Tweeting Sustainability

A Techno-Anthropological investigation of how the situated use
of #dkgreen mediates sustainability debate in Denmark

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Abstract

The aim of this thesis is to investigate how use-practice and social context can inform how we understand Twitter data, through a qualitative research approach to the hashtag #dkgreen. The thesis is based on three digitally driven hypotheses, that we try to *offline ground* through 10 conducted interviews with Danish Twitter users. With a fundamental understanding of our Twitter data and Twitter technology, we were able to produce a collection of qualitative empirical data that can contribute to a heightened situated understanding of the #dkgreen space. Through a postphenomenological approach it was possible to support our framework of understanding, by investigating how the #dkgreen mediates sustainability debate, based on the relationship between its users and the technology. Based on our collected analysis and discussion, we conclude that there exists a central *composite relation*, between the #dkgreen and its users, which involves a hybrid of human and technological intentionality, which together affects how the debate in #dkgreen is mediated. It is emerged that the platforms infrastructures and user practices together form a digital space, which forms a type of public. The hashtag #dkgreen facilities an opportunity for interaction with politicians, decision makers, media and prominent users who are all interested in the 'green agenda'. This contributes to how #dkgreen mediates a power that enables users to influence the ongoing debates and interpretations of sustainability. On the basis of these relationships, we argue that the interactions that take place in sphere of #dkgreen are political and thus form #dkgreen as a political hashtag public.

Danish Summary

Twitter er ikke det mest udbredte social medie i Danmark, og opfattes generelt som en platform der primært henvender sig til kommunikationsfolk, politikere, fagfolk eller fodboldfans (Larsen 2018). I medierne er #dkgreen præsenteret som et 'klassisk hashtag' og som 'top politisk område', der omhandler emner inden for miljø, energi og økologi (Holm 2016a;Nochmal 2018). I vores Twitter dataset fandt vi en høj forekomst af tweets, hvor #dkgreen og #dkpol optræder sammen. Da hashtagget #dkpol kategoriserer emner i dansk politik, fremstår dette som en indikation på at koble emner omkring bæredygtighed til en politiske debat i Danmark. Denne specialeafhandling tager udgangspunkt i det danske hashtag #dkgreen, og undersøger hvilke relationer der opstår mellem brugerne på Twitter og #dkgreen. Med en indsigt i brugernes praksisser, og i deres opfattelse af #dkgreen som en debat sfære, ønsker vi at opnå en udvidet forståelse af vores Twitter data og for #dkgreen som fænomen. Specialet er en fortsættelse af vores 9. semesterprojekt, hvorfra der udsprang tre digitalt drevne hypoteser, som vi i denne afhandling forsøger at *offline grounde* gennem interviews med 10 danske Twitter brugere. Med en grundlæggende forståelse for vores Twitter data og Twitter som teknologi er vi i stand til at tilgå en indsamling af kvalitative empiriske data, der kan bidrage til en højnet forståelse af hvad Twitter data er og en situeret viden omkring #dkgreen som en debat sfære. Gennem en post fænomenologisk tilgang undersøger vi hvordan #dkgreen medierer debatten omkring bæredygtighed i Danmark. Vi studerer de forhold der opstår mellem Twitter brugerne og #dkgreen, hvor brugerens egne opfattelser og erfaringer inddrages. På baggrund af specialets analyse og diskussion, kan vi konkludere, at det centrale forhold der eksisterer er en sammensat relation (*composite relation*), der er en hybrid af menneskelig og teknologisk intentionalitet, som tilsammen afgør hvordan debatten i #dkgreen medieres. Twitter's infrastrukturer og brugerens praksisser medierer et digitalt rum, der tager form som en anden type offentlighed. Hashtagget #dkgreen faciliteter interaktion med politikere, beslutningstagere, medier og fremtrædende brugere inden for 'den grønne dagsorden'. Dette medvirker til hvordan #dkgreen medierer en magt hvor brugerne får indflydelse på de igangværende debatter og fortolkninger af bæredygtighed. På baggrund af disse forhold, argumenterer vi for at interaktionerne i #dkgreen er politiske og dermed former #dkgreen som en politisk hashtag offentlighed.

Acknowledgements

Table of Contents

1.0 Motivation

The topic of the research in this thesis has emerged as a continuation of our 9th semester project. This study explored the online practices and digital presence of Twitter users, that engage in climate and sustainability debate on Twitter, as well as mapping out the discourses emerging through the Danish hashtag, #dkgreen. The 9th semester project was established due to a parallel cooperation with the Danish Board of Technology (DBT). They had shown an interest to enhance their understanding of social network cultures, in relation to energy consciousness, between users of online social media platforms. The DBT is currently managing the EU funded Horizon 2020 project *'ECO2 – Energy Conscious Consumers'*. This project aims to transform consumers into acting more energy efficient, through the use of an upcoming e-learning platform (DBT, 2018). The Danish Board of Technology provided a current case of study, correlating with our own research interest in the 9th semester project. The outcome of that project has guided our present focus of research to develop our conceptualization of the online culture in #dkgreen. We have an interest in researching online cultural phenomena, investigating how technology and social media are influencing our lives, in turn shaping our experience of the world. We find this area of research relevant due to the digital and algorithmic age, that the world reacts upon today. As students who grew up in the latter part of the 'Millennial Age' or 'Generation Y'[1], we find it important to ask questions regarding our lives with technology and the mutual influence, that occurs in the relationship between humans and technology.

The data and insights that we produced in the 9th semester project, has motivated us to evolve our research through a postphenomenological approach, that provides a philosophical view of our technology. We use our data insights as a springboard to further investigate our phenomenon of study, deepening our understanding with qualitative empiri. This thesis hereby aims to examine the correlation between an understanding of what digital data represents and a situated understanding of their belonging context. It is an effort to generate a comprehensive and holistic understanding of our phenomenon of study, by going beyond our data set, and delving into the lifeworld of the users we study.

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[1] According to the Business Insider, the official cutoff points for the Millennial generation was set by the Pew Research Centre (2018) as the people born between 1981 and 1996. These people experienced the expansion of the internet (Loria & Lee, 2018).

2.0 Introduction: 'What's happening'?

This is the question, that Twitter asks the users today. Originally, Twitter was designed as an open mobile status update service, where people would share personal updates, answering to the question, 'What are you doing?'. Due to the characteristic of Twitter being an open service, people could connect without having to agree on relationships (Stone 2009). Three years after the official launch, Twitter made an architectural decision to change the tagline to now asking the users: 'What is happening?'. The co-founder of Twitter, Biz Stone, expresses following;

> *"[...]the fundamentally open model of Twitter created a new kind of information network and it has long outgrown the concept of personal status updates. Twitter helps you share and discover what's happening now among all the things, people, and events you care about. "What are you doing?" isn't the right question anymore [...]"(ibid.).*

The shift of asking what is happening has pushed users to rather posting tweets to share information. In the same year of changing the tagline question, Twitter also announced the feature of 'trending topics', a feature that according to Biz Stone, speaks into Twitter's new purpose of being a 'discovery engine for finding out what is happening right now' (Rogers 2014:xvi). The impact of the reinvented purpose of Twitter, as a real-time news and information sharing medium, was reflected in several major events, where Twitter users are the ones to break the news before mainstream media. One example is the Hudson River landing of a US Airways jet in January 2009, an incident that was reported first on Twitter (Beaumont 2009). The way in which Twitter facilitates this first-hand reporting of news and events, as well as prompting the urge for users to share information with each other, has increasingly made Twitter an interesting platform to study. Professor in the Digital Media at the Research Centre of Queensland University of Technology, Axel Bruns[2], and Director Jean Burgess[3] has each made several contributions of researching Twitter. Among these, is their collaboration on the 2011 paper *'#ausvotes - How Twitter Covered the 2010 Australian Federal Election'*. Bruns and Burgess tracked the overall and individual public user activity during the election, to investigate the interconnectedness between mainstream media and political events, as well as exploring the public discourses through the hashtag #ausvotes (Bruns & Burgess 2011a). The researchers subsequently published the 2012 paper, *'Researching News Discussion on Twitter',* where they outlined an approach for large-scale quantitative research of how Twitter is used to

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[2] Axel Bruns: Doctor of Philosophy at the University of Queensland. Professor within the following faculties Creative Industries Faculty, School of Communication, Digital Media Research Centre (QUT 2919a)
[3] Jean Burgess: PHD at the University of Queensland. Professor within the following Creative Industries Faculty, School of Communication, Digital Media Research Centre ect. (QUT 2919b)

discuss and cover the news with a focus on hashtags (Bruns & Burgess 2012). The value of using social media data from Twitter, to look at public discourse around natural and socio-economic events, is also granted in the 2014 paper '*Public Microblogging on Climate Change: One Year of Twitter Worldwide'*, where the professors Andrei Kirilenko and Svetlana Stepchenkova, investigate daily and weekly patterns of climate change discourse in five main languages. The paper anticipate how mining of social networks will become a great data source in the discourse on climate change (Kirilenko and Stepchenkova 2014). The ability to access and establish large-scale databases of human activity through Twitter, has definitely captured scientific attention, and inspired researchers to better understand social relationships and user behavior. This is apparent in the above mentioned examples. Beside these approaches, some researchers have also employed sentiment tools[4] to explore public opinion about climate change, to document how collective sentiment varies in response to climate change news and events (Cody et al. 2015). The obvious and increasing interest in doing research using data from, particularly Twitter, could rely on the perception of Twitter as being a 'conduit for a global stream of consciousness' (Murthy 2018:133). This interpretation appears in the second edition of the book '*Twitter – Social Communication in the Twitter Age',* written by Dhiraj Murthy[5], who has authored more than 40 academic contributions about Twitter. In the book, Murthy writes;

> *"If Twitter is a conduit for a global stream of consciousness, it logically follows that the medium is a barometer for revealing everything, from the occurrence of natural disasters to the public perception of political candidates" (Murthy 2013:133).*

This understanding of Twitter has inspired researchers to study the influence of Twitter during large-scale events, as well as the opinions and behaviors of users, regarding topics such as climate change, but also studies of how the hashtag plays a central role in coordinating publics and political discussion around these topics (Bruns & Burgess 2015a). According to Bruns and Burgess, it is the openness of the Twitter platform infrastructure, which allows users to interact and view content without being directly connected, that has provided opportunities for research in the digital humanities and social sciences. This 'comparative openness' has catalyzed innovation of digital tools to gather, analyze and visualize data (Bruns & Burgess 2015b).

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[4] Sentiment tools are digital tools, that enable researchers to categorize data based on scripted parameters of discerned sentiment. An example is found in Cody et al that use the ' hedonometer' to measure expressed positive and negative sentiment in large text collections (Cody et al, 2015)

[5] Dhiraj Murthy: Associate Professor at the School of Journalism and the Department of Sociology (University of Texas 2019).

As well as how these innovative tools and methods to study Twitter has brought a vast amount of research and new insights, it has also brought up questions about the legitimacy of social media big data. According to the, sociology and computer science professor, Zeynep Tufekci, there are some crucial questions to ask about the representativeness of these digital data traces (Tufekci 2014). Among other points, she presents the following challenges;

> *"[...]Online actions such as clicks, links, and retweets are complex social interactions with varying meanings, logics and implications, yet they may be aggregated together."[...]"Human self-awareness needs to be taken into account; humans will alter behavior because they know they are being observed, and this change in behavior may correlate with big data metrics." (Zeynep 2014:1).*

In the paper, Tufekci expresses, how the interpretation of online imprints engages layers of complexity, and that neglecting the context of the data and questions such as 'what does a retweet mean?' and 'how do different communities interpret these interactions?', can lead to misunderstandings (Tufekci 2014:5). The emphasis of retaining context when analyzing big data sets is also shared by Microsoft researchers danah boyd[6] and Kate Crawford in their paper *'Critical Questions for Big Data'*, where they stress certain issues, such as how data are never generic, and that it will be an ongoing challenge and concern to maintain context at scale (boyd & Crawford 2012: 671). In their paragraph, 'big data are not always better data', the authors also emphasize to recognize the value of 'small data', and that they find it increasingly important to acknowledge, that focusing on a single individual can be especially valuable during this computational turn (ibid.). Continuing on this note, a Techno-Anthropological investigation would contribute with a another angle to study Twitter, than the above mentioned studies, that are predominantly media studies. Techno-Anthropology focuses on the contextualization of knowledge and practice, and treats the aspect of the *unity* between humans and technology (Botin 2015:213)

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[6] The Microsoft researcher, danah boyd, is always referenced with lowercase letters in academia (boyd 2019).

2.1 Problem Area

The problem area of this thesis revolves around interpretations of digital data insights based on the Twitter data set from our former semester project, that investigated and mapped out discourses related to the Danish sustainability debate through the hashtag #dkgreen.

In the analysis of Twitter data in our 9th semester project, several new research questions emerged. We aim to substantiate these questions in this thesis, through *offline grounding*, situating the project outside the internet (Birkbak & Munk 2017:25). We want to explore the digital use-practices related to Twitter and the hashtag #dkgreen from a user perspective. We deem these practices to be integrated in the everyday life of the users, and in that way, we grant that these digital practices play a role and has an effect in the offline lives of the users (Birkbak & Munk 2017:43). Preceding from the identified quantitative data patterns of use-practices and discursive insights, we find it relevant to now explore *how* people do things with Twitter, *why* they do them, and *how* they understand them (Marwick 2014:119). In order to reach a comprehensive understanding and place the technology use into a specific social context, we want to bring awareness to the relationship that develops between the Twitter users and the microblogging platform, through the theoretical framework of postphenomenology. The Twitter platform is used by people as a tool for them to communicate and network for their own purpose, but how do these practices influence the users? Through the postphenomenological approach, we want to explore how Twitter as a technology shapes the choices and actions of the users and their experience of 'the world' through the case of the hashtag, #dkgreen (Rosenberger & Verbeek 2015:1). As a part of the theoretical approach and the aim to conceptualize the relationship between human beings and their world, the concept of *intentionality* also plays a central role, in the way human experience is said to possess an 'intentional structure' and how technology 'mediate' this intentionality (ibid.:21). This implies to not approach Twitter and #dkgreen as only functional and instrumental objects, but as 'mediating artefacts' and mediating infrastructures of the user's experience and practices. This is an analytical grip within the postphenomenological framework is referred to as 'technological mediation' (Rosenberger & Verbeek 2015:9).

To understand the experiences and use-practices, related to the #dkgreen sphere, this involves an exploration of Twitter's technological affordances of hashtags and retweets. In addition to this we also explore how users choose to compose their tweets and their profiles on Twitter. In our former exploration of the discourses emerging in relation to #dkgreen, we found a significant share of the collected tweets to be composed as retweets, which revealed an impact

on the emerging top discourses. Prior studies have shown, how the practice of retweeting bear varying meanings (boyd et al. 2010; Metaxas et al. 2014), which is why we are interested in this practice to better understand the users and their relationship with Twitter and #dkgreen. Another interesting aspect of the microblogging platform, is how the communicative practices becomes an enactment of self-presentation. A result of how Twitter encourages associative practices, through the technological affordances, users are already aware of e.g. who should be @mentioned and what hashtags to use (Murthy 2018:94). Each of these actions have an element of self-advertising due to how the tweeting practices involve methods to promote the users themselves (ibid.). We want to grasp how the users are performing and making themselves present in the debate on Twitter, through an understanding of how these practices become meaningful to the users. Central to our attention, is the profile of the users, where many choose to fill out the biography. Through former observations we recognized several different ways that users described themselves through this feature. Especially, we found examples of users who presented themselves as mere professionals or as mere 'private', as well as different combinations hereof. We find it interesting to better understand how this feature and act of self-presentation plays a role for the participating users. To investigate the aspect of self-presentation on Twitter, we draw on Erving Goffman's dramaturgical metaphors, to consider how the users are navigating and performing their identities on Twitter. Looking into these different aspects of use-practices and social contexts of the users, we also aim to elicit their perceptions of sustainability. We find this understanding meaningful, in order to analyze how their individual perceptions affect their practices on Twitter. In order to meet our research interests, we employ the postphenomenological framework to investigate the relationship occurring between Twitter users and the platform, in the case of their interactions related to the hashtag, #dkgreen. Through this approach, we strive to revise our current interpretation of our Twitter data by gaining an in-depth understanding of the above mentioned use-practices and social contexts of the users. New data driven research questions emerged from our former project, that now constitutes the research questions in this thesis, and substantiate our research interest. This ambition leads to the following problem statement and research questions.

2.2 Problem Statement

How can use-practice and social context inform an understanding of Twitter data and how is sustainability debate mediated through #dkgreen?

2.3 Research Questions

RQ1: What is a hashtag?

RQ2: What is a retweet and how does this feature contribute to #dkgreen?

RQ3: How are biographies used for self-presentation?

3.0 Thesis Limitations and Delimitations

This thesis focus on the Danish Twittersphere, and supplements digital data with qualitative and situated insights. We have, however, developed our main conceptual framework of our field based on international studies and research. We acknowledge, that the contextual use of Twitter varies excessively dependent on geography, and we are aware, that study findings are not directly transferable to the Danish Twitter context. However, these insights can support our overall understanding of what Twitter is and this aspect also supports the relevance of situating our data insights in the Danish Twitter context through qualitative interview data.   This study will not be generalizable to all areas of Twitter or to other hashtags, and will only be representative for the specific period of data harvest and the situated understanding, that our informants possess during our time of research.

With the choice of postphenomenology as the theoretical framework, we recognize, that this approach influence the empirical material, as well as our findings. Other theoretical and methodological approaches to this field would convey other insights. It is evident, that this thesis is affected by our interpretations as researchers, and that our findings could result in different interpretations from others.

Our approach to recruiting informants was informed by a delimitation of 'top users' based on our findings in the Twitter data set. We chose to delimit users with less than 5 tweets posted in the data set (see Appendix 1 & chapter 9.5). In order to process our empirical data we employ Adele Clarke's 'situational maps', that serves to structure our way of handling the emerging complexities. It should be clear, that we only use Clarke's 'situational maps', and do not adhere to the complete methodological approach of Situational Analysis (see chapter 7.0) Additionally, we use the word 'practice' to describe the Twitter user's 'doings' and their behavior, and this does not refer to practice theoretical terms. Lastly, when we mention #dkgreen and the debate that occurs related to this hashtag, we have chosen to refer to this debate as 'sustainability debate'. We find this title to cover the overall debating topics, which we also explain in the chapter, Perspectives on Sustainability.

4.0 Field Review

In this chapter we want to present an overview of fundamental knowledge, that formed the conceptual understanding of our research field. We highlight an array of central perceptions of sustainability, in order to comprehend the overall thematics, that our informants associate with and represent. This is followed by an explanation of Twitter and how communication is facilitated on the platform. We approach the technological affordances of Twitter, such as the hashtag and the retweet feature, that come to shape the users relational practices. The technical insights should provide an understanding of the media specific culture of Twitter and how users debate sustainability. The practices of tweeting, involving the use of hashtags, @mentions, and retweets all withholds elements of self-presentation, which is why we also present an account for the technological construction of the self. Finally, we clarify how we understand #dkgreen so far, based on official interpretations of hashtag use in Denmark and knowledge from our Twitter data set.

4.1 Perspectives on Sustainability

The term 'sustainability' refers to "The ability to be maintained at a certain rate or level e.g. 'the sustainability of economic growth" or "Avoidance of the depletion of natural resources in order to maintain an ecological balance e.g. 'the pursuit of global environmental sustainability"(Oxford Dictionary 2019). From a historical point of view, the common understanding of sustainability, has shifted between both of these definitions, depending on the periodical context (Garren & Brinkman 2018). However, in recent decades and especially since the 1980's, the perception of sustainability has primarily been focused on human centered sustainability and our impact on the planet's resources (ibid.). The cause of this shift can be attributed to the establishment of The United Nation Commission, which was set up to approach 'economic development and environmental degradation'. The Commission subsequently brought forth a conceptualization of 'sustainable development' in the 1987 Brundtland Report (ibid.:1-7), that was defined as; *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"* (United Nations General Assembly 1987). This definition of sustainability is one of the most quoted in sustainability rhetoric. It is additionally possible to equate the notion of sustainability to enacting a practice, where the use of resources should be maintained at a level, which still enable future generations to live lives in quality to our own.

However, the definition can be considered as problematic in its lack of specificity concerning what lifestyles should be considered sustainable (Garren & Brinkman 2018:2).

A closely related perspective on sustainability and a general evolution of the notion of sustainable development, is outlined in 1992 Earth Summit also referred to as The Rio Conference (United Nations 1992). This conference lead to the formation of several international agreements such as the 'Rio Declaration' or 'Agenda 21', but also facilitated the UNFCCC (Climate Change Convention) and CBD (Biodiversity Convention) (Garren & Brinkman 2018:7-8). These outcomes have had an impact on the notion of sustainable development to include greater focus within climate change prevention, and encouraged the inclusion of biodiversity efforts within the commonplace sustainability perception (ibid.).

Another definition and common perception of sustainability is be identified as the 'sustainability pillars' or otherwise referred to as the '3 E's', brought forth by the 2002 world summit concerning social development (United Nations General Assembly 2005)(see Figure 1). This notion encapsulates three pillars mutually reinforcing each other, in order to obtain 'true sustainability'. These pillars are defined as 'Economic development', 'Environmental Development' and 'Social Development', illustrated as pillars of Greek architecture, projecting an interdependent order and structure (ibid.; Garren & Brinkman 2018:5).

The pillars have been evolved upon in recent years e.g. by expanding the model with additional pillars. One of these is the 4th pillar, 'future generations', emphasizing the long-term aspect, that sustainability encompasses (Waite 2013). In several international standards, and well-known certifications, they also use the notion of 'the sustainability pillars' as a grounding framework, e.g. Fairtrade or UTZ certifications (Manning et. al 2011).
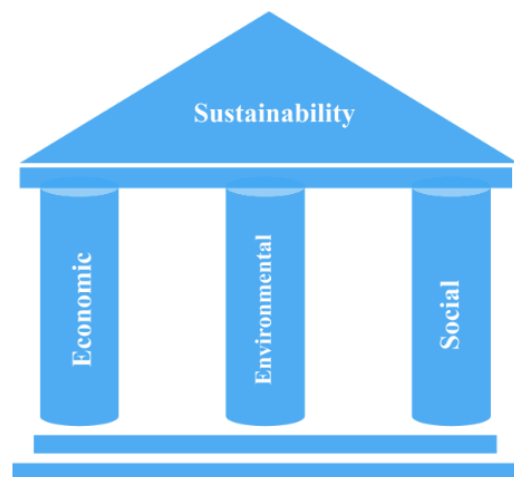
Figure 1. Model of the 3 E's/ Sustainability Pillars.

Within all the aforementioned definitions of sustainability, there exists a uniting factor of sustainability as a 'state of mind' or an 'action'. These factors aim to improve and withhold the quality of our and future generations lives, by reducing the depletion of our resources and supporting natural ecosystems. These aspects of the definitions primarily emphasize a macro-oriented perspective on sustainability. It is however also possible to approach sustainability

through a micro-oriented perspective, that relate to the close relationships of the individual and their ability make a difference. People who possess this perspective, typically critique, that political institutions, as well as most economic systems, only provide frameworks, that partly encompass what sustainability should be (Garren & Brinkman 2018:16). It is common for those that possess a micro perspective of sustainability, to see an increased need for directed legislation, in order to obtain sustainable development, as well as an input of individual action.

> *"[...]there seems little likelihood that current global currents will change any time soon and it is irresponsible to pause sustainability initiatives to wait for fundamental structural changes in global society. Without the work of many to advance sustainability over the last few decades, we would be in a far worse situation than we are in today."(Garren & Brinkman 2018:16)*

These types of input or actions of the many to advance sustainability, in most cases involve implementing actions that reduce consumption, imply careful resource management or require implementation of self-sufficient/renewable technologies. The micro and macro perspectives of sustainability guides our contextualization of the debate within #dkgreen. We acknowledge, that sustainability perceptions can be varying, depending on the person's own worldview, and it can therefore be difficult to identify what specific definition people adhere to. It is crucial to gain insights into people's background to understand how they view sustainability and how this aligns with their behavior. In order to approach this facet, we outline a description of each of the social contexts' of our informant in chapter 8.0.

We additionally acknowledge, that there exist other notions of sustainability, within different places of the world. The perceptions presented in this chapter encompass a predominantly westernized view of sustainability. Outside the West, the notion of sustainability, typically, includes a clear social aspect, which is not as technically orientated and focused on consumption (Garren & Brinkman 2018:15-16). Within these parts of the world, sustainability, will equate to the first definition of maintaining a stable rate or level. An example of this could be an increased focus on poverty and equalization of social classes within the society.

In this chapter we have elaborated on our guiding contextual frame for understanding perceptions of sustainability, and this is now continued with a contextualization of the technology central to our field.

4.2 Twitter, Technological Affordances and #dkgreen

In the introduction we elaborated upon how Twitter is a facilitator of information exchange, and that the platform has become a 'discovery engine for finding out what is happening right now' (Rogers 2014:xvi). The system of Twitter enables users to widespread information fast, which results in a stream of opinions being distributed. The stream structures how Twitter can possibly reveal multiple viewpoints within political debates, by the use of well-established hashtags (Maireder & Ausserhofer 2014:306). These affordances and opportunities of Twitter, can be related to our case of #dkgreen, that is a central hashtag to use when communicating about sustainability in Denmark. We will elaborate upon the hashtag #dkgreen in chapter 4.2.3. The Twitter platform is often compared to Facebook, because of how both media are social and highly interactive. Based on the comparative openness of Twitter, the platform is sometimes perceived as the public version of Facebook. On Twitter, users are able to unidirectionally follow other users, which is different from Facebook where social relationships are to be mutually accepted (Murthy 2018:38-39). Besides this central characteristic of facilitating asymmetrical follower/followee relationships, Facebook and Twitter differ a lot from each other, in both their technical structure and in how they each consist of unique media specific affordances, shaping the content and our experience of it (ibid.). Twitter can serve many types of communicative purposes, such as users posting their personal answers to the default question of 'What's happening?'. Another purpose could be the directed one-to-one @reply conversations, that are used to gain attention from friends but also from celebrities or other public actors on the platform. They way in which Twitter facilitates the ability to communicate to very broad audiences, can potentially be similar to speaking through a megaphone. Twitter makes the voices and conversations of any individual public, and this why the platform potentially can be seen as democratizing (ibid:93). We will return to the aspect of Twitter as democratizing later in the thesis. In the next subsection we account for how communication on Twitter is configured.

4.2.1 Communication on Twitter

In the book *'Twitter and Society'* from 2014, Axel Bruns and Hallvard Moe, introduces three structural layers of communication. These are related to the technological affordances of Twitter, in order to provide a basis for understanding the different uses of Twitter to communicate (Bruns & Moe 2014:16). These layers of communication are presented as corresponding to a micro, meso and macro layer of information exchange and user interaction.

The micro layer represents the aforementioned one-to-one @mention conversations, the meso layer defines the follower/followee networks, and the macro layer is made up of the hashtagged conversations (ibid.). A Twitter user communicates through the micro layer by including the @-link to address another user. The Twitter client will notify the mentioned user, this enables the practice of directly connecting to another user through a tweet (Bruns & Moe 2014:19). The default layer of communication on Twitter, referred to as the meso layer, is where users are communicating by posting their tweets directed at their own group of followers. According to Bruns and Moe, it could be argued, that this practice could act similar to making a public statement to a group of friends – the account owner's own 'personal public' (Bruns & Moe 2014:17) However, this analogy is not suited for users with a vast follower network, because the audience becomes too large to be known (ibid.; Marwick & boyd 2011).

Twitter also affords the formation of relations between users and text. This defines the macro layer of communication, where users incorporate the hashtag (#) in a tweet. A hashtag can be introduced by anyone and consists of the '#' symbol, followed by a word or a phrase. The idea of the hashtag is to mark a tweet to a specific topic of conversation. Using them in a tweet enhances visibility, by reaching beyond the user's follower network (Bruns & Moe 2014:17) The concept of the hashtag was a user-led innovation, suggested by the Twitter user @chrismessina in 2007. He proposed to create a system of 'channel tags', by using the '#' symbol, that would allow people to follow and contribute to conversations on specific topics of interests;

> *"Every time someone uses a channel tag to mark a status, not only do we know something specific about that status, but others can eavesdrop on the context of it and then join in the channel and contribute as well. Rather than trying to ping-pong discussion between one or more individuals with daisy-chained @replies, using a simple #reply means that people not in the @reply queue will be able to follow along, as people do with Flickr or Delicious tags. Furthermore, topics that enter into existing channels will become visible to those who have previously joined in the discussion." (Messina 2007)*

Two years after his proposal, Twitter adopted use the of hashtags to the interface, and Messina's idea of the 'tag channels', is what serves the function of the hashtag today (MacAthur 2019). Twitter users are now able to track hashtags of their interest and engage in conversations related to their interests. Including the hashtag in a tweet also sends a signal of wanting to become part of a wider communicative process, with others who are interested in the same topic (Bruns & Moe 2014:18). Users who engage with certain hashtags, e.g. in response to breaking news or current events, can come to establish so-called 'ad hoc issue

19

publics', and with the ability to engage and respond in great speed, Twitter stands out from the more conventional issue publics;

> "In many other environments – especially those controlled by extensive top-down management structures, issue publics may form only post hoc: some time after the fact. Even online, news stories must be written, edited, and published; commentary pages must be set up; potential participants must be invited to join the group. Twitter's usergenerated system of hashtags condenses such processes to an instant, and its issue publics can indeed form virtually ad hoc, the moment they are needed" (Bruns & Burgess 2011b:7).

Bruns and Burgess additionally states, that networks of users created around the shared practice of using a thematic hashtag, should be understood separate from follower/followee networks. Due to this, the practice of including the hashtag becomes an explicit attempt to address an 'imagined community' of users, who are discussing a specific topic (Bruns & Burgess 2011b:4). The authors describe these 'issue publics' or 'hashtag communities' to act as 'discursive communities', that in many cases are corresponding to other related public spheres in the areas of e.g. politics, mainstream media and academia (Bruns & Burgess 2011b:7). On the Twitter interface certain hashtags are brought forward as especially popular or 'trending', which is not solely based on how a topic is popular among users, but also on how Twitter's algorithms are designed to care for specific relevance criteria (Birkbak & Munk 2017:36). Twitter does not explain the details of these criteria, but declares, that their trends are determined, based on who you follow, your interests and your location (Twitter 2019). Judging on how trending topics are presented on the Twitter interface, this comes to have an impact of what hashtags we use. If you want your tweet to reach a greater visibility, you will choose to link them to topics, that are already used by many others (Birkbak & Munk 2017:36).

A way to cross these communicative layer boundaries, is through the feature of retweeting (RT). This practice allows people to forward a tweet to their followers, while still preserving a reference to the original sender. In this way, Twitter facilitates redistribution and enhanced visibility of tweets, to more unknown audiences, beyond one's own network of followers (Murthy 2018:43). When users are retweeting, they are able to connect their own comments and publicly either agree or disagree with the original utterer (boyd et al. 2010). The retweet feature does not only boost the reach of a tweet, but it also makes the tweet navigable. People can follow the @-link or the retweet link, and be directed to the context of the conversation, as well as to the profile page displaying the background of a particular user (Schmidt, 2014:5). Within these practices of tweeting - using hashtags to mark conversations, @mentions to address users, and retweets to disseminate and increase visibility of tweets, there comes to exist

an act of self-advertising (Murthy 2018:94). This is why the concept of self-presentation is a relevant aspect of Twitter. We will elaborate upon this aspect in the following section.

4.2.2 Technologically Constructing the Self on Twitter

Apart from considering the above mentioned tweeting practices as tools for presenting the self on Twitter, it is also relevant to acknowledge the user profiles and biographies, as a sites for self-presentation. This section will focus on Twitter as medium for users to present themselves according to context and social norms.

Twitter is categorized as a social media platform. The term 'media' is said to be associated with communication, messages, content, social practices, and creation. These practices can all be characterized by their performative character (Wiltse 2017:7). Following Erving Goffman and his 1959 work, '*The Presentation of Self in Everyday Life*', the conceptualization of identity is rendered as a continual performance (Goffman 1959). Goffman employed a dramaturgical metaphor when analyzing people's practices to imply, that individuals can be seen as actors, who adapts their self-presentation according to context and audience. Furthermore he suggests, that we as actors are navigating *front stage* and *backstage* areas, depending on the giving situation. When actors are front stage, the goal is to act according to the expectations of their audience, and when actors are acting backstage, they might reveal more of their personality (Goffman 1959). Goffman's theory revolves around the motivations of people's behavior, based on how they believe others will judge or evaluate them. The continuous act of establishing one's self-image, becomes a process of *impression management* (ibid.).

In the 2010 study, '*I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience*', danah boyd and Alice E. Marwick, uses Goffman to stress the expectation of how users always tweet dependent on the given audience and context for the conversation (Marwick & boyd 2010). The authors highlight that every action to communicate has an 'imagined audience', and that this audience is assembled, based on the technological affordances and the immediate social context. Actions on Twitter becomes the users way of presenting themselves according to their audience. Your identity on Twitter is, according to boyd and Marwick, built through conversation with other users, and the conversations are affected by the given social context. The authors pinpoint how this standpoint renders in the tradition of *symbolic interactionism*, where meaning is constructed through language, interaction and interpretation, which makes self-presentation a collaborative act. In contrast to face-to-face interactions, where the audience is present in a specific context, what happens on

Twitter, is that multiple contexts are brought together, creating the phenomenon of *context collapse* (ibid.) This phenomenon generally leads to imagining your audience, which develop a need for variable self-presentations towards different audiences (boyd & Marwick 2010). The study finds, that users on Twitter are operating certain techniques to target tweets to specific audience members, and that they for example conceal or reveal different information, based on who they imagine to be listening. One of the techniques, that is uncovered in their study, is to balance the expectations of authenticity. Users are choosing discussion topics based on the judgement of the imagined audience, and this becomes a process of managing a continual *front stage* performance of the self (ibid.). Considering the idea of 'balancing expectations of authenticity', it is crucial to acknowledge, that *"What we consider authentic constantly changes, and what symbols or signifiers mark a thing as authentic or inauthentic differ contextually."* (ibid.). Relating this to the case of #dkgreen, what is considered authentic or inauthentic, will be affected by the audience and what Twitter users consider to be 'authentic'. Given that Twitter is an online social media technology, the self-presentation that occurs on this platform is being performed in data. danah boyd authored the book chapter *'Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications'* in a 2010 publication, where she introduces her definition of 'networked publics';

> *"Networked publics are publics that are restructured by networked technologies. As such, they are simultaneously (1) the space constructed through networked technologies and (2) the imagined collective that emerges as a result of the intersection of people, technology, and practice" (boyd 2010:39).*

boyd explains, how these networked publics are being transformed by networked media, and how the properties of bits affect the structure, that generates new practices, and shape the interactions that are taking place. Features of profiles, friends lists, public commenting tools and stream-based updates, is what comes to represent these bits as the 'architecture' of the networked publics, and how the content produced by networked publics are made out of bits (boyd 2010:39-40).

The way in which the technological affordances of networked technologies are able to amplify, record and spread information, also makes it easy to store, distribute and search for this bit-based content (ibid). As mentioned above, one of the features, that boyd showcases as important for producing bit-based content, is profiles. She emphasize the profile as a site of self-presentation, and explains that;

> *"Profile generation is an explicit act of writing oneself into being in a digital environment (boyd, 2006) and participants must determine how they want to present themselves to those who may view their*

selfrepresentation or those who they wish might. Because of this, issues of fashion and style play a central role in participants' approach to their profiles." (boyd, 2010:43)

According to boyd, the way in which users choose to present themselves, in a digital environment, is affected by the interpretations of the audience. Parallels can here be drawn back to Goffman, and his assumption of how we as actors adapt our self-presentation, according to context and audience. So constructing an online profile is an act of self-presentation but according to boyd, it is also a feature, that produces bit-based content, where certain affordances emerge out of these properties of bits (boyd 2010:43-45). These affordances are presented as follows;

"Persistence: online expressions are automatically recorded and archived. Replicability: content made out of bits can be duplicated. Scalability: the potential visibility of content in networked publics is great. Searchability: content in networked publics can be accessed through search." (boyd 2010:46)

Persistency, replicability, scalability, and searchability are the elements, that generate and shape new practices and interactions. Together they play a central role in the conformation of a so called 'networked publics' (ibid.). Representations of the self on Twitter is performed in data and it therefore contributes to the formation of networked publics. This implies, that these representations persist and that they are easily replicated, as well as available through search by large audiences.

The above definitions of the 'networked public' can equate to the case of #dkgreen. This can be based on how this hashtag is restructured by Twitter as the networked technology, that come to construct a space where people, technology and practice intersect. The practices related to the sphere of #dkgreen are all performed in data, which come to shape the interactions in this particular space. In order to approach a contextual understanding of what this particular space is made up of, we will in the following chapter bring forward some official interpretations of #dkgreen, and supplement these with our own conceptualizations from the 9th semester project.

4.2.3 The Hashtag #dkgreen

When it comes to the adoption and regular use of social media platforms, among the world population with access to the internet, Facebook is clearly ahead (We are social 2019). In Denmark, Facebook has also managed to manifest itself widely among the Danish society, and counts as the most popular social media platform, which is considerably different from Twitter (Christensen & Knudsen 2018:15). The Danish broadcasting corporation, DR, publishes an annual rapport about the media development in Denmark. In their section 'What do the Danes use the internet for?', it is reported that 63 % of the Danish people above the age of 12 are

using Facebook on a daily basis. The Twitter statistics shows a significantly lower percentage of only 6 % of daily active users (ibid). Judging on these statistics, it is ascertain, that the use of Twitter in Denmark is not as popular, compared to the daily use of Facebook. In 2015, DR published the article, *'(translated) Twitter has not got the claws in the Danes'*, where the Danish social media expert, Stefan Bøgh Andersen, describes Twitter as 'a very nerdy medium' and compared to the USA, where almost everyone uses Twitter, the Danish Twittersphere follows the cliché of only accommodating journalists, politicians and opinion leaders (Valsgaard 2015). Later in 2018, the company 'Overskrift.dk' published the article, *'(translated) Twitter is for politicians, communication people and football fans'* (Larsen 2018). They analyze the most used hashtags in Denmark, in order to map the biggest interests of the Danish Twitter users. The analysis shows, that the areas of politics, media and sports are topping the list (ibid) In the article they also refer to an earlier analysis of the 100 most popular

hashtags in 2017. This determines how #dkpol accounts for almost 24 % of the total hashtag use. They illustrate this point with the picture in Figure 2, where #dkpol is centered among the remaining parts of the most frequently used hashtags (ibid.). In Figure 2, we can aslo spot the hashtag #dkgreen, that represent our case of study. It is through #dkgreen we approach an understanding of the experience of being a participating user in the debate about sustainability in Denmark. In a 2018 statement from the Danish

Figure 2. Visualization of the most used hashtags, in the Danish Twitter sphere in 2017 (Larsen 2018).

firm, 'Nochmal Consulting', they present #dkgreen as the 'top political area' on Twitter, with 7031 tweets a month, and define the hashtag as the indicator for topics around environment, energy and ecology (Nochmal 2018). According to our data collection with TCAT[7], in the period from the 26th of September 2018 to the 26th of January 2019, we observed a count of 7743 tweets with #dkgreen (Nielsen & Larsson 2018). In the Twitter data set we also

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[7] TCAT (Twitter Capture and Analysis Toolset) is a digital tool that enables capture of data from the Twitter platform (tweets, user information, retweets, hashtags, user bios, user interactions ect.). The data capture is executed through varying sampling techniques, either based in collection and generation via random sampling or based on tracking specific data criteria (Borra & Reider 2014: 267-268) .

recognized #dkgreen to have a high co-occurrence with the hashtag #dkpol, that appeared 4911 times together with #dkgreen (ibid.). The hashtag #dkpol marks tweets regarding Danish politics and it is the foremost used hashtags in the Danish Twittersphere, with approximately 86.680 uses a month (Nochmal 2018). In our data set we experienced a remarkable graph peak on the 10th of October, with a daily count of 271 tweets, which was mainly due to the publication of the Government's *'Climate – and air proposal'*, happening on this particular date (Regeringen 2018). Among the 38 initiatives in the Government's proposal, we find several aims to reduce CO2 emissions through an effort in the area of transport, which we accordingly found to be one of the central discourses in our analysis of #dkgreen. Initiatives regarding the climate impact and air pollution from the agricultural production was also present, as well as the ambition to continue 'the Danish tradition of ambitious environment standards' in the industry and in the Danish households (ibid.).

In the 9th semester project, we made a discursive analysis of our data content, that resulted in 11 central discourse thematizations within the sphere of #dkgreen. The discourses emerged through varying degrees of entanglement with each other, that either directly or indirectly approach the green agenda. In other words, the entangled discourse thematics all represent interactions focused on the rhetoric and challenges of sustainability. In the following figure, we present the discourse themathics, that appeared in the sphere of #dkgreen.

Figure 3. Visualization of the main discourse in #dkgreen (Nielsen & Larsson, 2018)

The topic of agriculture in #dkgreen appeared to be one of the main discourses. This finding is based on the following tweet to be the most frequently retweeted post during our period of data harvest: "*(translated)RT @AllonHSorensen: I believe that GMO in food production has gone*

too far here. #dkpol #dkgreen https://t.co/MLAq4rAXAO". This post was retweeted a total of 34 times in the data set, which is evident in Appendix 2. The practice of retweeting was found to be a significant tendency in the data set. In the total harvest of 9632 tweets, we found 52,9 % of the collected tweets to be posted as retweets, which is illustrated below in Figure 4. The data set also revealed, that 43 % of the tweets contained URLs, which is shown in Figure 5.
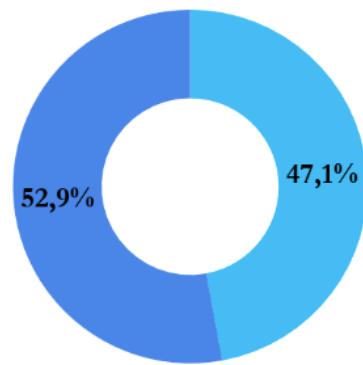
Figure 4. Diagram of the distribution of tweets and retweets in the data set.
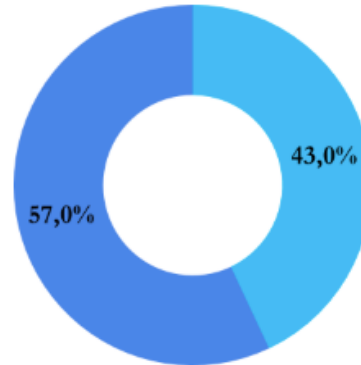
Figure 5. Diagram of the distribution of tweets with URLs and tweets without URLs in our dataset

Similar tendencies are brought forward in the 2012 study '*Quantitative Approaches to Comparing Communication Patterns on Twitter*', that analyzes quantitative comparing of communication patterns on Twitter, through examination of common hashtags. In the study, Axel Bruns and Stefan Steiglitz, observed a tendency to find, share and reshare information, as a standard response to the emergence of breaking news and other 'acute events' (Bruns & Stieglitz 2012). This was reflected in high rates of tweets with URLs and retweets (ibid.). Bruns et al published another paper in 2016, building on the findings from the 2012 publication, where new categorizations emerged, one of them being 'political events' (Bruns et al 2016). This category was found to closely resemble the same activity patterns found within the category of 'acute events', with high activity of retweeting and tweets with URLs. The authors propose, that this is indicating a shift in the mix of media and political engagement. Moreover, they find that in comparison to acute events, the political events actually feature an even higher percentage of retweets. They claim, that this finding could be due the presence of 'well-established', and 'long-term hashtags', that facilitate a 'gathering ground' for interested Twitter users, providing a 'ready stream' of tweets to be retweeted (ibid.) The findings in this study resemble tendencies present in #dkgreen, as we also find high rates of retweets and tweets with URLs in the data set (see Figure 4. & 5). The #dkgreen hashtag could therefore fall under Bruns et. al's category of a 'political event' or 'acute event'. In the media, #dkgreen is often referred

to as a 'classical hashtag' and as one of the preferred hashtags of the Danish politicians (Holm 2016a). This definition of #dkgreen in the media, supports how the hashtag is perceived as a 'well-established' hashtag, which also aligns with findings in the Bruns et. al. study.

In a 2016 news article *(translated)'#parallel universe: The Politicians have green fingers on the Twitter Keys'* it is brought forward, that Twitter represents a space for alternative agendas (Holm 2016a). A survey from January 2016, presented in the article, appoints the refugee and immigrant policy to be the most important topic in Danish politics, followed by health policy and employment policy. The environment and climate policy was not among the most popular policy discussions among the Danish voters, but on the contrary, these topics are very popular on Twitter and sometimes the affiliated hashtags are ranked as the most popular hashtags among the politicians (Holm 2016b). In the article, Holm introduces perspectives from assistant professor at Aalborg University, Andreas Birkbak and sustainability researcher, Irina Papazu from the University of Copenhagen. The above mentioned scenario come to represent some kind of disparity between the favored topics among the society and the ones who dominate on Twitter. According to Birkbak, this is due to how some hashtags are driven by activist-minded forces, that are seeking to affect and push a green agenda forward in the media(ibid.). Additionally, Papazu claims, that Twitter is offering the politicians a space, where they can express certain things, that they are not able to convey through daily media (ibid.). It is possible to relate this scenario to the case of #dkgreen, as this is a common hashtag for debating topics about the environment and climate policy in Denmark (Nochmal 2018). Through our observations in the 9th semester project, it was evident, that these 'activist-minded' forces occurred in the sphere of #dkgreen. This aspect is among other practices, signified by the amount of retweets that appeared in the data set, as it is also shown in Figure 4, which can be seen as users trying to push green agendas and increase the visibility of certain messages.

Through the data set we also observed how the participating users are consciously identifying themselves with the debate, by incorporating #dkgreen in their Twitter biography. As mentioned in the former chapter (see chapter 4.2.2), the user profile and the Twitter biography becomes a site of self-presentation. Here users can 'manage impressions' and act according to the audience in #dkgreen and the social norms occurring within this hashtag sphere. Examples of how users present themselves through their biography, enacting their self-image, will be unfolded in the analysis chapter 9.6.

Continuing along the reflection of how self-presentations are constructed with and through technological affordances, it is crucial to acknowledge, that any given technology has different

meanings and practices connected to it (Botin 2015). When it comes to making meaning of #dkgreen, it is therefore important to emphasise the situated uses of the technology. In the paper *'The Technological Construction of the Self: Techno-Anthropological Readings and Reflections'*, Lars Botin constructs a 'patchwork', where he among other epistemologies, presents postphenomenology as supportive of techno-anthropological reflections, to investigate how technologies co-shapes our conception and perception of the self (ibid.). He involves the thinkings of the American philosopher, Don Ihde, to talk about the aspect of how meaning is context-dependent, stating; *"[...]that any kind of technology is characterized by a non-essential and contextual becoming, where the actual use of the technology in a given context co-constitute the embodied individual and the technology." (Botin 2015:218)*. Relating this to making meaning of #dkgreen, it is through the postphenomenological viewpoint essential to keep in mind, that the perception of the hashtag emerges from its context. This affects how the users and #dkgreen are shaped by their context and by each other.

In this chapter we have now brought forward the essential facets of #dkgreen and the Twitter platform, by means of how users are able to interact and communicate with each other. As a relevant aspect of these actions, we have elaborated upon how self-presentation is being performed by the users, in order to accommodate exactly the idea of how the self is technologically constructed. In order to approach and treat these emerging matters of #dkgreen, we employ the theoretical framework of postphenomenology. The next chapter will introduce the fundamental thinking's of phenomenology, and how renderings from Edmund Husserl and Martin Heidegger has inspired Don Ihde's progression into the philosophy of technology, namely the tradition of postphenomenology.

5.0 Theoretical Basis: Embracing Complexity Through Philosophical Roots

To comprehend, and in turn acquire the ability to analyze the existing complexities within the field and our phenomena of study, we find it relevant to employ a guiding philosophical orientation. We will in this chapter account for the progression from phenomenology to postphenomenology, in order to unfold both the philosophical roots of our theoretical framework, but also to unfold the conceptualizations we later on will use to analyze our field. This progression is illustrated below in Figure 6.
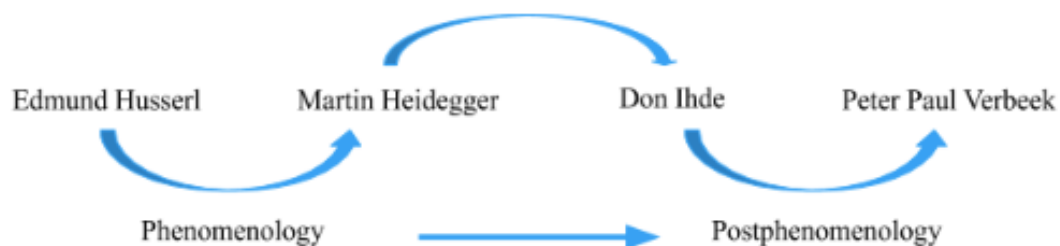
Figure 6. Illustration of the philosophical progression from phenomenology to postphenomenology.

The phenomenological thinking's can be linked to many studies of human interaction and perception of the world. The grounding thoughts of Edmund Husserl and later Martin Heidegger, has shaped the defining philosophical and methodological tradition of understanding the human experience and distortion of reality. This understanding requires an analysis of the perceptions of the world and/or the interactions, that are experienced with objects, that shape our world view[8]. This makes the concept of phenomenology ideal for social scientists, who wish to attain insights into cultural behavior and phenomena based on the human centered perspective. It is the goal of phenomenology to uncover understandings about our world, through the perceptions of ourselves and others in order to capture the essence of a phenomenon (Smith 2018).

> *"Basically, phenomenology studies the structure of various types of experience ranging from perception, thought, memory, imagination, emotion, desire, and volition to bodily awareness, embodied action, and social activity, including linguistic activity." (Smith 2018)*

Phenomenology tries to descriptively investigate human experience, structured around the human 'intentionality' aspect. Husserl used *intentionality* to define the directed experience, that humans possess, when perceiving the world. This is based on Husserl's complex idea, that 'our own consciousness is conscious of consciousness', yet also other things (ibid.)(Husserl

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[8] See (Husserl 1982) or (Heidegger 1997).

1982:33). According to Husserl, phenomenology represents the idea, that it will never be possible to achieve any degree of certainty about any phenomena, without an in depth understandings of the contextual and subjective view, that the observer of the given phenomena possesses (ibid.). This is done by descriptively analyzing our relationships with objects (which in turn define our worldview) and the thoughts we have about them. Husserl reasoned, that truth or certainty can only be provided by our consciousness, through categorical description of contextual context (Husserl 1982:4-9). He ultimately dismisses the idea of truth, as being derived through authority or in other means acquired by deduction based in previous assumptions about a phenomenon. He provides the conceptualization, that the meaning of an event, an object or an experience, lies within the connotation of a phenomenon and the way in which this it is thought about, as well as how it is perceived.

Martin Heidegger, was similar to Husserl, focused on obtaining and using our understandings of perception, others and our own, in order to perceive the world (Heidegger 1997:xx-xxxix). This could be seen through his focus on questioning all that can be considered to be universal or true, yet also focusing on the central perception of 'being'. Humans represent Heidegger's most important understanding of 'being'. He argues, that humans are significantly capable of experiencing our own being, even before we are able to critically ponder about it. Therefore, humans can be defined as 'an existence' capable of primordial and self-interpretation (Heidegger 1962:119-122). In this understanding, Heidegger provides a terminology and conceptualization of humans as perceiving existences/beings, framed through his term, *Dasein*. This term accounts for how human existence is ultimately categorized by the ability to perceive, interpret and inquire about our own and others perceptions. *Dasein* establishes the conception of humans as existing in the world, yet also the acceptance, that the world is structured around our 'being'(ibid).

> *[...] it possible for Dasein, as something which understands and interprets, to disclose such things as 'significations' ; upon these, in turn, is founded the Being of words and of language .The significance thus disclosed is an existential state of Dasein-of its Being-in-the-world ; and as such it is the ontological condition for the possibility that a totality of involvements can be discovered[...]" (Heidegger 1962:121)*

Dasein accounts for the notions of *being-in-the-world* or *everydayness*, commonly referred to as the 'lifeworld' (Heidegger 1962:102). This perspective is founded in Heidegger's argument, that humans distinguish the world differently than other living beings. This is based on our self-perception and the ability to relate this to our own world understanding. An example of this could be the significance and essence of language, which Heidegger uses many times to

demonstrate a human structure forming our world (Heidegger 1997:40). Heidegger also provides interesting viewpoints on technology, arguing that it is crucial to strive for a 'free relationship' with technology, by defining 'who we are' and 'how we relate' to, perceive or physically experience the technology (Heidegger 1997:3-4).

This interest in technology and importance within the perceived lifeworld leads us into our progression into postphenomenology. With the central aspiration of being able to uncover how the relationship between humans and technology shape our worldview, we hereby leave behind the subject/object perception and move forward into the postphemenological oriented human-technology-world perceptions. The progression from phenomenology to postphenomenology was a natural step towards being able to apprehend the meditative and relational power, that the hashtag #dkgreen encapsulates. Postphenomenology aims to investigate the relations, that emerge and exist between humans and technology (Ihde 1990:72). Through this philosophical viewpoint, the focus has changed from descriptive investigation of humans perceiving the world, to studying relational ties developing and existing between humans and technology, that in turn shape our world (Rosenberg & Verbeek 2015:1-2). This shift allows us to approach the phenomena at hand, through questions oriented around how technology e.g. the hashtag #dkgreen encapsulates several types of relational power, which has influence on the users experiences.

6.0 Theoretical Framework: Approaching Technological Mediation Through Postphenomenology

"Life has become unthinkable without sophisticated technology. Contrary to what many people intuitively think, these technologies are not simply neutral instruments that facilitate our existence. While fulfilling their function, technologies do much more: they give shape to what we do and how we experience the world. And in doing so they contribute actively to the ways we live our lives [..]."

(Verbeek 2011:.1)

The interest in obtaining absolute truth about a phenomena or uncovering objects 'essence' as Husserl and Heidegger strived for, has been left behind through this thinking. However, the aspiration of obtaining a contextual perspective (in postphenomenology referred to as *embodied* or *situated)* still requires research to be descriptively and empirically oriented. Another way in which postphenomenology distinguishes itself, can be seen through its evolution of the classic subject/object position (ibid.). Don Ihde introduces this shift in the conceptualization through his own interest in human experience, evolving on Husserl's

intentionality and Heidegger's *Dasein* world views[9]. According to Ihde, human experience has possessed an extensively defining role in the phenomenological way of thinking, because we through human experience can pinpoint and localize, our relation between the world and ourselves (Ihde 1990:21-29). This experience is unpacked by Ihde through his distinguished views on the dimensions of perception. Through perception, it is possible to understand the relation of human beings and the world as intertwined. When we perceive and experience, we are equally a part of and herby 'in' the world, as much as the world is a part of, or 'in' us. This understanding is defined by Ihde through our 'sensory perception - micro perception' and 'interpretive perception - macro perception' (ibid.).

> *"What is usually taken as sensory perception (what is immediate and focused bodily in actual seeing, hearing, ect.), I shall call microperception. But there is also what might be called a cultural, or hermeneutic, perception, which i shall call macroperecption. Both belong equally to the lifeworld. And both dimensions of perception are closely linked and intertwined. There is no microperception (sensory-bodily) without its location within the field of macro perception and no macro perception without its micro perceptual foci."(Ihde 1990:29).*

Through this perceptional viewpoint Ihde provides a postphenomenological conceptualization of the lifeworld which should be viewed more fluidly, than traditional phenomenology would perceive the subjective viewpoint of humans and objects that represent/make up the world (Rosenberger & Verbeek 2015:1-2). The object for Ihde can through this view simultaneously be defined as technological artifacts which possess meditative power that stands between, humans and the world. Ultimately the grander focus lies within the relations. This leads to the next subsection, where we elaborate upon Don Ihde's postphenomenological conceptualization of *technological mediation.*

6.1 Technological mediation

With an inspiration in Heidegger, Don Ihde, coins the notion of technological mediation. This notion contemplate the role of technology in our world perception (Ihde 1990:31-33), similar to Heidegger's example of the hammer. According to Ihde, the view that Heidegger accounted for when regarding tools as 'linkages' connecting humans and the world, is relevant if we want to perceive technology as facilitating our involvement with reality. Heidegger's examples of

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[9] The conceptual shift that Don Ihde provides is especially telling of the periodic wave that occurred within social science and philosophy of technology between the 1980s and 1990s (Brey 2010).

humans becoming one with the tool, when applying it in their use practice to accomplish a task (to hammer a nail) illustrated through 'readiness-to-hand', exemplifies how our relation to the world, in that moment is constituted in our temporary embodiment of the hammer (ibid.). By using this example, Ihde presents the understanding of technological artifacts being able to co-shape our perception. Based on this understanding, things in use facilitate a mediation of human-world relationships, and should therefore be perceived as a third focal factor within the lifeworld, as they mutually shape our perceptions. To illustrate this understanding we have created the following model in order to clarify our perception of technological mediation;
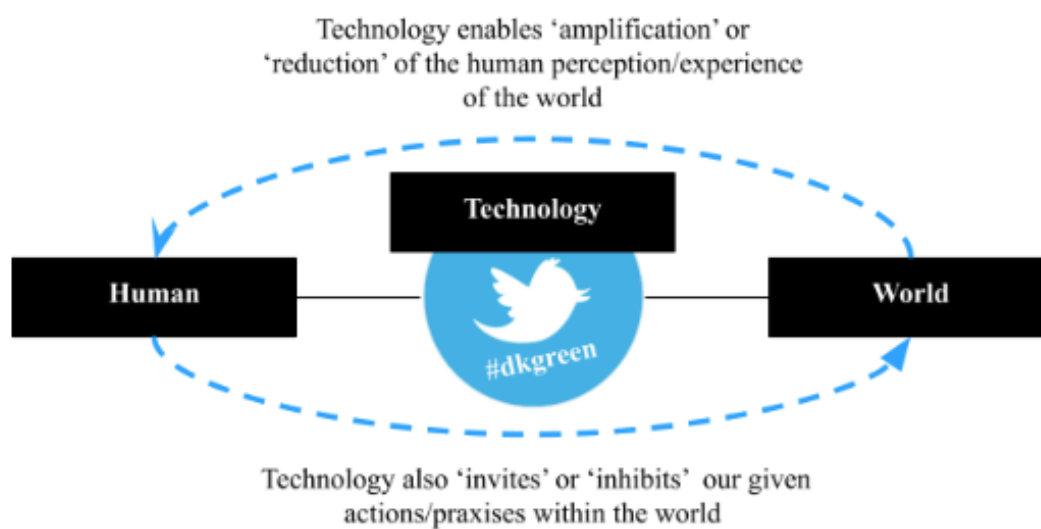
Figure 7. Visualization of technological mediation.

Our model is based on the further evolvement of technological mediation presented by Peter Paul Verbeek and other postphemenological oriented researchers (Sabrina Hauser and Ron Wakery), who in the collaborative paper *'An Annotated Portfolio on Doing Postphenomenology Through Research Products',* Account for technology within this lifeworld perception as additionally enabling amplifications or reductions of our perceptions and experiences, while simultaneously inviting or inhibiting the actions or practices that we put forth into the world (Hauser, Wakery & Verbeek 2018:466-467).

> *"Postphenomenological studies take empirical accounts of existing artifacts as the basis for their philosophical reflections. This offers a variety of existing contextual settings to be studied that have evolved around an artifact. Postphenomenological accounts often take on first person perspectives and, in a philosophical nature, are highly interpretative." (Hauser, Wakery & Verbeek 2018; p.468)*

In the interplay of the relationship between humans, technologies and the world, each human will constitute their own subjectivity and their own objectivity through world perception (ibid.). In turn, the human-technology relation, will always be relevant when we analyze phenomena,

and should therefore be understood as part of this continuous intertwinement within our experience. We will in the following chapters introduce Don Ihde's conceptualization of 'human-technology-world relations' and his notion of *multistability.*

6.2 Human-Technology-World Relations

In the book, '*Technology and the Lifeworld*', Don Ihde presents us with four categorizations of relations which exist between humans and technology (Ihde 1990:137-159);

The *embodiment relation: (human - technology)→ world,* refers to situations where humans, utterly adopts/accepts and embodies a technology in such a way, that the perception and experience of said technology will become 'withdrawn*'*. Through this relation the human perception of the world is directly shaped through the technology (ibid.). A related aspect of the embodiment relation, is the notion of *transparency* that *"[...]refers to the degree to which a device (or an aspect of that device) fades into the background of a user's awareness as it is used"* (Rosenberger & Verbeek 2015:14), where a typical example hereof could be the use of contact lenses.

The *hermeneutic relation: human → (technology - world)* categorizes an interpretive prone relation, which in this conceptualization of the term hermeneutic, defines a human using a given technology that output a textual interpretation, with the intent of obtaining quantifiable or measurable interpretations of the world. In this type of relation the technology in itself is not the main focus, even though we are aware of it. It is the interpretive output which defines the relation (ibid.). An example could be using a weather or navigational app, in order to make an interpretation of the world, which will inform your choice of clothes that day, depending on the temperature or your choice of transportation method, depending on travel distance/availability.

The *alterity relation: human → technology (world)* specifies a relation between humans and technology in which there exists a 'quasi-otherness' element. What is meant by this is typically relations with computer based technologies, where aspects of logical or linguistic behavior exists. In some instances this can include technologies that mimic either human interaction or technologies that are attributed to some extent human characteristics Within this type of relation the world perception, will as a direct opposite to the embodiment relation become 'withdrawn' or otherwise be experienced as less important (ibid.). An example of this could be when we use artificial intelligence technologies such as Siri, Alexa or Google Assistant.

The *background relation: human (technology - world)* can often delineate the most subtle of the relational types. In these instances the human and technology relations, exists in the literal sense of the name, in the background, indirectly shaping and conditioning our environmental context (ibid.). A simple example of this could be our fridges/freezers or heating units in our homes. As a supplement to the mentioned human-technology-world relations, Peter Paul Verbeek additionally introduces two other relations, inspired by Don Ihde. The first relation is the *cyborg relation*, which by the name defines instances where humans and technology in the unequivocal sense merge with each other. For some this relation type can be reminiscent of science fictional themes, however the conceptualization can be viewed exceptionally relevant when considering the technological evolution which has taken place in recent years[10].Verbeek argues, that the spectrum of the aforementioned four human-technology relations, which Ihde lays out, mainly remains relevant in terms of analyzing phenomena where technologies are *used*. Within this point he implies, that this new relational type provides a further distinction in instances where the boundaries between what is human and what is technology, are less visible. An example of this relational type could be body implants and/or augmented reality devices (Rosenberg & Verbeek 2015: 20-21).

The second relation that Verbeek introduce is the *composite relation*. This relation is a development of Ihde's *hermeneutic relation*. The way in which Verbeek has evolved this relation can be seen through the understanding of how technology possess intentionality and are able to interpret the world as well as the human. The *composite relation* accounts for instances where technologies have been imbedded with a script/purpose similar to the *intentionality* or *directedness* of the human (Verbeek 2011:145). The conceptualization of this relation has since 2011 been evolved further by Verbeek, as he in more recent publications refers to the composite relation as possessing aspects of *hybrid intentionality*. This brings into perspective, that these technologies, in some instances can be categorized through a cyborg understanding as an extension of the human experience, however these technologies do not blur the boundaries between what is human and what is technology in a bodily sense, the merge only exists environmentally (Rosenberger & Verbeek 2015:20-21). However, beside how it is the relational ties that make up perceptions, there also exist another aspect to how humans experience phenomena, which is Don Ihde's notion of *multistability*.

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[10] An example of this could be microchip technology used by companies, where microchip implants are inserted under the skin of the employees, instead of traditional keycards, in order to give security access ect. (Huffpost 2019)

6.3 Multistability

The term encapsulates the understanding, that technologies and the relations they mediate, only become this through their contextual use (Ihde 1999). Don Ihde exemplified this with the use of the necker cube example, showed in the following figure:
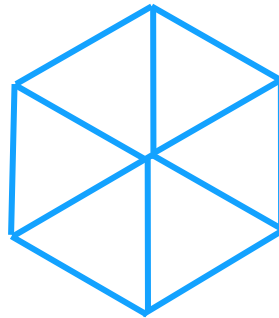
Figure 7: Visualization of the necker cube to illustrate the notion of multistability.

This figure can represent multiple things depending on the way you choose to view it. It is possible to view the cube as two different three-dimensional cubes, but also as two dimensional diamond or an insect stuck in a web. Ihde uses the cube to illustrate how our interpretations can differ depending on how we choose to perceive it. Technologies does not have one 'real' interpretation, but encapsulates many 'stable' interpretations simultaneously (Ihde 1999:46–47). Technologies possess this aspect in the same way, as they can only be defined through their contextual use, which in turn co-shapes a grander cultural context. A result of *multistability* provides the ability to support multiple types of human-technology relations to be occurring at once, that all in turn shape each other and allow for new macro and micro perceptions of the world (ibid.). Ihde once again builds on Heidegger's example of the hammer to illustrate this point further, arguing the initial use practice as being central of importance in the grander context of perception.

> *"Heidegger's hammer is a simple example: a hammer is "designed" to do certain things—drive nails into the shoemaker's shoe, or into shingles on my shed, or to nail down a floor—but the design cannot prevent the hammer from (a) becoming an object d'art, (b) a murder weapon, (c) a paperweight, etc. Heidegger's insight was to have seen that an instrument is what it does, and this in a context of assignments. But he did not elaborate upon the multistable uses any technology can fall into with associated shifts in the complexes of "assignments" as well" (Ihde 1999: 46–47).*

Multistability has been used and evolved upon in several examples of postphenomenological research (Van Den Eede et al. 2017:197). Through this conceptual evolution it is possible to account for the mediation of technologies which simultaneously encapsulated both instrumental intentionalities as well as   multiple internationalities that the users of such

technologies inject through their use practice. It is our hope that by using these theoretical conceptions, it will be possible to analyze the phenomena of the #dkgreen sphere.

In this chapter we have now brought forward the essential thinkings and conceptualizations of phenomenology and the progression into postphenomenology, which is the guiding framework of this thesis.

Proceeding from these introductory passages, surrounding the perspectives on sustainability, facets of the Twitter platform, insights about #dkgreen and the theoretical framework of postphenomenology, we will now elaborate upon the methodology and research approach in this project.

7.0 Methodology and Research Approach

This thesis places itself in the transition of going from digital data insights into an in-depth understanding of how the users conceptualize their relation to Twitter and their presence in #dkgreen. We attempt to authenticate and contextualize the interpretations emerging from the digital data set. This includes views into sustainability discourses through the case of the hashtag, #dkgreen, and the affiliated use-practices of retweeting and the users way of managing their Twitter profiles as an act of presenting themselves in the debate on Twitter.

The establishment of our 9th semester project and our Twitter dataset was approached through an outset in digital methods. Based on the findings in the 9th semester project, three digital driven hypothesis arised, which formed our research questions in this thesis. The aspiration to ground our project offline can be viewed as a valid next step within the digital methods cycle (Birkbak & Munk 2017:25). It is possible to relate this cycle diagram to our own research path, as it illustrates the development of research, by an *offline grounding* the mentioned digital driven hypothesis..
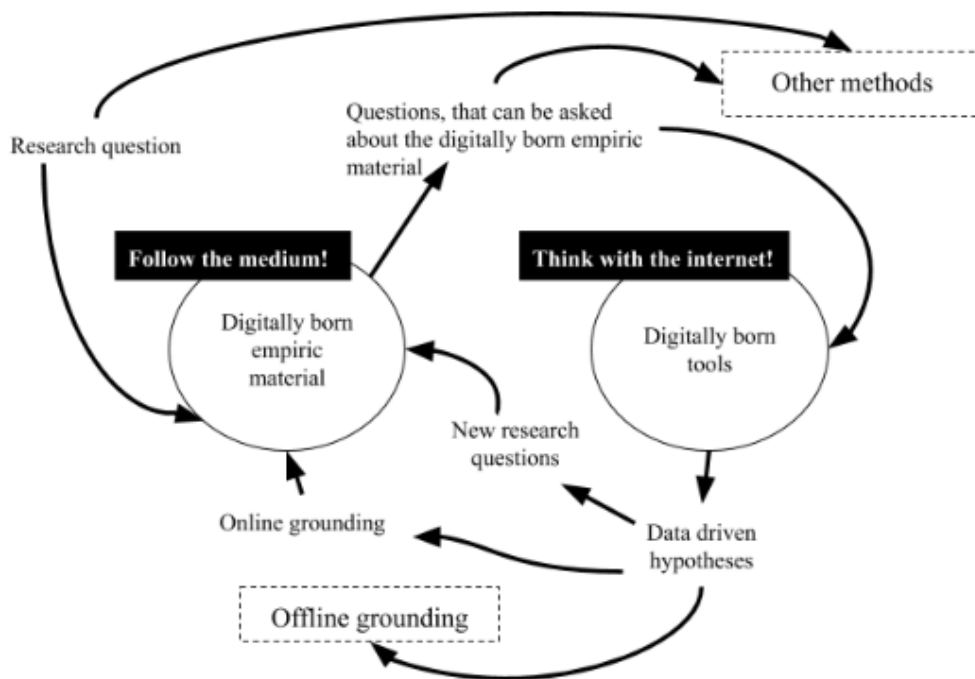
Figure 8. Figure showing 'the digital methods cycle' (translated)(Birkbak & Munk 2017:25).

The aspiration of conducting interviews functions as our continuation through 'the digital methods cycle' (Birkbak & Munk 2017:25). We are seeking to explore and verify the newfound research questions, through qualitative empirical interviews. The next chapter will elaborate upon this methodological step in our thesis.

7.1 Approaching Offline Grounding Through Interviews

Choosing to conduct interviews with the observed Twitter users becomes our effort to investigate our interpretations and new questions outside the internet, and according to digital methods terms, working towards an *offline grounding* of our data (ibid.). Through interviewing, we wish to focus on the users lifeworld and elicit their understanding of Twitter in general and their perceptions of sustainability and use-practices related to the hashtag #dkgreen. Drawing on the postphenomenological approach, we are pursuing deep descriptions of how the users *experience* their interactions with the Twitter platform and the hashtag, while e.g. social constructionists would work to grasp the mere *articulation* related to these practices, in order to understand how the phenomenon is socially constructed through their language and their interactions (Brinkmann & Tangaard 2015:31) Postphenomenological assumptions are constructed through an embodied and situated perspective, "*It builds on the phenomenological tradition of philosophy, approaching issues from the starting point of deep descriptions of*

human experience."(Rosenberger & Verbeek 2015:1), and through a collection of empirical material we aim to bring forth reflections about the interactions and relations that develop between the users and Twitter, as well as the implications hereof. By employing interviews as a part of our qualitative research it also allows us to get insights into occurring social norms, and it can help us unpack the users understanding of Twitter and reveal something about certain behaviors connected to their use of the platform (Marwick 2014:110). Qualitative interviews can be performed relatively unstructured, where few questions are planned beforehand, and as more strictly structured interviews with many guiding questions from the interviewer (Brinkmann & Tangaard 2015:34). The last mentioned, could pose the example of e.g. asking survey-like questions, and maybe asking informants to quantify their experiences on a scale, which then decreases their ability to elaborate, explain and oppose against the questions. Brinkmann and Tangaard propose, that*: "(translated)The concrete face-to-face interaction with another human being without too strictly control usually allows for better being able to tell your own story and oppose against the questions or interpretations from the interviewer"*(ibid.). We follow this notion and choose to employ the so-called semi-structured interview approach, which we will clarify in the following passage.

7.2 Semi-Structured Interviews

The purpose of performing semi-structured interviews is to obtain descriptions of the life world of the informants, in the interest of interpreting the meaning of phenomena of study. (Brinkmann 2013:21) Through this specific approach, the progress of the interview takes place as an interaction between questions from the researcher, that are prepared beforehand and written into an interview guide (see Appendix 3)(Brinkmann & Tangaard 2015:36). These pre-planned questions are not supposed to control an exact course of action throughout the interview, but they can guide some questions, as well as the interviewer are able to deviate from them, and if relevant, pursue a narrative that the informant is especially enthusiastic about. The interview guide consisted of open ended questions, based on overall research questions and concrete interview questions, that followed through a common tread, delving into the main issues that the research aims to uncover. The semi-structured interview allows us to get in-depth information about the observed situations and tendencies in our data set, and underlying reasons for their specific practices. Also, this specific interview scenario allows for the interviewer to tailor the tone of the interview and be able to ask questions based on the response from the informant, which could bring forth new and unknown aspects (Brinkmann &

Tangaard 2015:38). The semi-structured interview guide can, as mentioned, be more or less guiding for the interview itself and also more or less detailed and theory controlled depending on the understanding one has. It can always be discussed whether too much reading and knowledge in the field can affect the researchers objectivity. However, research interviews are never neutral, when they will always be guided by the researchers agenda and their justified theoretical conceptualization of the field (ibid.:37). This scenario is as well evident in our interview guide, that also shows aspects of our postphenomenological interest in investigating the informants personal experiences and individual perceptions, which is shines through the themes and the questions. The overall themes of the interviews could be laid out as the following points:

·   Social context and perception of sustainability

·   Use-practices on Twitter

·   Experience of engaging with #dkgreen

The development of a project will always be informed by the theoretical and methodological choices you make in the process, which this scenario is also an example of. This is also a part of the delimitations. When conducting each of the ten individual interviews, we started out by briefing the informant on the topic of our research, the purpose of the interview and the belonging practicalities of recording and anonymization. We also asked the informants whether or not they would like to 'approve' the statements that we wish to use in the project. All of the participating interview persons were ensured anonymization, which means, that none of their personal data are being used. In this thesis we do not introduce the informants by their names, but instead we have chosen to present them with their professions as an alias.

In the next chapter we elaborate on the process of recruiting informants to participate in qualitative empirical interviews.

7.3 Recruiting Informants

As mentioned, the aim of conducting interviews was to explore the Twitter users' first-hand experiences with the platform and their perceptions and practices affiliated with the hashtag #dkgreen. The recruitment of informants was carried out in the manner of inviting 'top users' (see Appendix 1) from the data set by tweeting to them directly on Twitter. It was of course important to gather users present in our collected data set, because this indicates their affiliation with the use of #dkgreen. Besides this criteria, we did not find it relevant to let further restrictions decide which of the observed users to approach. In consistence with our

postphenomenological perspective, we will focus on human experience rather than getting a sample that is representative, which also fits better into the qualitative method. We did not employ any demographic restrictions, within our selection of informants, such as e.g. gender and age, as these aspects are not considered relevant to our investigation. A focus on such issues would occupy unnecessary focus, as we wished to facilitate a recruitment process, that accommodated users who were interested in providing their perceptions, regardless of their age or gender. The central criteria for selecting the informants was therefore alone based on their affiliation with #dkgreen hashtag.

The individual recruitments were made by addressing users through the @mention feature, and the messages informed on the purpose and the topic of the research. An example of this interaction can be seen in the following figure:

Figure 9: Example of interview invitation on Twitter.

In the process of inviting users to participate in our interviews, we made some conscious decisions to not send out tweets to every one of the users all at once. Moreover, we did incorporate the actual hashtag, #dkgreen, in order to reduce the disruption of our research field. Taking the time frame of this study into consideration, we chose, in accordance with our supervisor, that a collection of ten informants would serve as an adequate amount of empirical material. A description of the informants will appear in chapter 8.0 where we elaborate upon the individual perceptions and intentionalities, that each informant possess, based on the statements each of the informants brought forward through their interviews.

During the phase of collecting participants through Twitter, we experienced this course of action as an easy access to the users. Almost all of the invited users that we addressed responded quickly either to accept the invitation in most cases or to say no. The high level of access to the field enabled us gather the desired amount of ten informants relatively quickly. We anticipate, that this experience was maybe due to the setup and environment of Twitter and how these users are familiar with and accept the circumstances of receiving and sending tweets and relating to different types of inquiries on the platform with users whom they do not know. This

is of course not something we can say for certain, but is it not unlikely, that the open environment on Twitter could have something to do with our experience of quick interactions and responses to our invitation. When users agreed to participate, they replied with a comment to our tweet, and we would post our email address in the same thread in order to continue the communication with the informant in a more closed conversation. In the email correspondence we were able to elaborate on our research purpose even more, the themes of the interview, and ensure that the informant was aware of the certain circumstances as well as being able to ask any questions. All of the interviews were individually scheduled and planned with the informants, and everyone was offered to decide where the interview should take place. We provided several opportunities, firstly meeting with them in person at home or another convenient place, like a nearby café, or meeting on campus. If the constellation of meeting 'face-to-face' was not possible, we conducted the interview through the phone. One interview took place at home at the informant's apartment, one was conducted in a meeting room at one's working place, one at a café nearby to the informant, and the rest was conducted over the phone either due to geographical distance or because it was of inconvenience of the informant to fit their personal schedule.

We acknowledge, that conducting a qualitative research interview 'face-to-face', is of main priority, due to how we as researchers are then able to be a part of a social context with close interactions between us and the informant during the interview, which can help build the trust it takes to allow the informant a 'free flow of information' (Spradley 1979:44). Also, the face-to-face scenario allows the researchers to interpret any nonverbal gestures, such as body language and facial expressions, that provides the researcher with a rich source of information (Brinkmann 2013:28).

It is though our firm conviction, that conducting some of the interviews through the phone, was adequate for this particular kind of research. Given our effort to thoroughly inform the users beforehand about our project and our expectations of the interview, as well as briefing the informants before the actual interview begun, it was in our experience, that this approach was adequate enough to build the trust needed for the informants to speak freely. Furthermore, our research does not involve an interest in very sensitive or highly personal questions, which could contribute to how most of our informants were willing to participate.

We actually found the phone interviews rather giving, because we were able to interview users across geographical distances, that has provided our empirical material with interesting perspectives.

The ten interviews were completed during the period of the 14th of February and the 25th of March. They lasted between 30-60 minutes, and they were all conducted in Danish and afterwards transcribed in Danish as well. We were both present when all the interviews took place and made sure to transcribe the interviews as soon as possible in order to better remember "[…]*the body language, the atmosphere, and other such non transcribable features of the interaction.*" (Brinkmann 2013:29). We chose to fully transcribe all the recorded interview files, and to follow a transcription approach, that does not account for filler words, such as 'um', 'hmm' and speaking mistakes, which is known as the non-verbatim approach (Brinkmann & Tanggaard 2015:43-45). We did not find it relevant to include these words, unless they appeared to convey meaning. It was decided to use more improved language, when the above mentioned hesitating filler words are not found to contribute to the overall comprehension of the informants narratives (ibid.). The quotations used in the thesis are translated from Danish to English, which of course presents a risk of losing some of the nuances in the language. However, each translation has been executed in a way that supports the original statement in Danish, as close as possible. Together with this thesis, we submit a catalogue of each of the transcribed interviews (see attached: Empirical Material Catalogue).

Before we delve into how we process our qualitative interview data, we will in the next chapter clarify our ethical considerations about gathering, handling, and storing our data from Twitter and our interviews.

7.4 Ethical Considerations

It is evident, that our Twitter dataset, as well as our empirical interview data, to some degree includes personal information. We find it is relevant to account for our ethical considerations regarding our processing of our digital and empirical material, based on the European General Data Protection Regulations (GDPR), in order to maintain a practice of absolute transparency about our research. Within the GDPR frame, the legislation concerning students working with personal data, expounds three significant categories of personal data: '*General, confidential and sensitive*'. The specific categorizations can be viewed from the following figure;

GENERAL

- Basic personal data such as name, gender, address and phone number, date of birth, close family relations, data regarding unlisted number/address and photo ID.

- Information regarding education, statements, references, certificates, occupations, work tasks.

- Information regarding salary, tax matters, pension and salary account number

- Driving license

- Affiliation to one or more institutions

- Nationality

- System user information

CONFIDENTIAL

- Danish civil registration number (CPR)

- Personality test

- Divorce

- Registered partnership

- Data pertaining to adoption

- Alcohol and drug testing

- Data pertaining to exam cheating

- Logging of Internet use

- Grades

- Significant social problems and family relations

- Grounds for expulsion

- Disciplinary matters

- Minutes of personal conversations, if these contain information of a particular nature

- Unlisted address

SENSITIVE

- Political opinions

- Religious beliefs

- Philosophical beliefs

- Trade union membership

- Health data

- Sexual matters or orientation

- Genetic and biometric data for the purpose of identification

Figure 10: Visualization of the 3 categories of personal data within GDPR regulation.

The general purpose of this legislation is to serve as a protective measure concerning the rights of data subjects, who's information is stored. Before conducting our interviews, we acquired consent from all our interview informants about the storage and handling of their data. The ethical considerations regarding our interview data, are encompassed by the individual agreements made with our informants, giving permission to handle and use the information they convey in the interviews. Only two of the informants wanted to confirm the citations we used from them before submission of the thesis. Both of the informants gave us their consent to use their statements. We chose to anonymize each informants name and gender, even though this was not a requirement from our informants. However, we chose to present the informants with an alias in the thesis. We found this decision to adequately suit our research interest, when the purpose of the research does not involve a concern for demographics. We omit to draw focus to these aspects by only revealing informants with an alias representing their professional position.

We chose to elaborate upon how we process our data, when we consider this a good research practice. In general the personal data which can be identified within our Twitter dataset, would through the GDPR frame be categorized as 'general' information, amounting to information regarding names, gender, nationality, education, employment, job information, and affiliation with institutions. In some cases, data that, according to GDPR, can be categorized as being 'sensitive' also holds information about political beliefs. It is not in all cases or to the same extent that this information appears from our Twitter users' profiles, however, as researchers, we will prioritize transparency and inform about our method in relation to the collection,

registration, storage and analysis of our data in the project (AAU GDPR Regulations 2019). The data collection prior to this project, has been done using the Twitter Capture and Analysis Toolset (TCAT), and contains tweets collected during the period from the 26th of September 2018 to the 26th of January 2019. The data is primarily harvested through the hashtag #dkgreen, which acts as a common denominator for the majority of the collected tweets during that period. Using the mentioned TCAT tool, Tweets were collected, as well as information about the tweet origin, which also involves Twitter usernames and thus access to the associated Twitter profiles. All Twitter users have the opportunity to add information about themselves and their presence on Twitter in their 'biography'. This means that in most cases, information as mentioned above or the like of , which the individual users themselves have chosen to post, appears on their Twitter profile and subsequently within our dataset. If you have a profile on Twitter, then your profile is generally publicly available, which is also made clear by Twitter;

> *"When you sign up for Twitter, your Tweets are public by default; anyone can view and interact with your Tweets. Should you choose to protect your Tweets, you can do so through your account settings. Learn more about protecting your Tweets."(Twitter Help Center 2019)*

Based on the assumption that the current Twitter user is aware that their profile and behavior on the platform is publicly available, then one must also assume that the personal information and tweets posted are also intended to be available to the public. The purpose of this project is not to analyze or produce points based on personal data such as gender or political convictions visible through the Twitter dataset, which could collide with GDPR frame, as this information is not relevant to our research issues. The project's Twitter data archive is only available to the project's researchers and university staff with certified access to the university TCAT server. When processing these data, it was prioritized these data was stored securely on respective private computer drives.

After our determination of the ethical aspects in our process of gathering, handling and storing data from Twitter as well as the empirical statements in our conducted interviews, we continue with an account for how we processed our interview data.

7.5 Processing Empirical Data

After conducting 10 interviews, followed by a process of transcribing, we turned our focus to select a framework from which to handle and prepare our empirical material for analysis. Based on previous experience of working with Adele E. Clarke's 'Situational Analysis' (SA), our approach is inspired by her method. Specifically her approach of doing 'situational maps' (messy and ordered), in order to gain clarity, when perceiving the phenomenon of study (Clarke 2005:86-91).

> *"Situational analysis allows researchers to draw together studies of discourse and agency, action and structure, image, text and context, history and the present moment - to analyze complex situations of inquiry broadly conceived."(Clarke 2005:.xxii).*

The choice of using a SA inspired approach, supplied us with mapping tools to obtain a degree of closeness to our empiric material, yet also a structured way of indexing 'interesting' aspects from which to further analyze. Clarke defines SA as a methodology, that evolves upon Glaser and Strauss 'Grounded Theory' (Glaser & Strauss 1967), by incorporating the use and analysis of ethnographic and interview data, alongside enduring narratives and discourse material about the phenomena (Clarke 2005:xxi-xxiii). This method enables the uncovering and creation of a thick contextually situated analysis, described by Clarke as a parallel to the notion of 'thick description' coined by the American anthropologist, Clifford Geertz (Geertz 1973). The choice of using a SA inspired approach, provided a guiding and structural scaffold, in which it was possible to perceive our field of inquiry in greater detail. We do however find it relevant to make the distinction, that while inspired by SA, we only chose to use Clarke's aspect of situational mapping, in order to obtain a clear overview of our field, and not the overall methodological approach of Situational Analysis. While the approach in postphenomenological and situational analysis both focus on obtaining detailed context and performing analysis based on knowledge, gained through e.g. collecting perceptions of a phenomena, their analytic focuses are not quite the same. SA bases its focus in multi-sited investigations of action and situations, working within frames of social arenas and negotiations (Clarke 2005:xxii). The postphenomenological epistemology focus on the outset of material hermeneutics, through technical mediation and how the relationship between humans, technology and the world which shapes the human perception (Ihde 1990). The process of our empirical material began by creating a large messy mind map, made up of phrases and/or words that encompass aspects of the phenomenon. Our map was constructed on a large piece of paper, which allowed for quick notation of relevant terms and simultaneously allowed for a creative

free flowing experience. Within this phase many discussions arised about what knowledge we had obtained through our interviews and through our Twitter data set, additionally deliberating concepts uncovered through collected literature about existing narratives and current discourses present within Twitter research. In regard to the creation of the situational messy map, Clarke states the importance of this collected deliberation, saying; *"We also need to ask what ideas, concepts, discourses, symbols, sites of debate and cultural "stuff" may "matter" in this situation"* (Clarke 2005:88). The notation and identification of concepts continued until it was no longer possible to uncover new aspects which had not already been discussed. The outcome of this phase resulted in the following map:
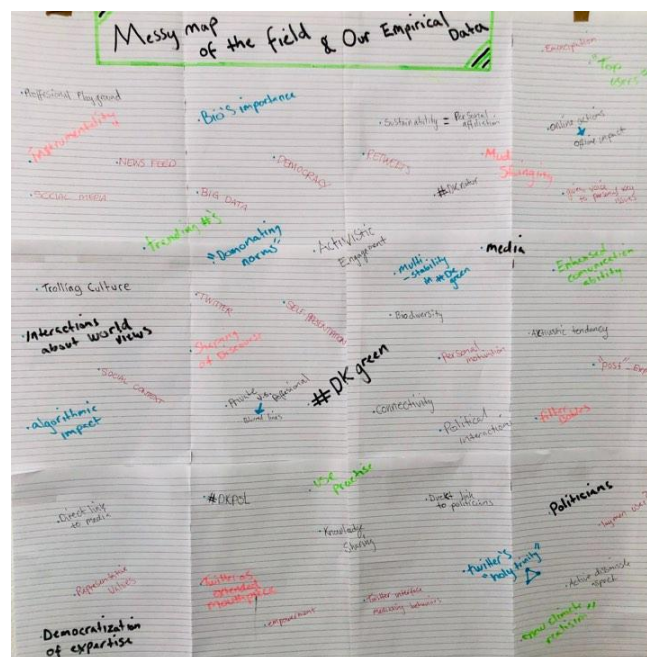
Figure 11: Abstract messy map of our field and our empirical data.

The figure shows an abstract messy map of our field. It is made up of keywords and phrases that encompasses our understanding of the informants perceptions and experiences with #dkgreen (the field). In this way the situational mapping supplied us with a way to achieve an overview of our understanding of our informants lifeworld. In order to clearly view the outcome of the messy map, every keyword and/or connected phrase was input into a more legible list amounting to 52 aspects of 'matter' within our phenomenon.

1. Professional playground
2. Instrumentality
3. Newsfeed
4. Social media
5. Trolling culture
6. Interactions about world views
7. Social context
8. Algorithmic impact
9. Direct link to media
10. Representative values
11. Democratization of expertise
12. Trending hashtags
13. Bio's importance
14. Big data
15. Democracy
16. Dominating norms
17. Twitter
18. Self presentation
19. Shaping of discourse
20. Private v.s professional →blurred lines
21. #dkgreen
22. #dkpol
23. Twitter as extended mouthpiece
24. Empowerment
25. Knowledge sharing
26. Use practise
27. Activistic engagement
28. Retweets
29. Sustainability = Personal affiliation
30. #dknatur
31. Multistability in #dkgreen
32. Biodiversity
33. Connectivity
34. Personal motivation
35. Political interactions
36. Direct link to politicians
37. Twitter interface mediating behaviours
38. Twitters "Holy trinity"
39. Mud slinging
40. Media
41. New climate realism
42. Active dismiss aspect
43. Laymen user?
44. Politicians
45. Filter bubbles
46. "Post"-expert
47. Activist tendency
48. Enhanced communication ability
49. Gives voice to personal key issues
50. Online actions ->Offline impact
51. "Top users"
52. Emancipation

Figure 12: Messy map keywords listed in random order.

After creating a list of uncovered keywords it became possible to begin phase two and order the previously created messy map. The purpose of this phase lies within examining the existing connections from which to build conceptual grounding (Clarke 2005:89). In the process we sorted all the aspects into groupings, based on their relation to each other. This allows for the formation of distinct thematics based on the previous examination of the field. Aspects could repeat and appear in more than one formation, if ambiguous relations were present. We reached a point of saturation, when it was no longer possible to create new relational thematizations. Each of the groupings was given a headline to categorize the relation. This process resulted in the following eight relational thematizations, that we want to use in the coding process of our interviews.

Human intentionality
- Personal motivation
- Sustainability = Personal affiliation
- Gives voice to personal key issues
- Social context
- Activistic engagement
- Use practise
- Twitter

Network of perceived dominating participants
- Twitters "Holy trinity"
- Direct link to politicians
- Direct link to media
- Professional playground
- Politicians
- Media
- Newsfeed
- Connectivity
- Twitter

Mediating platform infrastructures
- Algorithmic impact
- Filter bubbles
- Trending hashtags
- Big data
- Retweets
- Twitter interface mediating behaviours
- Connectivity
- Twitter

Blurring of public/private sphere
- Private v.s prof → blurred lines
- Bio's importance
- Representative values
- Use practise
- Active dismiss aspect
- Self presentation
- Social media
- Laymen user?
- Twitter

Sustainability dynamics
- Multistability in #dkgreen
- Shaping of discourse
- #dknatur
- #dkgreen
- #dkpol
- Retweets
- Biodiversity
- New climate realism
- Sustainability = Personal affiliation
- Twitter
- Activist tendency

"Invisible" factors
- Trolling culture
- Mud slinging
- Active dismiss aspect
- Twitter

Cyber instrumentality
- Enhanced communication ability
- Gives voice to personal key issues
- Online actions ->Offline impact
- Twitter as extended mouthpiece
- Democracy
- Emancipation
- Empowerment
- Instrumentality
- Twitter
- Connectivity
- Active dismiss aspect

Perceptions or abilities of the #dkgreen sphere
- Professional playground
- Interactions about world views
- Knowledge sharing
- Democratization of expertise
- "Post"-expert
- Laymen user?
- Political interactions
- "Top users"
- Dominating norms
- Twitter
- Retweets
- Use practice
- mutual expectations
- community

Figure 13: Abstract ordered map of categorized coding thematics.

The mapping exercises helped to uncover several aspects of our phenomenon of study and clarified the insights into the relationships, that exist between the human, nonhuman, technological, social and discursive elements, that is present within our field.

Subsequently to this process, we established a coding matrix, that should guide our process of coding citations from our transcribed interviews. The coding process was executed by a throughout examination of every interview, where interesting passages was marked and grouped into the relational thematics (see figure 13). An example of the coding matrix is presented in Appendix 4. In the following chapter we will identify certain characteristics of each of the ten informants. This involves bringing forward their professional backgrounds as well as their considerations and personal context of how perceive sustainability and why they use Twitter to debate it.

8.0 Presenting the Social Context of the Informants

In this chapter we introduce each of the informants and their individual backgrounds, because these insights contribute to our understanding of why and how their relationship with Twitter and #dkgreen was established and in general what kind of relationship that occurs between the users and the hashtag. In the following figure, we have presented the informants with an alias corresponding to their professional titles;

Figure 14: Visualization of informants gallery.

This brings us back to our theoretical framework where, according to Don Ihde, perceptions are made up of the intertwine between sensory and interpretive perceptions (see chapter 6.0). Throughout the interviews our informants accounted for what they see, what they do and what they experience when using the platform. The informants were also asked to provide information about their backgrounds in order for us to discern their cultural and professional contexts within their perceptions. This is relevant within our process of analysis, as we interested in how their use practices and perceptions have an effect on how they understand the space of #dkgreen, based on the argument that 'human intentionality is mediated by technological devices' (Verbeek 2011:56). In this way, the informant's intentionality for using the platform is mediated through their use of #dkgreen. This contributes to an overall understanding of how and what a hashtag is, and how retweets contribute to this perception, as well as the implications of their self-presentation on Twitter. Their individual perceptions is also valuable, especially their views on sustainability within the debate forum, which can be identified as highly politically charged. This chapter will present descriptions of each of the informants background and social context, that eventually will support our analysis of the 'human-technology-world' relations between the users and #dkgreen.

The Transport Consultant uses the platform both academically and professionally to search and share knowledge. The aspect of real time flow and greater accessibility to new people is expressed to contribute to the above use practice. The informant has been observed to be extremely active within the goings on within the #dkgreen sphere. This correlates with the informants very

"So it's a matter near to my heart. I spend a lot of time on this and I have also to some extent chosen to work at a company where sustainability takes up more focus"

"Sustainability is after all the notion that we must live within the boundaries of the planet and ensure that the generations that come after us have the same good life we have had."

Figure 15: The Transport Consultant's key statements about the perception of Sustainability.

quick engagement with us within #dkgreen, after having tested sending out an open tweet, in our 9th semester project in order to discern whether users would possess interest in speaking with us. The informant elaborates about their attitude towards sustainability by accounting for the notion being 'a matter close to the heart', having influenced the informants current choice of professional position. Essentially the informant possess a notion of sustainability based on 'sustainable development', giving a statement very close to the definition in the Brundtland report.

The Communications Director believe, that economic growth will facilitate technological development, which can help to save the environment and the climate. This informant is enthusiastic about saving on plastic and electricity, and reasons this enthusiasm based on the

"I believe, because I am conservative, that one must take care of the ressources and that does not only concern the economical resources, but also the environment and the climate. Overall leaving the world a better place than we found it for the next generation. What you usually call 'the generation contract"

"I am afraid that some people perceive economic growth as opposed to saving the planet. I believe that economic growth creates technological advances, that can save the climate. So if we put the economic growth to a halt, then I am afraid that we cannot save the climate at all, then we will just become poorer."

Figure 16: The Communications Director's key statements about the perception of Sustainability.

conviction, that "*It may well be little things, but I always think that, if everyone says "it doesn't matter", then we reach nowhere.*". The informant started using the platform in order for it to provide a news overview well-suited for personal interests in political issues, economics, food discourse and sustainable initiatives within this frame. The informants perception of sustainability draws parallels to the evolution of the three pillars of sustainability, especially concerning the aspect of encompassing both future generations and economic growth, as well as social and environmental change. This perception can be argued to be influenced by the

mission statement 'brewing for a better tomorrow', possessed by the brewery which the informant is employed by, that aspires to approach the UN's sustainable development goals.

The Energy Consultant initially created a Twitter profile in connection to a previous job within a renewable energy company. After choosing to become independent and changing profession into a consultancy, the user has kept the profile, and runs it now as a private account. The informant expresses, that Twitter is used to *"express [their] opinions, communicate and be updated. More so than I think I make real influence on something, I think that is naive, that one should probably not overpower, not as an individual."* Within the notion

"[...]sustainability, yes how do I describe it? If I search sustainability on wikipedia I do not know what the answer would be, but for me it is something that is in balance. That is what I think of where you have an influence somewhere that does not have a negative impact on the surroundings. You could say somewhere, that with 'give and take', it goes up against each other."

"So one could say for me it is a question that again it is my professional way of life but at the same time it serves a really good purpose and I back up 100% within everything called sustainability and renewables."

Figure 17. The Energy Consultant's key statements about the perception of Sustainability.

of sustainability the informant finds it important for everyone to do as much as possible to minimize the climate impact. Taking the informants profession into account, the informant draws parallels to values which have been established through the professional practice and experience taking on the climate issue. This affiliation correlates with the informants accounts of sustainable practices within the personal life, by e.g. mentioning how solar panels and geothermal heating is installed in informants household in order to become self-sufficient, energy wise.

The Journalist works as a chief advisor in a larger environmental organization, and has always been interested to work oriented to the nature and the environment. The informant finds the concept of 'sustainability' to be very broad, and a concept, that everyone can use freely. The Journalist has a close relationship to climate politics and climate initiatives, but acknowledges the frustration and difficulty of knowing "who should do what?" and

"I find it very difficult to define. What is it? What is sustainability and what does it mean to live sustainable? You have to try and do as best as you can, but what is it and does it frustrate the people more than it actually moves something - I have my doubts. I also think it is something that reflects our current time. We are stuck in one way or another - which way should we go? - who will help us? - who should lead etc? But it does not change, that there is a huge and wide movement going on and it can indeed be summed up in #dkgreen."

Figure 18. The Journalist's key statements about the perception of sustainability.

"what it is that you yourself can do". The informant finds it exhilarating to be able to gain access to information that was not available before when using the platform and believes that

Twitter can move things politically, making it democratizing. Regarding the informants concept of sustainability, it is possible to argue the possession of a mostly micro oriented perspective, based on the informants inherent frustrations.

The Biologist has a professional background in facilitating recycling projects for the Danish municipality, as well as other logistical, sustainability orientation, urban planning projects. The informant chose to create a Twitter profile, with the aspiration of using the platform "to speak for those who cannot", about sustainable initiatives and has become an active activist for nature. The informant retain a deep frustration about how political decision makers have lacked further enforcement within the area of sustainability, than The Biologist deems necessary. The informant believe, that most sustainability efforts can be seen as "water drops in The North Sea", unless the politicians attain a greater focus on sustainability. We need rules and regulation in order to reach the goals within a given deadline. The informant's perspective on sustainability and the remarks to implement an all-round approach, refers to the sustainability definition brought forward in The Rio Convention.

"It is a problem because nature has no voice, the climate has no voice in itself, the climate is not worth anything in itself before it is too late, or before the bill comes for us, with water rising or hurricanes or whatever it could be. Then it costs suddenly. So there is not really anyone who feels they can make money from it and therefore it goes wrong."

"So my definition [of sustainability] *is based on the original definition that was made back in Rio, that the present generations should live in a way that does not destroy the ability of future generations to experience the same as we have done. It's such a very hassle-free way to say it and I usually translate it into a healthy society, healthy environment and healthy economy."*

Figure: 19   The Biologist's key statements about the perception of sustainability.

The Veterinarian is a resident in the outskirts of Denmark, and has worked in various functions primarily related to agriculture for the past 20 years. The informant describes the lifestyle in the country to be more traditional or old fashioned, because of how new collective technologies are not implemented at the same speed as in the cities. Sustainability for The Vet has, besides the shown statements, also something to do with how we perceive nature and *"Whether you live in, off and with the nature, or if it is something you come to experience. You will have a different expectation when you come from the city, if you do not have a natural connection to living in the country"*. The informant was born and raised to care about food waste and using up the resources at hand, and therefore believes, that living a sustainable life by far has something to do with education and culture. The Veterinarian initially joined Twitter in order to nuance a debate about a "Caged-Pigs-Campaign" and has continued to weigh in on debates concerning agricultural issues within and outside #dkgreen. The informant views Twitter as a good platform to be inspired, and expresses the hope to also be able to contribute to debate and inspire others. The Veterinarian sees the benefit of being able to get in contact with people that before were unattainable.

"Well, sustainability is actually that we try to produce our things and live our lives with as few inputs as possible. I am not for those who believe that we have to compromise on our standard of living. I think we should try to do the things we do even more effectively. We need some cleaner technologies and then I would like us to maintain a more open mind towards what kind of technologies that we can apply."

"I discuss different things besides climate, but the climate discussion is relevant for my starting point because I experience larger and larger divisions between country and city. A lack of understanding of the conditions you have when you live in the country and that you have to be able to move around, for example, to get a job and get to work."

Figure 20: The Veterinarian's key statements about the perception of Sustainability.

The Sustainable Food Consultant has a long carrier in the environmental area, and now works as a program manager of a food program at one of the larger think tanks in Denmark, that works with green transition of the entire food system, from primary production to our food consumption. This informant was the actual initiator of creating the hashtag #dkgreen. Inspired by the Swedish hashtag #swgreen, and in compliance with other green actors on Twitter at that time, the hashtag #dkgreen was then introduced to the Danish Twitter sphere, with the aspiration to facilitate a 'green channel' on Twitter. Regarding Sustainability the consultant

"I think it is important both to get a handle on - not just the climate challenge - there are also many other sustainability challenges, both from a political framework, but also an individual responsibility, where we each have to do our best from the point of departure we now have. But I am also convinced that we will not solve the challenges if we do not get a better political framework to do the right thing in relation to the different climate and environmental challenges."

"I think I and my family also try to be fairly climate friendly. We are not completely saints about it, such as vegans or, it is not at that level, but we are very conscious and make some conscious choices about what we consume and how we live and how we travel etc."

Figure 21. The Sustainable Food Consultant's key statements about the perception of sustainability.

can be argued to possess micro oriented perspective, believing that it is essential to set up political frameworks that makes it easier and cheaper to do what is most efficient for the environment and the climate. The informant uses the platform in order to keep up and be a part of the dialogue, perceiving Twitter as a great tool both concerning professional and personal interests, initially providing both an overview and inspiration.

The Museum Curator has a professional and personal affiliation with biodiversity. The informant started to use Twitter actively to speak the 'small species' case, in order to publicly inform and facilitate the inclusion of the biodiversity perspective within the debate about sustainability. The Museum Curator expresses how there exists many perspectives on sustainability, but not a central one. When asked about what sustainability is, the informant chooses to ask "sustainability for whom"? The informant expresses, that our current societal focus on climate and sustainability, largely encapsulates a 'save yourself' mentality. Indicating that this often results in forgetting nature and facilitating counterproductive actions to aid our climate incentives. The Museum Curator expresses a personal view on acting sustainable as equating to consuming less and actively taking steps in order to lessen our consumption of resources.

"[...]Every time we exterminate a species and my god we have already exterminated many, we already began 30-40 thousand years ago with the mammoths and forest elephants and forest -and woolly rhinos, those were some great meat mountains. And we exterminated them, and we don't get them again do we? It's just so definite, so I see sustainability as actually making room for that diversity. Of Course we humans also take up room but compared to the diversity of life that the planet holds. I do not think it is particularly sustainable that we smash it all."

"It is clear that #dkgreen is really good at reaching politicians and the media and the green associations. And that's mostly how i use it, I use it, as I said primarily for creating awareness and clarifying that I actually want people to understand that it is not necessarily good for nature to burn off our forests in the power plants."

Figure 22. The Museum Curator's key statements about the perception of Sustainability.

The Resource Center Director has through a 20 year career of professional affiliation with waste management, obtained a perception of sustainability centered around this aspect. The informant expresses, in agreement with some of the other informants, that the awareness of regulating our overall consumption of resources is crucial if future generations should be able to have the same opportunities to live their lives as we have. The informant is interested in waste, circular economy and waste management, and this also represents the main topics that the informant tweets about. The motivation behind the informants use of Twitter has been to influence the overall sustainability debate focusing on the debate about waste and circular economy. The Resource

"Overall, sustainability means that we do not consume resources in a such way and pace, that it prevents subsequent generations from also consuming resources, that we do not destroy it for future nations. Our consumption must be of such size and type, that we do not hinder future development."

"I prioritize this [practising sustainability] a lot. [...] I'm not a vegetarian, but I do not eat much meat. I try to have a low energy consumption and then I also think that I spend most of my waking hours on ensuring proper waste sorting and sustainable waste management in the city, which hopefully should benefit many people."

Figure 23. The Resource Center Director's key statements about the perception of sustainability.

Center Director experiences Twitter as a platform that enables you to relatively quickly exchange your views. The informant believes that the activity on Twitter can open up doors to other debat forums, and is confident that participating in the debate has an effect when e.g. journalists calls to ask for elaboration.

The Management Magazine Editor has a background in ethical consultancy and in recent years the informant has been part of a couple of sustainability oriented entrepreneur ventures.

The informant uses the platform in order to promote own professional knowledge and in order to engage in political matters. The Management Magazine Editor expresses, that Twitter can be a "trash can for people's bile" in many contexts. However, the informant perceives the platform as a resourceful tool. According to the informant, Twitter is perceived as a decent channel, capable of enlightening people about relevant issues, yet also providing an outlet for some of their own attitudes, frustrations and discoveries. When asked about the view of sustainability, The Management Magazine Editor comply to the 87' Brundtland Report as a guiding view for

"So the whole sustainability part is really along the way a hobby element for me, but one that takes up a lot of space. I write reader letters about it and hold presentations about it. I engage a lot in sustainability on a personal level and on a public level. It probably originates from my studying of philosophy based on ethics and what actions can create the good life and how to act."

"Because sustainability is about a holistic perspective, one does not say that one is fighting for life in the sea, but does not care about equality between people. So sustainability is for me to see a holistic perspective and this ecocentric worldview that I talked about as it is life that is the focal point of the way we act and interact with the world. So it's really about somehow, in a simplified way, leaving the globe in a way that our future generations have the same opportunities as we had."

Figure 24. The Management Magazine Editor's key statements about the perception of Sustainability.

sustainability. The informants has changed private actions towards approaching a sustainable lifestyle.

This chapter has now made an effort to present the social contexts of our ten informants, and displayed their overall perceptions of sustainability, as well as their connection to Twitter. These insights are relevant in order to investigate the users relationship with #dkgreen, and approach how #dkgreen is mediating the debate about sustainability. Based on these presentations of our informants, we proceed to the chapter of analysis.

9.0 Analysis of #dkgreen as Mediating Technology

In the following analysis we will approach and unfold our insights from our empirical material supported by the theoretical framework that we accounted for in chapter 6.0. The analysis will account for the following three main themes;

- Hashtag #dkgreen as mediating technology
- Occurring norms of retweeting
- Revealing yourself through the Twitter biography

The purpose of setting up these themes is simply to provide a structure to the analysis, as these themes are all intertwined and the experiences presented throughout each of the themes are all connected. Through this analysis we strive to present interesting points from our empirical material and thus move closer to answering the problem statement and understand how the informants' use-practices and social contexts affect how we understand data from Twitter.

In our postphenomenological investigation of human-technology-world relations, we center this analysis on the conceptualization of the hashtag, #dkgreen, as the mediating technology. We will focus on *"[...]understanding the roles that technologies play in the relations between humans and world, and on analyzing the implications of these roles"* (Rosenberg & Verbeek 2015:31). Examining the technological mediation of the hashtag also implies certain considerations regarding the Twitter platform itself, as this is the technology, that conditions the hashtag to function. The experiences, perceptions and practices to be mentioned related to #dkgreen, will therefore naturally involve overlapping renderings about the platform in general as well. The interest to investigate the hashtag, originates from our former data observations and discursive insights into the #dkgreen sphere, that shows several interconnected sustainability discourses present in the debate themed by this hashtag. We want to come closer to an understanding of how the users perceive #dkgreen, and how their perceptions influence certain practices as well as to grasp how the overall debate and understanding of sustainability is being shaped by exactly these perceptions and practices. In chapter 8.0 we presented the social contexts of each of the informants, which in postphenomenological terms, comes to express or reflect the user's *directedness* or *intentionality* towards Twitter and #dkgreen. We find it relevant to bring forward their different backgrounds and motivation for using the platform and the hashtag, because it can help us understand the relationship, that develops between the users and #dkgreen.

The Veterinarian, who lives in the outskirts of Denmark, wants to be able to nuance the debate with the understanding of the conditions, that follow when you live in the country and not in

the city. According to this informant the activities on Twitter should influence others to keep this aspect in mind, when debating certain topics regarding sustainability;

> *"I discuss different things besides climate, but the climate discussion is relevant for my starting point because I experience larger and larger divisions between country and city. A lack of understanding of the conditions you have when you live in the country and the fact that you for example have to be able to move around in order to get a job or go to work"(The Veterinarian).*

Based on this statement we get an understanding of why and how the social context has an influence on the practices that are performed by this informant. The quote exemplifies the informants 'directedness' towards #dkgreen and the agenda of trying to nuance the debate by expressing the contrasts that exist between the country and the city. Another example is found with The Museum Curator, that has a professional affiliation with biodiversity and holds a certain interest in advocating for the aspect of biodiversity and to publicly inform and facilitate the inclusion of the biodiversity perspective within the sustainability debate. The informant expresses one of the purposes of how #dkgreen is used to follow through with this agenda;

> *"For example, when I am now on #dkgreen, it is not necessarily to speak about energy and climate all the time, it is actually also to make people aware of biodiversity, that is part of the overall sustainability agenda. So it's also to educate people on #dkgreen that we actually use it (#dkgreen)." (The Museum Curator).*

In this statement, The Museum Curator signify, that #dkgreen primarily revolves around the topics of energy and climate, but instead of concentrating the debate around these specific topics, the informant chooses to tweet about topics regarding biodiversity. This is another example of how the social context is reflected in the informants use practice, which has an effect on the relationship that develops between the user and #dkgreen. According to The Museum Curator, there is a lack of attention towards the topics of biodiversity in the overall debate within #dkgreen. The informant therefore use the #dkgreen hashtag to create more visibility towards the topics of biodiversity and 'educate people' within this community to become more conscious about this aspect of the sustainability debate.

9.1 Implications of using #dkgreen

As it is clarified in the earlier chapter about #dkgreen, this particular hashtag is a highly recognized and a well adopted hashtag to thematize tweets revolving around sustainability topics in the Danish Twittersphere. Because the hashtag is found to involve several different aspects and discourses, we bring forward some examples from the informants to show their particular use of it. One example is The Resource Center Director, who here elaborates on his motivation for using the hashtag, #dkgreen;

> *"I often use it because this is the hashtag, that captures the green debate, or the debate about the green transition somehow. There are many of the people that I would like to debate with that are using that hashtag, and therefore I use it." (The Resource Center Director).*

It is apparent, that the intentional act of incorporating #dkgreen to the tweet, is being influenced by the perception of how #dkgreen is the one hashtag, that encapsulates the main and important conversations about sustainability in Denmark and that this is where you can interact with essential actors in the field. This view from the informant correlates well with the informants own intentionality of using the platform in order to enable quick exchanges of views, influencing the overall sustainability debate focusing on waste management, circular economy and inherently opening up doors to other debate forums. It is relevant to note, that this intentionality can equate to merge with the informants notion of sustainability, based on the social context and professional affiliation that comes with being a resource center director. Another example showing the motivation for using #dkgreen is supplied by The Sustainable Food Consultant; *"Partly an overview of what is on the agenda, but also an overview of what the different actors think. After all, it is a place where people and organizations point out their attitudes towards this and that."(The Sustainable Food Consultant).* According to this informant, there exist a perception of #dkgreen to provide an overview of the green agenda, but also as a place to get insights into the opinions of other actors in the field. Based on the above statements, that shows the perceptions of #dkgreen to surround the green debate, and as a space where other interesting actors are also active. This enable the users to participate in the debate, and be informed about the other actors views. Twitter and #dkgreen thereby becomes the mediating artefact and the 'platform' for the informants to participate in conversations about climate issues, sustainability and to give voice to their own views in the debate. A general finding between all the informants, was this personal desire of being able to participate in the debate, which seemed as an underlying drive force for their practices on Twitter. In the following quotes we show some examples, where this urge is brought forward. First, it is The

Transport Consultant that express this by saying; *"I generally think a lot more should happen on the climate front. If I didn't have Twitter to let off steam, I think I'd blow up"* (The Transport Consultant). It is noticeable, that Twitter serves a meaningful purpose for this informant, that allows a release through the ability to share personal opinions. A similar experience was expressed by The Management Magazine Editor, who shares a similar perception;

> *"I feel like it is a way to channel some of my attitude and frustrations and discoveries, and sometimes I discover something and think, God, everyone should know this, or like I really hope that everyone knows that this is happening. There (on Twitter) I can just send it out."(The Management Magazine Editor).*

This informant also express to bear certain frustrations, and that Twitter becomes an important way for the informants to handle this feeling by discussing and sharing their thoughts and views about sustainability with others. Through these statements and generally among the informants, the common experience we observe, is that Twitter and #dkgreen becomes a medium and a tool, that can fulfill their needs to express their views in the debate. The informants are all aware and agree, that the debate happens within the sphere of #dkgreen. This perception is mainly due to the common experience of how high-profile users, such as enthusiastic professionals, politicians, and decision makers are making use of #dkgreen, when debating sustainability. According to this perception, The Veterinarian explains why Twitter and #dkgreen can create a beneficial place to discuss sustainability, building on how Twitter facilitates engagement with otherwise unreachable people, and the presence of politicians;

> *"Well it's a way to get in touch with someone you wouldn't otherwise get in touch with. Well because it reduces the geographical distance. I think that's interesting and then it is also interesting that some politicians are actually also watching." (The Veterinarian)*

The Journalist holds the same conviction, that Twitter enables you to meet with people, that you would not normally meet, and explains how these circumstances also encourages you to act professional;

> *"In fact, I think it has become a space, that you can enter into and where you can meet people you would not otherwise meet, where should you go to meet them? Then of course there is Facebook, but I actually think that Twitter is just more gifted. Because you have to be sharper, i.e. shorter and sharper, and not have the long considerations - or of course you have to have considerations, but not the long stories. So I think it's a plenum for some kind of conversion."(The Journalist).*

The way in which Twitter facilitates these circumstances of bringing together people across interests, professions and geographical distances, allowing everyone to participate and communicate with each other, can be argued to be creating this specific 'space', as it is expressed by The Journalists. Here users can get access to information they may not otherwise

obtain elsewhere. The abilities of Twitter and #dkgreen, can contribute to a perception of being 'another public', which it is here elaborated upon by The Management Magazine Editor;

> *"So I think it like another public. I hear several people talk about the fact, that is the conversations that have always been in the halls of Christiansborg between politicians and journalists and now the public can follow along and I can really follow that thought, and I think it is quite exciting to see others' threads some times when journalists and politicians are discussing something, so it can create that space."(The Magazine Editor).*

Based on these above mentioned experiences, it is noticeable, that engaging with #dkgreen, assumes a 'stability' where it mediates a certain power. A power that renders in this experienced ability to access knowledge and approach people of significance, that comes to influence the observed actions and practices of the users. In postphenomenological terms, the relation that the informants develop with #dkgreen, could correspond to the characteristics of the *embodiment relation.* The users are not directly focusing on Twitter and #dkgreen, but they are more likely to focus on the people, that they want to engage with and debate with. The informants all retain a certain agenda, whether it is to access knowledge, spread information or approach politicians. The #dkgreen hashtag becomes a tool, that can fulfill the agendas of the users, making it an entity 'ready-to-hand', applying to Heidegger's example of the hammer. The users temporarily 'embody' the hashtag, and 'see through' #dkgreen in order to accomplish their different agendas of participating and contributing with their own beliefs in the debate about sustainability. In association to Ihde's human-technology relations, is also the notion of *transparency*, that concerns *"the degree to which a device (or an aspect of a device) fades into the background of a user's awareness as it is used."* (Rosenberger & Verbeek 2015:14). This transparency notion compliments the phenomena and situation well, when accounting for the use practice that exists when our informant and the users within the #dkgreen Twitter sphere, use the platform.

Proceeding from the above renderings about how #dkgreen come to mediate a unique space for debating sustainability with likeminded actors, we want to continue with an examination of how the users experience to have an influence in the debate and how this contributes to a feeling of democracy.

9.2 Implications of influential practices

The use of the hashtag can be argued to help to visualize the users attitudes in the debate to other interested and high-profiled people in the field, and through their engagement with #dkgreen, the majority of the informants experience the feeling of actually having an influence in the debate. During our the talk with The Museum Curator about this aspect, we got the confident response;

> *"Are you insane, yes. I guarantee (informant laughs). It's not even something I just feel (informant laughing). It really is the real reality. Well, I've never had it otherwise, because you have to think about, I'm just a silly museum man. Well, yes, if it was 20 years ago, I would have been totally dependent on sitting in a green organization and fighting me to the top if I wanted this influence" (The Museum Curator).*

The Museum Curator expresses a true feeling of empowerment through the activities on Twitter. According to the informant, the experience of influence is compared to the influence you would normally have in the top of a green organization. In a similar conversation with The Sustainable Food Consultant, it was clear, that this informant also possess the experience of how the actions related to #dkgreen have noticeable implications, saying;

> *"I feel it clearly on the response I get. Partly on the forum itself, but also on the effect it can have in the form of media coverage and influence the political debate, etc. I am quite convinced that it has an effect to use it actively and constructively. If you use it negatively and hit people in the head and say they do it wrong, I just think people get tired of you and you risk being blocked. If you use it constructively and engage in serious dialogue with people in there, then you can get something out of it" (The Sustainable Food Consultant).*

Based on these statements, as well as similar statements from the other informants, the overall finding, is that users presence on Twitter becomes meaningful to them. If you use it wisely and engage in serious dialogues, you are able to have an influence in the political debate as well as additional media coverage. It fulfills their inner desire and intention to give voice to their own views on sustainability, and provides them with an overview of the current topics. It gives the users access to information and facilitates a connection to people whom they would not be able to get in contact with elsewhere. Among the ten informants, we found that four of them have experienced their engagement with #dkgreen to also have offline implications. By means of their activities on Twitter about their individual view on sustainability, some of the informants were contacted by journalists asking them to participate in the DR2 television show 'Debatten', where they participated in a live debate with Danish politicians. Others have also been contacted by the press to elaborate further on their views. This was among others mentioned by The Sustainable Food Consultant, in the above statement, who supplies us with with an

additional facet to the overall observed experience of having some kind of voice and impact in the debate. Several of the informants describe these circumstances to accumulate in a certain perception of democracy. The Journalist puts her perception of Twitter into words, and gives an account of why the platform can create this certain democratic environment;

> *"In fact, I really like Twitter. I think it's very fulfilling and it is a platform that was not there before. It's a way to access and get information that hasn't been there at any time before - and that's something.(...) I am well aware that not everyone is on Twitter, but it should not stop me. That's the way it is. I think it's pretty amazing. I think it's pretty democratic too. It gives a huge closeness to politicians and because of this closeness and speed of it, I also have the expectation, that it is actually moving something. I believe it moves something politically."(The Journalist).*

In this statement, The Journalist, describes how the 'huge closeness to politicians' and the 'speed of it' is what makes Twitter seem democratic. The Biologist holds the same perception, that it is the element of speed that is essential to the experience of how can Twitter support a democratic process, saying;

> *"I think it can contribute to the democratic process because you can very quickly get a lot more angles all the way around, than if people first have to send a comment to a newspaper or something like that." (The Biologist).*

As The Biologist mentions, it is the way in which Twitter facilitates quick access to different aspects of the debate, that promotes the interpretation of it as a democratic process. The idea of being able to access information is commonly perceived as the backbone of Twitter among our informants, which is also acknowledged by The Communication Director. This informant further elaborates on the perception of how the engagement from people on Twitter is admirable and how this contributes to a strong feeling of democracy;

> *"Information. I still think that's the force of Twitter. People who debate on Twitter do it first and foremost because they are driven by an event or a political agenda and I just have great respect for it. This is what makes me believe, that even though we also see President Trump, this is something that makes me think that the democracy is still strong in our consciousness as a nation and in Europe, and in general in the Western world. I can see that on Twitter. People are driven by a political agenda and their democratic voice and I actually think one should praise Twitter for that."(The Communication Director).*

The informant here emphasizes both the strength of Twitter to rely on the nature of information exchange, and of the way in which Twitter displays political engagement from highly driven people, which contributes to a general perception of it being a democratic environment. The ability to follow the interactions between these users, is indicated when the informants states; "I can see that on Twitter". This experience speaks into how Twitter facilitates the visible showcasing of people's interactions and enable users to interpret these. This certain relationship

between the users and Twitter in some aspects correspond to Ihde's *hermeneutic relation,* where *"[…]the user experiences a transformed encounter with the world via the direct experience and interpretation of the technology itself."* (Rosenberger & Verbeek 2015:17). The representations that Twitter can create through making these interactions visible, comes to affect the users interpretations and an experience of a transformed access to the sustainability debate.

9.3 Implications of Technological Intentionality

The way in which Twitter mediates communication is certainly specific, and the construction of a message on Twitter requires the users to possess a degree of knowledge of how to 'read' the particular 'language' on Twitter. Being familiar with the communicative features and their implications on Twitter is crucial for the user's interpretation and their perception of reality. Being familiar with 'speaking the language of Twitter' by e.g. using the # to attach a tweet to a specific topic, and the @-mention to address other users, as well as the RT to forward messages, or the 'like' button, is crucial when interpreting the conversations happening on Twitter. Our informants are to a greater or lesser extent well aware of the functionality of the hashtag, which to some degree is also implicitly expected when the recruitment of our informants was based on their engagement with #dkgreen. Still, it is found varying how well the informants manage to employ their knowledge into actual practice, in order to have an influence in the debate. A relevant example of knowing the implications of a hashtag on Twitter, and using it in practice, is found with The Sustainable Food Consultant. Years back, this informant took the initiative to create the hashtag #dkgreen, and the informant accounts for how the interpretation of running a 'green channel' through a hashtag in Sweden resulted in the establishment of #dkgreen;

> *"I have been involved for many years now – I am sitting and looking at my profile text and I can see that I have been around for almost 10 years. At first, there were very few, and I think those who tweeted about green things might be… it might be somewhere between 10 and 50 people at first. I was part of taking the initiative for this #dkgreen hashtag, inspired by some Swedes driving #swgreen. I had a past in the Nature Conservation Society and then I contacted them and Greenpeace and other green actors who were on Twitter at that time. I said " shouldn't we copy the Swedes and copy this hashtag and run it as a green channel on Twitter?" and one must say that this has succeeded"(The Sustainable Food Consultant).*

In the interview, the informant continues to explain, that a list was made afterwards to keep an eye on new users of the hashtag. When the list suddenly reached two hundred users, it was

through not meaningful to continue anymore. Over the years, #dkgreen has succeeded in establishing itself as a standardized hashtag in the Danish Twittersphere, and today it stands as one of the most popular hashtags and as the superior hashtag to symbolize the debate on climate and the environment. When a tweet is marked with #dkgreen, the users read and interpret the tweet as speaking into this particular debate. Twitter users are all the time 'directed' towards the interface of the platform, and they are required to interpret the 'read-out' of the tweets, which shapes their perception of it. In this way, the relationship between users and Twitter could draw parallels to the *hermeneutic relation*, as this relation "[...]*refer to technologies which are used through an act of perceiving and interpreting the device's readout* (Rosenberger & Verbeek 2015:17). As mentioned before, it is important to understand the media specific language of Twitter, because if a user has no experience of using hashtags or the other features, then it will convey no meaning. Relating this to Ihde's notion of *transparency,* the user is dependent on this a certain familiarity with the hashtag in order to interpret what is happening on the Twitter interface within #dkgreen. The ability of creating meaning from the read out will be different for the novice and the expert (see chapter 6.2). Understanding of the purpose and the effects of a hashtag and e.g. why some hashtags are suddenly presented as 'trending tags', this is a piece of knowledge, that will come to effect the users interpretation.

Returning to the account from The Sustainable Food Consultant, it says that #dkgreen was put in the world at a time were not many users were interested in talking about sustainability on Twitter. The informant felt a need to bring together these people and introduce #dkgreen as a 'green channel' for them to discuss sustainability topics in Denmark. This is many years ago now and as the informants says, "one must say that this has succeeded". The success and popularity of #dkgreen could be due to how this hashtag was properly the first hashtag to encapsulate this debate in Denmark. For a hashtag to become popular, it certainly depends on the user's engagement with it, but again Twitter also come to affect what hashtags are being used more than others. The way in which Twitter display certain hashtags in the category of 'trending tags' also has an effect on what hashtags that are being used. This feature on Twitter is regulated by Twitters 'trending algorithm'. Based on certain 'volume criteria' (Imarticus 2018), Twitter chooses which hashtags to promote as 'trending'. This algorithm is one of several underlying structures of Twitter, that plays into the overall interpretation and experience of being a user on the platform. In our interview with The Museum Curator, we

talked about hashtags in general and also the idea of searching for hashtags on the interface, and the informant could well recognize this practice and responded;

> *"Yes I can easily imagine myself doing this, looking at what it is that really moves today? Also because it relatively often appears as trending on the left side of the page (informant laughs) on Twitter #dkgreen." (The Museum Curator).*

Because of how the informant interprets and the hashtags being popular in the trending tags category, this easily leads to the practice of clicking and searching for #dkgreen, in order to discover the current topics of trend within #dkgreen. Twitter also introduced the 'algorithmic timeline' in 2016, that instead of the reverse chronological showing of tweets, it shows tweets, that are tailored to the user based on what and who the user interacts with the most (Twitter 2019). Twitter's API also functions 'beneath the surface' and allows third party applications to pull data from Twitter, which is, for example, why a Google search results in a link to users Twitter profiles and their biography. Twitter as a media technology, is made up of digital ambient connections and structures that together texture an 'immediate environment' (Ihde 1990:109) that is always there in the background. Heather Wiltse introduces an analytical concept of *mediating (infra)structures* in order to meet and reconsider the ways in which to approach phenomena and practices that involves 'contemporary networked computational things';

> *"These are things that are often very active and interconnected: and they have functions and behaviors that are hidden beneath user-facing surfaces and may even be very different from the functionality and character a person experience during interactions with and through them (Wiltse 2017:5).*

Among other concepts, Wiltse uses the term *environment* to describe the role and character of these types of 'pervasive' technologies, that rather than being tools to put in use, they come to create the atmosphere of an environment we live in. Beside Wiltse's recognition of how the concept of *environment* can approach an understanding of how our lives is textured and mediated by these types of technologies, she also emphasizes an aspect of this concept to revolve around how:

> *"an environment is something that is always there, and often in the background. It is something with which we typically have a "background relation," to use Ihde's (1990) terminology, just as it is also something we can navigate and leverage more intentionally." (Wiltse 2017:9).*

Projecting Wiltse's thought onto the case of approaching Twitter as an environment is recognizable through the previous conceptualizations of how #dkgreen is experienced to take shape as a certain 'space'. A space that makes it possible for people to connect with otherwise unreachable people and communicate around the common topics of sustainability. It is here the

mere technical function of the hashtag, happening in the background, that comes to effect the users interpretation of #dkgreen as this certain 'space' and environment. Using #dkgreen is a practice of creating and consuming media, but also a technologically mediated perception (ibid.). Based on the examples presented so far, we find that the technological mediation that happens between the users and #dkgreen, can render in different relationships. The mediation can either be said to happen through the hashtag, where users embody the hashtag, or it can be directed #dkgreen and interpreted in a hermeneutic relation, as well as it can also happen in the background through mediating infrastructures. In the following analysis we elaborate on the aspect of hidden structures of Twitter, and how these structures have inscribed intentionality, which bring about an analysis of Verbeek's notion of a *hybrid intentionality*.

9.4 Implications of Hybrid Intentionality

The above mentioned human-technology relation all takes an outset in mediating the users intentionality. Granting how Twitter is also made up of invisible connections and structures, that comes to affect the experience of using the platform, we find it relevant to include Verbeek's *composite relation*, that accounts both a human intentionality and a technological intentionality. Twitter consist of certain communicative features, that encompass their own sort of intentionality. Together with the users intentionality and their own 'directedness' towards Twitter and #dkgreen, the intentionality embedded in the technicalities of Twitter together forms a *hybrid intentionality* and a *cyborg relation*, extending the human experience, when human and technology merge together in the environment of Twitter. This relation leads to an examination of how Twitter and #dkgreen possess intentionality as technological artefacts and how this plays a role in mediating and shaping the users perception. As we explain in chapter 4.2.1, the feature of the hashtag was introduced to Twitter based on the request from the Twitter user @chrismessina, that made the proposal to use the '#' symbol to mark a tweet to a certain topic of conversation. The function of the hashtag and the ability to search for hashtags on the Twitter interface can be found to have an embedded intentionality. The way in which Twitter enable users to search and engage in particular conversations based on a certain hashtag, has played a role in coordinating publics (Bruns & Burgess 2015a), which seems equate the case of #dkgreen. The practice of searching for conversations marked with #dkgreen, has been expressed by The Sustainable Food Consultant, to provide an overview of the current environmental 'agenda';

"[...]it becomes a list of what is happening on the topics of environment and climate right now. I go in daily to see what is going on and think it gives you a very good overview of what is on the agenda today in the media etc." (The Sustainable Food Consultant).

In this statement, the informant explains a daily practice of going to check what is happening right now within the debates about the environment and the climate. The informant here shows a perception of #dkgreen as the hashtag, that encapsulate the overall debate about sustainability, and with the informants urge to participate and stay informed, it therefore becomes a relevant practice for this informant to make a daily search on #dkgreen. Noticeable in this statement is the informants perception of being able to access a list of 'what is happening'', which could speak into an aspect of intentionality embedded in Twitter. In the introduction we explain how Twitter changed the tagline from 'What are you doing?' to 'What is happening', encouraging users to rather share information than personal updates. Based on the statement from The Sustainable Food Consultant, it is clear that Twitters intention of nudging users to tweet about what is happening, has shaped this informants perception of what to expect of Twitter and #dkgreen.

9.5 Implications of Retweeting

In regards of unfolding the analysis of the *composite relation*, we find it relevant to further analyze the implications of the communicative feature of retweeting. This ambition parallels our second area of interest in our research questions, that is to approach what a retweet is and how this feature contribute to #dkgreen. Both in terms of our informants perceptions of the retweeting, how they use the feature in practice and how their relation with the functionality has an implication on the #dkgreen sphere. Whether or not a retweet presents an endorsement on the part of the given Twitter user can typically be varying and difficult to discern, without directly monitoring the individual users tweeting practices. Not every user on the platform disclaims their individual perceptions about what a retweet constitutes and this can in some instances create confusion regarding the users intent. Observed among most of our informants a typical use norm would be to attach a personal comment to what they retweet, in order to clarify their thoughts and opinions. For some this norm facilitated a judgmental aspect, if others within their own networks does not possess a similar retweet practice. An example of this can be viewed from the following statement from our journalist informant, in which it is commented about the way in which the former president of the organization the informant works at, retweets compared to the informants own norms;

"[...]I see many, including our former president, she retweets without leaving a comment, and I think; why do you do it? That's not interesting. Why doesn't she tell what she herself thinks? That is where I think the strength of Twitter is in reality." (The Journalist).

Within this statement, the informant expresses a judgmental viewpoint towards e.g. The former president of the organization she works for or others who choose to retweet without adding their own comment. By referring to these types of retweets as not being interesting and inherently criticizing the absence of personal commentary, the informant highlights a transcendental value perception of what retweeting can accomplish and what strength Twitter has by allowing an environment for personal input and nuance, if done through a specific practice of e.g. supplying personal input into the content that you post. This viewpoint resonates with the informants intentions for using Twitter as a mouthpiece to speak a personal agenda, which for The Journalist amounts to being able to move something politically through engagement with high profile users and gaining access to information, which otherwise would not be seen. This norm of supplying personal commentary to one's retweet practice can be mirrored in most of our informants. What specifically is retweeted and which type of commentary gets added on varies depending on the informants personal intentions for using the platform, but the notion of addressing and sharing content of 'interest' unites them all.

"It was once common to write that one's retweet was not equal to endorsement and then it went away again because people now know that. I think it's true that people use it very differently. For me it is because something is interesting, so if it was something that I thought was completely insane, I would probably retweet it with a comment and write; "To think that some people write like this?", But I really try to facilitate or play up for discussion, either about something I would like to learn about or something I think people should know [...]"(The Management Magazine Editor).

In our interview with The Management Magazine Editor, it is expressed, that this perception of a retweet as an endorsement is 'no longer valid' and that Twitter users now know that retweeting not necessary means that one agrees. Even though we have observed that this perception is not shared by all, as our own empirical material accounts for instances where directly retweeting without a comment still for some constitutes endorsement, this facet does provide an account for why, in most informants, we see a great need and an expectation to retweet with a comment so that other users get an opportunity to understand which message or meaning should be carried through if it cannot be assumed that one agrees.

The action of retweeting content of interest can in these instances additionally supply further evolution of engaged debate, specifically through additions of personal commentary which gets

spread among the users who see 'interesting' content appear on their feeds and choose to comment on or share the content in order to give it more traction.

In this way, the retweeting function becomes a tool, that is used in order to fulfill the users own interests of spreading information. In regards to The Management Magazine Editor, this correlates with the informant's perception of Twitter as providing a decent channel capable of enlightening people about relevant issues, yet also providing an outlet for some of their own attitudes, frustrations and discoveries. It is noticeable, that some informants still accounted for occasionally deviating from this norm of retweeting to add personal commentary. The instances where some accounted for this, the identified variational factor corresponded with instances where there exist absolute agreement and/or endorsement of the tweet in question. In these cases, the perceived obligation to supply personal commentary would dissipate, as others had said what could or should be said already. An example of this is found in the following statement from The Sustainable Food Consultant:

> " [...]But if others write something good and wise that I think speaks for itself, then I don't have to put my own comment on it. Then it just gets a retweet, but then there can also be things I share, where I just link my own comment on or just give it an angle and cheer on it or say 'That is unusually stupid'.[...]" (The Sustainable Food Consultant).

This deviation from the otherwise observed practice of adding on personal commentary to retweets, brings forth a subtly facet to the overall retweeting practice. The showcasing of total agreement or endorsement does through this example exist as a parallel norm, within the retweeting practice. However, as it was exemplified earlier by The Journalist, this action does run the risk of being judged upon and perceived as uninteresting if done too often. Another alternative perception was observed through the interview with one of the informants who uses the retweet in order to save or bookmark content. Taking the massive quantity of content into account, that saturates the Twitter platform and how this quickly can cause individual tweets to dissipate among the absolute mass of content posted. The practice of retweeting a specific tweet of interest in order to return to it at a later time, does offer another facet to consider, which is here explained by The Communications Director:

> "[...]it's often to save it. But then there are sometimes where I do it because I agree, but I would almost say that if I agree and don't bother to read more about it, then I just give it a heart. However, if it is an exciting article or someone who has written a super interesting tweet about something I might not know or just care about, then I retweet it to save it. It quickly disappears within Twitter.[...]"(The Communications Director).

71

Overall, this use-practice cannot be considered to constitute a greater significance other than supplying additional nuanced facets of the overall retweeting practice connected to #dkgreen. The purpose of bringing these alternative facets into our analysis of what a retweet entails, is to show a more diverse conceptualizations of our phenomena. In many investigations of social media phenomena, digital data can provide similar presumptions about predominant practices, that the users possess by quantitatively looking at what content gets retweeted most frequently. An example of can be found in the 2016 study, '*Towards a typology of hashtag publics: a large- scale comparative study of user engagement across trending topics',* authored by Axel Bruns et al. In the study, counts of hashtag use and percentages of retweet frequencies were used to obtain insights into hashtag use practices, across a variety of datasets. These were, among other, focused on 'acute events', 'media events' and 'political events', in order to detect upcoming trends in digital content, based on crisis or breaking news events (Bruns et al 2016). Bruns et al. where able to discern, that the practice of retweeting URL links decreases within the days of Australian elections, amounting this change in practice to the largely broadcasted television influence, which presumes a decreased need to share informative links on Twitter within this period (ibid.). The study gives an interesting insight, but it does not provide information about whether the users perhaps perceive this period as oversaturated or whether the motivations behind this change in practice is due to other factors. Digitally driven presumptions do not provide in depth insight into the users motivations in terms of 'what' they retweet and 'how' they retweet. The insights provided by acknowledging that e.g. The Communications Director retweets in order to save content for personal data logging, rather than to share it because the informant deems it to be worth sharing, are of great value in terms of identifying intentionality in part of the user and what that intentionality has of implications concerning what appears in #dkgreen Twitter sphere. From a technical viewpoint, the retweet feature is based on Twitter's 'many-to-many' infrastructure (Murthy 2018:40-41). The retweeting function enables users to share posts from other users within their own created networks. The function enables a directed 'redistribution' of content within the platform itself (ibid.). This technical re-distribution of content essentially extends the reach of how much a typical tweet would be viewed and allows for extensively retweeted content to permeate the entire platform if enough users engage in the action. Dhiraj Murthy, provides a compelling conceptualization of the technicality of retweeting, enabling circumstances of emulated snowball effects in order to obtain this extended attention from the users:

"[...]It is also one of the central mechanisms by which tweets become noticed by others on Twitter. Specifically, if a tweet is retweeted often enough or by the right person(s), it gathers momentum that can emulate a snowball effect. This is all part of interactive multicasting, wherein many users are vying for the eyes and ears of many users.[...]" (Murthy 2018:41).

By interactively posting and reposting content through retweets, the users are able to shape the debates and affect the 'trending topics' on the platform. This aspect is very relevant within the sphere of #dkgreen, when this hashtag is found to mediate a highly interactive medium for public expression of sustainability initiatives. In this way, the practice of retweeting works as an additional tool for the Twitter users and the informants to spread a certain point or argument, facilitating the idea of information exchange and proliferation of certain agendas within the sustainability debate. In the following quote, The Resource Center Director explains an interpretation of retweet activity on Twitter, saying;

"Well, if it suddenly becomes big or talked about a lot. It gets retweeted a lot or gets many likes ect. This is an indication that there is something that interests many people. Or there is some kind of breakthrough in the debate, and it is so much fun because it provides a little insight into tiny "bits" of the debate, that you can use. So sometimes if you hit one good argument, suddenly it seems that you get many likes or many retweets ect. It is a really good test of your arguments. It is not because you change the attitude of who you are on Twitter, or that I really believe that I can change many other people's attitudes - I could hope for that, but it is more to interfere in the debate in such a general way. You essentially gain a view of what type of arguments that work." (The Resource Center Director).

The informant showcases the perception of using and observing the impact of the debate by looking into what gets retweeted. In a postphenomenological sense, this directed human intentionality of using retweets to proliferate debate or perceiving what gets retweeted, in order to improve the individual users own visibility within the platform, presents an additional spin to the *composite relation*.

We have now unfolded an analysis of the implications of the retweet feature, were a central norm was reflected in the practice of adding personal commentary. The practice of retweeting with a comment appeared as an expectation from the majority of the users. Within this practice there also exists an underlying aspect of how the users chose to present themselves on Twitter (Murthy 2018:94) In the next chapter we will examine how the Twitter biography is another practice that becomes a site for self-presentation.

9.6 Implications of the Twitter Biography

The last part of the analysis will revolve around how using the biography on the Twitter profile becomes a site for self-presentation, and how this practice affects the perception of #dkgreen. The investigation of how users chose to present themselves on Twitter is a part of how to make meaning of #dkgreen and to emphasize the situated use of the platform in relation to the engagement with hashtag #dkgreen. In our 9th semester project we observed different ways to construct the bio and what information to include, which inspired us to investigate how the biography is used on Twitter, and what it means when you are participating in the debate about sustainability in Denmark through #dkgreen.

The way in which Twitter has chosen to design the profile page invites users to construct their profiles in a certain way, which is an aspect that speaks into the technological intentionality of the platform. On the Twitter platform, users are able to manage their own self-presentation through a profile page, where they can upload a picture and biography (bio) consisting of 160 characters to describe themselves. Besides the common communication practices on Twitter, we find that also the biography on Twitter, becomes an important tool to 'perform' the self and that this feature speaks into the process of *impression management* (Goffman 1959). The bio provides the users with a space to express who they are and in that way also manages what other users can then expect of them, when they read and interpret the profile text. Within the experience of our informants, it is found that there exists certain expectations to how people present themselves on Twitter. Building on the overall experience of #dkgreen as the mediator of professional debate, followed by the perception of #dkgreen to withhold elements of a democratic environment, this has shown to affect the informants expectations of who they choose to engage and debate with on #dkgreen. This is where the importance of the Twitter biography comes to serve a purpose, and the experience of what role the bio plays and how this affects certain practices and perceptions, is found with The Sustainable Food Consultant;

> *"[...]I think it makes it easier to take them (other users) seriously and enter into a dialogue with them when you know a little about who they are and also what they work with. Well, if they have a job or if they study or what do I know - or what they care about, that can also be enough. If there is a name and a face and a profile text about what you are passionate about or something like that, it can give you a sense of what kind of person you are in a dialogue with or who the sender of a certain messages is."*
> *(The Sustainable Food Consultant)*

Based on this explanation, it is evident, that the generation of your Twitter profile and your biography becomes crucial for your participation and influence in the debate. This informant expresses, that the judgement and interpretation of other users bio, come to determine whether

or not they should be taken seriously, and 'worth' of, entering into a debate with. The expectation of being able to picture the other user together with a profile text, that reflects the users professional association or passionate engagement with a topic, seems to become the 'recipe' for how users can manage to increase their authenticity, as a professional or highly passionate person, that others find relevant to listen to or engage with. The Sustainable Food Consultant is 'written into being' (boyd 2010) with the following biography;

> *"Programme Manager, Future Food, @concitoinfo | Øresund citizen tweeting on #climate #dkgreen #dkfood #landbrug #swgreen | mm@concito.dk" (The Sustainable Food Consultant's Bio)*

This description includes the professional title and working place, as well as a more personal information of where the informant is based. At last, The Sustainable Food Consultant has chosen to include the hashtags, that the informant is tweeting on. Judging on the former statement, this informant interprets how the description in the bio on other users profiles are affecting the perception of whether or not this user come to express a certain authenticity. In order to be able to convey this view and expect this from others, we must assume, that this type description, will reflect the degree of authenticity it takes for other users to judge you as someone to take seriously. Based on the different bio's, that we have observed among our informants, we find that the representations varies a bit in style, but all our informants are at least represented with a professional title. Another possible and similar way to set up the bio is found with The Biologists, that writes;

> *(translated)"Birth assistant for sustainable development. Experienced facilitator, project manager and facilitator #dkgreen #bæredygtig #natur #cocreation " (The Biologist's Bio)*

In this description the informants has chosen to insert the self-made term, 'birth assistant', to highlight the professional expertise of being an experienced facilitator of sustainable development. Besides presenting a professional background, the profile text also includes four hashtags, to showcase which topics this informant engages with. We will return to the aspect of using hashtags in the biography later in the analysis. In our interview with The Biologists, we talked about the motivation and the reasons for using the bio and what to write, to which the informant responded;

> *"Well, it was because I wanted to clearly state my point of view. So I wanted people to know what my mission was and that I have a clear mission. I would also say I am active beyond the topics on just the green front, but it is also because sustainability for me means more than just nature and the environment. It also means justice, and it also means social justice, equality or less inequality, at least. So I also involve myself in that."(The Biologist)*

75

What stands out in this statement, is the expression of how the bio becomes a way to send out the translucent message of "I have a clear mission" and to let other people know exactly what this mission represents. The informant indicates a certain consideration of how the other users preferably should make their interpretation, which exemplifies, that the decisions of what to write are connected to the informants sense of the audience. What Goffman (1959) would consider a 'front stage' performance, where the goal of self-presentation is to act according to the expectations of the audience and what they should expect from their presence on Twitter. Another example of how to build the Twitter biography is found with The Resource Center Director, that has chosen to write the following profile text;

> "Director of [Danish Resource Center] - and engaged in waste as resources, circular economy and green transition. (The Resource Center Director Bio)

This is a presentation, that to the point showcases the professional background and the topics that the informant engages in. In this bio, it is not chosen to include any hashtags, but information about location and a link to the webpage of the informants company is presented on the profile. In the interview with The Resource Center Director, we talk about the reasoning behind writing this bio, to which the informant answers;

> "Well, it is actually just to be completely straightforward. This is what I'm tweeting about. It is about waste, circular economy and waste management. I made it when I was the director of 'Dansk Affaldsforening' in the attempt to contribute to and influence the debate." (The Resource Center Director)

It seems from the above, that there lies a clear intention of being very clear about what this user is tweeting about. By revealing the specific topics; waste, circular economy and waste management, the informant can in that way manage the self-image and control how other users should preferably interpret the informants presence on the platform and what to expect. In the interview with The Resource Center Director, we were interested to understand why it is important to reveal the specific topics, that the informant tweets about, and why the informant is this conscious of which discussions to participate in. The informant gives the impression, that it has something to do with authenticity, and elaborate that;

> "I think that I have a full legitimacy to tweet the things I tweet about, because I actually know something about it, and it should keep being like that. Just so no one thinks "oh no, what a fool, now he brings in football, or something like that. (The Resource Center Director)

This example can draw parallels to boyd and Marwick's (2010) findings of how users on Twitter deliberately either reveal or conceal certain information and chooses to focus on specific discussion topics in order to balance authenticity. We relate this to the following: "*This

consciousness implies an ongoing frontstage identity performance that balances the desire to maintain positive impressions with the need to seem true or authentic to others."(boyd & Marwick 2010a). The informant states how the motivation of creating a profile on Twitter was due the intention of influencing the debate, and it seems evident, that there exist a correlation between seeming authentic and the ability to have an influence. Other users must know who they can expect to engage with and a part of that is staying professionally related to certain chosen topics. The act of managing impressions and self-presentation through the bio has an implication of how users come to form the perception of #dkgreen as a mediator of professional debate. As it depends on the audience whether or not something is considered authentic, it also plays a role who the informants experience to participate with in the debate on Twitter, which is what boyd and Marwick (2010) would refer to as 'the imagined audience' (ibid.). When asking the The Communications Director of who was experienced to participate in the #dkgreen sphere on Twitter, the response was; *"Professional opinion-makers, like people who live off writing and to share their statements. It's politicians and it's communication people. That is my experience. At least in my feed."* (The Communications Director). We had a similar talk in the interview with The Biologists, who expressed to recognize that;*"[…]There are not terribly many users, but the professional business people are there, and these are the ones I want to talk to[…]and then the media is also there to a much higher degree[…]"(The Biologist)* In line with The Biologist's experience, The Journalist also expresses how #dkgreen is not that big of a discussion sphere. In the interview with The Journalist, it was expressed that Twitter was the 'go-to' platform when the informant wanted to see what is happening politically. The Journalist shows a certain knowledge of the participating actors, and explains;

> *"[...]you do know that it is not 'a blind partner' that you are playing with - you do know who you are involved with[…]So you do know each other and the actors, and it is of course also problematic, that it really is such a small space. We are surely not that many in that space, and a lot of the time it is the same actors, but we are also a small country[…]" (The Journalist)*

Based on these statements, it is evident, that the informants to a certain extent are aware of which actors, that are present in the #dkgreen sphere. They also observe the participating actors to overall represent professional business people or opinion makers, politicians and media. As these are the main actors they observe and also the actors that they want to engage with on #dkgreen, it is these types of professional profiles, that comes to render as their imagined audience. According to Goffman (1959), self-presentation happens according to context and audience, which in this case means, that the informants are presenting themselves according to

how they will believe the audience will evaluate them. We find that the informants all to varying degrees reveal something about their professionalism or job position, and we can assume, that this happens because of their perception of the audience within #dkgreen to render as merely professionals.

Through our observations in the 9th semester project, we experienced that the majority of the distinct users was represented with a bio. We found, that 346 profiles out of 381 top users was represented with a bio, which is a total of 91 %, which indicates this as a common practice or norm within the sphere of #dkgreen. According to a guide on Twitter from 2016, the Twitter bio is one of the most visible descriptions of the user online, and highlights that; *"Your online reputation is your reputation. And it better be good. The way you describe yourself on Twitter has everything to do with how people perceive you online."* (Patel 2016). As earlier accounted for, there exist different practices of how the users are constructing their bio's, and among one of them is the incorporation hashtags. Presenting yourself by inserting certain hashtags in your bio show other users what topics you discuss, but it will also increase the 'search power' of one's profile. When users are searching for these specific hashtags, the profile will show up in the 'People' category (Onsharp 2019). In the statements above it is shown, that The Sustainable Food Consultant and The Biologist are both represented with #dkgreen in their bio. Besides these two informants, we additionally find, that also The Transport Consultant and The Management Magazine Editor have chosen to incorporate #dkgreen, which makes these four informants show up as a result when you search for this hashtag on Twitter. In our interview with The Sustainable Food Consultant, this privilege of inserting #dkgreen in the bio is acknowledged and what this means

Well, it is to show, that they have a particularly great interest or a professional or work related relation to that topic. And it is true, that you can search for #dkgreen in search function and look at 'people' and then you will get lists of the people who have written it into their profile text. In that way you show a commitment to an even greater extent, than just using it in a random tweet. (The Sustainable Food Consultant)

Other than indicating a skilled knowledge of the effects of the Twitter bio, this informant interestingly expresses how writing a hashtag in the bio seems like an even stronger message than writing it in to a tweet. Not all the informants searches for hashtags, and these informants will maybe not share the exact same interpretation. Maybe it is for these users still possible to seem professional and authentic without hashtags in the bio. The earlier quote, that shows the bio from The Sustainable Food Consultant includes the hashtags; #climate, #dkgreen, #dkfood,

#landbrug #swgreen. Based on the statements from this informant, about what makes other users seem serious and professional, it is evident, that what this users profile renders as authentic and professional seem to be based on his own example.

So, by incorporating hashtags in the bio, the users can benefit from showing others which hashtags they engage with, to balance authenticity, as well as giving other users an insight into who they are discussing with. At the same time it can also provide the user with the technological advantage of showing up in hashtag searches, which according to The Sustainable Food Consultant, will show a commitment to #dkgreen to an even higher degree. Simultaneously, this act of incorporating hashtags in the bio also comes to reflect an aspect of human intentionality. By employing this 'technique', the user is able to become even more dominant and visible in the debate, which is a central intentionality among all the informants.

Besides the incorporation of hashtags, we have observed another interesting practice among our informants. Between the ten informants, five of them are represented with similar statements, to explicitly inform, that their tweets are based on their own views and composed by themselves. The statements will read e.g. *"All views are my own"*, or *"Tweets are personal views"*, or *"Tweets my own"*. It is interesting to understand the reasoning behind expressing these statement, and why it is revealed in the users bio. Through our interviews with the particular informants, it seems to act as a technique to refrain from the interpretation of being a spokesperson for the company you work for. The Energy Consultant explained how the profile initially was created in order to communicate and inform on behalf of the company where the informant used to work. The informant chose to keep this Twitter profile after ending the job at this company, and now continues the profile as a private account;

> *"[...]I was so-called country responsible, "country manager", for Vattenfall in Denmark. It was actually when I was in this position, that I created my Twitter profile and that was quite natural because it was a way for Vattenfall in Denmark to communicate and inform. So, this is the profile that I actually just continued on with, of course now not representing the company, but just as a private person." (The Energy Consultant)*

The informant additionally explains, that the reason for keeping this profile, and not shutting it down, was due how the informant wanted to keep having the opportunity to participate in the discussions on Twitter. The Energy Consultant still wanted to be able to join the fora where the informant can share opinions with others and have the ability to express opinions. The choice of continuing with profile has maybe led to some confusion, when the profile was formerly used to speak on behalf of a company, but instead it is now fueled by The Energy Consultants own views, and maybe this is what sparked the act of inserting the statement, *"Tweeting own*

views". The informant does not directly indicate, that this choice has resulted in any confusion, but expresses here what purpose the statement should serve in the bio;

> *"[...] it is also to point out that when I speak on Twitter I do not speak on behalf of the company I am employed in. It is important for me to draw attention to this, so that no misunderstandings arise." (The Energy Consultant)*

So, the way in which the informant expresses, that this statement should prevent any misunderstanding, also becomes a way to try and balance authenticity, and that the informant's views are not confused or interpreted as something according to any corporate values. The same scenario was expressed by The Journalist, who claims, that certain people within the #dkgreen sphere are aware of the informants position at a larger organization, and that the informant has had the experience of being accused for speaking on behalf of this organization in certain debates. The Journalist explains the difficulty of balancing when you are on and off work, because the informants relationship and views about sustainability or political discussions about it, in deed correlates with the values and views, that the organization holds. The Journalist here expresses why the statement *"Tweets are personal views"* was added to the profile text;

> *"As I stated out by saying, how my job is also my hobby, this makes it difficult - because when I go home from here, this does not mean that i'm off work. This is just something I carry on with me, but that is why I changed it (the bio)." (The Journalist)*

The Journalist additionally expresses the urge and right to stand for own views, and tries to prevent that the informants own activities on Twitter should maybe harm the organization. If something should come up, then the informant expresses to able to protect the organization and always reminds others that this is a personal opinion. The Museum Curator also shows signs of conflicts when it comes to discerning private or professional use of Twitter. In the informant's bio it also reads *"tweets are my own"* and when we asked about this statement, we got the response, *"Yes, it is simply just to stop half of all the people who writes to my boss every time I have tweeted something."* (The Museum Curator). Based on this statement it seems evident, that this informant has experienced the activities and opinions on Twitter to create a conflict between the informant and the working place. An interesting observation is also, that this informant has no reference to the working place in the bio, and maybe this is another way to also avoid the same scenario. In this way, the informant chooses to explicitly reveal, that tweets are at own expense, and also choses to conceal the information of where the informant works. Relating this to boyd & Marwick (2010), these could be examples of how users either reveal or conceal certain information in order to balance authenticity. Four out of the ten

informants do not present themselves with a reference to their working place, and maybe this act strategically becomes the users' attempt to claim their personal opinions and that they want their activities on Twitter to reflect their own personal intentions to influence the debate according to their personal values and opinions. In contrast, the other users, that do write a reference to their working place, sends another message to the audience. We have already shown a couple of examples of this scenario with the bio's belonging to The Sustainable Food Consultant and The Biologist. Another example, is the profile description made by The Transport Consultant reading;

> *"Making transport attractive, efficient & sustainable at @ramboll|Father|Math Ph.D|#EV-owner|@alternativet_ #Frederiksberg|#dktrp|#dkgreen|#dkpol|#frbpol" (The Transport Consultant's Bio)*

In this example, there is no doubt, that this informant presents the self as professional. The bio demonstrates the informant's working place, a Ph.D. degree, a reference to a political party and hashtags to show specific discussion topics in which the informant are engaged, including #dkgreen. In the interview the informants describe how the bio should say something about what you work with, and that it should help to manage expectations. The Transport Consultant also mentions, that a certain intention of what to write in the bio, was to display 'a mission statement'. When it comes to investigating self-presentation on Twitter, it certainly also depends on the individual perception of what purpose Twitter should serve. If your interpretation of #dkgreen relies on your ability to personally interfere in the debate, your actions and representation will be shaped by this interpretation. In contrast, if you create your Twitter profile to merely serve a corporate purpose and spread information and corporate values through this Twitter profile, your actions and representation will be shaped by this particular experience. There definitely exist a blurring boundary on #dkgreen between 'personal' and 'professional', because the informants personally care for the topics within sustainability and also work directly or indirectly with sustainability, which makes it is difficult to know where to draw the line between what is private matters and what is professional matters.

9.7 Summing up

The analysis has explored several experiences of engaging with #dkgreen, and how the related practices and perceptions together represent how the hashtag comes to mediate a space where professional debate takes place. The implications of using the hashtag shows that #dkgreen mediates a certain power. It is though not a central power, because everyone can add the hashtag to their tweet. However, by adding the hashtag this give the users an opportunity to interact with prominent people in the debate, and interfere in relevant discussions, as well as having an influence on how one should approach sustainability issues. There exists a hybrid intentionality, that develops a *composite* relationship between the users and #dkgreen. In our analysis we find, that when users make a retweet, the dominant norm is to add personal commentary in order to supply an input. There exist an expectation to convey your personal view to the message you retweet in order to interest others to engage. The retweet becomes a tool to promote the users personal agendas. When content is retweeted directly without a personal comment, the retweet is perceived as an endorsement of the given content, even if this was not the intent. It is possible that this type of retweet action will not possess the same power as a retweet with a comment. In the analysis we also explore how Twitter biographies are used for self-presentation, and how they use this feature to reveal themselves in the debate. We find different examples of how these bio are composed, but they are all conscious of what information to display. Revealing and concealing certain information becomes a way for the users to manage expectations from the audience and balance authenticity in #dkgreen. On the basis of the findings in our analysis, it is the common experience, that #dkgreen mediates a 'certain democratic space'. This perception will therefore serve as the foundation for the following discussion, where we argue that #dkgreen mediate political interactions.

10.0 Discussion of #dkgreen as a Political Hashtag Public

In this chapter we want to discuss how the sphere or 'networked public' (boyd 2010) of #dkgreen can be considered as a democratic and political environment. The relations that occur between the users and #dkgreen, as well as the related practices and perceptions of engaging with the hashtags, has uncovered several indications of how this hashtag mediates a certain power to debate sustainability. The informant's experience that #dkgreen facilitates a unique space, where they are able to participate in the debate, by sharing their personal views about sustainability. By revealing themselves and their individual opinions of how to approach related issues, they claim to feel activated in democracy. Through our situated understanding of how users perceive their affiliation with #dkgreen, to (hopefully) have an impact in the political discussion about sustainability related issues, we find it interesting to discuss how the environment created by this hashtag, could render as a place where political interactions take place. In this discussion we introduce a paper from Peter Paul Verbeek, where he approaches how human-technology relations have political dimensions and how political *interactions* are shaped through technological mediation (Verbeek 2019). Relating our findings to some of the points in Verbeek's paper, we want to discuss the following;

- Is it possible to define the interactions taking place within #dkgreen as *political interactions?* And do individual views of sustainability contribute to this understanding?

To discuss these aspects, it was necessary for us to find a way in which to encapsulate political theory, remaining within the theoretical framework of postphenomenology. In order to make this connection, we turn to the unpublished paper *'Politicizing Postphenomenology'* authored by Peter Paul Verbeek, which in a tribute to the work of Don Ihde, attempts to outline a postphenomenological approach to politics of technology (Verbeek 2019:1). In this paper, Verbeek seeks to answer the emerging critique, of how the postphemenological focus on human-technology relations, for some, seem to be ill-suited for discerning levels of political or social issues, as well as the critique of the postphemenological conceptualization of power being insufficient. He argues, that the aforementioned critiques essentially ignores the aspect, that postphenomenology possess a potential to show the '*political significance of technology*', as well as the dynamism of technological power and the contextualized understanding of political issues or interactions (ibid.). The paper does not offer a detailed counter argument to the aforementioned critiques, but it delves into the possibilities of how postphenomenology can approach political significance of technology. Verbeek attempts to link political mediation

and theories of democratization, to the theory of technological mediation. In the paper Verbeek conceptualizes three dimensions of politics, that attribute to the understanding of political mediation of technology. The first dimension is 'politics as power', the second dimension encapsulates 'politics as interactions' and the third covers the dimension of 'politics as issue formation' (ibid.). We will use the first and second dimensions to facilitate our discussion. In order to conceptualize 'politics as interactions', Verbeek evolves upon the thinking's of Hannah Arendt[11], that concerns how 'polis-making' in our civil society, is based on actions and interactions. Politics should then be interpreted as an 'enactment'. This implies how humans are capable of forming communities made up of unique individuals in a space apart from their private setting (ibid.).

> *"For Arendt, politics is primarily polis-making: the uniquely human capacity to form a society by interacting with each other as unique and different persons, in a public space that is separated from the private place of the home, and that provides the room for coming together while being different (Arendt 1998, pp. 22-28)."(Verbeek 2019:5).*

Arendt's perception of humans is defined by our ability to perform actions. In her understanding, it is our ability to fabricate things that form our environment, which makes us transcend from animals (Arendt 1998:22). However, she makes a distinction between actions, categorizing activities related to the essential biological being as *labor* and activities related to materially crafting as *work* (ibid)*.* An example of *labor* could be cooking in order to eat, and an example of *work* could be the activity of building a bridge to cross a river. These understandings of 'activity' uniquely form every type of human action (e.g. political action), dependent on the degree of either (ibid.). Based on these distinctions, Arendt describes the activity of *work* to be the essence of humans transcendence from animals, which refers to the term *homo faber,* that indicates the human ability to craft our own fate. The united actions of *labor* and *work* contribute to how we build civil society/united community. She employs the Greek philosopher Aristotle's notion of *zoon politikon[12]* to describe these united actions (ibid).

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[11] Johanna "Hannah" Cohn Arendt was a highly regarded philosopher and political theorist. She studied under both Heidegger and Husserl, which can explain her prone references to greek philosophy. Her works encapsulate and can be argued to influence the anti-nationalist, anti-totalitarian and modern republican tradition of 20th century political theory (Pahuus 2010).

[12] Aristotle coined the term 'zoon politicon' (ability to form united community/civil society), in his work 'Ethics and Politics'. He justifies, that humans to a greater extent than any other animal, embodies the *zoon politicon ability*, referring to how the human possess logical thinking and reason (Engberg-Pedersen 2019).

In the paper *'Politicizing Postphenomenology'*, we find several conceptualizations to guide our deliberation of the contextual democratic environment of #dkgreen, in order to argue how interactions can be seen as political. The first point relates to the interplay in Verbeek's notion of the politics of technologies, that closely parallel the sensory/interpretive perceptions of Ihde (Ihde 1990: 29)(see chapter 6.0).

> *"[...]technologies have an influence on people's actions and practices on the one hand, and on people's perceptions and frameworks of interpretation on the other. The latter dimension plays an especially important role in postphenomenological analysis: technologies not only 'directly' or 'physically' influence people's behavior but also help to shape perceptions and interpretations on the basis of which people make decisions to act." (Verbeek 2019:2)*

Verbeek's idea of how technology influences our behavior, and shapes perceptions and interpretations, is what forms our intentions of action. This aspect is reflected in our analysis, that shows how #dkgreen shapes, not only its users' behavior, but also their interpretations. This scenario is what constitutes the *composite* human-technology relation. When engaging with #dkgreen, users are able to obtain information about 'what is happening' within the community, while simultaneously contributing to it, by posting their own content (see chapter 9.5). Within the function of the hashtag there exist an 'inscribed' technological intentionality, that promotes mediating infrastructures and algorithmic generation of the community itself. When the hashtag is being used it will inevitably come to establish relations between the users and their environment, and this opens up questions about the democratic element of these technological communities. The powerful influencing technologies, like Twitter, is not something that are being handled in a democratic way, and Verbeek propose, that accounting for the technological mediations that are taking place can help to define a democratic system that can encompass these types of technologies.

> *"All in all, technological mediation seriously challenges the idea of liberal democracy. One the one hand, the power of technology seems to escape democratic control, while on the other hand seems to diminish our liberty by presenting us with inevitable consequences and by shaping our normative frameworks."(Verbeek 2019:4).*

According to Verbeek this should not imply, that technological mediation is at odds with democracy and its values, but acknowledging that the technological power is required in order to responsibly deal with these mediations in a democratic way. We must accept the concept of how individual freedom is being mediated and shaped by technology, and find democratic perspectives from within these technologies. In the case of #dkgreen, it is evident, that this hashtag mediates a certain power through it use. It is a tool that facilitates engaged debate and

information sharing around sustainability issues, which exists separate from the democratic control of the 'outside' world. This particular space is governed by both the norms prescribed by its users and the technological intentionality of algorithmic infrastructures. The same applies to the implications of retweeting, which supplies the user with yet another tool to shape perceptions and interpretation. The re-distributions of tweets has an effect on the 'trending topic' category, which in turn shapes the 'relevant' debates taking place in the space of #dkgreen (see chapter 9.5). The basis for this relationship is formed by the interconnectedness of the human intentionality to use the hashtag as a tool, as well as the pre-scripted intentionality of Twitters technology.

10.1 'Polis-making' in #dkgreen

As mentioned in the analysis, #dkgreen was introduced to create a 'green' channel or community, where people interested in the 'green agenda' could come together and debate related issues (see chapter 8.0;9.3) Today, the hashtag has showed to move beyond its initial purpose, by becoming an effective tool used to fulfill sustainability-oriented agendas by different users. Through the actions of posting tweets and the interactions within #dkgreen, the users experience the ability to influence the grander debate. Additionally, the ability to share their beliefs about how to handle sustainability issues, gives them a feeling of being able to also change popular opinions (see chapter 9.2)

In order to approach #dkgreen as 'polis-making', we want to discuss Arendt's notion of how 'polis' is shaped by actions and interactions. According to Arendt, politics is facilitated by the interactions, that occur between people in public spaces. Through interactions of information exchange (ideas, worries and concerns) within a public sphere, separate from our private sphere, people form 'polis', which then form communities (Arendt 1998:22-28). This implies, that political power is the *outcome* of political interactions, and the aspect of power therefore becomes secondary to the more significant role of interactions (Verbeek 2019:5). An example of this can be found with The Museum Curator. This informant has a general intention to influence the debate by increasing the attention towards the topic of biodiversity, within the #dkgreen sphere. In the analysis we brought forward a statement from this informant, that exemplifies the conscious action of pushing this agenda forward by posting tweets with #dknatur co-occurring with #dkgreen, to 'educate people on #dkgreen' (The Museum Curator)(see page 58). We find a similar example, where The Museum Curator had a direct interaction with the Danish Politician, Ida Auken:

> *"The first time it really worked, was after a very heavy storm called Allan - the storm Allan it was talked about a lot, had the strongest wind force ever measured in Denmark. It laid a lot of trees down and then the Danish Nature Agency, which owns very large forest areas in Denmark and cultivates it commercially, announces that 'Now we should go out and clean up the forests after the storm damage'. I thought - there is (at that time) an environmental minister named Ida Auken who is actually responsible for all this. So i simply tweeted 'So @IdaAuken you just need to be aware that the Danish Nature Agency is taking you from behind' or something like that and 'Be aware that when such a storm occurs, it is gold for biodiversity. Dead trees on the forest floor is gold. She didn't know that did she? So the day after, she announced to the press that of course the Danish Nature Agency would not clean up after the storm damage when one had now received such a biodiversity gift and that was solely because of the tweet there." (The Museum Curator).*

This account both shows an interesting aspect of how activities on Twitter could be argued to form 'polis', and how these interactions actually could seem to mediate a certain power to cause a political change. To follow Arendt's definition of how to form 'polis', we can through this example identify interactions of information exchange, happening within a sphere separate from the user's private sphere, which can support the idea of how activities on Twitter in this case could render as being political. Moreover, this particular example also demonstrates the informants' general experience of being close to politicians, when it is possible to directly interact with Danish politicians through #dkgreen. We acknowledge, that this experience could also be an indication of how Twitter in Denmark and the public of #dkgreen is a limited forum, which is what makes these kinds of interactions possible. The experience of being able to interact and have an influence on political decisions, could also answer to the users' general expectation, of how their activities on Twitter are able to move something.

In order to approach the *technological mediation* of politics, through postphenomenology, Verbeek proposes the necessity to evolve upon Arendts conceptualization of 'action'. According to Verbeek, Arendt makes a distinction between the actions of *labor* and the actions of *work*, claiming that she overlooks how the public realms require a physical space to manifest. He mentions, that this aspect can be met by acknowledging the public space, where the interactions happen, to be an active mediator. Thereby accounting for how this particular space enables and also shapes the political interactions that takes place (Verbeek 2019:5-6).

> *"In her urge to highlight the specific character of zoon politikon, though, Arendt almost overlooks the fact that the public realm actually requires a material space to exist: a public space, necessarily the product of the work of homo faber. And this is where Ihde's postphenomenology can reveal another political dimension of technology From the perspective of postphenomenology, the public space within which political action can take place is not a neutral material environment that facilitates instrumental actions, but an active mediator of the character of political interaction." (Verbeek 2019:5-6)*

From this perspective, the activities (*labor* and *work)* that are connected to the actions of the human as *zoon politikon* (humans forming communities/civil society), are intertwined and cannot be seen as separate. In order to view how politics can be seen as actions, we should look at how a public space is the product of the work of *homo faber* (the human ability to craft our own fate). The public space within which political actions can take place is not a neutral material environment, but an active mediator (ibid.).

When this environment is facilitated Twitter, where users are able to interact with each other in new ways, this presents a good case for the technological mediation of political interactions. When online technologies interfere with public spaces, they influence the interactions between people, and blur the boundaries between the private and the public sphere (ibid.). Verbeek continues these thoughts and draws parallels to how social media becomes a facilitator of a space where political interactions can take place, but also brings forward an Arendtian conceptualization of social media, stating;

> *"At the same time, against the background of Arendt's work it is telling that these media are seen as* <u>*social*</u> *media rather than political media: they are more closely connected to the household than to the polis, often focusing more on our private lives than on a common effort to develop an online public space."(Verbeek 2019:6)*

Relating this understanding to our findings, we recognize aspects of this view to be true, but we also argue, that there exist a 'common effort' to develop an online public space within #dkgreen. As mentioned above, Twitter manages to promote the process of users sharing aspects of their private lives into a public context, which comes to merge the private and the public sphere. In our case of studying #dkgreen, through the descriptions from our informants, we find, that each of the informants identifies themselves with the area of sustainability. In the majority of the cases, we found that their personal beliefs about how to handle sustainability issues, are also reflected in their practices as well as in the activities in their private lives and households (see chapter 8.0).

In the former quote, where Verbeek explains how Arendt distinguishes the two actions of *labor* and *work* in her political theory, it is laid out, that *labor* belongs to the 'recurring cycle of life', referring to the activities connected to the household, such as cleaning, eating or cooking (Verbeek 2019:5-6). In the case of most of our informants, and their 'recurring cycle of life', we found that the associated activities of the household are formed by the informants' perception of sustainability. An example could be The Energy Consultant, that elaborates on how the perception of sustainability has led to becoming self-sufficient, by guiding the

decisions of installing solar panels and geothermal heating in the informant's house (see page 52). Another example is The Veterinarian, that expresses how living your life in the outskirts of Denmark, and the fact of having a professional connection to primarily agriculture, has affected this informant to always care about food waste and using up the resources at hand (see page 54). The informant expresses, that your interpretive framework is different when *'[...]you live in, off and with nature, or if is it something you come to experience[...]'* (The Veterinarian), here referring to how people who live in the city have different expectations of nature (ibid). The Veterinarian therefore claims, that living a sustainable life is dependent on education and culture. Drawing attention to this point of view, has become a key issue in this informant's approach to talk about sustainability issues. We have observed similar examples with the other informants as well, of how their activities as *zoon politikon* (humans forming communities/civil society), are involving *labor* activities rendered in their perception of sustainability. These are connected to the activities of their work as *homo faber* (the human ability to craft our own fate), that together creates the public space of #dkgreen, where we argue that political interactions take place.

Twitter offers these people a way to communicate and interact with others about their views, and they do so with a certain self-felt authority (see chapter 9.6) In the quote above, Verbeek propose how the Arendtian understanding of social media, would render as something closer to the private lives of the users than something political. This is true in the sense of how the users are interacting, by sharing information based on their private experiences. As a result of how the private lives of the informants are closely connected to aspects around sustainability, it seems natural for the informants to act and interact according to their own views about this topic. In the case of choosing to debate within the hashtag #dkgreen, this is what comes to reflect the 'common effort to develop an online public space' where political interactions can take place. The common effort here is though not only based on the intention of the users, but also on the inscribed intentionality in the function of a hashtag, to gather people around communicating a common topic and form a community. The topic of sustainability is generally interpreted as a part of the political discussion, which is both expressed by our informants, but also something we were able to observe within our Twitter dataset from the 9th semester project. The data shows, that #dkgreen co-occurs with the hashtag #dkpol in 4911 tweets out a total of 7743 tweets (Nielsen & Larsson 2018). The hashtag #dkpol is used to encapsulate the debates about Danish politics, and tagging #dkpol together with #dkgreen represents the act of connecting the topics of #dkgreen to the political debate. This scenario could be argued to

exemplify that #dkgreen mediates political interaction. A relevant example of how the user's interactions can be seen as 'polis-making' is brought forward by The Journalist. The informant explains in the following, how Twitter can be used to spark political discussions, by addressing certain politicians to take a stand on certain issues:

> "So I feel that it (Twitter) moves something, but what's important - one thing is to have a go at Venstre, but it's about getting the Social Democrats to commit themselves. Then you can reply to Jens Joel: "Well guys what are you going to do to[…]?", he's not crazy about answering this, but he actually has to answer now, and that's where I think Twitter can do something. You can actually almost lure them into some awful traps. Then you can ask them; "So, what will you do yourself?" - (informant mimics hesitating politicians)"Oh, well. But uh", - and then you either see them almost completely off Twitter, or they answer, "This is what we want to do", and then you have them and we are not fond of that breach of promise. This I think is something Twitter can actually do, if you really think it through." (The Journalist).

In this scenario, The Journalist describes the interactions taking place between the informant and the politicians, within the sphere of #dkgreen. This could exemplify how these users in the Arendtian sense together are 'enacting the polis' (Verbeek 2019:6). It resembles how the informant and the politicians are interacting by sharing concerns and exchanging information. This is what contributes to the emergence of #dkgreen, as the online public space demarcated from their private sphere. The practice explained in this particular scenario, could also be argued to correlate with a certain interest to bring forward different standpoints in the debate, due to the professional background of being a journalist.

Another example of the 'common effort to develop an online public space', is apparent in the following quote, where The Museum Curator felt a responsibility and a need to change an agenda, based on a professional conceptualization of how to discern and talk about nature;

> "So I have turned some cases. A year ago, there was a lot of trouble in Aarhus one day because there was an artist who a year and a half ago at the city culture festival, chose to paint the entire memorial park red and white. And people were totally going crazy over it. When I got home, I had been on a birdwatching trip all day, when I got home and saw that people were going crazy about some artist that had painted a fucking lawn, I specifically changed the agenda over a day's time. After that it was completely turned around, it was just a fucking lawn, of course it wasn't nature. I have been able to do that a number of times. Simply where you purposefully go in and change an agenda"(The Museum Curator).

In this statement, The Museum Curator explains how it was managed to change an agenda through a discussion of how to perceive something as nature and how to properly react towards the act of an artist painting the lawn in the memorial park. Judging on the experiences brought forward by the two informants, we argue, that the interactions taking place within #dkgreen,

represents this 'common effort' to develop the online public space of #dkgreen. The hashtag mediates the character of these interactions, which results in how the public sphere of #dkgreen takes its shape and form 'polis'. Regarding the Arendtian assumption of how social media is more focused on private lives, rather than making polis, we argue that this can be perceived differently in regards to the online space of #dkgreen. Based on how sustainability is an extensive part of our informants' private spheres, their exchangement of ideas and concerns within #dkgreen (a public space separate from their private sphere), is what generates 'polis'. This assumption implies, that the actions and interactions within #dkgreen could be characterized as political interactions.

An additional aspect, that emerged from our empirical findings, was the formation of *filter bubble*s. The notion of *filter bubbles* is not something we have intended to approach in this thesis. However, we want to bring forward some renderings about this aspect and acknowledge the appearance of this in our data. In the paper, that we introduce in our discussion, Verbeek also mentions the notion of *filter bubbles* and *echo chambers* in relation to his considerations of how technological structures enable political discussions. In the next chapter we will therefore present a brief insight into the aspect of *filter bubbles* in #dkgreen.

10.2 The Emerging Aspect of Filter Bubbles

It is relevant to acknowledge how algorithms on Twitter come to determine what users see and how this affects what the public space is made up of. In *'Politicizing Postphenomenology'*, Verbeek considers the mediating infrastructures, that enable political discussion and interaction in the following way:

> *"[...]the social media that organize how people have political discussions also provide them with tailor-made information that forms the basis of these discussions. This so-called 'filter bubble' or 'echo-chamber', created by the algorithms that determine the newsfeed of people on social media, can contribute to segregation rather than the formation of a plural community." (Verbeek 2019:7)*

When Verbeek introduces the notion of *filter bubbles* and *echo chambers*, he does not reference a specific conceptualization of these terms. Our understanding of *filter bubbles* is related to the work of Eli Pariser, that concerns the formation of certain spaces within social media, where conflicting narratives or opinions are filtered away, leaving only like-minded content to the users' own preferences (Pariser 2011). Since the sphere of #dkgreen is not a particularly large space, it is plausible, that *filter bubbles* emerge.

Connecting the notion of *filter bubbles* to the workings of Twitter in general, it would equate to a situation where a user's practice and the platform itself, interconnectedly facilitates a space where only content from likeminded followers will be showcased. The 'problem' that these types of spaces pose, is the aspect of diversity of thought, which in these instances will be diminished. Through our interviews with informants, it was expressed, that the notion of these types of formations was apparent. A majority of our informants elaborated on the practice of choosing to follow people they distinctly did not agree with, in order to prevent 'bubbles' from forming in their networks.

> *"I know that I won't move anything politically if I only speak in an echo chamber. If I only talk to those who think the same as me, then we can just clap each other on the back and say 'yes all of this is terrible, it is a shame that nothing is done'. Of course, we do this on some level, because you like each other's tweets, but I have been very much in dialogue with people from the agriculture community, because I think we have a great challenge with our agricultural industry [...]". (The Journalist)*

To be able to have an influence, or in the case of The Journalist's expression to "move anything politically", it is relevant for the user's within #dkgreen to actively engage with people with a more diverse opinion than their own. It is acknowledged, that bubbles appear to some degree based on the user's engagement and how the algorithm works to supply 'relevant' content. However, the choice of engaging with the hashtag in itself could be be a way to circumvent this, or in terms of The Management Magazine Director, striving to follow a larger array of people in order to achieve different outcomes, even though this could be difficult to maintain.

> *"[...] it is something that I strive for, I want to follow people who I disagree with politically or who have different knowledge than I have, who seems to be legitimate. There are others who I think are exciting to follow or some i just think tweet things that are wildly exciting, cool or fun, or something that I often agree with too. But I think it is very interesting to have a flow of some other people - also in relation to all those who talk about bubbles, if you somehow could break it a little, but I find it difficult" (The Management Magazine Editor)*

Judging on this statement, it is clear, that this informant conveys certain knowledge of what comes to create *filter bubbles* and tries to prevent this scenario from happening by deliberately following people in opposition and people with a different knowledge base. A relevant observation, that was found through our interview process, was the indirect mentioning of different informants within our dataset, by the informants themselves without our interference. In these instances, our informants would mention other informants in our data set. In some cases they were mentioned by name, but also through recounts of interactions within the #dkgreen sphere, which for the most part were examples of diverse exchanges of views. These

instances could be perceived as a subtle confirmation of a practice within #dkgreen of trying to circumvent the formation of filter bubbles, described within the two previous statements. This thesis does not possess an intention on examining the aspect of *filter bubbles* or how to conceptualize the notion of such formations in relation to our findings and the postphenomenological approach to #dkgreen. However, we bring forward the awareness of *filter bubbles* in order to react upon the additional empirical finding, that our informant try to prevent them forming. These insights could serve as an inspiration to guide further research. This could e.g. involve studying user networks in #dkgreen, to grasp how the participants are connected to each other, perhaps based of who they follow (and do not follow). This could contribute with greater detail about *filter bubbles* forming in the sphere of #dkgreen.

10.3 Final Remarks

In our central discussion we have made an attempt to approach how activities and interactions in the online space of #dkgreen can appear as being political, in order to support the user's general experience of this space as being a democratic environment. We argue, that the perception of the democratic environment in this case, equates to #dkgreen as a public political sphere, where the participating users are able to affect opinions from 'decision makers', politicians, as well as each other. This assembles the central argument of how #dkgreen takes shape as a political hashtag public. Our renderings in this discussion, about how the users' practices and their social contexts, influence how the #dkgreen sphere takes its shape as a political public, becomes a part of how we can enhance our understanding of the phenomenon of #dkgreen and our data from Twitter. Based on our findings in the analysis and the arguments in our discussion, we will in the next chapter present our conclusion of this thesis.

11.0 Conclusion

The objective of our research, has been to approach an understanding of how use-practice and social context affects our understanding of data from Twitter in relation to the online discourses configured in #dkgreen. The project has progressed from digital data insights to a contextual grounding of digitally driven hypothesis, that emerged from our 9th semester project. It was possible to build upon a perception of #dkgreen (as a technology) and its users (humans) co-constituting the inherent patterns of discourse within our phenomena of sustainability debate on Twitter. In our analysis we brought forward several different facets from our exploration of #dkgreen, and based on these it was possible to gain a detailed comprehension of the human-technology *composite* relation, that develops between the users and #dkgreen. We can conclude that #dkgreen mediates and provides its users with power, specifically the power to provide influence on the happening debates and interpretations of sustainability. The hashtag facilities opportunities of interaction between politicians, 'decision makers', the media, and users prominently interested in the green agenda. The *composite* relation that exists between the users of #dkgreen and the technologies mediating infrastructures, conditions the space of #dkgreen as a networked public. In this way the users of #dkgreen can influence and move sustainability oriented discourse, which in turn can mediate into concrete changes in the 'real world'. Investigating the implications of use practice surrounding retweeting, enabled a further development of our conceptual understanding of the #dkgreen usage. As mentioned the space facilitates a place where people are able give voice to issues or knowledge connected to sustainability. When users retweet, they continuously re-distribute this knowledge, by adding on their own comments.

A part of investigating the practices related to #dkgreen, was also to observe how users perform their self-presentation, through their Twitter biography on their profile page. We have seen varying examples of how they generate their biography and what information they include, but our findings showed that they were all conscious of what to write. They want others to know what they stand for and they expect other users to do the same too, if they should perceive other users as someone worthy of debating with One of the distinctive examples, is when the users chose to incorporate #dkgreen in their biography, which technologically increases their visibility in the debate, and in turn they are interpreted as someone with a high commitment to participating in #dkgreen. Among the majority of our informants, their self-presentation is enacted by *front stage* performances (Goffman 1959), where the users act according the expectations of the users in #dkgreen. The choice of what to reveal or conceal in the bio could

be a way for the informants to balance authenticity (boyd & Marwick 2010). The way the users present themselves has an effect on their own practice of e.g. only adhering to their topic of interest or profession, which in the users opinion will (hopefully) enhance their authenticity among the other users.

The way the informants presents themselves on Twitter depends on the their own perception of what purpose Twitter should serve for them. If the purpose is merely professional, your actions and representation will be shaped by this interpretation, and on the other hand, if the purpose is merely 'private', this will also affect your practices and in turn shape your perception of #dkgreen. It is evident, that there exist a blurring boundary between 'personal' and 'professional' in #dkgreen, or the private and the public. The informants have a personal and professional interest in debating sustainability issues, that they convey into the public sphere of #dkgreen. These 'private' matters become a part of the public discussion.

Based on the findings of our analysis we found it relevant to discuss how our informants perceptions of the interactions within the space of #dkgreen, could be experienced as political interactions. Additionally attempting to touch upon how the users perceptions of sustainability contributes to the democratic environment of #dkgreen. The outcome of this was a rendering of the #dkgreen sphere, as a political hashtag public, separate from their private sphere, in which it is possible to form 'polis' based on the user's inherent connection to sustainability. We have in this study explored the phenomenon of #dkgreen and the occurring implications of participating in sustainability debate through this hashtag on Twitter. Through our exploratory analysis we have gained several insights into these implications and the postphenomenological framework has contributed to approaching the political dimensions of #dkgreen. This thesis has shown multiple discoveries, which is a natural outcome of an explorative project. We therefore do not provide specific solutions or recommendations, but the intention of this thesis can serve as an inspiration of how to supplement digital data with a qualitative contextual understanding of a given phenomenon.

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13.0 Appendixes

13.1 Appendix 1. Twitter Data Set (Continued on from the 9th semester)

Data was harvested with TCAT (Twitter Capture and Analysis Toolset) in the period from 26-09-2018 to 26-01-2019. The analysis toolset capture properties such as tweets, users, retweets, hashtags, user bios, user interactions and more from the Twitter. Based on this data collection, TCAT offers several ways to analyze and curate data. This data can processed in a variety of ways depending on the wished area of inquiry. It is possible to capture these properties using different sampling techniques, that either focus themselves on generating random samples from the overall platform, tracking specific tweets with predefined keywords in real time or following specific user activity up to a limit of 5000 users (Borra & Rieder 2014:267-268). Our data set is based on tracking tweets through the below hashtags and keywords.

Hashtags: #dkgreen, #dkenergi, #dkforsyning, #smartenergi

Keywords: grøn energi, grønne energi, elforbrug, mit elforbrug, grøn omstilling

Overall Data set

Total of tweets: 9632. Distinct users: 2484

No. of tweets	Tweets w. links	Tweets w. hashtags	Tweets w. mentions	Tweets w. URLs	Retweets	@replies
9632	4140	8766	6610	1136	5095	384

Delimited Data Set (cut-off value: min 5 tweets per user)

Total of tweets: 6455. Distinct (top) users: 381

No. of tweets	No. of tweets with hashtags	No. of retweets	Twitter profile w. bio	Twitter profile no bio
6455	5954	3244	346	35

13.2 Appendix 2. Most Frequent Retweets.

The table contains tweets and the number of times they have been retweeted in the Twitter dataset (cut off value: 15 RT).

Date	Frequency	Retweet
overall	34	RT @AllonHSorensen: Jeg mener, at man her er gået for langt med GMO i fødevareproduktionen. #dkpol #dkgreen https://t.co/MLAq4rAXAO
overall	31	RT @informeren: Vi har gravet i sagen om udskiftningen af Klimarådets formand og fundet noget interessant… https://t.co/F64HXKX407… https://t.co/eRuBhCZMGX
overall	30	RT @Dursten: OECD - de ræverøde hippier :-) - siger at en udskydelse af grøn omstilling er den dyre løsning. #dkenergi https://t.co/mTLL2reFbc
overall	28	RT @IdaAuken: Stor sejr for drikkevandet i dag. Fire vigtige ting for @radikale som vi har kæmpet længe for #dkpol #dkgreen https://t.co/qxhiulsyia
overall	26	RT @DanmarksNatur: Der er brug for et totalforbud imod bidræber gifte, og #dkpol bør gå forrest - ikke bagerst #dkgreen https://t.co/tM9ZhACLkk
overall	26	RT @PSkipperEL: (Indsæt selv velbegrundet, bittert tweet her) 🤦🏽‍♀️ #facepalm #dkpol #dkgreen https://t.co/VXvrJYP0RR
overall	25	RT @mbredsdorff: Egentlig utroligt, så lidt debat der i #dkgreen om den let stigende udledning af kvælstof. Det er ellers en af de v… https://t.co/XxVzDbfbo5
overall	23	RT @DanmarksNatur: Fuldstændig uhørt angreb på beskyttelsen af små vandløb. Naturen i DK bør beskyttes mere - ikke mindre! #dkpol… https://t.co/OD4Dn919XH
overall	23	RT @helenehagel: Sojaproduktion i Sydamerika, hvorfra #dkgreen importerer enorme mængder svinefoder, medfører skovrydning, forurenin… https://t.co/BpQwhH1EuL
overall	22	RT @IdaAuken: Det her er så dystre nyheder, at ingen burde kunne sove i nat. #dkpol #dkgreen Rapport: Mængden af drivhusgasser i… https://t.co/fI7fLSBntf
overall	22	#dkgreen
overall	22	RT @IdaAuken: Glædelig jul til alle ❤️🎅😄 #dkpol #dkgreen #jul https://t.co/gE00Bg9Juo
overall	21	RT @jrgensteenniels: Da artiklen blev afleveret tirsdag aften: 23.000 underskrifter. Da avisen blev åbnet: 24.000 #dkgreen #dkpol Unge v… https://t.co/GbrFTx40VF

overall	21	RT @jrgensteenniels: generationen der vil redde verden #dkgreen #dkpol https://t.co/mNFdwVRfmU
overall	20	RT @MortenDDHansen: Er det bare mig, eller er det her helt ekstremt skummelt? #dkpol #dkforsk #dkgreen https://t.co/UpjulPjaiM
overall	20	RT @jeppe_juul: I Danmark underbyder vi vores nabolande til skade for klimaet. Her passagerafgifter på fly. #dkgreen #dkpol Norge:… https://t.co/lGCaAnIFVq
overall	20	RT @JakobEllemann: Hej @MariaGjerding Her til morgen har jeg med stor glæde båret den kasket, du har givet mig - skål! 💧 #dkpol… https://t.co/o0Z3febPLe
overall	19	RT @oestergaard: Det er hamrende uambitiøst at regeringen hellere vil købe aflad end investere i grøn omstilling. Vi skal turde skab… https://t.co/l4xbnf6TFT
overall	19	RT @runelanghoff: Ungdommen strejker for klimaet: "Stop mord på Moder Jord" 💚💚💚 #dkpol #dkgreen #klimastrejke #klimatstrejk… https://t.co/m3fceFsNVq
overall	19	RT @TScavenius: Lad os holde fokus i klimadebatten. Problemet er manglende grøn omstilling af landbruget, transports- og energisekt… https://t.co/Z9j3RqFZjk
overall	18	RT @bardvegar: Modig og visjonært vedtak av #Auf Eg spår at det om eit tiår vil framstå starten på grøn omstilling i Noreg. Men fø… https://t.co/7fJtDikqNu
overall	17	RT @venstredk: Diesel- og benzinbiler i Danmark skal være fortid! Nu er vi klar med ambitiøst mål #dkgreen #ftåbning #dkpol https://t.co/Nw13sSg3kK
overall	17	RT @nielsthdahl: Dagens to bedste klimacitater. @BjornLomborg i @weekendavisen #dkpol #dkmedier #dkgreen https://t.co/BvuaZwNuJS
overall	16	RT @PiaOlsen: Bak op. Jeg har skrevet under - har du? #dkpol #dkgreen #elskernatur https://t.co/0P8flbCF5z
overall	15	RT @Miljostyrelsen: En ny landsdækkende undersøgelse finder ingen tegn på, at drikkevandet er forurenet med mikroplastik. #dkgreen… https://t.co/fMnprOejoo
overall	15	RT @DMCamilla: Katastrofalt at regeringen sænker tempoet i grøn omstilling, jvf @klimaraadet. Vi har brug for handling nu - også h… https://t.co/YxJnGTSEle
overall	15	RT @karenlumholt: #dkgreen, #dkpol Kan vi ikke stoppe snak om ENTEN politiske løsninger ELLER ændret forbrugeradfærd? Det er jo BÅDE… https://t.co/U7k3bxFrNV

| overal l | 15 | RT @helenehagel: Istedet for at komme igang med omstillingen bruger vi i #dkgreen rigtig meget tid på at bryste os af at være et grø… https://t.co/Hh2TTMIzjv |

13.3 Appendix 3. Example of Interview Guide (translated)

Research Questions/issues	Interview questions
Introduction: _____ What do they do and not do as Twitter users - Deepening on relationships between them and climate / sustainability _____ Self-presentation: bios ect. XXX writes the following in their bio: "Birth assistant for sustainable development. Experienced facilitator, project manager and facilitator #dkgreen # sustainable #natural # co-creation Bodiln.dk" (Do you follow people you disagree with?) Have you experienced that your practice on Twitter has affected something in your everyday life? _____ Use practices on Twitter and their participation in the energy and climate debate. _____ The motivation behind (networking, debating, communicating with others via the platform.)?	Will you introduce yourself? What is your relationship with climate and sustainability? _____ What is sustainability for you? How do you practice the point of view / How do you practice that in your everyday life? in which way? _____ Why did you choose to have a profile description on Twitter? What considerations have you had in connection with your own bio and what it should say? Do you read others' profile descriptions? What do you get out of it? .. What type of space does Twitter create? - close to the public? - democracy Have you experienced that Twitter has changed your understanding of debating climate and environment? Or have you experienced that you have been affected in your everyday life in connection with being on Twitter? _____ What is your experience of being a Twitter user? How long have you used the platform? And why did you create a profile? How often do you use Twitter? How do you use Twitter? Do you use the different features on Twitter (RT, direct message, #, look at trending tags)? and how? What is a RT for you? - What role does hashtags play? for you? - Looking for hashtags through the interface? _____ Why use Twitter to talk about energy and climate? What is your view of who participates in the debate on Twitter? What does your participation mean to you? _____

	Do you feel that your participation and your activity on Twitter has an effect in the debate? and how?
_____ What do you see through #dkgreen? What perception do you have of it?	When / Why #Dkgreen?
	_____
The Hashtag #dkgreen is a popular hashtag on Twitter ... _____	Do you feel that there is an activist undertone / tendency in the #dkgreen forum on Twitter?
Slacktivism: are you active while just pressing a button?	If yes. Is it an active trend or is it more subdued? (slacktivism / clicktivism or call to action prone)? _____
	What do you think / do you think Twitter as a social media can contribute? And more specifically, what can this media contribute to when we talk about energy and climate?
_____ Ending	

13.4 Appendix 4. Example of Coding Matrix

Human intentionality
Personal motivation
Sustainability = Personal affiliation
Gives voice to personal key issues
Social context
Activistic engagement
Use practise
Twitter

Citation:	Interview
Altså det er min hjertesag. Det bruger jeg rigtig meget tid på og jeg har også i et vist omfang valgt arbejde efter, at have kommet til en virksomhed hvor at bæredygtighed fyldte mere.	xxx
Det er selvfølgelig ikke sådan at det er den store, hvor man siger nu har Søren skrevet det, det og det. Men jeg tror at det er kontinuiteten i det, at der bare er	xxx
Jeg synes man kan se noget her op til valg at nu begynder der at komme noget mere run på. Men man kan sige at jeg tror at mange af dem der tweeter inde på	xxx

Network of perceived dominating participants
Twitters "Holy trinity"
Direct link to politicians
Direct link to media
Professional playground
Politicians
Media
Newsfeed
Connectivity
Twitter

Citation:	Interview
Så twitter det er også mit nyhedsmedie, jeg abonnere på forskellige aviser men mit recreator feed det er Twitter.	xxx
Twitter er lidt en boble også. Der er mange eksperter og mediefolk og politikere og lobbyister. Der er selvfølgelig også det man kalder den almindelige borger derinde, men det	xxx
Det er fordi det løfter vidensnivauet. Der er jo nogle mennesker der bliver klogere, der er nogle journalister der forhåbentlig kan skrive nogle bedre historier. Jeg læste lige en artikel om	xxx

Mediating platform infrastructures
Algorithmic impact
Filter bubbles
Trending hashtags
Big data
Retweets
Twitter interface mediating behaviours
Connectivity
Twitter

Citation:	Interview
Men jeg har givet mig selv en stram politik om at jeg ikke vil følge mere end 400, fordi så bliver mit feed crowded så at sige. Så en gang imellem så må man lige sige er der nogen hvor relevansen er dalende.	xx
Der er en jeg følger fra udlandet, han re-tweeter sine egne tweets helt vildt meget, næsten så meget at jeg bliver irriteret over det. På et tidspunkt der skrev han hvorfor han gjorde det og det var fordi at folk ser ikke alt han skriver, så der er mange der går glip af det. Så det er simpelthen en politik han køre sine	xx

Blurring of public/private sphere
Private v.s prof → blurred lines
Bio's importance
Representative values
Use practise
Active dismiss aspect
Self presentation
Social media
Laymen user?
Twitter

Citation:	Interview
Det er fordi jeg tænker specielt det politiske, det er vigtigt at deklarere det tænker jeg for så må folk selv sortere. Men det er klart at når man arbejder som rådgiver, hvis man siger noget som vedrører det du arbejder med så skal der ligesom være noget faglig argument under det.	xx
Det med at have et personal mission statement, det er det samme der står over på Linkedin som tagline, det kan også være godt for en selv. Der kan man se okay hvad er det du arbejder med her i livet. Så den står der og man kan sige de andre ting de står der sådan lidt for at sige 'jamen hvad er ham her for en kanut', hvad kan man forvente der kommer fra hans side.	xx