to mobilise in activities designed by either the staff or a smaller group of consulted constituents such as members or activists. Amnesty in the last few years has begun to increase their membership numbers through the process of representing the audience in a quantified manner, tactics which aim specifically at growing the scale of the audience and tactics to do this relying on testing and optimisation. Firstly, using various profiling and targeting methods the organisation persuades the audience to increase their active support for the organisation's pre-set campaign strategies. Secondly, the organisation use quantified metrics, such as membership support or petition signatures, to represent the support for their decisions. Data logic is therefore apparent when political representatives undertake a desire to persuade constituents to act in a certain way or agree to a certain policy.

Campaigns, engagement and communications staff present campaigns to constituents with the aim to persuade them to show their support, demonstrating Amnesty's desire to

sometimes perform a trustee role. The support of the individual could be through signing a petition, turning up to a protest, liking or sharing a social media post or signing up to an email list. To achieve this, the campaigns and communications staff use data-driven tools to profile and target the audience. One staff member working closely with engaging activists and supporters said “we use data for everything” and that “we talk in numbers a lot” (Interview 8473). She was in a role in the organisation that had only been established in the last few years and she had been hired from a technology company background, confirming a recent engagement with these techniques and bringing in staff to deliver them. Both observing the team’s practices, and in her descriptions, in the interview, she confirmed this approach. They use the audience analytics tools in Facebook and Google and advertising services from both these online platforms. They do a lot of testing of different emails, petitions and donations and collect data on what works the best. The staff would test content, messaging and time of day that would produce the largest quantity of responses. The staff also used metrics from third-party software such as Google Analytics for their website traffic and social media management software, Sprinklr. All of these techniques are in line with the practices of the new CSOs, demonstrating a belief in all four principles of data logic - quantification of success on platforms, scale as an indicator of success, standardised processes involving third party technologists to analyse the data, and algorithmic reasoning to test and experiment content and its impact on the behaviour of constituents.

Further Amnesty, carry out profiling of their audience. Like many CSOs, to do this, they use a CRM to host data of individuals for whom they have contact data for. As I did not have access to view their CRM databases, I cannot present the exact data they collect or how they analyse it. However, the staff engaging with these platforms expressed that they did use features

of the software, and knowing they use the CRM provider Engaging Networks it is possible to ascertain what possible services they could engage with including hosting individual data such as donations they have made and campaigns they have participated in and segmenting supporters by behaviours with the organisation such as opening emails or signing petitions or demographics.

The staff also described how they used information in their CRMs and from the large online platforms, to create group profiles for sections of audiences such as those motivated to be interested in their topic. I spoke to one staff member who was working on a new project to profile the audience through analytics to place people in a spectrum from those who are for or against support for the organisation (Interview 1387). This was a project in development and I did not see the data that informed this process. However, in interviews, it was clear their use of data in profiling was based on behavioural and demographic, or in this one case, development of profiling based on support. There was no sign of any psychometric profiling associated with the manipulative data-driven techniques of Cambridge Analytica.

Amnesty uses the tools to engage the audience, as a trustee might, to inform the audience of the expert opinions of the organisation or instruct them to act in support of their pre-decided campaigns and strategies. This data does not, as shown above, feed into the strategic direction of the organisation such as what topics they work on. For example, a campaigner in one of the country teams carried out a social listening project in which they analysed content on Twitter to investigate the opinions of actors discussing human rights in a particular country. When I asked if they are ready to change projects if their results showed a difference of opinion to their own, she said they would not have and that this data was only to inform their understanding of the landscape, so they have more information when they make decisions either alone or with

members. A campaign manager, concerning what campaigns they would choose, confirmed that “data has value but shouldn’t determine what we work on” (Interview 6311). Instead, she confirms that it helps them design the campaigns they use to inform, educate and mobilise a broader audience.

One of the ways this practice manifests is through their desire to use popular topics, that the data shows that people are interested in, to bring people on board with the organisation’s strategy. A staff member working on engaging members explained that she wanted to change the strategy of the organisation to do this more, saying about popular topics online “how do you ride the wave and take advantage of that” (Interview 8473). She gives the example that Amnesty may not have a specific campaign around Donald Trump, but as there is so much interest they should take advantage of that to get people interested in the campaigns that the organisation has decided to work on. In a strategy meeting she continues to argue for this, saying their work “needs to be timely...what topics are people talking about and let’s match our campaigning with that” (Observation Day 14). This opinion is generally agreed upon by staff in the meeting, although there is little plan to implement it in this strategy level meeting. The purpose is to use the data to design their campaigns, not because the audience would like to work on them, but to encourage them to be interested in the topics Amnesty has already chosen, in accordance with the trustee model.

Fundraising

The other audience which the organisation takes the role of trustee with is with donors, and the team which managed this relationship is the fundraising team. The fundraising team’s reliance on

data-driven tools is professed by staff. A senior manager started an interview with the statement “fundraising is all data” (Interview 9309). The manager did not feel the need to justify this specifically but the whole conversation then oriented around the various methods in which they use data, which are confirmed in practice. The managers and staff of the fundraising team use benchmarks and targets to evaluate how much money had been donated, how much is normal and to drive themselves to achieve more. The staff examined the behaviours of audiences to understand what channels are used to donate (phone, web, social media, face to face), their donation history (how much how often and when they donate), and their reasons for donating (such as what topics prompted them to donate, or what style of messaging).

The staff also created profiles to categorise the audience into those who donate more and those who donate less, payment preferences of different demographics, and likely journeys different individuals will take from hearing about the organisations to donating. The fundraising staff also profile their audience and set targets for achieving an outcome from that audience. For example, they saw that in face-to-face fundraising young people who go out to fundraise attract young people to donate, which they call “the fountain of youth”. One staff member described in an interview how “age has the strongest effect on attrition rates, higher attrition than other groups” (interview 2990). The staff were constantly analysing and making decisions on how best to create an outcome, in the principle of algorithmic reasoning.

Representation of Support and Success

While, as shown, Tactical Tech mostly did not substantially use methods associated with data

logic, there were a few instances in which they did. This data is used for the most part to show to their funders. The staff collected data from events they hosted or presented at. Event reports are filled in by every staff member who attends an event and coordinated by an individual who also works on projects, and coordinates the role for events for the team. These reports would be used to collect the number of people attending the event and an approximation of the regions or countries represented. This event data was mostly to be used in funding reports and their annual report - communications with external actors to whom they wish to show their success.

Tactical Tech staff use some website metrics from the aforementioned Piwik, an analytics platform which tracks visits to websites, which overall is one of the more minimal metric providers and prioritises privacy. From this they gathered statistics from their website, to represent how many people had visited the site, and if needed, the countries they are accessing the website from. As one staff member working on grants described in an interview: “The number of people who visited the website and depending on the funder they might care what countries people are visiting or what language they are using because certain funders have certain target audiences and alongside that a really important one” (Interview 36724). In this case, staff would try to make the information as broad as possible, not wanting to create risk for any users from countries where activism is under threat, for example, ‘from the Balkans’ rather than a specific country in the Balkans (Interview 36724).

Further, the staff at Tactical Tech use this data to feel good about the decisions they make, showing enthusiasm to hear if something has done well but never incorporating this into documentation or formal decision-making processes. Instead, this would be another factor, alongside their other experiences, that would influence their expertise and intuition. Even in this

scenario, it was much more important, and more widely shared within the organisation, if a highly respected media organization or other campaigning organisation or academic referenced their work, rather than large scale responses from a broader audience.

In general, the staff evaluate mostly from public places and other organisations such as media mentions, rather than personal data from individual reactions. As one staff member said the media outlets, partners website and blogs are important as it shows that “someone’s seen value for the information” (Interview 36724). This is true of their outreach too, as the staff member working on communications works on both social media and traditional media, but focuses on the latter. They have one main mailing list for the whole organisation where only an email address is held for each individual, rather than any extra information such as name, demographics or behaviours recorded by many customer relationship management databases (CRMs). The staff do not put substantial project work time into encouraging more people to join the list. They also do not look at the details of what emails are opened or which headlines for the emails created the most response. However, they do use the number of people on the mailing list in the funding reports. The mailing lists which each staff member individually keeps for their communities are not included in funders reports unless there is a specific agreement with the funder and it is relevant to the project.

As is shown, the main area I found the use of quantification and scale, in particular, are present, in relation to anything the staff and grants team could use in reports to funders, and sometimes the Annual Report the organisation publishes. These reports are mostly about the impact the projects had. It is important to show the content has reached a certain amount of people in countries of importance to the specific funder. For example, funders like the Swedish

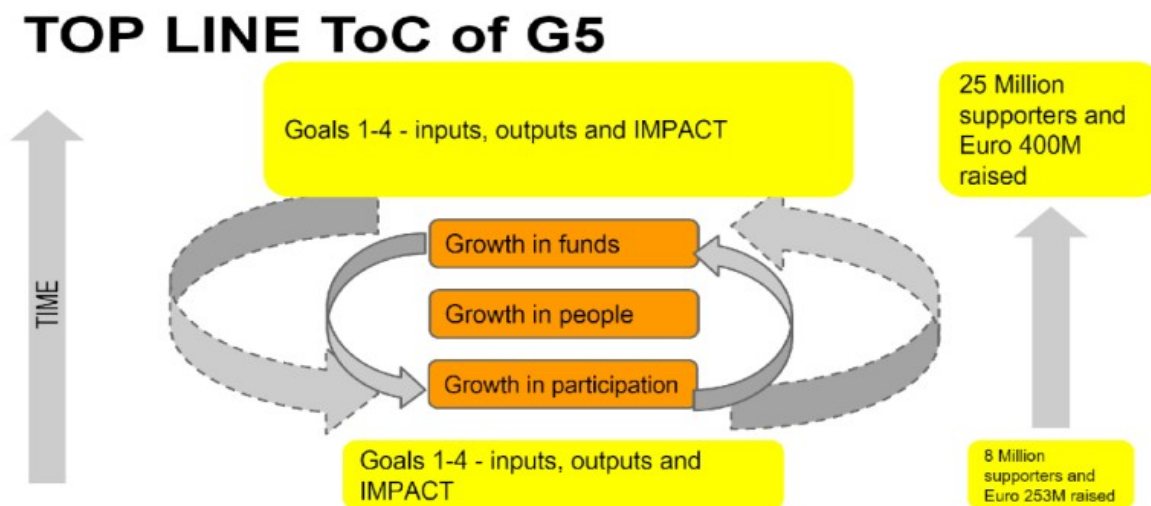
International Development Cooperation Agency will only fund projects in the Global South. This shows how Tactical Tech staff use data which represents the actions of audiences to confirm that their decisions and actions as trustees have had an impact.

Amnesty also engage with data-driven methods to support the situations in which they take on the role as a trustee by using quantified metrics and scale to represent the support of their audience, and success of their engagement based campaigns. This audience, in this process, is reduced to tokenism to support the organisation, now performing a trustee role, following the rungs of the ladder of participation (Arnstien, 1969). Across all the staff from teams in campaigns, strategy and evaluation, membership relations, and fundraising, there is a consistent sense that a demonstration of their authority can be done through large scale membership, as well as petition numbers or email action response (in which people use an online platform to send a pre-written email to their MP). I will go on to show how this authority has two meanings that they do not openly distinguish between. Firstly, authority is the power to have influence. Secondly, authority is a sense of integrity as an organisation.

Tactics associated with data logic principles of quantification and scale have been embedded into Amnesty's organisational strategies and institutionalised in the dedication of one of their major goals set out earlier in this project. Goal 5 (as it is referenced internally and from hereon) focuses on the organisation's relationship with their audience. The manager who agreed to my undertaking of research for the organisation also made the association between my topic of interest - how CSOs are using personal data, and their project - goal 5 and I was initially 'buddied' with a staff member who is helping manage the strategy and evaluation of this goal.

The objectives of goal 5, visualised in Figure 4.2 below, are to grow the number of people who support the organisation to 25 million, the number of donors to 4 million, to raise 400 million euros in fundraising and increase the active participation of supporters - involving them more closely in decision-making and empowering them to make decisions themselves. Other than the last point, which I demonstrate has a limited role in the overall goal, these objectives reflect new standards which show a desire towards numerically measurable goals supported by the technology which allows them to collect and maintain databases of their members and donors personal data.

Figure 4.2: Amnesty’s Theory of Change (ToC) for Goal 5 (G5) (2016)



The focus of the goal - growth of the organisation's engagement - at the level of strategy is new to the organisation, showing how the large scale growth goals associated with data logic are not how they have traditionally worked. In a meeting about the Goal One of the core team members said: “we’re special, we are a little different from the other goals” (Observation Day

14). A staff member in fundraising also commented on its uniqueness as a new goal saying that at the international level they had “never had a global goal for volume before and no tradition of making long-term goals for volume” (Interview 2990). The other goals are more aligned with their traditional goals, based on the impact such as changing laws, freeing prisoners and even around activism, types of impact of activism. Goal five is notably a new way of working and a new way of thinking about the organisation - based on both membership as a goal within itself, and for the goal to be expressed in a large scale number.

Staff across campaigns, fundraising, membership engagement and governance teams agreed on the need of goal 5, and the large membership numbers, for authority. As one of the staff members said, if they cannot compete with the large scale membership of the new delegate CSOs then “who is going to listen?” (Interview 8473), claiming that other experts will not pay attention to them without large scale membership. A manager, in fundraising and part of the goal 5 team, explicitly said: “25 million is definitely about authority” (Interview 9309). The manager went on to explain that the more support you have “the more power, the better advocacy, even behind closed doors” (Interview 9309). In an interview with a staff member working in the thematic issues of gender and diversity, she explains that data “is evidence of public opinion” (Interview 6311). The use of numerical evidence, using new data-driven technologies to collect the information, demonstrates the principle of quantification of the ideal type of data logic.

A fundraising staff member corroborated this opinion in a separate interview and followed up with an example. He had been working on campaigns for a long time and used a lot of experience of working with activists to support his work in fundraising. He described how they sought meetings with a politician to lobby for a certain bill. As soon as the membership of

the national office hit 100,000 they suddenly began getting meetings. This staff member continued from this story to make the point: “We need 2% of the population because that's how to have power” (Interview 2990). They associated the scale of the organisations, founded on their data-driven practices to produce large scale membership numbers, with having the power and authority to influence other experts to listen to their claims and to enact change.

A fundraiser who regularly worked with national mobilisation presented how goal 5 was about a triangle for impact and that you need volume as an important point within this (Interview 2990). This triangle for impact is seen in figure 4.3 below and was demonstrated in a presentation from this staff member to national offices at an internal conference. Volume is an important aspect of the organisation as part of Amnesty’s strategy to create enough authority to make change happen. By volume, the staff member referred to a large number of supporters.

Figure 4.3: This image was taken from a PowerPoint slide presented at an internal conference, by fundraising expert describing the necessary factors for human rights change to happen

THE BASIC MODEL

INCOME



VOLUME

PARTICIPATION

Like the story of human rights for sex workers outlined above, another story came up regularly amongst staff showing their rejection of the data-driven methods for making decisions, however, this one also showed their desire to use the numbers as a symbol of support for their expert and member-led decisions. Amnesty carried out a survey in 2014 to try to reach a great number of people to input into their strategy. It would be introduced as a tool they are proud to have done and reach 25,000 people. However, this is always followed by a rejection of the use of this survey. For example, one staff member said, “data from the survey confirmed decisions already made [by staff]” (Interview 8443). The only thing they found surprising, again recognised by many of the staff telling the story, is the importance of women’s rights and they used this to ensure that this is a more substantial part of their goals. This is a method of confirming, but not actively allowing the data from this large scale and quantified data collection method, to feed into the strategy. A senior staff member in governance argued that the role of a consultation is “to gain trust” as “you need to have the backing of the whole movement”

(Interview 5190). The data-driven activities are used to get a sense of 'buy-in' without actually listening to the constituents. This again gives the people who have represented in data a tokenistic role in supporting the decisions of the organisation, data-driven support of their performance of a trustee role.

In interviews and informal discussions, it is clear that the figures are symbolic to the staff of their own credibility and fear that they might become meaningless, and not credible, if not high scale. As a staff member from the governance team said about the growth of numbers of membership from 2 - 7 million "the set of members we have signifies the strength of our performance, the seriousness of our claims and how we are a representative point of view for those people" (Interview 5190). He also argued that to be a global movement "we need way more than 25 million" (Interview 5190). This is, of course, linked to their desire to have an impact, but the numbers themselves are not to have an impact but are symbolic of the organisation's ability to represent an audience. The manager leading the Goal 5 projects said that "the drive for people is one of credibility, it seems having 10 people taking 1 million actions compared to 1 million taking 1 million actions, having those people who are actively engaged, the bigger the activists base, the more credibility you have." (Interview 0164). There is a demonstration that both quantified and large scale numbers are what are considered to be the most impressive and persuasive by these staff.

The active participation element of goal 5, the part which would rely on methods demonstrating principles alternative to data logic, and encouraged a delegate role from the organisation, is rarely discussed or involved in the discussions around goal 5, confirming that the data-driven techniques that dominate this project are associated with the growth of a supportive

audience, rather than a decision-making one and that data logic, and large-scale mobilisation are synonymous in the organisation and antithetical to the audience-led model. The staff member representing active participation in the project of goal 5 attends the meetings of goal 5, but barely gets discussed and their comments were often dismissed by way of moving on the conversation (Observation Day 14). This absence of active participation is discussed further in the next chapter around what factors contribute to what is and what is not associated with data logic.

Summary

Amnesty and Tactical Tech both engage with quantification and scale to represent their success and the level of support they have to others and themselves. Amnesty see the need for a volume of support to be so important that it is one of their five organisational goals. The engagement of the principles of data logic in these circumstances shows their use for supporting the organisations' in performing a trustee role, representing the actions of individuals and groups to demonstrate support for their pre-chosen campaigns, rather than to listen to their feedback or decisions. At Amnesty, methods demonstrating principles of data logic such as a/b testing and profiling are also used to target individuals with personalised messages to persuade them to take action to show support for the organisation. These are the principles that associate data logic with a trustee approach, and therefore, also with the approach used in surveillance and manipulative campaigns criticised by Tufekki (2012) and Zuboff (2015). The campaigns, however, defend this use as an aspect of building a relationship, or the need for volume in their audiences. These defences and associations are explored in the following section.

4.5 Concerns of Using Data Logic to Support Representation

The organisations both reject the principles of the ideal type of data logic for making decisions for their long-term top-level strategy. In both organisations, as I will show, this rejection is directly related to concerns based on their predominant model, trustee or delegate. The models of trustee and delegate both come with a set of criticisms particular to their models, and both organisations demonstrate knowledge of these criticisms and are concerned that data-driven methods would encourage them to fall foul to these criticisms. Amnesty, the delegate organisation, is worried that following a data-driven opinion will be too quick, simplistic and lead to a majority rule, ignoring important minority views. Tactical Tech is concerned that, as trustees, it is necessary to then avoid anything that would come close to manipulative communications that devalue the audience's agency or lead to violations of their audience's privacy. The area in which there was the most engagement with data, seemed to come from a desire to demonstrate a large quantity of support, as it was perceived as important to others who the organisations wish to influence such as politicians or funders, in part influenced by the changing CSO landscape in which digital membership organisation have gained publicity for their successful engagement with the methods associated with data logic.

Responsible Delegates: Data Logic and An Over Simplistic Opinion

As shown, when taking on a delegate role, both organisations engaged with traditional methods to engage with their constituents and did not use the methods associated with the principles of

data logic such as standardised large-scale online surveys or algorithmically gathered feedback from social media and website analytics. This is not due to the reasons posited by the critical perspective in the literature, the two organisations do not assume data-driven ways of working could only support the control and management of political representatives in an expert-led model. Staff in both organisations believe the methods could support a delegate model, however, they contend that the data-driven technologies encourage the dangerous extremes of the delegate model. The data-driven methods are perceived to be reactive to an online audience that is fickle and reactive, making it difficult for organisations to achieve long-term goals or unpopular goals.

In practice, there is no loud or active discussion to reject the tools and techniques associated with data logic, and choosing qualitative methods are, for the most part, not accompanied with discussions of the benefits and risks in comparison to data-driven techniques. Amnesty does not make this argument against data logic in their daily work, where the principles of data logic are absent without question, but would regularly give this opinion in their responses to questions in interviews or public-facing presentations. In interviews, when I would prompt them by asking questions about data and in some public presentations, Amnesty is actively critical of using data tools to fulfil the role of setting strategy. Staff members expressed concern that the data technologies encourage ownership over decisions from online audiences who may be representative of the constituents, and the data represented fleeting opinions that would lead to unstable strategies.

Two staff members at Amnesty used the same phrase in separate interviews: they didn't want '*the tail wagging the dog*'. They used this phrase to illustrate that she did not want to use

the tools that create these large scale quantified numbers because it would lead to a small or unimportant part of the audience controlling the whole organisation. A campaign manager used the same phrase in her interview: “you have to be careful whether it is the dog wagging the tail or the tail wagging.” (Interview 0164). This manager expanded, “do you only chase the topics that have the most interest or appear to be the most interesting”. The campaign manager said, explicitly mentioning the work of change.org, a new CSO, and their Beau the dog campaign, where they raised 632,896 signatures to save a dog from euthanasia (Change.org, 2015). The campaign manager confidently said while their team could easily generate this sort of interest, referencing the quantified metrics of success of the petition, but did not want to. She continued by arguing that data will always represent the most ‘popular’ issues and would not allow the organisation to work on unpopular, but important, issues that the organisation is known for. The second interviewee, a campaigner on a thematic issues team expressed, about a broad audience represented in digital data, that data can help “as long as its a tool and doesn’t dictate the agenda” (Interview 6311). Both staff members believe it is important that decisions are made through their formalised decision-making processes above to achieve meaningful aims: campaigns that are long-term or important to their audience and only the communication of these campaigns can be improved by data-driven methods.

Both of these staff members recounted campaigns that held meaning to them due to the requirement for long-term working on issues that do not always have popular support. These campaigns were also referenced in other interviews, in public presentations and internally to other staff members usually to affirm a shared sense of values followed by nods of approval and agreement from other staff around. Three campaigns are regularly recounted in interviews and

informal conversations with staff: the slow and successful progress on the abolition of the death penalty worldwide, their continuation of work in Saudi Arabia despite contemporary difficulties in access and subsequently limitations on their progress in their campaigns, and a recent policy passed internally on the protection of rights of sex-workers. To illustrate the importance I will detail the final one of these examples, highlighting the aspects of the process which the organisation value in their governance structure.

In 2015, Amnesty International began a consultation to adopt policy recommendations on how to protect sex workers from human rights violations. Several staff members mentioned that the data they had collected from social media showed that people were disagreeing with them. There was controversy around whether adopting a policy which protects sex workers could encourage abuse and exploitation of sex workers by accepting the line of work at all. Two staff members commented in interviews how the data showed how they would lose supporters and even some members who did not agree with the final decision but they had to adopt the policy nonetheless (Interview 6311; Interview 1387). Directly relating this to data one staff member said: “It is good to get feedback from data if you are on the right track but you wouldn't listen to it for important policies like sex workers” (Interview 1582). Many of these mentions of the data were not forthcoming with any actual data, though in other contexts they alluded to the use of social media content or traffic or surveys, but would retell this story in response to a question about the organisations use of data-driven techniques.

To discuss the adoption of the policy, it went through the same process as described above. At the ICM, a working group of elected representatives, who represent the views of members from their countries, looked at a draft policy and reflected the views into the

discussion. Through questions, discussion and advice from experts where sought, the staff from the international office, would make amendments to content and language. Finally, the working groups proposed a negotiated policy paper to the 500+ delegates of the conference who voted to accept the paper (Amnesty, 2016a). This example captures their concerns about following ‘data’ and their prioritisation of members’ involvement in deliberative decision-making.

The consistency of the narration of the story suggested its symbolic nature to the staff members as demonstrating their commitment to difficult topics and deliberative approaches to making decisions. Amnesty is set up as best as possible to have a deliberative decision-making process. In a workshop, presenting to other organisations and academics, they describe themselves as a “[d]emocratically ruled movement of millions of people around the world in over 70 countries and 2 regions and sub-regions” (Observation Day 36). They demonstrate recognition regularly of the complexity of bringing all those voices together and coming to decisions between them. They reject the immediacy and simplicity of metrics which they do not believe allow the space for conversation, change or nuance. A campaign manager in an interview said (Interview 0164):

that ethos [of membership] is at the heart of the values and culture of the organisation and influences all of the ways in which we operate even at the global level, and it leads to healthy and challenging tensions between what our membership may want us to do versus the strategists sitting in the international secretariat. Sometimes this can pull in slightly different directions.

The campaign manager speaks of the complexity of responding to online data within this tension that already exists. The organisation respects the opinions of membership and experts in their central international office. The same campaign manager is a champion of using more data

in the organisation, and adds this should be valued equally amongst the other factors in decision-making: “it's not a bad thing for us to let go a bit more, and not hold on, to be a little more open and responsive and flexible but to hold on to some of that” (Interview 0164). However, the use of data is a challenge for them to incorporate into this well-established approach partly because it represents a third public audience.

A team member working on diversity argues that the use of quantified and large metrics, “should not dictate our work because we can grow and continue talking to ourselves we need to think about talking to others”. To this staff member, the numbers are not problematic because they represent a public audience, but because they represent an audience that already agrees with their work. She argues against even following the data from members, as this can limit their creativity and divergence in future work: “are we being held back by our members as they aren't representative of the world? the profile of those who are actively engaged as members are not the youngest or fringe living” (Interview 5190). The argument is against that of the deductive nature of algorithmic reasoning, the principle of data logic: data will only show what support they already have - and from those who have not taken much effort to respond, especially if focusing on quick retention, rather than complex areas where disagreement and progress can be made. This staff member's statements are representative of two opinions held across various research and campaigns staff. Firstly, that their role is not just to listen to those who already agree with them, but to understand when to listen and when to persuade - confirming the responsible leadership role which involves a balance of a trustee and delegate approach. The trustee approach of Amnesty is discussed further on in this chapter. The second value the staff commonly hold is the ability to discuss differing opinions to come to pragmatic and collective

agreements.

One staff member discussed the rejection of a numerical staff goal that it should not be those who are easily engaged but it is “much more important to have affected constituency and politically motivated individuals because it helps build and shape the movement” (Interview 6311). This is commonly distinguished from the understood concept of *slacktivism* or *clicktivism* (Dennis, 2018). The same staff member continued in the interview: “We are beyond clicktivism, we need a different kind of engagement, what is beyond, and how can we measure it?” clarifying that “person to person conversations are so important” (Interview 6311). The staff member whose job role is championing active participation confirms that there is a distinction to the organisation between data-measured actions and quality participation when I tell her about my research and she briefly explained she does not think there is a crossover between her work and mine and would not know what to say if we talked. In another conversation with a different staff member, they mentioned a project they were working with which was exemplary to them for how they wanted to involve people in the implementation of strategies and “did not cross over” with my research (Interview 9887). This confirms not only a clear distinction between trustee and delegate roles in the organisation but the association of data-driven practices also only with the trustee approach and irrelevant to the person championing the audience-led methods in the organisation.

Tactical Tech mostly criticises data-driven ways of working based on other factors related to their performance of the trustee role which is explored in the next section. However, in interviews, the staff presented opinions which corroborated the findings from Amnesty regarding the negative impacts of the use of data for the delegate model. Two staff members referenced the

data techniques, in reference to the new CSOs such as Avaaz and change.org, and expressed issues with their responsive nature to the data-driven audience relationships. One staff member said with disdain, Avaaz is “not just populist, but populist-driven” (Interview 29476). The implicit argument, due to the association of the word populist currently with the rise of right-wing politics in Europe, is a danger of populism leading to the control over campaigns from groups that may be a danger or have a negative impact for minority groups, matching the concerns of delegate model brought up in the previous research (Wahlke, Eulau, Buchanan, and Ferguson 1962; Jacobs and Shapiro, 2000).

The issues associated with the data-driven practices for the delegate model are commonly recognised across both organisations, though are brought up more at the delegate organisation, Amnesty. Data logic encourages a quantified scale of the audience which the organisations consider dangerous for the campaigns they work on, fearing data’s perceived objectivity does not support the needs of a complex decision-making process. Further, the data may represent opinions which are negative for minorities and short-term, which is perceived to be dangerous for campaigns which are long-term and, whether due to an active opposition or public apathy on the topic, unpopular. An exploration of how data is associated with this style of thinking is carried out in chapter 5.

Responsible Trustees: How to Treat An Educated Audience

Tactical Tech staff, respect themselves as experts in their field, and the audience for their own expertise, trusting the audience to make their own decisions as to whether or not to engage with

the organisation, rather than using techniques to target and persuade them to act. It is not, as critical scholars suggest of the trustee model, that they treat the audience as not having the competence or education to make decisions (Lippmann, 1922; Bernays, 1928; Burke, 1949). Instead, the staff believe the audience knows lots about their own fields and experience, but may not know about the organisation's area of expertise - technology and social change. The organisation is one expert, delivering projects and information to other experts. This recognition of the audience's competence is the justification staff give for rejecting the use of methods which are associated with the principles of data logic. The staff believe that the principles of data logic will lead to manipulative techniques but that these do not necessarily have to be engaged with to perform an expert-led model, which in itself does not have to assume the incompetence of an audience.

One staff member, working across various technical projects, in an interview explained her confidence in her own expertise and the value that guides her relationship with the audience. She believes that the audience has expertise in a different field, and recognises that when someone is learning something new, they sometimes want an expert who can help them. For her, her work at the organisation is a way to productively share her expertise with those who want some guidance (Interview 72948):

you could be absolutely spectacular activists and human rights defenders and be phenomenal at your job and just have crap tech skills and just need some hand-holding...so if you really just don't computer, for a lack of a better way of putting it, maybe you just need someone who will, or a guide who will show you step by step to install plug-ins because you've never done it before, and you don't feel you have anyone you can ask, like, privacy badger is really easy to use, it is really well done, but if you've never used a plugin, that's still a learning curve

The view is both recognising her role as an expert, who can help bring knowledge to someone else - and as such performing the trustee role - while also recognising the constituents as competent and educated. This second view creates a scenario where, as according to the language in the ladder of participation, they may inform others, but based on the constituents deciding their own goals, and the organisation are not interested in stepping into the realm of manipulation and placation of any constituents for achieving any of the staff's own goals.

This attitude is common across staff in how they see the constituents interacting with their products. For example, as described above, when they design the messaging and format for their products and services they may share these on platforms such as Facebook or Twitter, but they do not engage with the tools provided by these organisations to ensure the content gets out. Instead, they assume the audience themselves can use the platform as they would like to access the information and provide other ways for people to find out more such as their mailing list.

As a staff member who manages the communications says when discussing the mission of the organisation, this even extends to people who are not necessarily experts but are engaged individuals who are keen to learn more: “the more general public or engaged audience, who aren't necessarily aware of what they can do, but they are ready” (Interview 01938). She says they can be given things that are, as she describes, well designed as they have “something [that] no matter where you're coming from you can start tomorrow or today doing something...that's kind of what we're going to try and do more of, make things more easily digestible, designed, more printed materials” (Interview 01938). The aim is to produce designs and write the language within the content of products to be accessible to anyone who chooses for themselves their engagement with the topic.

There is one strand across a few projects where the staff come close to wanting to reach and teach more people, without necessarily waiting for their initial engagement and this is around the normalisation of tools which are often only used by activists. These tools, such as encrypted email, the instant messaging service signal and TOR, which helps anonymise people when they browse the internet, are often associated with extremist behaviour. The organisation works with many minority groups and activists who come under danger for their actions online and who also want to engage with these tools.

The staff believe that by encouraging people to use the tools, the tools can become more mainstream and have less stigma around them. As a manager in operations explains “you take the niche out of the topic, and at the same time, you have a bit more of a scale and I think even in the long-term, that leads to a less sensitive way of, or a less narrow way of dealing with some of the issues that our first target audiences deal with or endangers them or puts them on the spot” (Interview 29476). The manager goes on to give a specific example “I think encryption is a sort of a good example, it's not super complicated, but it is sensitive in certain regions and if people like my cousin or my mum use it, then its no longer associated with ‘oh if you’re using it you’ve got something to hide’” (Interview 29476). This is a shift in their theory of change of the organisation - they have previously only worked with other CSOs and activists - experts within their own fields - but now the organisation wants to broaden out their constituents to the general public. The organisation are more interested than in their other projects, in educating and changing behaviours of the constituents. To do this, they still carry this out through the methods described above, designing the communications of their products based on their principles and creative intuition, rather than profiling the audience. “we need a broad audience to achieve scale

and wider impact...Unless you get broader support you won't achieve long-term goals" and "We need public support to take the niche out of the topics" (Day 30 Observation).

The second factor which guides Tactical Tech's rejection of data, concerning their role as a trustee, is the staff's recognition of the risks associated with privacy. In this case, they echoed the criticisms of Lyon (2015) and Clarke (2003) in the associated risks of data and surveillance. In interviews and present in their work, they took a privacy-first approach, in which this was a condition to any product. This was not just because they saw a risk of violating privacy themselves, but also because they saw that if they held the data, that would be responsible for its security, and this is not always possible to do.

Privacy is an important principle across the work of the organisation and is a factor which underpins their decisions. One of the operational managers said "I think privacy was built in before we even talked about the audiences...it's the first principle...and it's not like oh shit, if we forgot to anonymise" (Interview, 29476). The manager goes onto explain that by having this principle first, they do not then worry about their decisions or use of data later, as they know it was part of the process. This was both presented as a principle, privacy-first, and for the practical safety of their constituents as they are aware that privacy is not something they can necessarily guarantee if they do collect personal data. Several staff members discussed the audiences they work with could be at risk from surveillance from other actors, both governmental, private or other third parties and that they wanted their work to be able to support all of these people. Seeing that, as an organisation, they could to choose whether to collect data or not from these, they chose not to, prioritising the privacy and diversity of the audience.

The nature of privacy-first means that in practice it sets the requirements and limitations of products and services. They specifically use tools and design processes with this principle in mind. The organisation uses an analytics program to understand how their website is being used. While many organisations use Google Analytics, a powerful and easily accessible platform to do this, Tactical Tech uses Piwik (who have since changed their name to Matamo), open-source software that gives the organisation full control and ownership over the data ensuring that no third-parties can access this information. Further, they collect the minimal amount of data using this based mostly on their requirements for accountability to their funders: the number of visits and the geographic regions the visits have come from. Further, the staff ensure their products are accessible through the aforementioned TOR systems, which constituents may be used to protect their own privacy. While some websites lose their functionality when accessed through TOR, Tactical Tech invests resources in ensuring their products are available through these systems. In these cases, it is accepted by the staff that there will be no data that can be accessed about the individual who accessed the site.

The staff also limit their engagement with any data technology that identifies constituents such as cookies - a file held on the computer which allows a website to identify the user. One staff member who works on digital products of the organisation explains their use for a project, the Data Detox Kit, in which progress over several days as part of the service. He says there are “you can’t log into [the Data Detox Kit], so you have to store the data somewhere...and if they are on private mode on their browser, or they clear their cache or what, they’ll reset their progress, and there’s nothing we can do about that” (Interview 15398). In this case, the organisation accepts this limitation of their work, rather than prioritising a better use over a

technique that might be more invasive to the data subjects privacy.

Even in response to requests from funders, this principle is at the base of their functions as she continues to describe what it is to work with funders and take this approach with data (Interview 29476):

we never share names in reports or participants lists and I think we try and sort of coach the data sensitive questions before they come up so the pressure doesn't exist, and sometimes funders are surprised, but we are quite upfront about what our principles are and in most cases it's respected, and in some cases, it comes as a bit of surprise and I think when we take the time to explain why we have those principles then it's not a problem.

The relationship with funders is described in more detail in the next chapter as this is one of the main cases in which data is found in the organisations. Here, I wish to draw attention to how the principle guides their decisions, even against external pressures.

Furthermore, the staff apply the privacy-first principle to all aspects of their work, including the protection of staff data. A couple of different staff members responded to my questions about data with statements about how they protect recruitment data such as an operations manager who said: "I think because of our very very strict policies on data protection, and you have to practice what you preach...we delete everyone's application after six weeks after we've completed the recruitment cycle and that means, for example, if eight weeks later you think oh a person X would be great for this new position that's come out, you can't use that" (Interview 29476). She explains that this can be difficult, or prevent the speed of some of their work, but does not at any point suggest that it is a possibility that they would not carry out a privacy-first principle. In addition, the staff use encrypted email to communicate with each other

and are usually expected to use encryption, and open-source software, around the production and hosting of any documents related to their work. The staff at Tactical Tech also say this partly because they know data and technology is the topic that they work on. For example, the staff member working on the Data Detox Kit, described above, says “because of the nature of what the data detox kit criticises we also keep a lot of share options stuff out of it” (Interview 15398). Many of the staff members, when describing the privacy-first principles, referenced the Data Detox Kit and The Glassroom, as educational in their understanding of why they took a privacy-first approach.

Amnesty also works on the topic of technology and human rights. They have a team in their international office dedicated to technology and human rights research and campaigns. They have led critical campaigns on the use of data-driven technologies to carry out surveillance, including a lawsuit in 2013, with other charities, against the use of data-driven surveillance by the UK government (2019). However, none of the staff in the strategy and evaluation teams, nor fundraising, referenced this work when I spoke with them. The separation of their work on these issues, and their internal work, was also confirmed by someone who worked in the technology and human rights team who said: “I just found out our national offices have been buying lists of data from the companies we are critical of” (Observation Day 15). Despite working on the topic of external organisations undertaking these practices, she was unaware of Amnesty’s use of the technologies. The lack of their use of this reasoning to their data-practices does not mean that it is not a concern to them, but as shown above, their involvement with data is rejected in strategy setting due to the risks around the delegate model, rather than those associated with the trustee model.

Two staff members, one working on social media and the other on data-driven software in the fundraising team, were the only two to show interest in discussing privacy. One person working on the social media platforms made the first reference to privacy I heard from a staff member a few weeks after I started the ethnography only briefly saying that they needed to think about it more and when I prompted her to explain more she said: “technology is too fast-moving to create a policy”. (Interview 1387) Later she also approached me to ask about whether I had read the book *Weapons of Maths Destruction* and was keen to discuss the matters, but it was in an informal manner, this was not discussed in other meetings or in reference to why they do not engage with the practices to support their delegate role, which instead is rejected in the manner shown above based on its issues for delegates

Trustees and Consent

There is one situation at Amnesty, their campaigns on *individuals at risk*, where the staff regularly reference concerns regarding privacy in which they collect data on beneficiaries, mostly kept in a database. The project identifies individuals under threat and designs public campaigns to support the activists. During 2016 they planned a new system to host the data for 2017, and during 2016 conducted a Privacy Impact Assessment (PIA). The plans set out a more secure system due to the sensitive nature of the data. In the PIA document, Amnesty also set out a context for when they would not use consent, in which the individual is incarcerated or in sudden need and it would be impossible to gain consent in time to run the campaign. The lack of need for consent shows a strong line of where the staff see themselves go from delegate to trustee - when an individual cannot speak for themselves and is in urgent danger. This is qualitative

data, away from the methods of data-driven technologies. This is an important contribution to understanding a line in which consent is considered something that can be bypassed, where the organisation must have faith in themselves to know the best thing to do in the situation as a trustee. This activity is carried out with the faith from others that Amnesty can carry out such a role.

This also shows a scenario in which Amnesty may have what can be considered security or safety and a trustee role is preferred - such as those described by Jacobs and Shapiro (2000) where a national government may see reasons to know they must take action over and above the opinion of the audience, and Lyon's (2015) documentation of the use of the word security as something which can trump privacy. It is one done with much more caution than the case of government surveillance, however, with a targeted approach rather than one involving scale and with qualitative data rather than quantitative, therefore less in line with the principles of data logic. The protection of individuals they work with who they consider to be at risk is seen in their effort to create a more secure system, their use of their data for their benefit as needed. Further, researchers use encrypted channels to work with this audience such as encrypted email, seeing a need to protect them. They collect qualitative data from this audience and sometimes make decisions on their behalf when necessary. They are most cautious about privacy with this audience considering them at risk. While this does not show the principles of data logic, it is a notable finding for reflecting on concerns around the development and understanding of privacy, consent and personal data and is notably absent from their discussions around the audiences who lead their strategy, perhaps as they are considered delegates and responsible for their own data so the organisation takes a step back.

New CSOs: Aspiration for Delegate Organisations

The most engagement with the principles of data logic was observed at Amnesty, the predominantly delegate organisation, for the implementation part of their operations in which they often take a trustee role. At Amnesty, the tension between their role as delegate and trustee was pronounced. The most apparent manifestation of these tensions is between the movement of the audience and the institution of staff experts. An example of this tension was described in an interview with my main contact, a member of the strategy and evaluation team, who said: “Amnesty is both campaigning and research so it will always be both about the experts here and the campaigns with the people” (Interview 9887). When I spoke to her colleague from the same team, she said “Amnesty has a “somewhat rare combination of activism base [and institution]” and when I followed up about this she said “I have been thinking about this ‘are we an institution or are we a movement?’” (Interview 4771). She elaborated on Amnesty’s history of starting small and developing to a global level leading to a “somewhat rare combination of activism base [and institution]”. This tension was mentioned briefly by staff in governance, campaigning and fundraising but mostly discussed or present in discussions in the strategy and evaluation unit, who regularly interact with both the national offices who manage most of the membership and the research staff in the international office. A manager from the strategy and evaluation team expanded that the reasons that both roles have importance as the “Movement gives breadth and legitimacy but organisational structures give us credibility, rigour and structured direction and both seek to make human rights happen” (Interview 8443). Amnesty staff also compared Amnesty to Human Rights Watch. Amnesty staff distinguished themselves from Human Rights

Watch based on Amnesty's role as a delegate organisation, with a membership structure and a movement of support where people will act to campaign for the organisation's goals. As the fundraising manager said the membership is the "added value of Amnesty above say, Human Rights Watch" (Interview 9309). Amnesty manage who can make decisions by only allowing those who are invested already in the organisation's mission and aim to make decisions and then managing these through the qualitative methods, They play a trustee role to those who are considered support audiences such as donors, activists and followers managed by different teams

I believe Amnesty engage with data-driven methods to increase their engagement numbers due to a desire to compete with larger membership because the staff perceive this will give them respect from the CSO community, the public and political authorities. Respect from these actors will help them not only carry out their work but also to survive as a respectable organisation. Amnesty International aspire to grow their membership numbers with specific references to the practices in the new CSOs, as shown to be demonstrative of an engagement with data logic. In an interview, a senior manager in the campaigns and communications department said, "We need to learn from the Avaaz and Change.orgs of the world" (Interview 1582). The quote is from an interview with a senior manager at Amnesty. The senior manager showed a lot of interest in talking to me about the use of data-driven technologies for the organisation, excited for the opportunity to learn more, and was optimistic about the potential. He showed respect for the new CSOs, and the statement was followed by an introduction to Amnesty's new membership definition that the organisation was developing. The new definition allows some offices to decide that fees could be waived if it is a barrier for their country. This meant suddenly many of the people who were only on email or phone data in India and Sri

Lanka are now considered members. Due to this change, Amnesty's overall membership numbers had jumped from three to seven million. The senior manager believes that seven million is still a small number, which is what prompted him to say Amnesty could learn from, his collectively termed, 'Avaaz and Change.orgs of the world'. This demonstrates not only the appeal of the larger authority of these organisations, but the recognition that they are recognised as a collective development, and movement, within the CSO landscape.

A direct comparative reference to Avaaz was also expressed by a staff member who worked with international membership. She had a tech background, spoke about data comfortably and had confidence in her opinion on the direction for the organisation including a better investment and trust in digital engagement with members. She said "If our numbers keep dwindling, is anyone going to listen?" followed by "even 7 million globally, is that enough, when Avaaz is 45 million?" (Interview 8473). This reference to the Avaaz is once again on the fear of seven million not being enough. This is symbolic of the biggest pressure that the new CSOs, and the data-driven technologies, applied at Amnesty: to grow and maintain a large-scale membership, where their authority as an organisation is represented by a number. This is in contrast to various older methods of evaluating their success including through their impact on changing laws, freeing prisoners and creative actions explored further in the next section. Amnesty has previously, and still, sets the standard for success for others, and this new aspiration is both a shift in their practices and their sense of their role in the field.

Fundraising staff at Amnesty do not carry out data-driven techniques with reference to the digital membership organisations, such as change.org or Avaaz, such as they do in the campaigning team. The desire to grow their donations using data-driven techniques comes from

the staff members seeing this as valuable in itself, rather than in comparison to other organisations. A few of the Amnesty engagement and fundraising staff believed in the importance of personal data to have an equal relationship: the collection of data is part of a conversation. As one fundraiser put it: “Fundraising is like dating: you might have long-term goals like marriage but you have to start with a few dates...Data is transactional. What you do with the data creates the relationships” (Interview 2990). These activities may often come across as a support-constituent role, but in cases where work is done to provide opportunities for those constituents to do more if they choose to, they may become leading-constituents.

Tactical Tech, as shown above, did not compare themselves to the new CSOs apart from once, and did not aspire to be like them. Tactical Tech staff are more likely to compare their work with other technology organisations such as Mozilla and Electronic Freedom Fighters (EFF), for example, one project staff member said in an interview their project is “fairly similar to surveillance self-defence from EFF in some ways...[a] distinction is we...have a few more languages” (Interview 72948). One staff member who had worked in many CSOs previously, and helped the organisation by writing grant applications and writing reports to funders referenced the new organisations as a collective, “38 degrees and others like that” (interview 29576). She argued that they are reliant on methods that were focused on numerical goals, in a way that Tactical Tech was not and did not want to be. She commented on how easy data is to use, but how that should not be a reason to use it. It is important to her as leading accountability to funders within the organisation to find measures that show how impactful the work has been. She acted as a quality checker, and therefore gatekeeper to final grants and reports, which meant this value is kept throughout the small organisation.

As is shown in their approach to rejecting data above, their privacy-first approach is an aspect they considered important and setting them apart, and about this one project manager said: “There is an element of this I really like, that tactical tech has a sense of authority to it” (Interview 15398). Tactical Tech has an authority to themselves that they see themselves as distinguished and leading a field in their own direction, whereas while Amnesty see that for their research, they believe they need to be more like the new CSOs.

4.6 Summary

I have presented findings to show how Amnesty and Tactical Tech reject data logic for their dominant role of delegate or trustee respectively. Instead, to support a delegate role, Amnesty used traditional qualitative methods and deliberative approaches. To support a trustee role, Tactical Tech used intuition and expertise to design their strategies. Both organisations rejected data logic based on the criticism particular to their model, the risk of popularity-based campaigns for the delegates and the protection of the audience’s privacy, and recognition of their expertise, for trustees. Tactical Tech, when taking on a delegate role, used the same traditional methods as Amnesty, though through less formalised processes. Amnesty, when taking on a trustee role, substantially relies on new data-driven techniques. The results suggest that data is only used to support a trustee model, as suggested by critical literature, but the recognition of the issues of data for the delegate model does not suggest that the avoidance of the techniques is only because of the risks of the trustee model, and more attention could be paid to the problems of audience-led models in the literature. The findings show, that in these cases which were least likely to have been influenced by data logic, despite the prevalence that is suggested in the literature, neither

organisation engages with it substantially. In the next chapter, I will examine what factors contribute to situations in which the principles of data logic have not been as influential for either role and why, when engaged with, these principles are mostly associated with performing the trustee role.

Chapter 5. The Principles of Data Logic

As described in Chapter 2, data logic is an ideal type consisting of four principles: quantification, scale, standardised processes and algorithmic reasoning, which can be present at different levels and in different combinations when people work with new data technologies. Commentators have argued that these distinct ways of working with data are a prevailing approach to knowledge, and consequently, that decisions are made based on processes demonstrating these principles (boyd and Crawford, 2012; Raley, 2013; Kitchin; 2014). By examining whether and to what extent these principles are present when organisations work with data, it is possible to identify the prevalence of the ideal type in the organisations' approaches. For this research, I chose two organisations which are the least likely cases for demonstrating engagement with data logic. Amnesty is an older organisation and as a result, I expected them to face friction in learning to balance the new approach inherent in data logic with its older and more established operational logics. Tactical Tech's organisational mission is to promote a critical engagement with any new technology before adopting it, and as a result, I expected it to be critical before deploying methods based on data logic. By examining these organisations, it is possible to identify which values clash with, and which are compatible with, data logic.

In this chapter, I elaborate on the second research question addressing what are the main factors that guide the decisions made by CSOs regarding their use of data. In the previous chapter, I presented how the principles of data logic were only present to a substantial degree when these organisations performed the trustee role, and even then is still not consistently present. In setting the strategy in either organisation, data logic is not as prevalent as presented in

critical literature such as the theory of surveillance realism (Dencik et al, 2016). Both organisations rejected the use of data based on the respective model's criticisms. As the choice of either model does not dictate the engagement or absence of data logic, this chapter considers the characteristics of the contexts where data logic is adopted, and where it is rejected.

There are three distinct contexts in which both organisations engage with the principles of data logic, plus one that applies specifically to Amnesty. Firstly, the principles are enacted when staff employ media that allow them to broadcast information, including online platforms such as social media or websites, traditional media outlets, and speaking events. Secondly, the principles of data logic are found in contexts where the organisations conduct fundraising. Finally, the principles of data logic are perceived by both organisations as important in communication with external authorities. Solely at Amnesty, the principles of data logic surround growth goals in which the organisation aims to expand various areas including membership, audiences and income. In contrast, the principles of data logic are absent in both organisations when dealing with three contexts. Firstly, when decisions need to achieve long-term rather than short-term goals, both organisations tend to see data logic as ill-suited to measuring anything which needs to reach beyond the immediate moment. Secondly, when decisions need to involve multiple stakeholders, both organisations have limited trust in the technical standardised processes that, in their view, can generate both false and reductionist data, which would be detrimental to complex decision-making. Finally, when performing activities related to monitoring and evaluation, both organisations often believe that the lack of context around single data points renders them meaningless.

Overall, the findings presented in this chapter help understand that data logic is not

necessarily overtaking all logics within these two different organisations, but it is mainly confined to certain areas and activities that are already amenable to the principles of data logic. The only other context that data logic is engaged in is that in which the organisations' perceive pressure to present their success in that format. Secondly, both organisations demonstrate substantial concerns with the principles of data logic based on specific needs of CSOs to incorporate many views when making decisions, especially those which reflect long-term needs. These findings suggest the need for a more nuanced and in-depth understanding of not only the uses of data but also the specific weaknesses in data logic that other approaches to knowledge may be better positioned to address.

5.1 Contexts in which Data Logic is Apparent

In both organisations, there are three scenarios in which the principles of the ideal type of data logic are apparent: optimisation of communications on broadcasting platforms, for fundraising and when communicating to stakeholders. At Amnesty, there is a further scenario in which they engage with data logic - their growth goal. Other than the final scenario, the attributes of the contexts are consistent across both organisations which indicates how to understand the factors which align with an engagement with data logic. Firstly, where data logic aligns with an existing logic as in the cases of platforms, fundraising, and also with growth which is only seen at Amnesty. Secondly, the principles of data logic are visible when staff are presenting information to people outside an expert subject area.

5.1.1 Communications Through Digital Platforms, Events and Traditional Media

Both organisations engage with principles of data logic when they engage with broadcasting platforms. This is seen much more at Amnesty than it is at Tactical Tech, but in both cases, the situations are the same: online platforms such as Facebook, Twitter or their website, as well as for traditional media outputs and speaking events. The association is observed and made explicit by staff, by referencing these issues when describing to me what they thought would be relevant for my project for example, but with little justification or clear values as to why, as few people went on to describe the specific utility of data for these circumstances. There was a sense that the use of data logic justified itself in these situations, and I also propose that this is in part because these cases already align with data logic: online platforms, media outreach, and events often already come with numerical evaluations of their success and tools around data logic have only extended these principles further.

As shown in the previous chapter, the staff at Amnesty engage with data logic by conducting audience profiling and a/b testing in which they aim to prompt an increasing number of responses from constituents. This is used predominantly to change and adapt their communications on their social media platforms and their website. Corroborating the association of data logic practices with online platforms, when I asked a member of a strategy and evaluation team that did not engage with data logic if they would ever use the data derived from these practices, she said they had considered using it to measure the use of their internal intranet page (Interview 4771). Amnesty also have a Massive Open Online Course (MOOC) and a research platform that asked people to take part in micro-actions to assist with research. The staff member in charge of the MOOC expressed when I talked to her how we “now have 75,000 people and

want to start working out what to do with that” (Interview 2990). Similarly seeing the numerical representation of success for the platform of micro-actions the person in charge said: “it was a success as 28000 people did 1146602 tasks” (Interview 1838). In the case of both platforms, the number is expressed both with pride and excitement to share their work with someone who is also working, albeit researching, data-driven practices. In neither case did the staff members see any need to give more justification of what these numbers mean, or how this would relate to any other parts of work. A large proportion of the engagement with data logic surrounded the use of online platforms, and all uses of online platforms contained references to principles of data logic.

Tactical Tech also engaged with the principles of data logic when working with online platforms, and although much less than Amnesty, given that data logic is almost absent from Tactical Tech, it is notable in the few spots the principles appear. The main use of data logic is in the use of website analytics, in which staff evaluate the success of pages and review audience engagement with their content, which they described in interviews and informal conversations. One example given in an interview was the use of quantified website analytics to show where most hits were coming from to evaluate what language to translate the web pages into. A staff member managing one of the website projects was examining whether to translate online content into French or Portuguese and decided to examine whether this was worthwhile according to the website statistics. The staff member discovered that “above French and Portuguese were Vietnamese and Indonesian, or Bahasa” (Interview 72948) and used this information to decide to translate text into Bahasa. Tactical Tech also engaged with social media platforms, and while, as shown in the previous chapter, one manager makes decisions from their own interests on what to

post with frequency but not consistency, the manager would share the figures from Twitter to the whole organisation through email, as they described, to share what people have been interested in with the organisation (Interview 61394). They also had a Facebook account but did not engage in the principles of data logic in their use or evaluation of the tool.

At Amnesty, there is also a presence of quantified metrics and scale in association with media monitoring in which Amnesty measures the number of people in the audience they reach through traditional and online news organisations. At Tactical Tech, this was not as true, as will be shown further down, the organisations were more interested in which media organisation had picked up their work rather than how far it reached. However, numbers are used to assess the success of online and offline events at Tactical Tech. One staff member from the operations and grants team listed all the types of data involved (Interview 29476):

visitors to the Glassroom [exhibition]...number of requests to host an experience [of the exhibition]...numbers of subscribers to In The Loop [newsletter]...the numbers of visits to the specific website, there is the number of trainings and training requests, the number of people who are trained, these are all on the side of quantitative data that we use and that we need for the reports.

Tactical Tech also used quantified metrics from different events they ran and attended. Exhibitions, training and events they have attended are all gathered in reports called event reports. As the staff member who manages the communications or the organisation explains, all staff must fill in an event matrix when they return from events they have organised or attended which collects information such as “what they were doing there, how many people were there and how many materials, quantifiable information” (Interview 01939). The reporting was done separately across each team, and each team decided for themselves how and when to report as

long as it is in line with the funder's requirements. These reports are not for the purpose of optimising future events, but rather to demonstrate their impact which I will go on to explore in the section on the use of data to communicate with stakeholders. In the first cases explored here, Amnesty and Tactical Tech optimise and measure the success of their website, and Amnesty also optimises social media and other online platforms. These practices utilise all the principles of data logic. In the cases of traditional media and events, the principles of quantification and scale are apparent but not the use of standardised processes or algorithmic reasoning. Audiences are not necessarily profiled and content is not tested repeatedly.

5.1.2 Fundraising

When introducing my research to the staff at Amnesty to any new staff member, most people I spoke to would immediately recommend I spoke to two specific staff members, both of whom worked in the fundraising team. Fundraising was an area in which I found the most substantial engagement with data logic was presented, both in practices and in the proclamations of staff in interviews. As mentioned in the previous chapter, when I asked a senior manager in fundraising if they use data, a senior manager responded: "Fundraising is all data" (Interview 9309). Engagement with all four principles of data logic was seen in how Amnesty's fundraising from how the team structures its work, to how it achieves its goals.

The fundraising team at Amnesty use numerical targets and benchmarks to manage their strategy and evaluation. The staff use the same techniques as those in digital communication, encouraging the national offices to profile their audience using customer relationship

management systems and experiment with different levels of testing and experimentation. Exemplary of this is one of the most recent projects undertaken by the team, the development of software called 'Kandle'. There is one staff member who works on various systems to try to centralise data and analytics for the organisation. Amnesty's home-made program, Kandle, is one of the most complex data systems apparent that Amnesty uses. Kandle shows figures for fundraising efforts from various channels, at different times of the year, with benchmarks and aspirations from across the different national offices. The purpose of the software is to unpack what the staff member refers to as the "black box" that surrounds how targets are reached by national offices by making it possible to measure quantified metrics by channel, or demographics, or any other categories they wish to program into the software (Interview 3322). This is done in a quantified way, examining how different attributes which can be presented in data impact on the number of donations, in keeping with algorithmic reasoning where it is believed that by managing the inputs and mechanisms the technocrat can have control over the outputs. The data in the software does not yet cover all the national offices, only the ones the international office staff member has chosen based on who showed interest and had the capacity to run it themselves.

This practice also demonstrates how the fundraising team also uses this style of a standardised process and algorithmic reasoning, with quantified large-scale numbers, at the level of their operations, strategy and planning. The staff create targets for each communication channel such as face-to-face, through the website and over the phone. The staff create these targets based on how much money they want to deliver, what type of person they will aim to receive money from and via what channel. They look at how much money other organisations

are getting from their members through different channels. They evaluate the success of different tactics to raise different levels of money, attain new donors and retain donors and to see which donors are most likely to drop off again. These targets reveal the influence of the principles of scale as success is indicated by increasing the number of responses.

Tactical Tech does not carry out fundraising in the same manner as Amnesty - they do not rely on small donations from the public, nor do they have a team dedicated to fundraising. Instead, they have two staff members whose work covers different operational aspects of the work including grant funding. Despite these differences, fundraising was still one of the main situations in which the principles of data logic were seen. In several interviews, people referenced funders regularly when I asked about data such as describing website analytics as “completely for funding and occasionally someone will ask what is the most visited” (Interview 01938) and another concluded the description saying “I think that a lot of funders are very hopeful that this whole data environment and big data can be used to prove and improve impact reporting on a large scale” (Interview 29476). I found this attitude in observations between staff in meetings too, as a project staff member in a meeting to plan new projects said that they "need something to drive visits because funders need outreach and want one hundred thousand visits, not ten thousand" (Observation Day 10). The staff would discuss tactics to increase their website hits so as to improve their chances of receiving further grants. I found that these techniques are never employed towards the goals of mass testing or optimising content, or via tools which do this such as Facebook advertising. Instead, Tactical Tech would look to increase outreach to partner with other organisations such as media outlets, libraries or CSOs with a public audience. Therefore, there was once again an engagement with quantification and scale, but not with

standardised processes or algorithmic reasoning, which is discussed later in this chapter.

5.1.3 Data Logic for Abstract Growth Goals

The final context in which there was a consistent use of data logic is only found at Amnesty: the use of all four principles of data logic surrounding their *growth* goal which was part of a single goal. Only in the most recent international goals set by the organisation, described in the last chapter, was there a dedication of a single goal, goal 5, to growth. Growth is defined, according to documents describing the goal and in interviews, as a quantified increase in engagement from their audience. This involves an increase in their membership from 8 million to 25 million, and from 250 million euros to 400 million euros. This was used in benchmarks, and achieving and testing tactics, measured against the quantified and large-scale goals which they aimed to use to represent the level of support the organisation gained as well as to rely on to run their projects, displaying the processes and levels of success. For example, the staff member who is creating the database software, Kandle, described how this is for different fundraisers for the organisation from across the world to input their fundraising goals and achievements through different channels (Interview 3322). The staff members from across the national offices can choose based on this system whether they want to set targets that are base, conservative or ambitious.

Those who are part of the goal 5 team talked about the importance of setting a high goal to inspire ambition. For example, a senior fundraiser said the most exciting thing about goal 5 is “scaling the ambition to be bigger and stronger, it’s not about achievable, although it is, it’s about trying” (Interview 9309). There is not only a recognition that the number is not necessarily

about any specific impact other than growth itself, but that it does not even have to be achievable - in this way a number is an abstraction of success that they find useful for encouraging engagement. This was also recognised negatively as many staff outside of the goal 5 team expressed how they also realised it is not a tangible goal and felt it had come out of nowhere. One example was the staff member working on digital engagement channels for the international office who is not part of goal 5 working group, but who is part of developing strategies for the international office and assisting national offices in achieving this goal. This same staff member said that she is not sure why they had chosen 25 million as it is not based on anything (Interview 1387). The same sentiment came from someone leading the diversity element of the goal 5 team but who had not been at the project meetings (Interview 6311).

The caution surrounding the use of data logic was also seen in a rejection of qualitative and non-standardised methods described around active participation. Active participation is a part of goal 5 to not just increase the number in their audiences, but also the quality of the audience's contribution in decision making. However, active participation was rejected as part of goal 5 initially by the working group as it didn't have any "definition or measurement of exactly what they will be so we can't tell if we are doing it well and don't want to take responsibility for it" (Interview 9309). In one strategy meeting on goal 5, a member of the fundraising team talked about the importance of avoiding "selecting change goals that are not going to be monitored" a criticism which they levelled particularly at active participation (Observation day 30). The staff member representing the incorporation of active participation in Goal 5 meetings rarely spoke (Observation day 30). The rejection of qualitative goals within the growth goals also showed an inability for data logic to coexist with alternative methods.

Tactical Tech does not have any goals or objectives based on growing their audience. The staff have to report that they have reached certain numbers of people engaging in their products for funders. However, the staff do not have internal goals which are solely based on growing the number of funds or audience members. This may change over time though as their projects have previously been focused at other experts who represent others - other CSOs or activists - but are now directed to a public audience. The public projects may lead them to work more on quantities of constituents. The communication officer notes: “And things like classroom change things because it's really public-facing, the more people know about us, so changes the way we communicate” (Interview 01938). Tactical Tech does not currently have any strategic goals presented to the team around the concept or growth or to increase the number of funds or audience without these being connected to the specific aims of a project.

5.1.4 Presenting Information to Others

Both organisations engage with quantified metrics and scale in contexts where they are communicating with stakeholders such as for their accountability to funders and management and as evidence of the audience’s support in order to have an impact with external authorities. At Tactical Tech, as described above, the only consistent use of quantified metrics and data technologies is in reports to funders. As was said in an interview with the staff member managing communications funders (Interview 01938) “each funder has a different kind of layout but normally, it will say something like one of the deliverables will be to have so many new visitors to the website”. The funders set formats for reports which dictate what the organisation gathers data for and this includes a variety of platforms in which the broadcasting of information

can be measured. However, as a manager said, the organisation is “often asked by funders to deliver more data which we don’t have” (Interview 61394). Further, the staff push back when funders request granulated personal data, providing the broadcast aggregate data. The staff “try and sort of coach the data sensitive questions before they come up so the pressure doesn’t exist” (Interview 29476). However, this remains a context in which Tactical Tech uses quantified and large-scale metrics.

Tactical Tech does seem to recognise that this perception needs to be challenged and at a strategic meeting one staff member said: "the board just don't give a shit about numbers" followed by "people are so used to giving numbers and reports are all numbers and statistics so hard to get out of the mindset" (Observation Day 30). As one project officer says, recognising the issue that the values around data are something that comes from a widespread belief (Interview 72948):

I don’t think it's that simple, I think funders experience their own pressures and funders feel the need to say ‘oh we are improving and efficient and getting good value for our money’, and I think there are a lot of larger challenges of narratives around efficiency and evaluation of results.

Tactical Tech recognises that funders are under pressure too and that this pressure comes from larger forces around accountability. This attitude was not present at Amnesty, and as will be explored in the second half of this chapter, the staff were more likely to feel that the external stakeholders they had to communicate with believed in data logic and it was their job to push back.

At Amnesty, as was explored in the previous chapter, quantified metrics are considered

important for the ability to have an impact on authorities outside the organisation in their campaigning. To repeat a key example with this in mind, one fundraiser who had worked a lot with the movement justified this belief in the power of quantified metrics by explaining how they were “trying to get meetings with politicians and as soon as we hit 100,000 we were suddenly getting meetings as the politicians knew we held power” (Interview 2990). Campaigners believed that external experts such as intergovernmental organisations such as the UN, politicians and government officials from different companies and large companies would be more likely to listen to them if they could demonstrate wide public support in a quantified format. Their need for authority using their large scale membership numbers is not always with a specific target in mind; the staff believe they only have the mandate and authority to exist if they have the large-scale audience which a large quantitative number would represent. For example, in relation to the previously mentioned policy on the protection of the rights of sex workers, one staff member said: “Human Rights Watch had worked on sex workers for ages but the democratic structure of amnesty is what made it get in the news and controversy, size of the movement is important for that” (Interview 6311). There are many ways they have previously displayed this authority, such as through the visual imagery from protests and media coverage of the presentation of petitions to authorities as spectacles. These are still used, but are now accompanied with - and seen by the staff as validated by - the numerical representation of their constituent’s support for either that cause or for the organisation as a whole.

The use of data is not only used to persuade external authorities but also to prove the success of data technologies to internal stakeholders. Amnesty staff in a digital communications team are in charge of the social media and website of the international offices as well as,

providing ad hoc support to national offices and specific projects for their online communications. The staff collect data for all International Secretariat owned channels, and argue that other people in the organisation have more respect for their work when they can demonstrate its success, citing the numbers they might use such as those from website analytics or social media. One of the team's jobs is to carry out insights analysis. Insights analysis refers to the reports they produce weekly on the number of visits to the website and the website traffic. They send these reports to teams. When I asked about why they produce these, several of the team commented that the purpose of these according to the team members is for weekly reports for "justifying digital-based decisions in the organisation" (Interview 6358). They believe the most effective way to do this is to demonstrate their success through reports of quantified numbers, to managers across the office. This is the purpose of the previously mentioned joint platform, Kandle. "The name of the game for Kandle is to allow more investment in digital and data" (Interview 3322). Those working with data-driven technologies felt pressure to prove the success of their tools and felt the best way to demonstrate this to others is through numerical metrics.

In all of these cases, staff in the organisations use numerical evidence, usually presenting a large-scale level of engagement from an audience, to prove their success to someone other than themselves. This is perhaps because of a commonly perceived value of data logic to others. In this case, it is the belief that others hold data logic in high esteem that is widespread, as opposed to the use of all the principles within their own decision-making and operations. A more sympathetic view, and broad theory, is that numerical data is also easy to communicate, and can act as a shared language. The use of numbers in Tactical Tech's reports to funders, and in

Amnesty's representation to authorities as well as internally between staff is because numbers provide an opportunity to share a language to communicate the impact of their work. The staff may work across different types of projects with different types of goals, but everyone can understand numerical goals and can see the progress next to them. This is important for a funder to hold others to account, especially if they are not a specialist in the CSOs' field. It is also important in cross-team projects where they need to find shared goals together. However, this only explains the use of quantified metrics and not the value placed in scale nor its association with online platforms reliant on all four principles of data logic.

5.1.5 Summary

Data logic is seen in association with the optimisation of online platforms, particularly at Amnesty. The platforms are set up and managed through algorithmic reasoning and provide quantified metrics which allows external authorities to measure the success of their communication. Staff engage with data logic in the situation where the platforms are already set up to do so. Engagement with data logic is also seen in fundraising, whose logic is already similar to that of the ideal type of data logic - quantified metrics and targets have traditionally been used to represent the successful raising of funds, so it is not a new skill they must learn when it is applied to people's behaviours. Furthermore, the importance of data for the staff at Amnesty is also for their use for targets for growth based on their ability to measure and improve the quantity of constituent engagement with the organisation which is based on algorithmic reasoning. Data is mostly used in situations where logics already align, such as fundraising and online platforms. Metrics are also used to represent the success of the online platforms, as well as

a broader set of platforms including media monitoring to track mentions in media outlets and event attendance numbers. I argue this is due to the perception that others, such as funders or managers, have faith in data logic. I also demonstrate numbers may act as a shared language when communicating between stakeholders with different expertise. Further, the use of data when communicating with others could be because there is a desire to be perceived to be engaging with data logic or recognising respect for it from other experts.

5.2 Context in which Data Logic is Rejected

In chapter 4, I described how both organisations use a variety of traditional methods, either as delegates or trustees including personal judgement, written feedback, and deliberative approaches. The following section shows that data logic is rejected in favour of these methods for three clear reasons. Firstly, data technologies prioritise real-time results which in turn favours short-term wins rather than long-term difficult campaigns. Secondly, the lack of control over the standardised processes leads to inputs which create false and context-free opinions which are deemed by the staff to be unhelpful for decision-making which involves multiple stakeholders. Finally, the nature of representing information as unique values disposes of the contextual and narrative information which the staff believe is necessary for evaluating complex social change. The issues with data logic are well established and rejected in the organisations, showing that it is not prevalent everywhere and in particular, there is a caution to such an approach when complex social change is needed, which requires personal judgement and inductive, qualitative approaches rather than the deductive simplicity associated with the methods of data logic.

5.2.1 Long-Term Goals and Short-Term Data

During my research, I was invited by the staff member at Amnesty to attend a conference with her, where she was presenting on how Amnesty chooses what to prioritise for its campaigns. As she began her presentation she said with a laugh “I feel I should warn you, unlike the other two, this is not a presentation of graphs” (Observation Day 36), referencing the graphs that had been presented in the last two presentations from an environmental NGO and an international development organisation showing how they prioritise their campaigns. Amnesty International sent a representative from the strategy and evaluation unit to discuss priority setting from the human rights perspective. The representative from Amnesty explains that the organisation’s decision-making does not lend itself to graphs like these, which require numerical analysis and, through algorithmic style analysis, present order to the information. She goes onto describe the priority setting explained in the previous chapter, in which they use their intuition and discussions with members and staff to decide priorities within the goals and allocate resources. While most of the use of the traditional techniques is implicit, in that staff do not reference a rejection of data logic when using alternative methods, in this presentation, the staff member from the strategy and evaluation team makes references to their rejection of data.

Another staff member said in an informal conversation: “We are finding a lot of pressure to be evidence-based” (Observation Day 36), referring to how they feel Amnesty needs to show numerical data to their board or external groups to prove their success. In a follow-up interview, the staff member expressed concern that there is pressure from the board to constantly document numerical results, in a value, she placed on them as their need to show value for money (Interview 9887). Her concern was based on the issue that the data could not represent the slow

and long-term change associated with the speed in which popular opinion changes. An example was given of one campaign in a country that is currently not getting very much media attention. In this country, there are substantive issues they are working on with no clear way to make an immediate impact, in this case, because the change in power in the Government has led to a limitation of human rights in the country. A staff member who is part of the team campaigning on this country also confirms that they need to be able to keep working on topics, even when sometimes external factors mean that they cannot have an impact, and being accountable to real-time transparency of data can prevent this (Interview 2093). The data-driven techniques associated with data logic focus on campaigns that have short-term popularity, which is not effective for long-term change.

The staff member presenting to other organisations also references the use of data to money and in the priority setting workshop she said, “Social change doesn’t happen according to market forces - if Nelson Mandela didn’t carry on even when there was little impact, nothing would happen...[the] value Amnesty adds can’t be calculated” (Observation Day 36). The organisation must continue to invest and work, even when the impact is either not measurable, or where the data reflects that opinions suggest otherwise, and the current impact level to be minimal or even non-existent at the time it is measured. The staff trust their judgements and expertise to make a decision more than a figure that represents, say, their previous impact, or the predicted impact. They also believe that data would have a pretence of transparency but in fact, be responsive to short-term and easy wins rather than their difficult topics. While the staff who are keen on data in fundraising and within goal 5 are keen to use more data, staff in strategy and evaluation and research teams are cautious about this perception of transparency due to its short-

term outlook.

Tactical Tech also does not regularly discuss this weakness of data. However, when prompted, the staff express a similar concern based on the short-term nature of the data. One staff member working on digital security projects expresses that there is (Interview 72948)

a lot of unintended consequences from what is considered fundable...I mean funders want to be like 'oh look we did 17 trainings' and that's crap, trainings don't work like that...I'd rather have year-long security trainer fellowships or multi-year long

Other staff in meetings, particularly those working in grants and reporting, expressed the importance of avoiding setting targets which would focus on quick fixes and instead value the acceptance of the complexity, and potentially more difficult to measure, changes they are trying to achieve. Though not an explicit often rejection, the rejection of numbers to funders and the appeal to small scale qualitative partnerships is seen in their practices instead.

5.2.2 Technical Standardised Processes Lead to False Data

The staff at both organisations present the belief that the data will never be an accurate representation of the object or person it represents. The inaccuracy is not considered a problem when the data can be useful as a tool, such as the abstract goals to aim towards, or to optimise a platform. However, the inaccuracy in the data is considered by both organisations as counterproductive to capturing people's opinions, whether their reasons for engaging with certain materials or to be able to make decisions with multiple stakeholders. Instead, when making decisions, the staff in both organisations prefer spaces in which there is space for

deliberation and information is qualitative. There is both an active rejection for data in these cases, as well as an affirmation from staff that

This rejection of data analytics is not explicit at Tactical Tech: the staff do not explain to each other why they will not be using data. Instead, the criticisms are given only when prompted by myself, or by funders requesting the data. During interviews with staff members, I asked why they did not use website traffic in decision-making, to which several staff members dismissed the accuracy of this data of representing engagement. Two staff members mentioned how they believe some of the highest peaks are likely from bots (Interview 72948; Interview 36724). As mentioned previously Tactical Tech also pushed back to funders who asked for statistics to explain the importance instead of measuring their work by the small-scale but meaningful impact. The collection of information to understand what people would like or want is instead gathered in smaller-scale and qualitative formats. In one project, a staff member needed to test the product to make decisions for form and language. To do so, she asked staff members and people in her own contacts to go through the product and tell her how they felt as they used it - in line with design principles around products. Although, as shown above, the staff used data showing the use of the website to decide on the language to translate the content into, for the most part, content and many of the translations were chosen by the staff or through requests from other organisations, showing a preference for small-scale and expert-led, rather than data-led, decisions. When discussing creating impact and assessment reports in a skillshare for the office, someone said: “surely we could make up qualitative statements” but it was laughed off when someone said, “why would anyone do that” (Observation day 2). The nature of qualitative data, which may be less standardised, is that it is also a more accurate representation of events.

The staff at Amnesty also recognise the problems with standardised processes in collecting data, and the issues with considering data to be objective or accurate. The strategy and evaluation team gather information through standard action reports which measure impact for the national offices, and they removed the spaces in the reports for reporting Facebook and Twitter stats. When I asked about this decision to a member of the team, they said it was because they believe these online metrics could be fake or made up (Interview 1387). Further, one of the reasons the strategy and evaluation team said they did not listen to the results of the large public survey they carried out, explored in detail in the previous chapter, is because they knew how fickle the data from the survey could be. By changing the ordering of questions they noticed a change in the topics which were considered priorities, and so while the data might be informative in some respects, it was not a concrete fact which they would want to use to lead their decisions (Interview 8443).

One of the main contexts in which concern over the validity of data is expressed at Amnesty is around their federated structure. At Amnesty, there are 70 different entities and various teams within the international offices. Each carrying their own data collection and consultations. By having both an international office that oversees strategy and evaluation and national offices that manage the relationship with their respective national constituents, the international office has a difficult task in creating data collection systems that work worldwide. As a campaign manager explains to me (Interview 0164),

we're a long-standing institution, we are federated in our structure, and that means our data is also very fragmented, so data is held by each of our national sections, some of that is held here at the global level, but...they have all grown up independent of each other and it is very difficult to actually have any meaningful oversight of what is out there.

Every country has its own way of collecting, coding and managing data making it very labour intensive to merge into a single database. As the campaign manager continues to explain to me “Amnesty is very fragmented and very diverse and each of our national offices in a slightly different way, looking at where we need a consistent definition for what we are actually tracking, but that is much easier said than done” (Interview 0164). As every office has their own system the data is not always in a consistent format, which is necessary for the processes to be standardised. There are different resources, skills and job roles which manage the data. As proof of this, at the question and answer session between the strategy and evaluation team and national offices, a wide variety of different roles turned up from many directors to campaign coordinator, to organisational development, to Donor Relationship. (Observation Day 11). This also leads to different resources affecting what software is used to manage the data, such as excel spreadsheets or customer relationship management systems, which affects the consistency of the format of the data when it is reported to the international office.

Furthermore, some sections have relationships with their constituents based on face to face interactions that do not depend on contact data, or whose addresses are based on a less centralised national system (for example, the first cream house on the right up the hill to the mountain). As the campaign manager, also in charge of goal 5, said: “collecting that contact information might be challenging for some sections as it might not be standard of practice” (Interview 0164). In a meeting in which national offices could phone in to ask questions about reporting, an East African country national office asked “how about people without contact details?” (Observation Day 11). This is not just an issue of different formats, but different methods for contacting people which by their nature necessitate that the data logic principle of

standardisation cannot take place. This leads the national office to rely instead on non-standardised processes for gathering information. For example, in the documentation of the standard action reports they describe “If you currently have no way to provide the exact number of your entity’s members (e.g. due to national legislation or the way your office is set up), please leave this category blank, providing comments in the ‘comments’ column.” (Amnesty, 2016b). The staff in the national office created data collection and hosting systems that protect the quality and quantity of responses from a diverse set of national offices, and subsequently, there is a lack of consistency present that is required by the data logic principles of quantification and technical standardised processes.

5.2.3 Context-Free Data

The third context in which there is a clear rejection of data in both organisations is in evaluating complex change as data that can be stored in a database lacks informative context. Amnesty’s evaluation system presents questions to prompt people to evaluate their theory of change through storytelling, in which staff fill in text boxes with a few in-depth descriptive examples, rather than aiming for scale. While there is a column for evaluating the change in behaviour on a rating of 1-4, this is accompanied with text boxes for describing in detail a few scenarios in which they witnessed a change. This is all coded in a manner in keeping with more qualitative methods of coding: drawing out of significant themes based on the staff member’s intuitions while reading the reports and highlighting key examples rather than any quantitative measures, which I was trusted to do while I was in the position of participant as observer, and taking part in the work. Amnesty, instead of using data logic methods to evaluate success, used qualitative methods

associated with narrative, allowing for context and nuance.

The aspects measured in the standard action reports are human rights impact, growth, stakeholder participation and diversity and for human rights impact and stakeholder participation, the forms involved text boxes for free text qualitative answers. The forms they sent around for monitoring and evaluating many aspects of their work gave plenty of space for qualitative and personalised responses and they embrace storytelling as a form of reporting. They only sometimes used drop-down menus even for short answers. An example from their annual project review form which was followed by open text boxes (Amnesty International, 2016):

Analyse up to three important outcomes from this reporting period outlined above, either because they are the most significant steps towards one or more of your objectives OR where your project was particularly key in achieving them.

The staff are dedicated to the quality of response from the national offices, at the expense of the ease which a data logic approach could offer in the standardisation of data through reducing it to a unique value. They found no survey software adapted to their questions and instead of adapting their questions they instead used an excel spreadsheet and a word document. The staff accepted that this presented an issue of information it would be useful to standardise, for example reporting on the Americas could be written *Americas*, *AMRs*, *AMR*, or mistyped such as *Amricas* as it was free text.

Staff members who engage with data logic substantially, working in digital communications teams and fundraising, also see the importance of context, instead of finding ways to do this within methods based on data logic. A staff member complaining about the use of

data from the team working with analytics from social media said: “There is a huge buzz around metrics in this organisation and we have to push back” (Interview 1387) and arguing that “it’s not metrics for metric’s sake” (Interview 1387). Instead, these staff members want to produce reports in which they have already carried out analysis and generated what they refer to using the term common within data science roles in the organisation: insights. The same person who said that fundraising is all data also commented that she did not think campaigns should be, because 850 petition signatures cannot “be considered a success without comparing it to what and to who?” (Interview 9309). The lack of benchmark or target renders it meaningless. Numbers are tangible only if given their context with other numbers, which is how those engaging with data logic give the numbers meaning.

Many staff at Tactical Tech also demonstrated a belief that quantified data did not have enough information or context to be informative or demonstrative of the organisation’s impact. A manager who works on evaluation in the organisation says that the metrics do not “say anything about our impact or the outcomes of it” (Interview 29476). They do not believe data can show the complexity necessary to capture social change. The staff member who delivers training explains how the numbers around training do not give anything away “we can’t know how successful something is by how many trainings there are, maybe one is enough - it’s really tough” (Interview 72948). She continues, reaffirming her point by saying that targets are “proof that we did stuff but how many trainings we do depends on a whole bunch of different things so it’s not like we can internally use those numbers for very much” (Interview 72948). She goes onto explain that there are many factors that go into how many trainings they carry out for example, whether they have the resources, whether they want a one-off training or they want

something that is embedded in a regular format in their work and whether they have new staff regularly. She also describes how training does not necessarily lead to success which can be based on a whole variety of factors limiting the use of the information of how many training events the run.

Several staff members connected this rejection of the usefulness with the lack of context. As a manager said at an organisational wide planning meeting "we need to be more outcome-based and less output base, the board don't know why we have given out 8000 boxes" (Observation day 12). This is confirmed by the people at the reporting level too. The staff member who manages grants and funding describes the use of numbers form their newsletter or website saying (Interview 29476)

that says they've done that and that you've reached a number, but it doesn't say anything about whether your website is any good or your newsletter is any good or if they read it or if they took an action or spoke to a friend after reading the newsletter, so it's not meaningful in an impact or outcome point of view.

The staff can measure these numbers but they do not answer the question of impact alone, and as they are often alone, they are not used at all. As a project officer on one project said: "there are legitimately times that $2+2 = 5$ and that's really hard if you don't come at it with that understanding mindset" (Interview 72948). The manager of grants and reporting said: "you could work for ten years on changing the law, and then nothing happens, then you don't have to worry about attribution" (Interview 29476). The recognition of the difficulty of measuring the social change in reductionist numerical form is recognised across by many Tactical Tech staff. The staff member, even with this recognition, continue with the criticisms, however (Interview 52398)

I do find web stats kind of frustrating because you don't know... what people are thinking behind it, so say you had a thousand visits to the website, it's like okay that's great, but how long you know, you can kind of see from the stats how long they stayed on there but did they actually look at it or did they just have it open, I feel it's kind of frustrating cause you don't get the context behind it,

This staff member explains that she believes in this value because her work is about people. Instead, she asked groups to provide information in open text form surveys after workshops or through journals. In gathering information, these qualitative forms were trusted over and above data, which is explored further in the next section.

Instead, Tactical Tech relies on focus groups, verbal feedback at events, and feedback forms which are “not that scientifically representative but...a way to gauge some of the feedback that we got” (Interview 29476). Another staff member who mentioned above how much she wanted to know the context of why people are engaged also expressed the joy of qualitative feedback instead. She describes how in (Interview 52398) “you really get an insight into how people really feel about [the workshops]...I love doing sections of workshops where I get a lot of written ideas from people, post-it notes...because you get a lot more insight”. She also explained that she enjoys receiving stories, anecdotes, images and videos from people who run events with Tactical Tech's contents as she feels “you could be there” (Interview 52398). This sense of being there is important to her in evaluating the success of the project, over the number in attendance or the number of events. The staff collect information on their impact through feedback forms, engagement through conversations, emails and chats, objects and information taken away from events as well as anecdotes, quotes and examples (Observations Day 12). This sense of context is important for all the staff in evaluating their impact, rather than, what they consider to be a

meaningless value of a number representing their activities.

The staff at Tactical Tech also believe that data needs to be given context if it is going to be used, through other data. As an operations manager brought up website metrics at a staff meeting regarding impact assessment and said “[if reporting] visits to Data Detox Kit online doubled... for this sort of thing you need a baseline” (Observation Day 12). Another staff member who works on a few different projects that both involve trainings and online content said (Interview 52398)

it's good to know, for example, if you have a 70% bounce rate, and you feel really bad about that, knowing that maybe all the other sites have that sort of bounce rate than you are like ‘oh okay I guess that's how people on the internet are’, so in that sense it's good to know what the other sites are doing and how your site compares to other websites that tactical tech runs

However, this recognition of the need for baselines or analysis to make sense of data did not mean that data-driven methods were engaged with. Staff continued to reject methods associated with data logic when conducting impact assessments and evaluation because they desired to see more context that they believe images and qualitative data could capture better.

5.2.4 Conclusion

Quantitative data is considered to be reductionist and limited to demonstration short-term opinions, weighted towards representing opinions that are not conducive to long-term campaigns. The algorithmic reasoning of data logic is considered to produce inaccurate results which prevent them from being useful for deliberative decision-making involving multiple

stakeholders. The standardised processes lead to quantified data which is context-free which is not useful for understanding why or how change happens which is context necessary when evaluating social change campaigns. This belief reflects the issue raised by Karpf (2017) that measuring social change is far more complex than measuring the success of an election outcome which is based on a percentage of the vote. Karpf (2017) suggests that this is the analytics frontier, that which is currently not measurable but with the development of techniques and scale of data may be challenged. However, this may not address the short-term nature of data-driven methods, nor the need for context asserted by staff in both organisations. In particular, both organisations, and many CSOs, work on unpopular campaigns and there are so many external factors that go into changing policies, behaviours and laws. The limits of data may not be fixed by the further application of the principles of data logic - increasing the quantity of data or developing more robust standardised processes - but recognising when they can help achieve a goal, and when they cannot.

5.3 Summary

Both Amnesty and Tactical Tech engage with data logic in the optimisation of online platforms. Amnesty also used data to improve their tactics for fundraising, and Tactical Tech in its communications with funders to demonstrate the effectiveness of its activities. Amnesty used the data-driven methods to increase the number of constituents they address and the number of actions they undertake to support the organisation. Both organisations also valued the use of quantified goals and evaluation metrics as a way of communicating to authorities outside of their discipline. In these cases, the principles of standardised processes and algorithmic reasoning of

data logic were not necessarily present in their operations, but only in their communication of success. In this case, there is either a different logic in how people communicate, or there is a perception that data logic would be approved of by external authorities and this is how best to communicate success even if they are not engaging with it in their practices.

Both organisations relied instead on qualitative methods, their intuition and expertise, and deliberation with members or experts to build their strategy and evaluate their impact. These traditional methods, that do not display any of the principles of data logic, are regularly associated with the organizations' desire to focus on complex, and at times unpopular, issues, as well as long-term change in social and political rights, which require something other than the short-term metrics that data logic provides. The evidence that there is recognition of the issues surrounding data logic, as well as the adoption or continuation of the use of alternative approaches, challenges the perception that practitioners are unquestioningly engaging with data-driven practices. Further, the communication of information which demonstrates data logic, without engagement in their own decision making, is based on the perception that data logic is persuasive to others and presents evidence for better research and argument for the utility of qualitative, inductive and deliberative methods in CSOs practices.

Chapter 6. The Technocrats, Software and Data Doubles

Research so far has focused on the impact of trust in data logic leading to entrusting three agents, technocrats, software and the data double, to make decisions on behalf of the political representatives or the constituents; when data logic is followed the agents are treated as neutral and therefore are seen as not having any notable impact on the outcome of a process. This is despite widespread evidence that these agents can be biased and error-prone. The trustee and delegate models traditionally envision two main agents in decision-making - the political representatives and their constituents. The agents in the data-driven technologies disrupt three parts of this traditional decision-making process: the role of technocrats, the use of the software, and the faith in the data double. How the agents function and operate in practice can affect the outcomes of the data practices, and therefore the staff's performance of their desired role vis-à-vis constituents, as trustee or delegate, and their ability to manage their engagement with data logic in generating knowledge. This chapter examines the findings from the third research question which emerged from this review: In what ways do the organisations engage with the roles of the technocrats, the software and the data double when making decisions?

The findings show that Amnesty engages far more than Tactical Tech with data logic across all areas in which it is used, described in chapter 5. This is reflected in the different ways in which the organisations treat technocrats. The findings show that the staff at Amnesty have a categorical concept of technocrats – defined as staff members with specific job titles and responsibilities relating to the operation of data-driven technologies. By contrast, at Tactical

Tech there is no distinct concept of a technocrat, technical expertise is integrated into each staff member's role. I argue the degree to which the organisations distinguish the role of technocrats correlates with the degree to which it adopts data logic. In both cases, the organisations' engagement with technocrats is separate to the engagement with data logic, though impacts the ability to make choices in the engagement of or not. The literature often subsumes the trust in the processes of data logic and the trust in technocrats. For instance, van Dijck (2014, p.204) argues that "Dataism presumes trust in the objectivity of quantified methods as well as in the independence and integrity of institutions deploying these methods." However, the findings presented in this chapter highlight that organisations establish relationships with technocrats separately from their relationship with data logic so that they occur independently. In addition, in both organisations, the role of software is dictated by the staff's principles which is consistent across Tactical Tech and divided between the technocrats and non-technocrats at Amnesty. The data double is treated separate to these agents, and, as will be shown in this chapter, are treated in relation to the organisations' views of data logic described in chapter 5.

6.1 Technocrats: Integrated or Isolated

Technocrats have technical expertise in using data technologies. The organisational positions they may hold include data scientists, programmers, digital engagement experts and social media managers. As we saw in chapter 2, the processes surrounding data practices place the technocrats in positions where they can influence decision-making. Technocrats can choose what data to collect and how to analyse and present the data. In the case of digital engagement experts, they operate data-driven platforms such as Facebook, Twitter, Website and Emails. They may also

choose how to present this data to others, including what data to visualise and what data is left out. Amnesty distinguished the technocrats within the organisation, giving them full responsibility for the data-driven technologies and rarely integrating them into decisions outside of the technologies they operate such as strategy, campaigns and research. At Tactical Tech, there is little distinction between people who have knowledge about technology and those who do not. The staff are confident in discussing technology and have control over the influence on decision-making. Decisions are made at Tactical Tech with mixed groups of experts with little distinction between those who are experts in the use of technology and those who are not.

6.1.1 Isolated Skills of Technocrats

Amnesty's technocrats are clearly distinguishable within the organisation by both their job titles and the attitude towards them and their work. When I introduced my work to staff at Amnesty almost every person I talked to would helpfully recommend other people they believed I should talk to, and consistently it would be the same set of people: the digital engagement team and a few singular roles in fundraising, membership, and research. The digital communications team and singular actors across the other teams are isolated. The role of all of these technocrats is demonstrated to relate to perceptions of the values of staff surrounding data technologies. I will separately explore the role of IT after who are often not mentioned by staff, but also demonstrate how the organisation overall does not integrate data-driven practices. The distinction of staff in technocrat roles in their job roles is, as will be shown, an indicator of the separation of their work from other parts of the organisation, such as strategy, research and campaigns.

The isolation of the technocrats in their job titles and roles was also visible in their work. The staff in the technocrat roles generally worked alone, with full responsibility for decisions on the operations and evaluation of the platforms. For example, The digital engagement team are considered technocrats in the organisation. The team expressed that they had full control over. The technocrats are only involved in making decisions when the operations of one of the data-driven tools are needed. The technocrats are not in charge of the content. The staff receive the content from other teams which they then upload to social media and the website. The digital engagement team are not in charge of the success of the campaign but are in charge of the success on the website or social media.

The two other singular roles in data in other teams including fundraising and research expressed in interviews the same frustration at needing to set their deciding on the software they choose, one of the staff members expresses to me that she thinks if they had a data expert in their team it would have been a better decision (Observation Day 8). However, these same two staff members in the strategy and evaluation team in a few informal discussions talked about the different types of software they can use and have tried for collecting and hosting the data. The staff in this team also discuss the limitations of the different methods for approaching data and talk with confidence in interviews when asked about their work. However, when a tool such as Google Analytics, or online data is described, they would still point me towards the technocrats (Observation Day 8). Despite being someone who works on the databases that hold the qualitative and quantitative data for the strategy and evaluation teams they did not think they could talk informatively about the organisation's use of data.

Amnesty treats technocrats as those who are knowledgeable in the operations of data-

driven processes. One manager in campaigning, when I asked in an interview about what data the organisation uses, said: “We are getting better competency on this, so it sits with a few different places now, some in campaigns, some in comms, some in fundraising, and the international membership team” (Interview 0164). When introducing my research at Amnesty, there were two types of responses from the staff who were not in technocrat roles, either an excitement where the staff would want to hear more about my research and how it can help their work or dismissal of relevance in which case they would point me towards someone they perceived to be a technocrat. In the first case, I discovered it was because, by introducing my research topic, I was categorised as a technocrat to these staff. In the follow up with these staff they would, often in a confessional manner, say that they do not know anything about data-driven technologies and they were hoping I could help them learn more, as a technocrat. One staff member, after expressing her own inability to engage with the topic said to me “it’s good you find it so interesting” (Observation Day 3). She believes that the organisation has to work with data-driven technologies but did not feel she had the expertise or the enthusiasm to do what she believes it would take to be an expert. Others expressed similar sentiments that the knowledge and use of data-driven technologies was not part of their role, but instead the role of the staff who they perceive do have this expertise, any one or more of the technocrats listed above. One campaign manager who discusses how she sees the individuals doing data as different, says “I do think you need people with specialist skills who understand how to pull high-quality analytics and read them accurately and...a bit of neutrality can be a bit helpful, we don’t have a stake in this, but this thing ain’t flying, and this is” (Interview 0164). The manager specifically wants someone who is not invested in the outcomes of the work to provide a neutral

assessment of how well communication is doing.

At Amnesty, sometimes the digital engagement technocrats would act as gatekeepers to the data, keeping hold of their status as technocrats. One member of the team describes how she had to sort out who would have access to google analytics. When she began 189 people had access to google analytics. She wanted to change that because “they weren't doing things like excluding crawlers and people were going in to pull in one data point, but it's not the full pictures so it changes the image...I wanted to control that” (Interview 1387). Instead, she created weekly reports which she sent to teams with the information she deemed relevant to them. She only gave access to a couple of people who knew how to. This created more work for them but it is, to them, better than someone who is not an expert, or technocrat, creating the information themselves. The person who worked on social media argues that people do not “see the difference between analysis and insight” (Interview 6358). The most important bit for her is the latter. To this manager, the difference between analysis and insight is that the former is a context-free number discussed in the last chapter and insight is being able to say what this means. The staff member who described having to manage up said that the senior managers “love numbers but I don't think they really understand them” (Interview 6358). She also described how people get really excited about big numbers but no idea what it means. Both these staff members want to control the interpretation of the data, not believing management or other staff to have the technocrat skills to manage to correct themselves.

At Amnesty, there is one anomaly in the staff, who is managing to integrate many of the staff members and their work together, and who everyone assumed I'd be talking to (Observation Day 9). This single force is a technical staff member in the fundraising department,

who has created a working group with senior management support collecting together people with data and insights in their job titles or with that expertise. The aim of the group is to collect information from the national office staff and international staff and external organisations to put suggestions forward for investment from senior management for some form of support for the data and insights capacities of the organisation. In line with the values outlined above, he is trusted by managers to have the freedom to spend time on the project, without much oversight. This group is unique as it has produced interest and conversation across teams - albeit only between other technocrats. The staff member may have been successful as he is very charismatic, talking to people around the office regularly, interacting with different teams and signed off one email relating to the working group, “hugs to all” (Observation Day 38). He also has a background in technology companies, and, in keeping with their standards around alternatively designed offices, he is the only one to use the new standing desks in the organisation. His comfortable separation from others in terms of expertise and distinct nature associated with tech start-ups contribute to his ability to create a cross-disciplinary group on data-driven methods.

At Amnesty, the IT team are considered service teams who provide to the other teams to support the internal operations of the organisation. This not only gives them the same isolated technical status as the other technocrats but also means they are only incorporated into plans which are necessary for internal systems such as hardware and software for staff, rather than any external-facing project work. This is despite their expertise and enthusiasm to be involved. At Amnesty one week into my research, as mentioned, I had been introduced to many of the people considered technocrats listed above. During this first week, I had been sitting near someone who I had not been introduced to. In the fifth day, he introduced himself and the conversation went as

follows (Observation Day 5):

Staff member: I don't think we've been introduced actually, what is your role?

Me [standard response]: I am doing research looking at how the organisation is using data, specifically data around social media metrics and website traffic

Staff member: Okay.

Me: How about you?

Staff member: I am a consultant looking at documenting all the data the organisation is using.

During his time he assessed which data existed across what teams and how it might be connected in a central database. While our aims were different, our objectives had a lot of overlap. The other staff I had spoken to had been happy to point me in the direction of different staff, and knew of this staff member on a personal level, talking to him regularly in the office, but nobody had considered this IT consultant important as a contact for my work.

This story turned out to be a foreshadowing of how organisation's attitude towards IT: they are barely visible, called upon only when there are failures in systems they have been expected to set up in the background supporting internal operations. There are four people I spoke to in the IT department who all feel they cannot make a difference in the organisation around data management. Three of them expressed frustration that they are disempowered by the organisation or teams to provide the support that they felt could be possible by teams not involving them in planning meetings or project meetings. Two of these staff members had even spent time as part of their job investigating different systems for comparing data across the organisation, including communications data, but had found no way to work with other teams to

implement their research. The consultant who I had sat next to ended up developing as much as he could, but the documentation of his work is not integrated into any of the major planning documents that I saw. A manager within IT said he would be passing it onto another staff member but there is no sign of when this might happen, and the new person would be able to do what they want with the work so it might not be carried on at all.

The chief information officer, who is interested in being more involved with data, and had hired the consultant above, feels he is not involved in data, despite feeling it is his role. Again, this is despite his enthusiasm. When I was in the office, he had worked with me before, and we briefly caught up and I explained my research. He was excited to hear about the research and asked “do you have ten minutes now?” (Observation Day 12) expressing a desire to show me what he has been working on. He went on to show me various pieces he had been working on, including through software which showed the analytics of the website. He had also been researching tools for social listening and described his findings from this research to me. He did not, however, understand how to get other teams interested in this work. His only contact through to other teams, he believes, is through the management but this had not been fruitful. He had also spoken to some of the other technocrats but their conversation had not led to productive outputs. I argue that this is because the staff of the organisation viewed the IT professionals as internal support rather than helping with the software relating to their external communications, and the technocrats in other teams already felt they had to be solely responsible for the work, as shown above.

One staff member in the strategy and evaluation team was looking to collect data from the national offices and wanted to decide what software to use. She carried out a lot of research

herself, and roughly a week before they had to send the software to the national offices she passed by the chief information officer in the corridor. They had a brief discussion about what the advantages and disadvantages of the survey choice would be, which confirmed what she had already researched. The IT staff member said to her to come to find him and they could talk more, but she decided it was too late in the end. After the survey had been sent, no action was taken to try to develop the software for the next year.

6.1.2 Expertise Integrated into Teams and Roles

At Tactical Tech, however, there is no distinct concept of the technocrat. Although some staff may be responsible for the oversight of a part of the data-driven practices, such as the website or analytics, all team members are expected to be responsible for the parts which are relevant to their work. Furthermore, those who are responsible for technical projects such as the website and their outreach in communications are often involved across projects too. Many of the team members have backgrounds in technology or data science, and even when they aren't everyone is interested in technology in some way and willing to discuss different parts of the technologies. The staff are all in some way skilled in technical expertise, or willing to learn, and do not hold a view that there are separate technocrats who control the data-driven products.

Several staff members are accountable for the oversight of the data technologies, mostly also held other responsibilities relating to the content and outputs of the organisation - not just the operations. For example, one staff member describes their role as the person who works on the research and content production of several projects but also works on their online content as

he is “the cross-project lead for the design team or the production team” (Interview 15398). One of the senior managers in the organisation describes the three parts of his work as “...I produce content”, “the technology side of the organisation, the part that is connected to programs how we developed applications, websites, systems and so forth...”, and communication which is “representation on the one hand and on the other hand banal things like running twitter for the organisation” (Interview 61394). Everyone is involved in planning meetings including those in design, and those planning the outputs, and often these are the same people. Rather than isolated, those with more technical expertise are respected and involved in organisational processes including meetings and decision-making, and those with less technical expertise are also not outside of planning or decision-making on technology, instead involved in those decisions.

Tactical Tech human resources and management are interested in hiring people who are interested in being involved in decision making and responsible for their own technology use - rather than operators or facilitators of decisions. In practice, relating to either of these cases in which a staff member may not feel they could carry out their responsibility or did not have the knowledge to discuss a data-driven technology, would then do research or ask for help to learn from another staff member. At a voluntary training around the use of technology for personal use held at the office many staff members attended and expressed various levels of different knowledge of different technologies, comfortably sharing with each other the things they know about technology and the things they do not (Observation day 25). This comfort was present across the organisation and meant that staff were often able to then address gaps in their knowledge and maintain control over the processes they are involved in.

At Tactical Tech, though many of the digital projects have oversight from an individual

staff member, there is an expectation that everyone is responsible for their own use of technology. Project staff manage the analysis and reporting of their projects, so the staff member in control of the project will decide to interact with analytics at different points, or whether to use qualitative data. Further, if they do decide to use analytics, they are expected to access the analytics themselves. There are sometimes issues when people would like to use a website analytics system but do not have access or knowledge, sometimes they decide not to take the time to engage with it when time is limited for learning the skill. In addition, as access is not centralised, sometimes it is not clear how to access a specific third party tool that requires log-in details. Several times people would ask around to find the login details for different data-driven technology accounts as and when they needed access such as to Flickr and Vimeo (Observation Day 8; Observation Day 12), and they would never know the exact person to ask so this would be done through staff-wide emails. This lack of process may have been partly due to the lack of oversight, partly due to the personal responsibility placed on each staff member and partly because of the general lack of enthusiasm for engaging with the metrics anyway.

Further, content and research staff, while given support, are responsible for their own data security. Staff are expected to use encrypted email and messaging software to communicate internally, and where possible externally. The staff are expected to also make decisions for themselves as to what is the most appropriate channel for communication each time. The staff are expected to choose and learn for themselves open-source software to carry out their work. In addition, staff encrypt their own data in emails or saved on their laptops. All of this is done with the support from other staff members if and when needed. In these cases, the other staff members may be the one whose job role indicates that they support the organisation in this way, but it may

also be someone they are sat next to who knows how to. It is expected that each staff member learns from these discussions so as not to need to be always assisted in this way.

At Tactical Tech, the IT support team is made up of a couple of roles who are solely programmers carrying out projects, but they are involved in decision-making meetings early on, and a few people who work in IT or security who also work on projects. As shown above, a senior manager works on projects and manages the digital production team (Interview 61394). Another staff member who works on digital security projects as well as digital security within the organisation (Interview 72948). This may be partly because the organisation is smaller, so it is easier to integrate roles and people have to take up work when there are not enough resources to have a separate person. This may also be because the managers have an interest in technology from the start and set the tone for the organisation.

The integration of technical expertise in roles and their engagement meant that decision making was carried out as a group. When deciding, for examples, a platform for one of their projects on gender and technology, the whole office was asked to contribute ideas for the website. The planning was done with the staff member running the project and the person running the IT products team at the time. These are also developed with the values of security in mind, guiding decisions not to use tracking cookies, as a value of the projects integrating into how the product is built.

6.1.3 Technocrats and Logics That Do and Do Not Match

Amnesty's technocrats are distinct and isolated from the organisations' project work, and are

only, and solely, responsible for the operation of specific technologies. The technocrats and other staff members had different values that dictated their ways of working - different logics that could not work together. The technocrats in the digital engagement team and the single roles in other project teams engage with data logic, while the strategy and evaluation staff, campaigns staff and research staff work with principles that are incompatible with data logic based on context-based and negotiable qualitative, deliberative and intuition-based methods. In Tactical Tech, however, by having the skills and responsibility to operate the technology alongside the knowledge of the project within a single person, any inconsistency between the logic had to be negotiated directly. Through this, the staff could make decisions in a more clear way relating to their desired outcomes.

As we saw in the previous two chapters, in some contexts Amnesty does not engage at all with data logic: strategy and planning, evaluation of impact from their research and campaigns, and some projects involving active participation. Amnesty also has projects in which they do engage with data logic: namely fundraising and digital engagement projects involving online platforms. Projects that data logic is part of, and that technocrats work on, and the projects involving other methods do not often overlap. One of the technocrats in another team said that she is not “sure on what strategy and evaluation really do or why I [the researcher] would be there” (Interview 1838). She divided her work into data, and my research on data, from the work of the strategy and evaluation team. In the Goal 5 project team, there are staff members from fundraising, digital engagement, active participation and diversity but the latter two do not feel represented, or that their work is so different to the numerical growth goals, and they do not attend some meetings or speak much when they attend. It follows from these cases that data logic

is seen as mutually exclusive from the type of qualitative work done in other parts of the organisation. The technocrats aligned values could be seen in their ability to work together. While isolated from much of the organisation, as mentioned, the IT team did talk to the finance team who also happily supplied data for the business analysis. The working group set up by a technocrat in fundraising is formed of a cross-disciplinary team of technocrats from across departments. These staff also shared ideas in social settings including in the pub, informal meetings in the office and over lunch I was also invited to (Observation day 6).

The incompatibility of the approaches also presented itself in attempts to bring the data from different parts of the organisation together. The aforementioned IT consultant who is gathering data from all the parts of the organisation to create overview dashboards said: “It’s a nightmare” because there is “no synergy across the departments” (Observation day 5). He had managed to get finance data and HR data, but no more than that and found it hard to work with any of the teams or bring the things they work on together. In interview he expanded (Interview 7858)

Generally, people are not discussing things across departments, everyone uses different systems, everyone works in silos and it is very difficult to share anything. Research reports do not get shared or measured alongside finance. This can be an advantage because no team is held back but mostly it makes it very difficult.

When the consultant talked to the law department they admitted they do not even know how to use excel (Interview 7848). The staff who do not see themselves as technocrats also reject any engagement with those tools.

There is a desire by those in technocrats roles to work with more people with similar

values. One staff member in the digital engagement team says she believes a technocrat in fundraising “has it easier” (Interview 6358) describing how their management supports their work, and they can talk to their team about the projects they are working on. The value placed in data logic, and distinction of values, is aligned with the professional background of staff. Most of the technocrats in the digital engagement team and the single roles across the organisation come from commercial marketing backgrounds. A manager in charge of hiring said in an interview, “we don’t have a lot of digital marketing experience, it’s much better, [staff member] has brought a lot of expertise but he is one person, we are hiring, but it’s difficult” (Interview 8473). In the cases of fundraising and marketing, the values align with those of the digital engagement staff member - including the principles of data logic.

The IT staff I spoke to mostly had a commercial background, including from banks and management consultancy. The team did not have a role which impacted outcomes of the communications of the organisation, which is why I have not explored their relationship with data logic in the previous chapters, however the times I did talk to them they expressed a value in the principles of data logic. One new staff member in IT who had come on board to examine data said she had excitedly been talking to someone in the finance team about estimating reach through measuring different proxy numbers such as references in articles or circulation of newspapers (Observation Day 37). Two different staff members working on collecting data in the organisation expressed that they were interested in creating a business analysis system in which they would gather numerical metrics from the organisation to manage and optimise processes. A manager in the IT team said: “I believe you can optimise anything by numbers, data can optimise the chain, but people don’t like optimisation word here, or any business language” (Interview

3452). The same manager described the work of Amnesty as creating a product that is “a nice warm feeling, you pay your membership fee and in transaction you get to feel better about yourself, this is my worldview” (Interview 3452). This business approach aligned with the values of data logic, and again, not with others in the organisation, such as the staff in the law team or those in strategy and evaluation which may be why it was difficult to include them in decision-making.

In Tactical Tech, as described above, there is no distinction between those who are technocrats and those who are not. This means that whatever values they have, they do not manifest as distinct different ways of using the data-driven technologies. Overall, there is a consistency in the values which are still based on the principles of the organisation - those shown throughout that they wish to trust their intuition, and that they value their audience in a way that makes them cautious to use any data-driven tools that could affect privacy in any way. Their use of data-driven technologies is then consistent across staff members. This is perhaps because they are a technology-era organisation. Many of the staff either had technology background, such as in a tech-startup or data science, or they came from roles in CSOs or activist groups. In cases where they do not have a technology background, they have an interest in the topic of technology. In addition, the hiring that takes place in the small organisation is controlled by management ensuring only those with values that align, while at work, are employed.

6.2 Software Choices Managed by Logic

The second element of data processes which can gain agency is software. This may be the

algorithms which are used to analyse personal data to create profiles of types of constituents, such as lookalike audiences on Facebook, or predicting the support of individuals. This also includes software for hosting data such as CRMs which dictate the format of the data or type of data that can be collected, hosted and analysed. At Amnesty, the strategy and evaluation team, who do not trust the principles of data logic, use flexible and well-established tools such as excel and word and collecting data through email. The digital engagement and fundraising team, however, trust third-party software or design their own software. Tactical Tech, on the other hand, are interested in their software to be open-source and protect the privacy of users. This meant they used only a few software programs consistent across the organisation, which were vetted by their in-house experts.

At Amnesty, the Strategy and Evaluation Unit set up a system to gather data for evaluating campaigns from all the teams in the international office and the different national offices. The teams gather the data mentioned in the previous chapter, a collection of qualitative stories around outcome mapping and quantitative metrics around membership to evaluate the success of projects. While I was there, one staff member was tasked with finding the right software. Firstly, she began by doing desk research and asking anyone she knew in the team and a brief in corridor discussion with IT as well as her own internet research. From her assessment, they decided to go with word and excel, prioritising their values of the qualitative data, and the ease with which people in national offices could all access it and fill them out. This is despite the awkward nature of sending two documents to seventy different offices. The excel spreadsheet contains a few drop-down menu options around the number of members, supporters, fundraisers and activists as well as governance and finance information. Then there is a word document for

collecting qualitative information on the outcomes and actors they influenced. The form also had space for storytelling of individual stories. In any of the sections on quantitative measures they almost always had options for adding comments. This is then sent to all sections individually who then passed the form around the relevant staff in their office to fill in different sections before sending it back. The team admit that these are outdated, as one staff member says “Personally, I think there are constraints because of the technologies we use. We only just updated to the new Word and Excel, we need sophisticated systems... [web surveys] are not personalised enough for the organisational needs.” (Interview 4681). The staff are unwilling to compromise on their values and seek software that will achieve their aims, however, as they do not have the skills or resources, they find themselves limited to the software they are used to provided by IT.

On the other hand, there are more complex and modern database software systems used in other parts of the organisation which do engage with data logic. Between fundraising, digital engagement and membership the organisation uses Engagement Networks for a customer relationship management system, Krimson for social listening, Sprinklr for social media management, and google analytics. These are third party database systems which both dictate the format for the collection of data as well as have set algorithms for processing and creating new personal data. There is also software built in-house by technocrats. The IT staff, though not able to engage with many of the project staff, are creating a business intelligence system. The staff who use these tools are also those who engage with data logic. The values align, and they feel they can have control over the software they use.

Tactical Tech also chose software based on their values but as they are aligned then there

are not separate choices between those who follow data logic and those who do not. Instead, all the software are Tactical Tech follows the same values which follow the principles of open-source technology which is available for all to access the code which ensures they can check the security of the software - as well as to adapt it to their needs. This guarantees transparency around the processes that surround the data. Further, their decisions are based on principles as an organisation shown in the first chapter, based on their relationship to their role with the audience in which they wish to ensure their privacy comes first. These principles dictated their use of the software. As they did not have such a division between the technocrats and non-technocrats, they did not have the division of control over the choice of software that is seen at Amnesty.

While Tactical Tech did not use social media metrics software; the organisation did use social media channels but the staff member would take screenshots of the posts after a week and send them to the team. Further, they use the analytics system Piwik instead of Google Analytics. Piwik is considered to have better standards for privacy as they give the organisation control over the data and is open-source. Even within the tool of Piwik, they use minimal settings that are needed. They use mailing list software, again they use open-source software. They also use the open-source software, LibreOffice, to keep track of the mailing list numbers (Interview 01938). As many of the teams spoke to their audiences through encrypted channels such as PGP or secure messaging, they found it is most secure to have their contact details kept by the person who is communicating with them.

Further, Tactical Tech produces versions of their products and services with the safety of data in mind. One staff member describes the creation of part of their product with an audience in mind who want to protect their data “...we have a special address you can go to visit another

copy of the website, that can only be accessed by a TOR” (Interview 72948), referring to The Onion Router which is used to access the internet while keeping the identity of the user anonymised. The staff believe that the benefit of using these tools may mean more work for them: one staff member describes how one of their projects which people carry out different stages has “no online, or service component, we’ve had to create alternative ways of storing data as you complete the [stages]” (Interview 15398). The limitations of choosing technical software, and having to develop their own, is recognised as hard work but not as impossible or unrelated to their job role. The integration of the concept of technocrats within roles allows an alignment of both values and skills across the whole organisation.

6.3 Data double: False but Useful

The data double is the representation of a person or a group in the format of quantified data. In the literature review, I described examples for CSOs such as membership numbers, petition numbers, CRM data, lookalike profiles and supporter profiles. Both at Amnesty and Tactical Tech, the data double is considered not to be an accurate representation of their constituents. For Amnesty, the staff are still happy with an estimate as long as it works as abstract goals to achieve growth, to optimise platforms to gain more responses and to provide to external authorities to prove success. Tactical Tech, do not want to engage with the data for decision-making but are happy to share the estimates with funders. There is an important distinction between the data double at Amnesty and Tactical Tech; Amnesty is interested in collecting personal contact data to identify the constituents whereas Tactical Tech only gathers and uses data at an aggregate level, with minimal detail.

At Amnesty, there are two types of data double. Firstly, there is a data double of the actions taking place on social media and interactions with the website. These are classified according to their reporting systems described in chapter 5, as ‘followers’ who are not counted in their impact assessments. These data doubles are used in reporting to internal stakeholders to show the success of the tools. There are then people who take action, sign up to mailing lists or donate - actions which support the implementation of the pre-decided strategies. These also include those who are part of Goal 5, the growth strategy, which at the moment aims to grow membership to ensure the organisation’s authority and, as shown, has limited space for the active participation of these constituents. These data doubles are used to demonstrate their success or support to external experts. At Amnesty, the data double are support-constituents whose actions-as-data are used in different ways to affect the change that Amnesty’s members and staff have decided through ways which are far from data-led but instead qualitative, intuitive and deliberative.

Across these data doubles, one of the major values in their relationship to this concept of the data double is their desire to have contact details. The number of individuals has become more important than the number of actions. This has been particularly substantiated with the new goal 5. As one staff member says in a meeting, there is a new set of definitions, those set out in chapter 5, which define how Amnesty register different audiences. The followers, who engage with the organisation through online platforms but that they do not have contact details for are not requested in the overall reporting. On the other hand, the aim to have 25 million members as part of goal 5 requires a contact detail for every one of these members. The campaign manager explained how this is new to the organisation, “it is turning our whole methodology of what we

are counting and the data we are tracking at the global level of its head.” (Interview 0164), going on to explain that they are going from counting actions to counting people. The value of counting people over actions is becoming a conventional value at Amnesty. In interviews staff members spoke of the importance. One staff member in the governance team explained how important this shift is explaining they “have 300,000 letters written but not sure at international level if that is by 10 or 100 people” (Interview 1582). Another staff member, in fundraising and who I have demonstrated to engage with the principles of data logic, complained about the previous tactics “Taiwan had 300,000 actions and only got 450 contacts for their last campaign” (Interview 9309).

Staff argue the importance of a data point of a contact detail in forming a relationship. In a questions and answers session in which the staff who have developed the new definition talk to staff from other national offices, this change in how they count people is necessary as “goal 5 isn’t just about growth but about sustainable growth so we need to know we can reconnect and develop” (Observation Day 11). As one staff member explained, “Before it was measuring actions to mean success. Now it is about measuring supporters, which is why the contact detail is important, it is the sign of a relationship.” (Interview 9309). The staff wish to gather the contact details so they can have a relationship with the constituents - engaging with them initially as support-constituents but developing a relationship with them so they can become leading-constituents. The new data-driven technologies promise not only a way to contact people, but to gather contact details over and above activity data, ensuring that their constituents can be identified which is now considered important to an organisation arguing to have strength based on their people-powered nature, which I explore more in the analysis in the conclusion.

One staff member at Amnesty who worked regularly with data logic talked a lot about their philosophy of working with data, and within that said that the “no longer are your numbers correct but is your estimate correct, it's a better question” (Interview 3322). In both the strategy and evaluation team and the fundraising reports which they gather from the national offices, they only ask for estimates, stating in the documentation for example: “We understand that not all of you will be able to provide exact numbers so we ask you to please give an informed estimate.” (Amnesty, 2016b). The estimations are used, as shown, to promote projects to work towards a scale of engagement, or to optimise their platforms, in which cases the staff were not interested in the data representing reality, but having a useful effect on their work

Tactical Tech, conversely, are more interested in broad aggregate data that describes actions over people. As described, there are far fewer scenarios in which Tactical Tech engage with a data double at all. Other than small amounts of optimisation on their website, the main use of data is in reporting to funders. For this, they use a data double representing the activity of people on their website, of attendance at events and sometimes social media engagement analytics and mailing list numbers. The staff are keen to maintain a limited broadness to the data, to demonstrate the success of the tool. Sometimes this is accompanied with broad regional information for visits to their websites, and gender information of attendants for their events. In these cases, they see there is an importance to understanding a profile of their audience to ensure a reach to the audiences they hope to reach. However, they actively reject any more detail than this, not using the more detailed features of their website analytics program, Piwik, or reporting on detailed demographics of people who attend their events.

In contrast with their lack of detailed information on constituents, several people at

Tactical Tech's initial reaction, when I asked about what data they use, was to list personal and identifiable data around events or HR including people's email addresses, flights, travel details, CVs and recruitment data. For example, one staff member said: "Logistics for camps, passport details and participant information" (Interview 01928). Another staff member said, "a lot of personal information I do use is passport numbers, people's really personal information because...I've done a lot of travel logistics for events...and also medical things and allergies, these kinds of things" (Interview 52398). This was important to note because the data double, at Tactical Tech, started with any personal data of their constituents and data that is connected to sensitive and personal information. The staff data is considered part of the data the staff presented as part of their work when I asked about data. Furthermore, even the staff members who considered themselves not to be at risk from violations of privacy saw the importance of privacy for themselves.

In Tactical Tech there is an open recognition that estimates are used instead of an exact number. As one staff member asked another about whether they got statistics on the attendance of an event the response is "no, we estimated something things, it was something like 20,000" (Observation Day 24). This estimate is accepted as a good enough response from the staff member and the conversation in the meeting carries on. Another person spoke about a different event saying they do not have a door counter, but they guess numbers from regular spot checks (Observation day 15) concluding they had somewhere around 4,000 visitors over a few days. Their website statistics, the staff are aware, can be affected by bots but also all sorts of different errors in the process. One staff member describes her attitude towards the use of website traffic numbers "When you see numbers like 1 million you have to estimate and make it up"

(Observation Day 11). The figures are still used to represent their success to funders. As one staff member says in an “of course we still use this for funders” (Interview 72948). All the figures from the website statistics are considered estimates, rather than accurate representations of activity, which is why the staff say they do not use them in their decision-making but do use them to symbolise their success.

In either organisation, the estimations and quantitative data double are only used with the large-scale principles of data logic. In an interview with someone working on the standard action reports at Amnesty, the staff member admitted that people currently make stuff up because they are worried the numbers are too small (Interview 2990). At Tactical Tech, a staff member discussed why they are not interested in how many people took part in one particular activity, saying "if it was 500 then it'd be worth noting" (Observation Day 12). In another meeting, the manager began paying more attention to one project when they noted that the numbers had risen from 200 on weekdays to 800 at weekends, being impressed by the scale (Observation Day 24). This may also be why, at Tactical Tech, there is a measure of website traffic, event numbers and the mailing list in funding reports, but even there very little from their social media which shows a numerical representation that is small relative to other organisations on these platforms. This is not something they are keen to change, as shown, they do not engage with data logic and do not seek scale. But it is notable that if the numbers were bigger, they may begin to start to use these numbers and in this way, the scale makes numbers notable, encouraging staff to engage with them. This is one of the few places it could be seen that the data double has control over decision-making, rather than the staff having control over their engagement with the data double.

6.4 Summary

At Amnesty, the members of staff engaging with data logic are distinguished as technocrats and work completely separately from those in the campaign, research and strategy roles. These two different groups also engage with different software, the technocrats prioritise principles of data logic in their software and the others engage with software that allows for non-standardised and qualitative information. Tactical Tech integrates the skills and expertise of technocrats in the roles and therefore decisions are made collaboratively and without any obvious conflict in relation to the principles of data logic. Consequently, across the organisation, their choice of software consistently prioritises their principles of privacy and open-source software. The data double is not considered real in either organisation and estimates are accepted in either place to be used as a tool. Amnesty is also interested in collecting contact data, whereas Tactical Tech is mainly concerned with aggregate and anonymised personal data. Tactical Tech is also more concerned with the risks associated with the collection and analysis of personal data for all their constituents - including their own staff. Amnesty, on the other hand, adopts a more differentiated approach, in which beneficiaries receive high levels of privacy on their data double but different standards for supporters or those inputting into decisions depending on which team collects and hosts the data.

Chapter 7. Conclusion

The development of data-driven technologies since the 1960s has led to their increasing prevalence in political organisations, which have in turn developed distinct tactics and methods that form a consistent and recognisable way of working with these technologies. To identify this way of working, I propose an ideal type, which I term “data logic”. In chapter 2, I described the four principles that form the ideal type of data logic: quantification, scale, standardised technical processes, and algorithmic thinking. I also demonstrated how these principles manifest in the practices of CSOs such as in the development of large memberships, presentation of petition numbers and social media followers on the homepages of their websites, or a/b testing to increase the effectiveness of their communications. These data-driven practices have become a focus of interest for both practitioners and scholars due to their substantial adoption across every sector. Data practices have either been praised as “an essential enrichment in human comprehension” (Mayer-Schoenberger and Cukier, 2013: p. 96) or criticised for unquestioned use of inaccurate and biased information (boyd and Crawford 2012; Couldry, 2014). Either way, commentators agree that these practices influence how we create and share knowledge. Some scholars argue that data-driven practices have become ubiquitous, even where there is an awareness of the risks, as they are adopted with a resigned acceptance of their prevalence (Zuboff, 2015; Dencik and Cable, 2017). This thesis investigates, and evaluates, how the pervasive change in the way knowledge is created and shared due to data logic has impacted political communication in Civil Society Organisations (CSOs).

The social and political impact of the practices of data logic has been addressed in the literature based on theories of data ethics, data activism and data justice (Johnson, 2016). I build on the theory of data justice to consider the impact of the use of data-driven practices by CSOs to understand whether there is a gap between the values which CSOs would like society to function by and the values encouraged by data logic. Two contradictory perspectives in the literature on the values of data-driven methods in political communication mirror two different models for political actors to represent their constituents. On the one hand, the data practices have been praised for their ability to support audience-led models, demonstrated in their use by a growing set of ‘people-powered’ CSOs (Karpf, 2017). On the other hand, the data practices have been criticised as leading to the exercise of control over data subjects and are therefore seen as methods which political representatives use to maintain and expand expert-led models (Tufekci, 2014). I frame these two sides by drawing on the established theory of the trustee and delegate models of political representation, which I adapt and apply to CSOs that are expert-led and audience-led respectively. The theory of the two models of representation by Wahlke, Eulau, Buchanan, and Ferguson (1962) is useful because it stresses that an organisation will never exclusively be one or the other, but there is a time and place for both roles. The theory supports a justification for use of data-driven in expert-led models and gives reason to be cautious to over-emphasise the role of personal data in audience-led models.

While some literature argues that the use of data logic is inevitable and assumes that it inherently supports an expert-led model, engagement with the methods of data logic is praised and encouraged by many organisations and a few scholars for their ability to support audience-led models as well. This thesis examines whether and under what conditions data logic can

support expert-led or audience-led models, or both. To answer this question, I created a framework to record CSOs engagement with data logic against those different models of representation. By recording practices on this framework, it is possible to understand how data logic, as well as traditional methods, are used to support either model of representation and, consequently, evaluate the implications of CSOs' practices for their desired relationship with their audience. I developed my two research questions to test and build upon this framework: *Are both the expert-led and the audience-led models in CSOs supported by data-driven practices? And what are the main factors that guide the decisions made by CSOs regarding their engagement with data practices to support either the expert-led or audience-led models?* The review of the literature also demonstrated a third area of criticisms which pertain to how feasible it is to have control over decision-making in data processes, in particular due to the fact that data practices require to devolve some of the political representatives' and constituents' agency to technocrats, software, or a data double. From these considerations, a third research question emerged: *Is decision-making regarding data practices devolved to agents other than the staff or constituents within either the expert-led or audience-led models?*

I carried out two ethnographic case studies to determine from the organisations' perspective on how they decide when and how to engage with methods which pertain to the ideal type of data logic. I chose two cases: Amnesty, a predominantly delegate organisation, and Tactical Tech, a predominantly trustee organisation. By choosing one organisation representing each model, I was able to compare the ways in which the two different models lead organisations to engage with practices of data logic, and how the practices may influence organisations' ability to engage with those roles. Both cases are also likely to have some friction, or even aversion, to

the adoption of data logic. Amnesty is a traditional organisation with established logics and currently runs campaigns against the practices of mass surveillance. Tactical Tech's mission explicitly aims to critically address the impact of technology on society. This choice of least likely cases allowed me to understand what values may lead to the engagement with data logic and where the logic faces tensions with alternative logics.

In this concluding chapter, I analyse how my main findings contribute to the literature I built upon to develop my questions, my framework, and my project. Both organisations have concerns with the accuracy and nuance of the results of data logic. Consequently, neither the trustee nor the delegate organisation engages with data logic to decide on their current strategies, such as which topic they will work on or whether one campaign will be prioritised over another. The findings challenge the assumption that organisations inevitably and substantially engage with data logic in all contexts, in particular by showing that these organisations do not uncritically accept and implement these techniques. The reasons members of staff in both organisations gave for their caution around methods based on data logic correlated with the specific concerns related to the particular models of representation they embody. Thus, members of staff at Tactical Tech were concerned that as an expert-led organisation they had to be cautious of anything that might be manipulative or violate privacy. By the same token, employees at Amnesty were worried that as an audience-led organisation it was important not to trust short-term popularity metrics nor follow a non-representative audience. The concerns regarding the delegate model are particularly important due to the lack of attention this particular model has received in the literature regarding the impact of the use of data-driven technologies in political communication, which mainly focuses on violation of privacy or manipulative aspects

of expert-led models (Tufecki, 2014; Lyon, 2015). Both organisations, particularly Amnesty, do engage with the principles of data logic in certain contexts, but only when performing a trustee role. This finding corroborates the theories that connect data-driven practices with surveillance practices used to monitor and manage populations. However, both CSOs defend the use of an expert-led model for certain functions of their work, such as to build relationships with a currently non-engaged audience, to normalise non-popular or niche issues, and to demonstrate support either through action or funding from constituents and audiences.

The staff I observed and interviewed did not provide reasons why data logic is appropriate for trustees in these specific contexts, but not overall. However, an in-depth examination of the situations in which organisations employed data practices helps unpick how the features of data logic correlate with different contexts in the organisation. Data logic was useful for optimising and managing goals which had similar logics, such as the management of platforms in which the organisations broadcast information (leading to a deductive and expert-led model to optimize the effectiveness of communication), fundraising (in which the aims are to raise money rather than involve the audience members), and growth (in which the organisation also aims to increase numbers rather than to engage with the constituents at a deeper level). Further, in some cases organisations engaged with principles of data logic at a face-value level, when using numbers derived from the data double to communicate information to managers or funders, but this use of data was entirely separated from what information they would use for making decisions. The staff perceive that these figures are meaningful to others, demonstrating their awareness of an external prevalence of the values of data logic. Methods commonly used by both organisations for decision-making are non-standardised, qualitative and small-scale, far

from the principles of data logic. Further research, and recognition, of these methods could be beneficial for championing their use in both decision-making and communication. The use of data logic is also far more common at Amnesty than at Tactical Tech. At Amnesty, the teams working on online platforms and growth are separated from those working on strategy, evaluation, research and active participation in campaigns. This leads to a separation in the values of these teams. Trust in data logic is not widespread enough in the organisation to lead to a seamless integration of technocrats. Instead, the technocrats believe in data logic and adopt it in their teams, but the teams who do not value this logic keep a distance from the work of the technocrat-led teams and vice versa, to the point that each group chooses software that matches their values. Members of staff at Tactical Tech, however, do not distinguish between separate technical experts. Consequently, there are not separated logics and the organisation finds ways to incorporate different values and collaboratively make decisions across technical and non-technical work.

7.1 Trustee and Delegate Models and Data logic

To examine data justice in the context of CSOs' political communication, I analysed the practices against the trustee and delegate models. The models reflect the two different ways data-driven methods have been presented in the literature. The delegate model represents the audience-led models. Scholars and practitioners have praised the use of data-driven methods for increasing membership and involving more people in running their own campaigns has been praised (Karpf 2017, OPEN 2019), but the delegate model is not without criticism as scholars have raised concerns based on the ability of an audience to make educated decisions on a topic

(Burke, 1949). The trustee model represents the expert-led models where the use of data has been criticised for encouraging practices which manipulate the behaviours of constituents to support the political representative, but data logic may also be useful in times when expert-made decisions are needed. To examine the use of data to support these models, I chose an organisation of each model, Amnesty who are structured to conform to the delegate model, and Tactical Tech who function according to the trustee model. Neither Amnesty nor Tactical Tech engage with data logic when designing, creating and prioritising their strategy including when evaluating their work to address what they will change, and trust their audience in the case of Amnesty, or their experts in the case of Tactical Tech, over data. There are a few moments in which both organisations engage with data in implementing their campaigns, solely to gain support from their audience. The ethnographic approach of this research allowed me to understand the characteristics of contexts in which data logic is rejected and build on the concept of data justice from the perspective of how staff in CSOs value their own, and data logic's, function.

Staff rejected the engagement with data-driven methods based on the consequences for their respective models. Amnesty International, a predominantly delegate organisation, rejected data logic due to the problems of taking input from the data double created from social media engagement or website analytics when working on long-term or unpopular campaigns. The staff gave examples such as the abolition of the death penalty or carrying out ongoing work in countries where external factors can hinder the progress of their campaigns and which do not receive large amounts of public and media attention. The staff, therefore, do not include the data double made of those responding to their online communications within decision-making. The

staff's concerns demonstrate an awareness of the problems of the delegate model in which there are certain moments a political representative may not want to be responsive either because the group are not representative of minority constituents (Wahlke et al., 1962) or the constituents have shallow views based on what is popular and the representatives do not want to end up 'pandering' to the public (Jacobs and Shapiro, 2000). The delegate model is a useful theory because these consequences are important to the CSOs and their values when navigating decisions around their own function. The concerns around audience-led models are rarely recognised by those documenting the impacts of technology, who instead often show how data-driven technologies are used to support these models (Karpf, 2017) or, if critical, whether the technologies have failed or succeeded to deliver these models (Dennis, 2018). The assumption within most of the critical literature is that the concerns with data should be raised concerning their support of expert-led models. There are concerns with the delegate model which are important to recognise and explore in relation to their effect on, and how they are affected by, practices of data logic. After starting this research, more of these organisations went out their way to suggest that staff still had the final say over the campaigns chosen, one describing at a conference that this has come about especially after a rise of right-wing uses of the platform. Furthermore, the *Mouvement des Gilets Jaunes* in France were challenged by their opposition for being too populist based on their use of Facebook numbers to drive their content. The evidence provided by data logic is becoming a weaker representation of organisations' support.

Tactical Tech, who are predominantly a trustee organisation, reject data logic due to the risks associated with the trustee model. The staff were concerned with avoiding any methods which could be considered manipulative. The staff believe their audience may not have expertise

in the area of their work, but that overall the audience is competent, able to educate themselves, and are likely to be experts in other fields. The organisation's function, as expert-led, is to provide information about an area in which they expertise, to constituents who do not have this information but not to manipulate or decide for the constituents what they want. The staff at Tactical Tech also prioritised any practices which would put privacy first from accepting limitations to their products and data gathering by creating TOR friendly and cookie-free websites to gathering only aggregate communications about the use of their website rather than to profile their audience. Tactical Tech do not attempt to assert control over this audience by not using targeted advertising, but instead engaging only with the publication elements of online platforms, and are careful of their responsibility to maintain transparency through open-source software and ensure they do not violate any constituent's privacy. The staff demonstrate knowledge of the criticisms of the trustee model in which a narrow view of the audience limits them and in which experts may take advantage of techniques to bypass public opinion (Wahlke et al., 1962). These are the same concerns described by those who synonymise surveillance and mass collection and analysis of data. Similar concerns are raised by the use of data such as by Tufekci (2012) in computational politics in which data is used to support the decisions of political representatives for their benefit over that of the constituents'. While these concerns are recognised by Tactical Tech, the issue is not with an expert-led model, but rather lies in the risks of using data to support the model. Instead, the organisation uses design expertise and intuition to support staff-led decision making over data-driven decisions.

Tactical Tech does engage with aspects of data logic at times to support their role, and these contexts share characteristics with the moments in which Amnesty engage with data logic,

in which Amnesty also engage with an expert-led model. At Amnesty, they engage substantially more than Tactical Tech with data logic in these parts of their role. Methods of data logic are used in both organisations, not in creating the strategy, but in the implementation of projects in which the staff wish to communicate with constituents to educate them and mobilise them on pre-decided strategic decisions. The methods are used particularly to optimise online platforms, carrying out fundraising case communications of campaigns and carrying out fundraising strategies. Amnesty's digital engagement teams use the principles of data logic for the optimisation of online platforms, which work already based on these logics and by the fundraising team to support the increase of donors and funds. Tactical Tech only substantially engages with data logic around their communication to funders for accountability. In these cases, the report numbers from various broadcast platforms including online platforms, traditional media and events where they disseminate their work. In both organisations, the data double is used to endorse the decisions of either the staff or the members. The use of data to optimize the audience engagement with platforms or to donate confirms the opinion in the critical literature which conflates the data practices with the behaviour management of constituents (Clarke 2003; Tufecki, 2012; Lyon, 2015). The practices of data logic are used to manage and maintain audiences, measuring the behaviours to alter their opinions towards those the political representatives would prefer. At Tactical Tech and Amnesty, there is also the use of quantitative data to demonstrate their success as experts and in these situations the audience are tokenist, rather than involved in decisions.

Further, the staff at Amnesty engage with the principles of the ideal type of data logic in a specific program around membership growth, which Tactical Tech does not. I propose this is

where there is the influence of data logic, due to the pressure of the new CSOs who use the tools to support their audience-led models. Amnesty feel a need to compare themselves with these organisations, even if it only superficially represents themselves through the engagement of a large audience rather than to include these audience members within the strategic decision-making. This is accompanied by a need to measure the number of people in their constituency, rather than the number of actions. The staff believe that by collecting the contact details they can begin a relationship with people to involve them in more decision-making. Therefore, there is an appeal to use data practices, and to engage with them, but only if they might improve the audience-led model. As shown, some concerns should be raised with this issue, given that the organisations rely on traditional methods when they want to engage audiences in decision making. The models examined reflect proposed models of data for governance (Lyon, 2015), news organisations (Anderson, 2012) and for-profit companies (Martin, 2012) and these findings may be expanded to help understand those contexts too.

7.2 The Adoption of Data Logic and Alternatives

The inevitable and pervasive influence of the methods of data logic is presented by various scholars such as boyd and Crawford (2012), Couldry (2014) and Zuboff (2015). I present an ideal type, which I term data logic, to identify the new data practices. I use the term logic to draw attention to the strong influence of the practices over the formation of organisational knowledge. I chose to examine two cases which were likely to have friction or to challenge the adoption of data-driven practices. The lack of substantial engagement with data logic is therefore not completely unexpected, but the findings demonstrate that the adoption of data logic is not

ubiquitous, pushing back against the theories that the use of data is inevitable, such as the use of the term realism by Dencik and Cable (2017, p. 764) to draw attention to how the adoption of data-driven methods is seen to be the “only viable” option. There are certain contexts where data logic takes place, either where the logics already align such as with platforms and fundraising or when the organisations need to demonstrate their support and to show to others that they use data logic. Taking an ethnographic approach allowed me to both see where practices took places, and follow up with interviews and questions and examine the values which interviewees used to defend their choice of engagement.

The staff in both organisations reject the principles of data logic in contexts in which opinions will guide strategy decisions or evaluate their success in campaigns. In both case studies, staff describe elements of data logic as counterproductive to their need to include multiple-stakeholders in decision-making and plan for difficult and long-term change. The staff demonstrate knowledge of the criticisms of algorithmic reasoning. These concerns have been raised, by scholars such as Raley (2013), Lyon (2015), and O’Neill (2016), highlighting that data-driven methods are deductive, based only on actions that have taken place in the past which should limit their use for predicting the future or creating ideas to base new activities on. Lyon (2015) in particular connects this to surveillance and the profiling of individuals, and O’Neill (2016) also presents dangerous risks for those who are trapped in cycles in which their current situation dictates their future situation such as being out of education or out of credit or targeting the 'usual suspects' in predictive policing (Meijer and Wessels, 2019). The CSOs work on issues which require a vision in order to change, so they work with a ‘theory of change’, and reject the use of data-driven methods to help them understand how to produce a change in these situations.

Further, the data-double created from these automated and standardised methods is too limited, as it is based on their previous actions, and shows a representation of public opinion derived from what the audience has wanted or did in the past, not what they want for the future, demonstrating the issues raised by Pariser (2012) and Karpf (2017).

The staff also reject the use of standardised processes, which are an element of data logic as shown by Kitchin (2014) and boyd and Crawford (2012), for making strategy decisions. The organisation prefers deliberative situations in which decisions would be made by different constellations of groups of people either members, partners, or staff. There was rarely a defined number or group of roles required to be present for those decisions, nor was there a defined set of instructions on what should be taken into account when making a decision. In some cases, there were guidelines, but staff were left to navigate these from their personal judgement and in negotiation with others. In this way, any decision may lead to different results each time, based on who is present. When evaluating the success of their decisions the organisations also reject standardised methods as well as quantified metrics describing how they couldn't get enough context from the numbers. As Jenkins (2013) describes when referring to the new data-driven practices "the value of the arts, the quality of a play or a painting, is not measurable. You could put all sorts of data into a machine: dates, colours, images, box office receipts, and none of it could explain what the artwork is, what it means, and why it is powerful." The staff preferred qualitative methods such as story-telling or journals kept by constituents to evaluate the impact of their work.

The staff not only engage with practices that are contradictory to the principles of data logic, but also verbalise concerns of data-driven methods in interviews, presentations and

informal conversations, showing that the organisations do have a sense of the influence, or pressure, to engage with data logic. The situations in which the staff reject data logic are important as they show there is a sense of pressure to demonstrate their justification for the rejection of data logic from the staff. A better understanding and more evidence is needed of the benefits of the alternative methods for creating and sharing knowledge, such as the utility of qualitative, deliberative and subjective judgement-based methods in the organisations. The benefits of these methods should receive more attention in order to demonstrate how they are used and support better justifications and arguments that align with the values of the practitioners for engaging with these methods. This can help demonstrate the need for practices such as ‘human in the loop’ in which a human reviews the results produced by algorithms as well as giving confidence in the use of inductive or qualitative methods in practitioners' work.

The evidence on the lack of utility of data-driven practices in some contexts is also used by those who may feel the need to demonstrate they are engaging with the practices. As shown at Amnesty and Tactical Tech, one area where the elements of data logic were present was not in their decision-making practices, but how they present information to others. Amnesty presented quantified results as symbols of success to me when describing their work in interviews, described how they used the numbers to show the success of their projects to their managers, and used membership and petition numbers, the data double of their constituents, to show their success to significant political authorities. Tactical Tech only engaged with the figures produced through data logic when communicating with funders to demonstrate their success. This not only challenges the belief that these data-driven practices are prevalent but suggests there is danger in perpetuating the theory further when the staff in the CSOs do not consider the methods useful for

evaluation. This may also be a reason that Amnesty engages with data logic in their growth program in which they feel the pressure not necessarily to engage with data logic but to compete with the digital membership organisations who do engage with it. While data-driven practices might not be influential everywhere, Karpf's (2017) assessment that *analytic activism* has shifted the landscape is true in part as these organisations have changed what they think demonstrating success to others looks like, even if they have not necessarily changed all the tactics for achieving it.

Methods based on the principles of data logic are present in a few circumstances. All four principles of scale, quantification, cause and effect and standardised processes are found in two main activities. Staff working on fundraising use profiling as well as a series of benchmarks and targets to operationalise their goals, and already work on similar principles to data logic, in which they aim to achieve high numbers through managing processes to generate the most response from their constituents. The principles are also used in relation to the measurement of engagement and at times optimisation of audience engagement with not just online platforms such as Facebook and their website but also traditional broadcasting platforms such as traditional media and speaking events. In particular, profiling and optimisation, methods which are based on the principles of data logic, are used to encourage people to engage with their online platforms. Data logic is influential only in scenarios where the principles align already - rather than replacing older traditional logics, it is accompanying the ones which are new or similar. Data logic engages with other logics, rather than being a dominant influence, as presented in surveillance realism, capitalist surveillance or deterministic accounts of data-driven technologies (Zuboff, 2015; Dencik and Cable, 2017). Further, while many staff had rejected data-driven

methods for producing results that were not representative of what they needed to measure, even those staff using large quantities of personal data agreed it was not ‘real’ but a practical tool, and were more interested in what works than a pure sense of truth. This confirms the theories of those who propose that data-driven methods are no longer about the question of ‘why’ but ‘how’: measuring objects to get results. The findings help clarify how data logic fits in amongst different types of knowledge - not as that which is a paradigm or ontological privilege (Raley, 2013), but instead show contribute to a type of empiricism, with methods for arriving at information that may impact certain results in specific contexts but are not considered cartesian ‘pure’ knowledge.

The difference in levels of engagement with data logic is matched with a significant difference between the two organisations regarding the treatment of technocrats. Amnesty has a distinct set of technocrats who are given the responsibility and ownership of practices involving data-driven technologies. These technocrats are isolated, fully responsible for their own work without input from other teams, and unable to input into the work of other teams. At Tactical Tech there is no distinct concept or job role of a technocrat, and the knowledge of how to use technologies is considered to be part of all job roles. There is a sense of comfort amongst staff across different levels of knowledge, where they analyse what they do or do not know, and find it within their responsibility to both assess this and go about changing it if needed for their work. This, in turn, is reflected in their choice of software, in which Tactical Tech has a single set of principles which guide software choices across the organisation. In contrast, at Amnesty, there is a clear divide between those who are technocrats, who are using software built on, and presenting, the principles of data logic and those who are not technocrats who piece together

different software solutions to cover their desired qualitative and non-standardised approach.

Scholars argue that the faith in data-driven practices also means trust in technocrats, (boyd and Crawford, 2012; Kitchin, 2014). However the situation is a little more complex: Amnesty trusts technocrats, but only with the tools they are working on, restricting their input on anything else within the organisation such as the creation of content or decisions on the top-level strategy. In these contexts, data logic and technocrats are both present in the same context, but it is the technocrats who trust data logic, rather than staff who trust these technocrats to deliver on the use of online platforms. Neither the trust in data logic nor in technocrats may clearly precede the other. The staff in these teams are also not managed, and in this way they are trusted in delivering these tools, but the lack of faith the organisational staff already have in the use of the data double means that the potential bias or subjective nature of these tools is not an issue they come up against in their strategy. Amnesty does, however, have one relationship with one set of their constituents who they engage with through online platforms or are communicated to by the fundraising team, differing from their relationship with constituents that the strategy and evaluation team and campaign teams work with. Tactical Tech does not recognise the role of technocrat to be distinct or separate, and as such there are no 'technocrats', Without identified distinct technocrats Tactical Tech involve everyone in decision-making across what software they will use and how they will work with the data double, and as such the approach to data logic, and their constituents, is consistent across the organisation.

7.3 Limitations and Further Research

Carrying out this research addresses a timely need for an understanding of what are considered acceptable data practices at a time where there is little detail and at times contradiction in attempt to address the difference between good and bad practice. The literature presents data-driven practices as a useful tool for supporting audience-led models, but also argues that their use will lead to inevitable surveillance. By examining data logic at the level of the perceptions and actions of the staff in CSOs, through an ethnographic approach, this research builds on the theory of data justice to provide an understanding which can help navigate the decisions around data from the perspective of what the CSOs aim to achieve. The ethnographic approach allowed me to examine a topic that is under scrutiny and subsequently hard to always assess the tensions between what people wish to be seen to be doing, what they wish to be doing and what they are doing.

I propose the trustee and delegate models for understanding the different ways in which political communication and data practices can function together. The case studies I examined were useful for testing the theory because they predominantly reflected one model each, but still engaged with the other at times and helped demonstrate the different values a CSO has in relation to their audience. The evidence that neither organisation used data-driven practices to support a delegate model calls into question how and whether digital membership organisations manage to do this. Further research into the decision-making processes of these organisations could either demonstrate how they balance the weaknesses raised by using data for these models or their justifications for engaging with these risks. Such research may also show that the audience's data double ultimately isn't the deciding factor for an organisation's strategy,

as has become evident from the change in rhetoric in these digital membership organisations, such as Change.org and Campact, in which staff now remain in charge of final decisions of topics.

The methods of these new CSOs has had an effect on practices at Amnesty, who also wish to present themselves as a delegate organisation, but yet do not engage with the data practices in the process of creating their strategy, still trusting their constituents in face-to-face deliberative meetings. This research does not present an understanding of whether the digital membership organisations are more influential to external authorities or the public, or overall if the increase in numbers of these CSOs has diminished funds and resources to older organisations. However, it does show that the older organisations themselves do not see that the tactics are worth engaging within all aspects of their work. This raises questions around the claims of new civil society organisations who ground their claim to be people-powered, and to be taking a role as a delegate, through the use of data-driven ways of working: do the organisations perform a delegate role and fall foul to the associated risks, or do they use the tools and perform a trustee role or do they carry out data practices in another way altogether? Further research should also take a more balanced approach to include the advantages of expert-led approaches and to find ways to distinguish between those criticised such as surveillance, and methods in which an organisation can take the role of an expert given the desire for organisations to perform this role for long-term and unpopular campaigns.

The ethnographic approach limited the time I could spend on understanding the roles across more organisations. Further quantitative research or interviews could be done across a wider variety of political representative organisations in the civil society space including unions,

news organisations, international aid or tech for good corporations. The time taken to discover the context-specific details in ethnographies limits the number of case studies and scenarios which can be examined. The case studies may have compared trustee and delegate, but did not account for various other factors, such as type of campaigns, size of the organisation or other types of memberships. Further, the age separation between the organisations allowed for an understanding of different ways to relate to technology but did not allow for an understanding of how a newer organisations' practices will always be still forming, rather than set in place, and their relationship with the staff will be more flexible. Further research could help corroborate, challenge, or add to the findings of this research by using larger-scale research methods to examine various categories of CSOs split different ways such as type of outputs (International aid, provision of services, environmental behaviour change and political rights) or different arrangements and structures (such as relationships with corporations like FairTrade, local groups instead of membership, unions).

The case studies were also chosen as least likely cases to engage with data logic. Amnesty is a traditional organisation and Tactical Tech's campaigns are based on how to be critical when engaging with technology. This made it possible to examine where data logic is influential even when organisations may be critical. An overview of when data logic is consistently used and rejected reveals which principles are important to organisations within data logic, namely a rejection of its lack of context and flexibility, and an acceptance of its use as a tool, either to optimise or to communicate to others. Due to the finding that data logic is not prevalent, based on the recognition of the weaknesses of the principles, an examination into the actual prevalence rather than the perceived prevalence of data logic would be helpful. Further

investigation, in particular, into strengths of alternatives rather than just the weaknesses of data logic would be beneficial, alternatives which could include story-telling, intuition or personal judgement, and non-standardised deliberation to come to decisions.

The research contributed to the understanding of the role of technocrats in data practices. The separation of technocrats from non-technocrats creates a scenario in which each team controlled their outputs but also, despite the clash in logics, allowed the organisation to undertake practices which were based on data logic. However, at Amnesty, there is no unity in the relationship with the audience or the tools to perform their role across the organisation. The integration of technocrats leads to more control over the outcomes. Further questions could help understand the role of technocrats, and how they can be most effective for CSOs, including: Do the new CSOs, as technology-era organisations, integrate technocrats and therefore also have better ability to use technology to achieve their desired role with the audience across teams? And can older organisations engage with new data-technologies without creating distinct roles which are separated from the rest of their work?

7.4 Conclusion and The Contribution of This Research

The use of data logic within political communication is considered to be both inevitable, and views on its impact are contradictory. This thesis began by examining whether we can reformulate our understanding of data practices to resolve this contradiction. This research examines the conflict of political representative relationships with their constituents, presented in chapter 5. The findings answer the question as to whether either model of representation can be

supported by data logic, through the examination of the practices in comparative organisations. In doing so, this research has contributed to the ability to address the seemingly incompatible outcomes of data practices, between support new CSOs who champion data practices to support audience-led decision-making and the critical scholars who conflate data practices with surveillance so as to show how the practices amplify the decision-making power of political representatives in expert-led models. The findings show that the data practices are perceived to be able to support both delegate or trustee roles, but are associated with the negative aspects of each. This finding indicates that the criticisms of the effect of data practices on delegate roles are missing from the rhetoric of new CSOs and literature on their practices. Further, the practices are mostly used for the trustee role, showing that there is a parallel between data logic and the values of expert-led models.

Chapter 6 presents how data logic is not as rife in practices as scholars, such as boyd and Crawford (2012) and Couldry (2014) suggest. Data logic is found in scenarios where the logic is already aligned, such as with platforms and fundraising. However, there are also various practices based on principles which are incompatible with the principles of data logic such as qualitative story-telling evaluation methods and non-standardised deliberative and subjective decision making. The findings present the need for further research not just on the concerns of data-driven practices, but on the qualities the alternatives might hold and their utility for constituent relationships. Finally, in chapter 7, I present how the distinction of technocrats is aligned with a rejection of data logic, as the staff who do not engage with data logic, also do not engage with the practices or technologies, and entrust technocrats to carry out this work. The removal of the distinct role of technocrat can help integrate the values of an organisation keeping

them consistent between teams and audiences. The adoption of data logic is not straightforward and remains cautiously undertaken, with the majority of cases occurring when the staff present their work to others. This is an important time to research alternatives as we build policies which must deal not just with data-driven methods, but also machine learning and artificial intelligence which move away from any human involvement, and must increasingly ask questions about how, when and why to include humans in decision-making.

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Appendix A: Supporting Information for Interviews

Numbers and summarised job descriptions are used to protect the anonymity of staff as much as possible, while simultaneously giving the contextual information needed to recognise its significance.

Amnesty International

Interview Number	Job Role
0164	Campaigns Manager
1387	Digital Engagement Team Manager
1582	Campaigns Senior Manager
1838	Project Researcher and Campaigner
2093	Project researcher and Campaigner
2372	IT and Data Services Team Member
2428	Campaign Manager
2990	Fundraising Manager
3322	Fundraising and Data Team Member
3452	IT and Data Services Team Manager
4681	Strategy and Evaluation Team Member
4771	Strategy and Evaluation Team Member
5190	Governance Team Manager
6311	Diversity Project Researcher and Campaigner
6358	Digital Engagement Team Member
7858	IT and Data Services Team Consultant
8365	Strategy and Evaluation Team Member
8443	Strategy and Evaluation Team Manager
8473	Membership Team Manager
9309	Fundraising Senior Manager
9887	Strategy and Evaluation Team Member

Tactical Technology

Interview Number	Job Role
01938	Communications Staff Member
15398	Project Staff and Digital Product Manager
29476	Grants and Operations Manager
36724	Grants and Operations Staff Member
47860	Project Staff and Digital Product Staff Member
52398	Project Staff Member
61394	Senior Manager
72948	Project Staff Member

Appendix B: Indicators

A descriptive guide, though not exhaustive list, of the indicators used to gather data

Object of the Research	Indicators for collection and analysis (developed throughout the ethnography)	Open Interview Questions to Guide the Interviewer
Audience Relationship	<p>Mention of audiences such as members, supporters, donors</p> <p>Who is involved in strategic decision-making processes</p> <p>At what point are different actors involved in decision-making</p> <p>The role of the audience with reference to Arnstien's ladder of participation (1969)</p>	<p>How would you describe the mission of the organisation?</p> <p>What audiences do you work with?</p> <p>What do you hope to gain from the audience?</p> <p>What do you think the audience wants to gain from your work?</p>
Data Logic	<p>For quantification, the use of numerical representations of the audience</p> <p>For scale, methods for the sole purpose of collecting more data, and a tendency to always want a higher number, or a rejection of the need for more</p> <p>For technical standardised processes, a trust in technocrats and software to make decisions, or a lack of it</p> <p>For algorithmic reasoning, types of testing and measuring outputs, and changing their communications to manage them</p>	<p>What data do you use?</p> <p>What do you most enjoy, or what is your favourite project using data?</p> <p>How does it contribute to your job's goals?</p> <p>How does data improve, or not, your project in relation to the goals of the organisation?</p>
The agents	Use of and attitudes towards	What data do you use?

	<p>quantified versions of the audience for the data double</p> <p>Role of and attitudes towards data scientists, IT professionals, programmers and digital communication experts for technocrats</p> <p>Attitudes towards and justifications for level and style of engagement with data-driven software</p>	<p>What software do you use?</p> <p>Who is responsible for the data you use?</p> <p>Do you believe the organisation has the necessary skills to use data?</p> <p>How do you use audience metrics?</p>
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Appendix C: Ethical Considerations

This project received ethical approval from the Research Committee at the Department of Politics and International Relations at Royal Holloway. Any staff and members of the organisations who I engaged with as a researcher were aware of my status as such. I provided interview consent forms for all those involved in interviews directly which clearly outlined the focus of the research and how any data collected would be stored and used. These forms are available on request. All information provided has been anonymised.