

Locating the E-cigarette Multiple

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Summary

The amendment of e-cigarette regulations in Norway was an effect of an interference between the European Union Tobacco Products Directive and Norwegian legislation. This interference opened up a window for corporate, activist, scientific and bureaucratic communities to articulate their e-cigarette concerns, anxieties, and hopes. This thesis explores the diverse e-cigarette enactments and how interferences between them make up the e-cigarette. The e-cigarette is studied as an object multiple. By attending to how the e-cigarette is *done* or enacted in practice, multiple e-cigarette realities come to the fore. Multiplicity implies more than plurality in that the diverse enactments overlap, link and depend on each other.

Firstly, the thesis asks *how* the e-cigarette is enacted in different practices. In the corporate space the e-cigarette is enacted through branding practices that exclude the e-cigarette from their “smoke-free economy”. In the activist space the e-cigarette is enacted by mobilizing “attachments” (personal dependencies with the e-cigarette) and evidence-based practices based on user experiences. Through the scientific space the e-cigarette is enacted via research reports that act as different types of political technologies in the e-cigarette debate either by influencing how the Ministry of Health and Care Services regulates the e-cigarette or by articulating alternative policies. In the bureaucratic space, techniques and tools of policy making open up the e-cigarette issue in the first place and contain the e-cigarette debate in specific ways.

Secondly the thesis asks how these e-cigarette enactments are held together. By answering this question, this thesis contributes to topological conceptions of objects that are made into policy. In the initial stages of policy formation the e-cigarette can be analyzed through the *flow* topology - the coordination of practices in tension. While when the e-cigarette is made into policy the *fire* topology is more adequate – the simultaneous presence of the single policy, dependent on the absence of multiple dissenting voices which have been silenced.

Acknowledgements

It's a bit weird to think that that the thesis journey and roller coaster is over. There were several times I thought I would never make it, that I am not "made" for this, but I am happy that I never quit. So, if you are a budding masters student reading this - don't give up! Done is better than perfect. And also, write about something that sets your heart on fire. It makes it so much easier.

Throughout my time in higher education I have studied in interdisciplinary fields and STS has been no exception. I am grateful to have written under such a forward thinking, creative and playful field. Thank you to the STS-scholars that have inspired and lit a small academic fire within me - Kristin Asdal (as you can tell from the references), Erlend Hermansen, Tone Druglitrø, John Law, Vicky Singleton and of course Annemarie Mol.

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Chapter 1 - Introduction

1.1 E-cigarette relations and enactments

Suppose we imagine that the e-cigarette is not a thing in itself. Suppose we say instead that it is a set of relations: relations (for instance) with the human who vapes it; the scientist who studies it; the tobacco company who develops competing alternatives to it; and the government who wonders how to regulate it (Law and Mol, 1995, p. 279).¹

These are some ways of *doing* the e-cigarette which will be accounted for in this thesis. I argue that the e-cigarette is done, rather than objectively existing or uncovered. It is practiced, and these practices are related. In this thesis I seek to answer: *how* is the e-cigarette done in and *how* are these practices related.

While this is a thesis about an object it is also about humanity, and about the relations between humans and objects in their environment - materials and (wo)men. Objects are nothing but the relations they are embedded in and neither are the human collectives which form around these objects. Lauren Thévenot sheds light on the co-production between humans and objects in his notion of “an equipped humanity”. The relations that humans have with objects in their environment enable them to act, while the relations between the object and the human collectives sustains the object (Asdal, 2011, p. 222). Take for example the relationship between the government and the e-cigarette. The government *forms around* the e-cigarette, asking questions about the health risks of vaping it, mobilizing a political process around it. The interference of the e-cigarette in the political space of the government enables the government to act, to do its job, to make policy. While the political processes taking place around the e-cigarette, in turn, shape it.

1.2 Bringing e-cigarette clouds down to earth

At one point we must set a limit on the diverse e-cigarette enactments that will be traced. The e-cigarette is more than just a cloud of vapour. Tracing specific e-cigarette enactments will bring it down to earth (Law & Mol, 2001). What is the e-cigarette? A teaser was given at the

¹ This is a pastiche from a passage in Law & Mol, 1995, p. 279 on the material semiotic enactment of concrete.

start of this thesis. We can start with where the curiosity for e-cigarettes emerged for myself. Due to my interest in the knowledge-policy nexus I was looking to write about how a scientific controversy would affect the political regulation of a phenomena. It was Karl Erik Lund, then research leader at the National Institute for Drug Research, and his radical and outspoken comments about e-cigarettes which got me interested in its political debate. E-cigarettes are dramatically less harmful than cigarettes, although not free of risk, he argued. “To ban e-cigarettes is almost like keeping the emergency exit closed because the ladder is slippery,” he went on. Through this statement he compared emergency exits to liberalizing e-cigarettes. One should still liberalize e-cigarettes in the same way that one should keep emergency exits open - because the alternative is worse, either dying from smoking or dying from fire, he argued. On the other hand, other research institutions tied to the Norwegian state stressed the precautionary principle - research and knowledge about the e-cigarette is uncertain - risk cannot be excluded, we must therefore still regulate the e-cigarette in a strict manner, they argued on their end (Jakobsen, 2014).

I found out that the e-cigarette controversy had risen as a result of the government amending the Norwegian Tobacco Act, and consequently e-cigarette regulations which were party encompassed by this act. I therefore turned to the proposal from the Ministry of Health and Care Services to the parliament on the amendment of tobacco and e-cigarette regulations. From this document I studied the concerns with, and policy proposals for the e-cigarette (Helse- og omsorgsdepartementet, 2015-2016). While reading it I also found that the Ministry had commissioned the drafting of three reports from different state tied research institutions on the e-cigarette, since they lacked information in order to propose policies for it. I decided to single out the two research reports which had the most contrasting views and analyze how these took part in enacting e-cigarette issue in this thesis. And so I had started the process of re-enacting two of the four communities which will be studied and their enactment of the e-cigarette: the Ministry of Health and Care Services and two state tied research institutions.

However, I was also looking to encompass a wider range of actors and communities than just established institutions. “What is taking place at the margins?”, i wondered. While researching I found that e-cigarette users in Norway had organized themselves in a community, a union of likeminded vapers known as the Norwegian Union of Vapers. Vapour is not smoke, they would say. The union was attempting to influence e-cigarette regulation;

their views opposed the government's. And so, the union was also included in the thesis. Lastly I thought about the corporate enactments, about big tobacco. What was the tobacco-industry's position on e-cigarettes? Were e-cigarettes a threat to their business model, to their core product, cigarettes? Or would they jump on the e-cigarette trend? I soon found out that they were developing their own reduced risk alternatives to cigarettes, a competing product to e-cigarettes based on tobacco - the iQOS, standing for *i quit original smoking*, based on heating rather than burning tobacco. *Heat-not-burn* is not smoke, they would say. And, so the tobacco company was also included in this thesis.

This is the story of the origin of how four communities that relate to the e-cigarette came to be re-enacted in this thesis, localized. The research institutions, the government, the e-cigarette users, and the tobacco company. In this thesis their sites and practices will be traced and followed. I have also looked for relations and juxtapositions between these sites. This thesis is also a site in itself, which links the studied enactments together. Through tracing enactments and re-enacting them, the e-cigarette's vapour cloud will be brought down to earth. It will come to life.

1.3 Academic position and contribution

I will now briefly present the theoretical perspectives that are drawn upon in this thesis and elaborate on how this thesis contributes to the field of STS.

This thesis utilizes a wide range of theories within society and technology studies. Mol's concept of object *multiplicity* lays the foundation for studying the various enactments of the e-cigarette and how it is held together. Resources originating from laboratory studies which have been further applied by Barry (2006), Skarstad (2008), Asdal (2008) and Asdal and Hobæk (2016), will help locate the site-specific practices which modify the e-cigarette. *Material semiotics* will shed light on the relational enactment of the e-cigarette's identity. This thesis contributes to work on multiplicity in suggesting two topological conceptions of objects in policy making, exemplified through the e-cigarette; that of *flow* when issues are opened up and controversial articulations are coordinated, and that of *fire* when objects become policy.

Otherwise, a “conceptual toolbox” (Asdal, 2015, p. 16) has been employed to shed light on how publics, scientific communities, governments and corporate actors shape the e-cigarette issue.

To study the corporate performance of the e-cigarette I have utilized resources from valuation studies, such as Asdal (2015), Muniesa et al. (2007), and Boltanski & Thévenot (2006). By reading Boltanski & Thévenot in tandem with marxist and economic sociology perspectives on valuation (in Asdal 2015) I show how drawing on diverse logics from the market and the civic logic of worth, can enhance the valuation of the iQOS and the devaluation of the e-cigarette. This stands in contrast to what traditional applications of Boltanski and Thévenot’s framework have shown as these logics have proven to create tensions and pull objects in different directions.

To study the e-cigarette users’ engagement in the e-cigarette debate I have leaned on perspectives from Marres (2007) on issue formation and Rabeharisoa et al. (2014) on evidence-based activism in user groups. By reading Marres and Rabeharisoa in tandem this thesis contributes to literature on issue formation by showing how publics’ evidence based practices are empowering methods which publics engage in to attempt to form issues according to their own concerns. These epistemic practices rise from their *attachments* and experiences with objects in their environment and become resources which publics mobilize when engaging in policy issues.

When it comes to the research community I have taken inspiration from Skarstad’s (2008) studies on scientific practices as object modifications and Asdal (2011) concept of political technologies to show how research contributes to the political e-cigarette debate. I contribute to the work on political technologies by showing how different political technologies can have different political effects: either by influencing how governments regulate objects, or proposing alternative policies.

To study the government's e-cigarette enactments in policy making I have used perspectives from Hermansen (2015), Kingdon (2003 in Hermansen 2015) on policy streams, and Asdal and Hobæk’s (2016) ideas around the ordinary practices of public administration. I have

contributed to studies of how conventional, key political sites modify issues in their own right using analytical tools from laboratory studies in STS.

1.4 Societal Relevance

The main societal objective of this thesis is to unpack the knowledge and practices of a diverse range of actors which influence, or attempt to influence, what the e-cigarette is, or is not. The e-cigarette entered the market in 2006 and there is no way agreement on what the e-cigarette is. New versions and editions of the e-cigarette are being developed by market producers. The e-cigarette is also an object that can be adjusted and adapted by consumers when it comes to flavorings, the pressure when vapour is inhaled, and the amount of nicotine that is added. Regulators and the scientific community struggle to define the e-cigarette due to the lack of studies on it since the object is relatively new. The lack of data makes it difficult to know which groups in society use it, for what purposes, and how much. Studying the e-cigarette is therefore about studying an object in the making. The ambiguity and uncertainty regarding the e-cigarette makes it interesting to study as diverse groups in society attempt to close this controversy, and define the e-cigarette according to their own interests and world views.

The enactment of the e-cigarette is in this way a power struggle and this thesis a study of it. I wish to make visible the voices at the margins and at the center of the e-cigarette debate, as well as how these different enactments are linked and make up the e-cigarette multiple. The analysts task is to make visible the connections between different material-semiotic elements which modernity has separated into dualisms, such as that of politics and knowledge/science. Tools from science and society studies (STS) shed light on how these two spheres influence each other and are more interconnected than institutional structures attempt to portray (Jasanoff 2004, ch. 2). In this thesis I will make visible which actors and practices set the agenda for the e-cigarette debate; such as the health authorities, those that are included in the debate; such as the scientific community, those that struggle to influence the debate but do not entirely succeed; such as the users of e-cigarettes, and those that are excluded; such as the tobacco industry.

1.5 Research questions

- What is the e-cigarette?
 - How is the e-cigarette enacted in different practices?
 - How are these e-cigarette enactments related?

1.6 Chapter summaries and thesis structure

What follows is a brief outline of what is discussed in each chapter.

In chapter 1 “Introduction” I have delineated the sites in which the e-cigarette is enacted that have been studied in this thesis. I have also accounted for the academic position and contribution of the thesis, its societal relevance and presented research questions that will be answered and explored.

In chapter 2 “Theory” I will on one hand go through the guiding conceptual framework for the thesis as a whole. On the other hand I will introduce specific theory and concepts used to study the different sites which enact the e-cigarette.

In chapter 3 “Methods” I will discuss how myself as a researcher, as well as the concepts and approach taken in this thesis influence the conclusions that are made. I will also go through how data is collected, why these methods are chosen and their limitations. Lastly I will discuss ethical considerations.

Chapter 4, “Hot but not cloudy - looking for clouds in the smoke free economy” presents the first site and community in which the e-cigarette is enacted. I will study how Philip Morris Norway excludes the e-cigarette from their performance of the smoke free economy using perspectives from valuation studies.

In chapter 5 “Vapour is Not Smoke - Public E-cigarette Enactments” I will combine pragmatic perspectives on issue formation from Marres (2007) and on user groups from Rabeharisoa et al. (2014) to study how the Norwegian Union of Vapers, e-cigarette users, take part in the e-cigarette debate.

In chapter 6 “Enacting the political e-cigarette through research reports” I will discuss how two research reports from different state tied research institutions act as different political technologies, contributing to the e-cigarette debate in different ways. One report influences how the Ministry regulates the e-cigarette; while the other report suggests an alternative proposal as to how the e-cigarette should be regulated.

In chapter 7 “No Ministry, No E-cigarette Problem” I turn to the ordinary techniques and practices of public administration (Asdal and Hobæk, 2016). I study the policy-making process of the e-cigarette by the Ministry of Care and Health Services, arguing that techniques in this policy making space allow for the e-cigarette issue to emerge in the first place, sets limits as to what the political e-cigarette debate is about, and closes the e-cigarette issue through presenting e-cigarette policies. The efforts of the ministry determine how other communities attempt to enact the e-cigarette.

Lastly, chapter 8 “Flow and fire - Holding the e-cigarette together” will account for how the different e-cigarette enactments are heldt together as an e-cigarette multiple. I suggest two metaphors for conceiving of the e-cigarette’s shape. *Flow* for how it is heldt together in the initial policy making stages, and *fire* for how it is heldt together when the e-cigarette becomes policy. Lastly I discuss some concluding remarks on local e-cigarette enactments and their linkages.

2 Theory

2.1 Guiding conceptual framework

The way Singleton and Law account for actor network theory is also an adequate way to conceive of how theory is approached this thesis - as a sensibility, “created, recreated, explored and tinkered with in particular research practices” (2013, p. 2). Theory takes its shape through practice. The first part of the theoretical chapter has to do with the theoretical perspectives or sensibilities which guide and organize the thesis as a whole. These sensibilities are Mol’s (2002) notion of *multiplicity* and ontological *enactments*, resources originating from *laboratory studies* in order to *locate* reality and politics, and *material semiotics* to study the *relational* enactment of the e-cigarette’s identity. The second part of the theory will relate to more thematic and specific concepts to study the different sites which enact the e-cigarette.

The e-cigarette multiple

What will be studied in this thesis is the e-cigarette as a multiple object (Mol, 2002). The idea of objects as multiple is inspired by Mol’s *The Body Multiple*, an ethnographic study of the day to day diagnosis and treatment of atherosclerosis through diverse practices in a Dutch hospital. Mol’s study is praxiographic: it “...does not search for knowledge in subjects who have it in their minds and may talk about it. Instead, it locates knowledge primarily in activities, events and buildings, instruments, procedures” (Mol, 2002, p. 32). The concept of object multiplicity will be the guiding theoretical metaphor in this thesis. I will stress, like Mol, how the different versions of the e-cigarette are *enacted* in practice by the different communities studied rather than merely represented or socially constructed (Asdal et al., 2007, pp. 34-35). In Mol’s ontology, reality is intervened with, done and enacted - manipulated through several tools in diverse practices. The atherosclerosis she studies, thus varies through the different practices by doctors, patients and administrators. In each stage, the disease is enacted and performed as different versions of itself (Mol, 1999, p. 77).

A crux in Mol’s multiplicity is that the object is more than one, but less than many (Mol, 2002, p. 55). Attending to multiplicity also has to do with how the diverse object enactments overlap - the local linkages (Law and Mol, 1995, p. 290). While the chapters that encompass the communities (B-F) will focus on the local practices, chapter Y will focus on how the e-

cigarette is held together by looking at the relations between the practices in these different sites. In chapter Y I will attempt to conceive what topological form the e-cigarette is caught up in and enacts. I suggest that when the e-cigarette's object boundaries are opened up for redrawing at initial policy stages one can conceive of it as *flow* - a coordination between practices in tension (Mol 2002); however when the e-cigarette becomes policy a more adequate metaphor is that of *fire* (Law and Mol 2001) - simultaneous absence and presence.

Site-specific practices

Barry (2006) has sensitized us to how objects transform as they move from site to site by way of heterogeneous practices. This notion directs our focus to the specificity of sites - the site-specific practices which modify the object (Asdal & Marres, 2014, p. 2062). The sensitivity towards located practices and realities can also be said to come from feminism. "There is no grand overview, no neutral place" (Haraway 1996 in Singleton and Law, 2013, p. 2).

Approaches from laboratory studies in science and technology first directed our focus to how scientific practices take specific and locally situated forms (Barry, 2006, p. 240). "Just as glands secrete hormones, laboratories secrete reality" (Mol, 2002, p. 42). Since then, studying local, site specific practices, tools and devices have been used to explore how other sites outside the laboratory enact new realities and "politics by other means" (Latour 1998 in Asdal et al. 2007, p 36, Asdal et al. 2007, p. 36) such as will be done in this thesis.

Knorr Cetina's laboratory studies looked at the work behind the production of scientific facts. Scientific communities became called 'epistemic cultures', producers of material culture, that were studied in the same way that anthropologists studied exotic tribes (Asdal et al., 2007, p. 15) The scientific setting was studied sociologically in laboratory studies, just as the sites in this thesis will be studied. The ideas, concepts and theories of scientific communities were understood as instrumental tools mobilized by strategic actors in a social context (Mol, 1999, p. 75). Scientific practices were not just social and cognitive processes but created, rather than revealed, by technologies - inscription devices. Local scientific practices were known as social and material (Knorr-Cetina in Skjøsvold, 2015, pp. 49-50).

Insights from laboratory studies will be used to sociologically study the local practices, tools and devices which different communities strategically employ to enact new e-cigarette

realities and politics. Philip Morris (PM) on one hand performs an economic enactment of the e-cigarette, while e-cigarette users, the government and research institutions attempt a political modification of it. Making the political, and the economically valuable, involves active work. It is a process, a practice that can be studied by actively tracing actors' strategies and what object - what type of e-cigarette - emerges through these practices (Asdal et al., 2007, p. 43).

Material semiotics to study processes

Moreover, the focus in this thesis is on the process of enacting the e-cigarette - *how* it is modified, rather than *what* it is modified into or why. The material semiotic perspective from actor network theory will help shed light on *how* the e-cigarette is enacted in different communities through relational socio-material practices. The e-cigarette's identity is formed in relation to others, through its performance in different communities (Druglitrø, 2012, p. 42). Such an approach fits into the STS tradition of studying technoscientific processes in the making, meaning phenomena that are in the process of formation through these performances (Asdal et al. 2007). John Law states how sociology is often concerned with the why's of the social. "It grounds its explanations in somewhat stable agents and frameworks." (Law, 2007, p. 9). The material semiotic perspective in Actor Network theory sheds lights on *how* the e-cigarette is enacted through focusing on the relations established between materially heterogeneous elements. Instead of merely being concerned with how linguistic utterances form the e-cigarette, the relations between materials and men, materiality and linguistic utterances, will be studied, and how they together form the e-cigarette (Druglitrø, 2012, pp. 36-37).

2.2 Site-specific theory

While the previous section has dealt with the theoretical perspectives that guide and organize the thesis as a whole I will now present the theoretical concepts from STS that will be used to study the different site-specific practices which modify the e-cigarette. A wide variety of concepts are introduced because the different sites and practices are different and cannot be viewed with the same concepts. In this thesis I have followed diverse actors and found theory that is "shaped" to the local "patterns of interaction and practices" (Singleton & Law, 2013, pp. 4-5)

The first section, “the e-cigarette in the economy”, will deal with valuation literature. Valuation perspectives will be used to study how the corporate actor in this thesis, Philip Morris Norway (PMN), devaluates the e-cigarette in their performed smoke-free economy. The following section will introduce theory that will shed light on the formation of the e-cigarette as a political object, both in traditional areas of politics (by the Ministry of Health and Care Services) and outside (by research institutions and e-cigarette users). The last section is also about the e-cigarette as a political object but will specifically deal with theory on how publics, e-cigarette users, take part in political issues.

2.2.1 The e-cigarette in the economy

This section will introduce theory from valuation studies which will help shed light on the *practices of differentiation*, as I call them, enacted by PMN which distinguishes their own, competing, tobacco-based product, the iQOS, from the the e-cigarette, which also is a reduced harm alternative to cigarettes. These practices of differentiation take place through PM’s branding activities. They value the iQOS and devalue the e-cigarette in the performance of their “smoke-free economy”.

Valuation studies fits well within the overall theoretical framework of this thesis due to the pragmatic foundation focusing on actors’ strategies which in an ontological fashion, enact reality through socio-material practices rather than uncovering it. Contributions from valuation studies that will be used in this thesis originate from economic sociology, science studies, Marxism, as well as Boltanski and Thévenot’s (2006) orders of worth.

The flank movement

Valuation studies originates from pragmatist philosopher, John Dewey in which the subject matter shifted from value to valuation through what Fabian Muniesa coins as a flank movement in the understanding of valuation. Valuation is considered an action, “ a process, a form of meditation, of something that happens in practice, something that is done to something else” as opposed to the value that something just has, intrinsically (Muniesa, 2012, pp. 25, 32). Through this point of view value is enacted and what is studied are the practices and tools through which value is performed and negotiated. The idea of value as an intrinsic

characteristic is if anything a result of unconscious valuation activities. The branding practices of PM will be seen as a form of valuation which enacts values, rather than uncovering them from the intrinsic properties of the objects that are branded.

Asdal's take on valuation

The main source of inspiration for the approach to valuation in this thesis is Asdal's article "Enacting Values from the Sea" (2015). Through valuation perspectives she studies the modification of cod from a biological to a consumer product in innovation strategies. Asdal combines economic sociologist contributions along with Marxist perspectives on science-studies in the article to conceptualize valuation. Read together, economic sociology and Marxist perspectives shed light on how values not only are social constructions but also object formations - modifying the social and the material (Asdal, 2015, p. 185).

On one hand, the economic sociology perspective in tandem with science studies will help explain how the valuation of PM's reduced risk products and competing alternatives is a social construction done in concrete situations (Muniesa 2007, 2012) and through specific tools and devices (Muniesa et al. 2007), independent of their material properties. On the other hand the Marxist perspective shows more interest in how materiality - the IQOS and competing products - are made part of the economy and how PM's capital investments in science and technology are directly linked the modification of these objects as marketable goods (Asdal, 2015, p. 173).

Market devices

The concept of market devices can be placed within the valuation framework. It is developed at the intersection of science studies and economic sociology. Market devices are objects with agency that render things and behaviours as economic through qualities included in the device. For example, properties of the shopping cart as a market device renders people as shoppers and certain behaviour as shopping (Asdal, 2015, p. 171, Muniesa et al. 2007). The branding practices of PM will be studied as a market device which through distributed practices enacts values from the IQOS.

Orders of worth

Boltanski and Thévenot's orders of worth will be used in tandem with Asdals conceptualization of valuation to show how PM draws on the civic and the market order of worth to modify the iQOS as a valuable part of the economy, devaluating the e-cigarette.

These French pragmatic sociologists argue that society is not made up of one social order but several orders or economies of worth. Each order of worth is a principle for evaluation and driven by a rationality: the inspired world, the domestic or loyalty world, the world of fame or renown, the civic world, the market world (2006). Boltanski and Thevenot view the social world as a space intersected by multiple disputes, critiques and disagreements. In a pragmatic sociological fashion, actors are seen strategic, creative and active in how they do "justification work", either by criticizing or justifying orders of worth in particular situations (Jagd, 2011, pp. 345-346). Their framework shows how actors draw upon these different orders of worth denoted as logics, discourses or rationales that direct actors through disputes and compromise (Giulianotti & Langseth, 2016). For Boltanski and Thevenot the focus is on the situation that calls upon different regimes of worth rather than the social actor or structure (Boltanski & Thévenot 1999).

I will show how PM is drawing on the civic and the market order of worth work together to enhance the valuation of the iQOS, rather than creating tension and pulling the iQOS in different directions, as traditional applications of Boltanski and Thévenot's framework have shown (Hutter & Stark, 2015, Dussage et al. 2015). The civic order or worth addresses the collective will over individual interests (Boltanski & Thévenot, 2006 p. 190), meaning actions must benefit society as a whole. The positive effects on public health of the iQOS due to it being a reduced-harm alternative to cigarettes will be used in the thesis as evidence for how PM values the object in the civic order of worth. In contrast to the civic world, the market order of worth addresses the desires of individuals. Worthy objects are "salable goods that have a strong position in the market" (Boltanski & Thévenot, 2006, p.196). The iQOS is valued in the market order of worth because it is portrayed as being more desirable for consumers vis-a-vis e-cigarettes.

2.2.2 The political e-cigarette

The chapters dealing with e-cigarette users, the scientific community and the health authorities have to do with the enactment of the e-cigarette in the political debate. "Influential STS scholars (see Jasanoff 2004; Lidskog and Sundqvist, 2011; Yearley, 2009) have precisely

made the point that STS insights might provide a well-founded basis for more interaction with the policy-making sphere” (Hermansen, 2017, p. 19). Science and technology studies has been increasingly concerned with political questions and political arenas; characterized as the move outwards (Asdal 2004, 2008) from science studies. Tools and insights from empirical studies of laboratories and scientific processes are used to study sites which take part in enacting the political (Skarstad 2008); in this case the political e-cigarette. Inspired by science studies, political sites are studied through focusing on how new objects and entities emerge through following the practices of actors rather than their expressed programmes or theories (Asdal et al., 2007, pp. 43-44). The focus is on exploring politics in practice (Asdal et al. 2008), or ways of doing politics, as an extension of science in practice.

Barry (2006, 2007) writes about the work it takes to produce the political, just like the work it takes to produce scientific facts. Asdal holds that: “To produce matters of concern and political issues involves a range of material resources, procedures and less formalized practices. Hence it remains to be explored, both empirically and theoretically, how and under what conditions political events come about, what it takes to produce a political site...” (2008, p. 6). In this thesis, the political e-cigarette in the e-cigarette debate is enacted amongst publics; e-cigarette users, in scientific reports and in the policy-making process of the e-cigarette by the Ministry of Health and Care Services. The next section will introduce theory that will help shed light on how the political e-cigarette is made in arenas outside traditional political sites, while the section proceeding it will look at STS-inspired theory that will help analyze how the e-cigarette is made political in ordinary political sites. The final section will focus on how publics, outside institutional policy making sites, take part in modifying the e-cigarette issue.

2.2.2.1 Making the political e-cigarette *outside* ordinary political sites

Asdal et al. (2007, p. 44) argues: "The challenge is to conduct empirical studies of politics, understood as practice in contrast to politics as a formal, strictly, institutionally localized activity..." I will look at how the scientific community and e-cigarette users take part in the e-cigarette debate, enacting political articulations of the e-cigarette, in arenas outside ordinary political sites. The work of Barry on science as political, and by Asdal on political technologies will be used to enlighten how sites not associated with ordinary politics become political.

Political technologies

It is possible to study the making of political sites and objects via concepts stemming from Foucault's approach on governmentality (Asdal et al., 2007, p. 44). In the governmentality tradition of Foucault, the concept of *political technologies*, points to how governing is done; not necessarily from direct action of the state but through material arrangements. These material arrangements are practices that tie periphery actors, such as e-cigarette users and scientific institutions, to the center where decisions are made. *Political technologies* enable governance through material arrangements, and not necessarily through human action. In social theory politics has been studied as social activities dominated by discourse and ideas, which has led to a lack of attention towards the materialities or technologies of politics. (Asdal, 2008, p. 1, Asdal et al. 2007, p. 44). Enabled by the material arrangements of the political technology, actors are included and excluded from the centre. In this process objects and issues are constructed in new ways (Asdal 2011, ch. 7).

I will use the concept of *political technologies* to analyze how both the Norwegian Union of Vapers (NUV) and the scientific institutions enact the e-cigarette as a political object and thus contribute to the e-cigarette debate. On the one hand I will show how the NUV as a public contributes to the e-cigarette debate and articulates their concerns through an established, central, policy making infrastructure that channels, governs and manages public opinion, as well as pointing to the limitations of these technologies in enabling NUV as a public to enact the e-cigarette.

When it comes to the scientific community I will use Skartad's (2008) studies of scientific risk assessments as inspiration to analyze how the risk models in the research reports from different state tied research institutions act as different types of political technologies by contributing to the e-cigarette debate in different ways. One report acts as a political technology by enabling governance while the other acts as a political technology through enacting controversy.

Skarstad shows how scientific risk evaluations from two different knowledge traditions - nutrition and toxicology - are not neutral tools but contribute to modify the cultural position

of fish as a healthy object, through their evaluations. “This lays the foundation for studying the ways in which the practices of scientific assessments 'produce the relevant entities and objects which accordingly take part in public and political life’” (2008, p. 100). I will also take inspiration from Law’s study of foot and mouth disease on how epidemiological models not only enact different versions of the epidemic and its causes but also open up for political possibilities of the epidemic (in Asdal 2011, p. 8). Similarly, the conclusions from the risk assessments in the scientific reports in this thesis are viewed as practices which open up for political enactments of the e-cigarette through suggesting different ways of regulating it.

Science opens up the political

The concept of political technologies, as well as perspectives from Barry (2006, 2007) are useful in showing how the political e-cigarette is enacted by the NUV and the scientific community in areas outside traditional political sites. Barry follows the tradition of the movement within STS called Sociology of Scientific Knowledge which argues that science and technology are not to be excluded from politics but rather fundamental to producing the political. Science can serve to open up or close down politics. Barry argues how science can produce the political in that scientific discoveries can bring new realities to the table, shedding light on alternative pathways which produce resistance and dissent, in relation to the how centralized power manages an issue (Asdal et al., 2007, p. 44, Barry, 2007).

In the NUV chapter I will show through Barry's work, how lay people, outside the central government ally themselves with scientific institutions and mobilize alternative scientific facts to open up the e-cigarette as a political issue. In the chapter dealing with the scientific community I will show how scientific facts from the research reports open up for new political realities of the e-cigarette. Science can thus intervene in politics.

2.2.2.2 The political e-cigarette *inside* ordinary political sites.

While the previous section has dealt with theory that sheds light on how the political is enacted outside traditional political sites, this section will deal with the traditional sites of politics and how the e-cigarette is enacted in the policy-making process initiated by the Ministry of Health and Care Services. The policy making process will be studied as a setting

which modifies the e-cigarette in particular ways. I will use Kingdon's *policy streams* in order to distinguish between the different processes in the policy making process (2003 in Hermansen 2015). John Kingdon first published his body of work in 1984 on how issues rise in the political agenda of public policy making. He argued that policymaking was made up of three *streams* that run parallelly: the *political stream*; the political will to take up political issues, the *problem stream*; which has to do with the transformation of conditions into issues that deserve solutions, and the *policy stream* which deals with solutions to policy problems. When these streams are mobilized at the same time, policy windows open and political change can take place (Hermansen, 2015, pp. 932-933).

Kingdon's policy stream metaphor will be combined with analytical resources that originate from laboratory studies in STS. The concepts developed to analyzing laboratory settings have been little used to study traditional political settings or practices of central authorities, such as the Ministry's e-cigarette policy making process. "STS has yet to explore politics with the same degree of political attention as it has devoted to analyse science" (Asdal and Hobæk, 2016, p. 98). These STS approaches shift attention to the *techniques, tools* and *practices* of a particular setting and what they do to issues. In combining STS approaches with Kingdon's policy streams I will look how the government's *techniques* within the *process streams* initiate the e-cigarette policy making process in the first place and set the framework for what the e-cigarette debate is about.

The policy making process as a site will be analytically studied in terms of Star's *infrastructure* concept to bring us closer to the 'politics as usual', the ordinary techniques and practices that take place in policy making. This stands in contrast with the pragmatic focus on the exceptional events that cause publics to be involved in political issues when governments fail to govern issues in ways that publics deem reasonable. Rather, the focus here is on the ordinary practices of government that allow the extraordinary engagement of publics and groups outside central government in political issues in the first place (Asdal and Hobæk, 2016, pp. 98-99). Studying the policy-making processes as an infrastructure allows us to see the ordinary workings of the Ministry not as neutral practices, or silent background, but as material-semiotics arrangements that open up the e-cigarette as a political issue through deciding to revise its regulations, and also by closing the issue through proposing policies.

Moreover, I will use concepts developed and built on by Hermansen whom combines insights from Kingdon's policy making framework with STS perspectives on issue formation and Asdal's work on contexts (Hermansen, 2015, p. 934). While Hermansen takes the pragmatic perspective in studying how publics take part in issues (Hermansen, 2015, p. 937), I will rather apply the concepts he introduces to study how the Ministry of Health and Care Services, an actor in the central governing authority, raise issues and set the agenda of the e-cigarette debate. These concepts will be used to explore the site-specific tactics of the Ministry. I argue that the ministry acts as an *issue entrepreneur* of the e-cigarette debate. The concept of issue-entrepreneurship is developed by Hermansen and builds on Kingdon's concept of policy-entrepreneurship (2015, p. 947) by using literature on issue formation. Policy-entrepreneurs work on the *policy* stream by providing solutions to problems, as opposed to issue-entrepreneurs which operate in the *problem* stream, propelled by their issues, turning conditions into problems (Hermansen, 2015, p. 946).

Issue entrepreneurs raise issues by applying techniques such as *problem definition*, *issue linkage* and *context creation*. *Problem definition* is a sort of knowledge that issue entrepreneurs actively apply to frame issues, excluding and including elements from the policy agenda (Rocheffort and Cobb 1994 in Hermansen, 2015, p. 946). *Issue linkage* is a political science concept which analyzes how issues and parties are added or subtracted to policy in order to change the outcome (Sebenius 1983 in Hermansen, 2015, p. 946). *Context creation* builds on the work of Asdal (2012) and argues that the *context* variable should be treated in a more active way - issue entrepreneurs not only *use* contexts (external situations) but also *create* them deliberately (Hermansen, 2015, pp. 935-936). Context creation and mobilization enable issues and policies to rise. I will show how the Ministry creates and mobilizes two separate contexts - the tobacco strategy and research reports on e-cigarettes - in order to enact e-cigarette policies that stand in tension with each other.

2.2.2.3 The e-cigarette in the public

Tools from science and technology studies can also show how the e-cigarette is enacted as a political object through the practices of users with direct experience with the e-cigarette. Asdal argues how STS as an activist-oriented project was founded upon the concern for democratization and public involvement with science and technology (2011, p. 12). The principle of analytical symmetry opens up for treating the knowledge producing practices of

the NUV equally and with same sociological explanations as scientific knowledge production (Asdal et al., 2007, p. 23). STS scholars do not operate with fundamental ontological distinctions, meaning no type of knowledge is seen as superior to the other. Rather, the point is to trace the heterogeneous practices that enact the e-cigarette (Druglitrø 2012: p. 38). Since NUV is an organization that gathers e-cigarette vapers and works to advocate for a more liberal regulation of the e-cigarette, it is a natural place to trace the e-cigarette's enactment. I will build on theoretical perspectives from science and technology studies - Marres' pragmatic perspective on issue formation and Rabeharisoa et al.'s (2014) work on evidence based activism - which both look at how publics and user-based groups involve themselves in political issues. These perspectives will shed light on how the NUV enacts the e-cigarette through its involvement in the e-cigarette debate.

Issue formation

The literature on issue formation urges to take a closer look at how publics contribute in the policy making process (Hermansen 2015). Marres draws on perspectives from American pragmatists of the early 20th century to elaborate on her socio-ontological perspective on issue-formation and publics which she argues is not consistently maintained in STS. STS research is not clear on why political processes dedicated to issue formation should be democratic; meaning why it should involve political outsiders, publics (Marres, 2007, p. 12). When American pragmatists, Dewey and Lippmann are read in tandem they provide answers to these questions, she argues (Marres, 2007, p. 7). Publics form when issues require their involvement, when institutions fail to settle issues in a manner publics deem reasonable (Marres, 2007, p. 12).

The socio-ontological understanding of issues says that people are involved in politics through problems that affect them. This perspective on issues is further developed by Marres which sees publics' involvement in issues as mediated through their *attachments* with objects in their environment, such as the vaper with the e-cigarette. This will shed light on how attachments between the e-cigarette and its user becomes resources which are mobilized in public controversy, allowing for the NVU as a public to involve themselves in politics through articulating their personal concerns. Socio-ontological STS approaches dissolve the separation between epistemic processes of knowledge formation and political processes of community, opinion and policy formation (Marres, 2007, p. 4). What you know (epistemic)

and what you believe should be (politics) is mediated by how your dependencies with the materials around you that you mobilize in public controversy.r

Evidence based activism

The work of Rabeharisoa et al. 2014 on patient organizations will enlighten how NUV as a user organization takes part in the e-cigarette issue through epistemic activities. A number of studies have been concerned with the representatives and lobbying power of patient groups vis-a-vis institutions, however not with how epistemic practices influence political advocacy amongst patient groups. The work of Rabeharisoa et al. examines how patient organizations mobilize evidence for governing and transforming their own health issues (2014, p. 114).

Their work is unique in that the focus is on the epistemic activities that these groups deploy to change the issues that concern them (Rabeharisoa et al., 2014, p. 114). Their work fits well with the scholarly tradition of STS in that interlinkages between policy formation and epistemic practices are studied. Like the patient organizations that are studied by Rabeharisoa et al., I will show how NUV as a lay user group engages in distinct knowledge building activities, based on their members experiences, questioning the role of established knowledge, using this alternative knowledge in their political advocacy work towards the e-cigarette.

3 Methods

The goal of the methodological chapter is to reflect and be transparent about the concepts, approaches and choices taken in this thesis, and how said choices affect the interpretations, representation of data material and the conclusions made. In order to do this I will first introduce the concept of critical reflexivity and make some critical reflections. Next I will account for how STS concepts and the thesis as a constructed site orders the reality that is studied. Then I will account for how the approach and research question was formed. Consequently, I will elaborate on why text analysis and interviews were chosen as research methods as well as the limitations of these. Lastly, I will briefly go over the ethical considerations

3.1 Critical reflexivity

The social position and the choices made by a researcher must be made explicit and located in the research paper. In social research, the social position of the researcher gives access to a certain field as well as providing meanings to the empirical findings through the use of adequate theories and methods. On the other side, the social position of the researcher can also affect the results and the conclusions. Bailey et al. (1999) suggests a reconceptualization of validity in terms of reflexive management. Validity can be defined as the “truthfulness or accuracy of data compared to acceptable criteria” (Hay, 2010, p. 391). The concept is however contested and debated. Much of the debate regarding validity in qualitative studies is whether quantitative standards regarding an objective, verifiable, external truth are applicable to qualitative measures (Mansvelt & Berg, 2010, p. 347-348). The goal in critical reflexivity is not to strip the researcher of her social position or eliminating a power dimension in the research but rather for the researcher to be aware of it, reflect on it and make it transparent to the reader (Dowling, 2010, P. 33),

The way my social position has influenced policy-making of e-cigarettes as a choice of topic is twofold. My interest in e-cigarettes came from personal reasons as I have close family members whom have struggled with cigarette addiction. I was therefore interested in what potential e-cigarettes could have in mitigating the harmful health effects of cigarettes. My background within student politics in the higher education circles, made me aware of how interest groups (such as student unions) and research (from higher education institutions) can

influence policy making. This sparked an interest in how different groups and practices influence policy making, which is what is studied in this thesis in terms of e-cigarettes.

3.2 The performativity of STS concepts

Critical reflexivity also involves evaluating how the social and conceptual assumptions we use affect the interpretations in our analyses (Dowling, 2010, P. 38). It is important to be honest about how the theories and methods we use to study phenomena, inform, intervene and have implications for what we study (Asdal and Marres, 2014, p. 2055). The “performativity thesis” implies that social studies methods not only contributes to describing and studying phenomena, but also to transform their social and material realities. The performativity of scientific methods has been an interest in STS from the 1970s with laboratory studies in which sociologists of science studied the inscription devices that scientists use to modify reality. The performativity thesis has also been a focus point in economic sociology by studying how socio technical devices from economics such as excel spreadsheets and calculating devices articulate actors, actions, arrangements and issues at stake (Asdal and Marres, 2014, pp. 2058-2059). Similar ideas have also been pointed out in Skarstad’s study of how scientific risk assessments modify the cultural position of fish by assessing the health risk of fish. Scientific methods are not neutral tools (2008).

It is not only economics and scientific practices in general that intervene and modify the reality that is studied, but also the academic discipline of STS. Asdal and Marres points to a notion in environmental studies, coming from STS, that the externality of nature to society is a mere fiction and rather that society and nature are intertwined. This notion is not only an epistemic claim but also contains ethical and practical implications for durable ways of addressing environmental concerns (2014, p. 2056). This can also be seen in, the idea in STS that science and technology are brought into the sociological analysis and studied as a part of society (Hermansen, 2017, p. 18) which has practical implications and influences how the world is viewed in this thesis, as well as what empirical material is selected and how it is approached. STS opens up for viewing the empirical material with analytical symmetry, seeing how materials, objects and devices can have the same effects as humans and linguistic acts, broadening the activities of what we can study. Moreover it opens up for analyzing how scientific practices, such as the research reports, and knowledge based practices, such as those of the Norwegian Union of Vapers (NUV), are embedded with interests and values and

contribute to political dissent. Such a view leads to looking at politics in alternative sites, which are not only limited to institutional policy-making structures.

The concepts and theories we use to study phenomena change how we see the world and can even interfere with it. Singleton (2014) shows how the feminist framework she uses to study local farm practices and national legislation, creates a meta-context in which the feminist perspective interferes with the practices she studies, allowing for the articulation of alternative realities and moralities. Good research is about “working *on* the world”. It is engaged, disrupting boundaries and assumptions. (Singleton in Law and Singleton, 2012, p. 5).

In this thesis, the principle of analytical symmetry from STS also influences how the material is approached and represented. In this thesis I have taken a multi-sited approach by looking at how the e-cigarette is enacted in a corporate tobacco setting, a setting of public administration, in research reports and through the e-cigarette users' articulations and practices. I have attempted to approach all sites with curiosity and restraint, avoiding valuing practices in the different sites as more worthy than others, or considering some enactments of the e-cigarette as more “true” or “real” than others.

3.3 Aiming for validity

When it comes to generalizability, Bailey et al. (1999) points out how the goal is not to produce a standardized evaluation of the research process but rather to produce a coherent description of events, actors and situations which is consistent with the detailed study of the situation. In order to aim for validity I have attempted to report as detailed and true to the actors' practices as possible, without adding second or third degree interpretations, in the spirit of Actor Network Theory. Material semiotics opens up for the possibility of following all actors symmetrically and studying the relations which are established with other heterogeneous elements in the respective sites. What an object is, such as the e-cigarette, is not to be defined beforehand by the critical intellectual. Actors are in this perspective taken seriously; they are not interpreted with pre-defined categories, but their practices are equally as relevant and interesting as the researcher's theories. Rather than asking why questions, as sociology has a tendency to do, there is a focus on the how questions - how is the e-cigarette

enacted in practice (Druglitrø, 2012, pp. 36-37, Asdal et al., 2007, p. 43). The actors are followed.

3.4 The thesis as a creative intervention

I cannot look away from the fact that this master's thesis takes place in intervening with the reality of the e-cigarette, in the same way that the performances of the communities studied also intervene in it. "Research accounts are in themselves a kind of creative invention" (Freeman 2007 in Mansvelt and Berg, 2010, p. 347) Through highlighting certain practices, selecting sites, and analyzing them through STS perspectives, this masters thesis is a site in itself, in which bridges are created amongst worlds (Star, 2007, p. 102), and sites. This highlights the work done by myself as a researcher in bringing the object of study, the e-cigarette, to life by drawing chains, paths, associations and juxtapositions between the different sites that enact the e-cigarette in this thesis. The movement between different sites is opportunistic and pre-planned (Marcus, 1998, p. 90). Although the practices of the communities are followed, they are followed for a specific reason and to reach specific effects (Druglitrø, 2012, p. 52). The sites are enacted by the researcher. They are localized in the research paper, and do not exist readily available as pre-given entities (Olausson 2010, p. 46). This master's thesis is a way of creating order in the empirical landscape (Druglitrø, 2012, p. 52).

Critical reflexivity is about being transparent about the power dimension one is altering through the voices that are represented in the thesis. For example, Singleton, de laet and Mol's research interferes by supporting stories that go unnoticed or voices that are marginalized (Asdal et al., 2007, p. 39). In the same way, this thesis gives a platform to actors in the margins of the e-cigarette debate, the Norwegian Union of Vapers, and Philip Morris whom either are discredited or have few resources to be heard in the e-cigarette debate, and yet have strong opinions about it. Supporting marginalized voices intervenes in the reality that is studied in this thesis. The Norwegian Union of Vapers lacks a professional political apparatus and economic resources for advancing their political aims. When it comes to Philip Morris, they come from the tobacco industry which is socially and politically stigmatized in the public debate as they promote products which "kill lives". The World Health Organization's (WHO) Tobacco Convention also prevents governments to be influenced by and have contact with the tobacco industry (Helse og Omsorgsdepartementet,

2014-2015, p. 71), limiting Philip Morris' political influence. This thesis alters power relations in that actors at the margins of the political e-cigarette debate are made more visible than they would have been without re-enacting their story through this thesis.

3.5 Developing the research question and approach

This thesis, as others, is not an independent project and can also be seen as a product resulting out of an academic context, inspired by other academic texts. The approach taken in this thesis and the broader research question is inspired by Druglitrø's PhD thesis on laboratory animals (2012) and Jacobsen's master thesis (2014) on the modern chicken. In these academic texts, non-human actors - respectively the laboratory animal and the chicken - are followed in order to study how they were modified in different practices and sites. Similarly the e-cigarette's shapings are studied by following it in different sites which were selected by myself as a student researching this phenomena. The approach in these respective studies of keeping an eye open for the place of voiceless actors in its shaping practices (Druglitrø, 2012, p. 12) has also led to the question of what these voiceless actors become in these multiple sites (Jacobsen, 2014, p. 2-3) ; and thus inspiring the broader research question in this thesis: "What is the e-cigarette?"

One must also be transparent about how the research question has changed throughout the course of the thesis, as one learns by delving deeper into the material, and finding a more adequate angle to study the topic of interest. My initial research question was more concerned with how research-based knowledge influences the shaping of the e-cigarette, specifically in the policy-making context. It was the controversy in the scientific community as to the health effects of e-cigarettes, that got me engaged with the topic of e-cigarettes, and I therefore thought it would be interesting to look at how this scientific controversy affected the e-cigarette's policy making. After thinking that I was going to write about the knowledge-politicity interface I started examining available knowledge and theories related to this topic, gathering main arguments in order to develop a theoretical sensitivity, and thus develop "STS-glasses", when collecting and analyzing data (Elliot and Timulak, 2005, p. 148).

While the knowledge-policy interface did not become the main focus of this thesis, it did become a guiding theme in the chapters on the Norwegian Union of Vapers and the state-tied

research institutions ; as their knowledge gathering practices influences e-cigarette policy in different ways. Moreover, the use of knowledge is also touched upon when it comes to PM's investments in science and technology to develop reduced risk products and by which means the Ministry of Health and Care Services draws in research reports as a *context* (Asdal 2012) which shapes the ministry's issues and policies on the e-cigarette. Therefore the literature review on the knowledge-policy interface was of great value towards what became the research question, mainly studying the practices and sites that shape the e-cigarette. This broader approach allows for a study that includes other practices such as the branding activities of Philip Morris and the ordinary techniques of policy making by the Ministry of Health and Care Services. These are crucial in shaping the e-cigarette but don't necessarily involve the creation or mobilization of knowledge.

3.6 Collecting data

In order to answer the question of how the e-cigarette is enacted in different sites and practices I have used text analysis and interviews as methods for data collection.

Text analysis

Why text analysis in general

Analyzing texts can be a good method to trace the practices of actors that are being studied, which is the approach this thesis has taken. Texts are not neutral accounts , On one hand they are products of a context; a social historical situation. On the other hand, they also produce new situations and issues through the relations that are created in the text. Texts are in this way acts. (Druglitrø, 2012, p. 50). It is thus possible to trace the practices of the actors studied through studying the texts they produce. These texts are considered acts that bring something new to the world rather than merely representing a reality. Studying texts as practices, or sites in which practices are enacted, aligns well with the principle of Actor Network Theory, which is also a theory used in this thesis, where the actors' actions are taken seriously, rather than reducing these texts to an external variable (Asdal 2010 and 2012 in Druglitrø, 2012, p. 52) .

The down sides of document analysis is that it is not possible to access the backstage (Hilgartner 2000) work that has taken place leading up to the production of the final draft of

the document. To access this backstage work it would have been necessary to attend meetings and workshops where the internal conflicts and negotiations took place.

The texts analyzed in this thesis

The proposition from the Ministry of Health and Care Services to the Norwegian parliament on the amendments to tobacco regulations, which also encompasses e-cigarettes, was a document I based myself largely on to collect data and background information, specially during the initial stages, in order to get an overview of the e-cigarette debate. The proposition accounts for how the e-cigarette debate emerged, the position of different actors involved through the hearing, the conclusions on the e-cigarette by the state-tied research institutions, as well as the history of e-cigarette regulations and the ministry's evaluations of external positions on the e-cigarette. The proposition was where i collected most of the empirical material for the chapter on the government's enactment of the e-cigarette and was used as background information for the chapter on e-cigarette users and the research community.

Waitt (2010, p. 225) argues that texts are a social product which one must familiarize oneself with through attending to its "authorship, technology and intended audience". The proposition is a political document with a political message on the government's plans within a specific policy area based on thorough evaluations. The external input that is included by the NUV and the research community in the preposition is worked on by the government's bureaucrats and written in an official and distant language. It includes snippets of these external inputs, which are taken out of their original context. This is why I also had to turn to the original hearing reply of the NUV to the amendments of e-cigarette regulations, as well as the actual research reports on the health assessments of e-cigarettes, both which are cited in the government's proposition. While these original texts are authored respectively by the NUV and the research institutions they are not independent of central governing authorities. The hearing reply of the NUV answers to specific questions that are posed by the Ministry, and is a product of the hearing round, which is initiated by the government. The research reports are also commissioned by the ministry and therefore seek to answer knowledge gaps which are established by the government in the context of revising e-cigarette regulations.

When it comes to Philip Morris, I turned to texts on their international website to analyze how their reduced risk product, such as the iQOS, were enacted. These products are as e-cigarettes, reduced risk alternatives to cigarettes. Therefore they are also competitors and kin products to the e-cigarette. The national website of PM Norway contained no information on reduced risk products, and I therefore had to turn to their international website to study these branding practices. Through their international website I could study how PM actively performed the smoke free economy, rendering the iQOS as part of it, and excluding the e-cigarette from it. The promotional texts on their website can thus be seen as acts, which produce new ontologies as to what the smoke free economy is. I wanted to turn to textual sites that were authored by Philip Morris themselves, and not secondary sources that were written by others about them, in the ANT spirit of taking the actors one studies seriously.

Interviews

Interview as method

I also decided to supplement the text analyses with two interviews, one with Pia, Manager of Corporate Affairs at Phillip Morris (PM) Norway, as well as with two board members of the Norwegian Union of Vapers. I didn't use interviews to study the practices of the Ministry of Health and Care Services and the state-tied research institutions, as the government's proposition and the research reports contained sufficient empirical material. However when it came to Philip Morris and the Norwegian Union of Vapers I still had gaps that needed to be filled (Dunn, 2010, p. 102), which could be answered through conducting interviews.

I have previously accounted for the downsides of document analysis in that the backstage information is left out. This can be compensated for by conducting interviews which namely allows for accessing background information about a topic and unofficial views, which are not documented through "official sources" such as websites from the organization's that the actors represent. It opens up for getting access to more in depth information and understanding the community one is studying better. Interviews allow for meanings, underlying motives, and for the researcher to make sense of the world she is studying by entering a dialogue with the informant (Dunn, 2010).

The limitations of interview as a method is that it extracts informants from their natural environment and routines into a constructed interview setting (not in situ), which can create an artificial setting, giving different answers compared to the informants being involved in their daily practices. Moreover, it does not allow one to access the tacit practices and that which is not readily available in the mind (Kusenbach, 2003). However, I still believe interviews were the most efficient way to supplement the concrete questions I had about the communities studied and to better understand their position on e-cigarettes.

Philip Morris Norway

I decided to ask Philip Morris for an interview; this was due to the fact that I was interested in whether the Norwegian department of Philip Morris was equally as invested in reduced risk products, as they are internationally, and if they were openly communicating this interest, since I could not find this information online. I wanted to get in contact with somebody from the tobacco industry generally. This was due to the fact the fact that I got into contact with Pia because of the referral I had received from the Enterprise Federation, whom I had contacted since the group had organized a relevant debate on tobacco regulation.

Norwegian Union of Vapers

When it came to the Norwegian Union of Vapers I thought an interview would be suitable since I wanted to learn more about the type organization and how they balanced organizational and political goals. I got into contact with the board, specifically because they are the coordinating organ of the union and I assumed they had the best overview of the organization's activities. I told the person I had contacted from the board that hen could bring more board members. Hen therefore joined the interview with another person. It was useful to have two informants because it re-enacted the collective feel of the organization to a greater extent than conducting a one-on -one interview. Moreover, it also allowed them to talk about the organization together, and bounce ideas off each other, which I believe led them to being more relaxed (since they knew each other), allowing for a more in depth interview.

3. 7 Ethical considerations

The project has been registered with the Norwegian Centre for Research Data. I have attached the informed consent forms that I sent out to Philip Morris (PM) and the Norwegian Union of

Vapers which they signed prior to participating in the study. The forms contain information about the goal of the study, why I have asked these informants to partake in it, and how the information they share will be used in the study. After consulting with Pia from Philip Morris, I concluded that it would provide an added value to the analysis to disclose her role in PM (and consequently also her name since it is linked to her role), as her role with public contact helps understand how PM communicates and brands their reduced risk products vis-a-vis the e-cigarette. When it came to the Norwegian Union of Vapers I decided it wasn't necessary to include the name of the informants as their perspectives were seen as representing the union as a collective and not their individual opinions. The direct quotes from the informants included in the thesis have been sent back to the informants for them to amend any "mis-enactments" they believe are in the thesis. The informants are aware that personal information has been handled confidentially and will be deleted after the project is completed.

4 Hot but not Cloudy – Looking for Clouds in the Smoke Free Economy

4.1 Heat-not-burn vis-a-vis vapour clouds

The first community I will explore in this thesis is the Norwegian department of Philip Morris (PM) International, one of the biggest tobacco companies in the world. I will account for how they enact the e-cigarette in relation to their own branded product, the iQOS, which stands for “I quit original smoking”. Both the e-cigarette and the IQOS are reduced risk alternatives to cigarettes, however their technologies differ. While e-cigarettes are consumed through the vaporization of water, flavorings and nicotine, the IQOS is consumed through the heating of tobacco. The main difference between the e-cigarette and the IQOS is that the IQOS contains tobacco while the e-cigarette does not. They both contain nicotine and none involve combustion. The technology of the IQOS is coined as *heat-not-burn*, in which the tobacco is heated at 350 degrees celcius as opposed to the combustion taking place at 600 degrees celsius in cigarette consumption (Interview 05.09.2017).



(PMI URL A)

Mol (2002) points to how object enactments may overlap. There is a partial connection (Mol 2002) between the iQOS and the e-cigarette. Both are reduced risk alternatives to cigarettes, however they also differentiate. This chapter will look at the ways in which the iQOS and the e-cigarette *do not* overlap by studying the *practices of differentiation*, which I call them, enacted by active efforts on behalf of Philip Morris Norway. These practices of differentiation will be studied by using theoretical resources from valuation studies. Valuation perspectives are drawn from Asdal (2015) in which she combines economic sociology and marxist

perspectives, and will be read together with Boltanski and Thévenot's (2006) orders of worth to analyze the material in this chapter.

Valuation studies will be used as a framework because it helps us study the social constructions and object transformations (Asdal, 2015) done by PM to enact the iQOS as a valuable part of the "smoke free economy" economy, which e-cigarettes are excluded from through PM's branding efforts. Valuation studies gives us the tools to study the differentiation techniques that make objects more economically desirable than the others, which is namely what takes place through the branding practices of PM. The *practices of differentiation* of PM which value the iQOS and devalue the e-cigarette are: investments in science in technology, appellations to cigarettes and methods from national and international institutions, and branding techniques. These valuation practices perform the smoke free economy as "hot" (like the heating of tobacco in the iQOS), but not "cloudy" (like e-cigarette vapour clouds).

Feminist STS scholars like Star criticize the all encompassing ontology of actor network theory (ANT), studying articulations from the point of view of hegemonic actors such as scientists (Asdal et al., 2007, p. 33). As the feminist STS-scholars, I am following the object, the e-cigarette, which is not always articulated in PM's discourse, however still present. ANT sheds light on how identity is a relational construction. The relations between actors define or characterize the actors caught up in the network (Singleton & Law, 2013, pp. 6-7). In this chapter I will study how the e-cigarette is enacted in relation to PM's enactments of the iQOS. This search for alterity through looking for the e-cigarette in PM's discourse is an active intervention by myself as a researcher. I will be looking for "clouds" in PM's enactment of the smoke free economy.

4.2 Theoretical foundation

The pragmatic perspective on valuation is the theoretical foundation for analyzing the valuation of the iQOS and devaluation of the e-cigarette by PM. Pragmatic sociology does not distinguish between objective reality and subjective ideas since what is reality is that which is enacted in practice. Through the pragmatic lense, e-cigarettes are not encompassed in PM's vision of a smoke free future because they are not enacted as such through PM's branding practices. Even though "objectively" speaking there is no smoke in e-cigarettes, this is

irrelevant in the pragmatic perspective, because what is relevant are the strategic practices of actors. Pragmatic scholars such as John Dewey introduced to valuation studies what Muniesa names as the flank movement in which values do not exist intrinsically as a part of an object, or in a positivist fashion, uncovered by the sociologist. The branding practices of PM are seen as a form of valuation – an action that is done which performs values rather than uncovering them (Muniesa 2012, pp. 25,32).

This analysis emphasises Asdal's theorization of valuation, combining economic sociologist perspectives on one hand and Marxist perspectives on the other. Economic sociology contributes with how the branding practices of PM involves social construction of values independent of the objects materiality, while the Marxist perspective contributes with how an objects materiality is transformed as a part of the economy. Moreover, the economic sociology and marxist perspectives on valuation are combined with Boltanski and Thévenot's pragmatic framework. Boltanski and Thévenot describe the social world as filled with disputes in which rationales from six orders of worth are used to defend actors positions (Jagd, 2011, pp. 345-346). Their framework is useful when studying branding as it shows what rationales actors reflexively use to justify and differentiate their products vis-a-vis competing alternatives.

4.3 The tobacco industry and reduced risk products

A point of interest regarding the tobacco industry, is their role in the emerging e-cigarette market. Secondly, I also wanted to include the corporate perspective in the thesis, seeing how a market and profit-driven logic played in and enacted the e-cigarette., And how this compared to the world view of the Norwegian Union of Vapers as a user-driven organization, governmental practices and the scientific community, which will be studied in the forthcoming chapters.

I wondered if the tobacco industry was interested in developing e-cigarettes or if they considered e-cigarettes as a competitor to cigarettes. I had read that the Norwegian e-cigarette market was still dominated by small manufacturers, and was to a large extent a grassroots, consumer-driven movement (Jakobsen, 2014). On the other hand I had also read that worldwide there were already 300 e-cigarette companies in 2013 with top three having 85%

of the market - a fact defying the misconception that the e-cigarette market was fragmented (Fisher, 2013).

I quickly found out that the tobacco industry was also joining the global development of reduced risk alternatives to cigarettes. The market for reduced risk alternatives had grown at record speed. In 2014 the industry turnover was at 15.6 million NOK and in 2017 78 million NOK. In 2013 British American Tobacco launched their first vapour product, the *Vype* e-cigarette (Mosaker, 2015). Philip Morris was the last of the international tobacco companies to move into the e-cigarette market. At the end of 2013 Philip Morris International (PMI) announced in a press release that they would start selling e-cigarettes and “modified risk tobacco products”, alternatives with less risk than cigarettes in which the tobacco is heated instead of burned (PMI, 2013).

4.4 Entering the smoke free future

Initially I was interested in getting the perspective from any tobacco company in Norway. I encountered Philip Morris by mere coincidence. I had gotten to know about a relevant debate on e-cigarette regulation and asked the organizers, the Enterprise Federation, an employer organization in Norway with 19,000 member companies if it was possible to receive some notes on the debate since I could not attend. I was recommended to contact the participants in the debate which amongst them was Pia, Manager of Corporate Affairs at Philip Morris Norway, whom became an interview object for this thesis.

As Since the information on the Norwegian Website of Philip Morris was limited to cigarettes, I turned to their international website on which I encountered the rebranding of PM towards reduced risk products such as the IQOS. On their front page I am greeted with the following message: “Designing a Smoke-Free Future. How long will the world’s leading cigarette company be in the cigarette business?” Further down on the main page it is stated “Shouldn’t smokers be able to choose less harmful alternatives to cigarettes?” (PMI URL A)

4.4 Communicating the smoke free future

The interview with Pia was different than a regular interview in that instead of me asking Pia questions she started the interview by going over a pre-prepared powerpoint presentation showcasing and explaining their reduced risk products, amongst them the IQOS. The same presentation had also been delivered by Pia to other stakeholders such as the health authorities.

Pia is primarily responsible for contact with the government and the press, as well as businesses and organizations (Interview 05.09.2017). Pia says herself that she works with making PM's research more available and understandable to the Norwegian audience. Her background is from political advising from a Norwegian political party, a Norwegian foundation that works with health, and from research and journalism in a nation-wide newspaper in Norway (Interview 05.09.2017). I say this to underscore that Pia is a specialist in communication generally, and research communication specifically, which is a useful skill when communicating the science behind PM's reduced risk products and how they contribute to what PM calls "a smoke free future". Pia's rhetorical and science communication skills will be viewed as an aspect of the branding practices of the IQOS, which analytically will be studied as a market device and elaborated on in later sections of this chapter.

4.5 Appellations to cigarettes

When I ask Pia about what their take is on electronic cigarettes she shifts the attention to IQOS and its advantages. Pia's background from journalism and politics is useful as she directs attention to PM's product. She states they are also looking into developing electronic cigarettes, but their focus is on their heat-not-burn products such as IQOS, which she states that to a much greater extent imitates the feeling of smoking a cigarette than e-cigarettes. "Vaping IQOS" takes equally as long as smoking a cigarette, and the device is more similar to a cigarette - the heated tobacco unit in the IQOS has the same shape and sensation as a cigarette, making the jump from regular cigarettes to heat-not-burn products less. Pia states that: "as opposed to e-cigarettes, there is significantly less dual users with IQOS, i.e. persons who both use a reduced risk product and smoke at the same time. IQOS is not a risk free product, but compared to cigarette smoke, our research shows that the amount of potentially harmful components are reduced in average by 90-95 percent" (Interview 05.09.2017).

Pia thus enacts the IQOS in the interview by drawing parallels to the cigarettes, arguing that their similarity makes the jump from cigarettes to the IQOS less drastic than that to e-

cigarettes, leading to more people consuming products of reduced risk. The concept of appellations from economic sociology can be used to show how the IQOS is distinguished from other harm-reducing alternatives such as the e-cigarettes, by Pia. Through appellations, actors socially construct values by differentiating products and making them stand out in relation to others by linking them to labels of origin, brands and certifications (Karpik 2010 and Asdal, 2015, p. 171). Through making an appellation to cigarettes in the enactment of the iQOS, the iQOS is valued in relation to the cigarette, due to their similarity. The IQOS receives its value through its linkage to cigarettes as a known product.

I argue that the appellation to cigarettes by Pia values the iQOS in the civic and market order of worth (Boltanski & Thevenot, 2006), differentiating them from e-cigarettes. Valuing objects in the civic order of worth is done by appealing to how they benefit to the collective, to society as a whole (Boltanski & Thevenot, 2006: 190). By linking the iQOS to cigarettes through appellations in their branding, the iQOS is valued in the civic order of worth. This is because PM argues that the similarity between the iQOS and the cigarette, relative to e-cigarettes, makes the transition from cigarettes to IQOS less, and therefore causes more people to consume harm-reducing products, which lead to a public health benefit. On the other hand, valuing objects in the market order of worth is done by appealing to the desires of individual consumers (2006, 196). The appellation to cigarettes values the iQOS in the market order of worth since their similarity to cigarettes makes the jump to the iQOS smaller, and thus a more demanded good by consumers.

E-cigarettes, as opposed to the iQOS, do not contain tobacco. The appellation to cigarettes and drawing on valuation techniques from the civic and market order of worth in PM's branding of the IQOS is a practice of differentiation, which distinguishes the iQOS from the e-cigarette.

4.6 Science as a practice that modifies the e-cigarette

“Science is a powerful practice” that “modifies objects” (Asdal, 2015, p. 173)

PM also highlights their investments in science and technology which have gone into developing the iQOS. PM has, according to their own web page, invested over 3 billion USD, and employed 400 scientists, engineers and technicians in order to develop and test products

that deliver nicotine without the harmful smoke of cigarettes. Since 2011 they have published 200 publications in peer-reviewed scientific journals (PM URL B). Under “Science and innovation” one can read: “We’re at the forefront of developing less harmful alternatives to cigarettes” - the science and technology investments of PM is what are driving this shift (PM URL B).

While economic sociology focuses on the social construction of values, perspectives from Marxism on valuation take seriously how materiality is modified as parts of/outside the economy through its linkage with science and technology (Asdal, 2015, p. 172). The Marxist perspective thus sheds light on how economic investments in science and technology by PM, to test and develop the iQOS, materially modify and transform the iQOS into a valuable object of the economy. This contrasts to the much less significant material, political and knowledge-based resources by smaller e-cigarette manufacturers which cannot rely on large scientific investments to legitimize their products. These scientific investments are thus practices of differentiation which distinguish the iQOS from the e-cigarette.

Read together, Marxist perspectives on valuation and Boltanski and Thévenot's orders of worth shows how science is a powerful practice that modifies objects, enacting values in different orders of worth rather than merely uncovering them. The empirical material shows how values that are enacted from different logics complement and enhance each others valuation rather than standing in tensions to each other, as opposed to what traditional applications of Boltanski and Thevenot's framework have proven (Hutter & Stark, 2015, Dussage et al. 2015). PM argues how investments in peer-reviewed research has driven the development of less harmful alternative to cigarettes, differentiating the IQOS from e-cigarettes which have not been developed through rigid scientific methods and testing. Science is used to value the iQOS in the civic order of worth since scientific methods have been invested to develop a reduced harm product with a positive contribution to public health. iQOS' valuation in the civic order of worth, as an object with a positive societal contribution in terms of improved public health, makes it a more demanded good by consumers. The civic valuation of the iQOS enhances its valuation in the market order of worth.

4.7 Other appellations to value the iQOS

Moreover, PM associates their reduced risk products with methods and guidelines that are approved by regulators and state tied institutions, both nationally and internationally, in order

to legitimize their products. Phillip Morris claims that their product development and assessment approach is inspired by the methods used by the pharmaceutical industry, which is also aligned with draft guidances from the U.S. FDA Food and Drug Administration (PM URL C). In this way PM is associating their new RRPs with methods in the pharmaceutical industry which go through rigorous procedures and expensive testing before being released to the market. Pia also uses statistics from Statistics Norway (In Norwegian: Statistisk sentralbyrå, SSB), the official government statistics bureau in order to legitimize the need for their reduced risk products. “Statistics from Statistic Norway show that the prevalence of smokers has stabilized in the recent years. New approaches are therefore needed,” Pia says in the interview. By these new approaches, she means alternatives such the iQOS which allows for people to quit smoking. Pia uses official national statistics to argue that their reduced risk products are a way to overcome the stabilization in the amount of smokers.

The using of official national statistics and draft guidances from the U.S. FDA Food and Drug administration are a form of appellation that valuate their new generation products. These are both nationwide and known institutions which PM attaches to their new generation products, such as the IQOS, in order to legitimize them and make them stand out in relation to other products. These appellations are also, as the aforementioned tactics, practices of differentiation. The detachment of statistics and draft guidances from their original context and attachment to their products can be viewed as a form of translation – as Callon states “To express in one's own language what other say and want”. At first the new generation products, the draft guidances and the national statistics belonged to separate universes and had no communication with one another but are now enrolled – allied - in PM's branding discourse. (Muniesa, 2007, p. 75).

4.8 Branding practices as a market device

The concept of market devices from economic sociology can be used as a theoretical aid to show how the branding practices of PM are a market device which valuates the iQOS and devaluates the e-cigarette, differentiating the products from each other. The branding practices are a market device that renders the iQOS as part of the economy, excluding the e-cigarette from it. The device is distributed in that it practices branding across multiple spaces – in a meeting with me as a researcher in which Pia is promoting her products, through the rhetorical tactics of Pia, through their website and in a press release. The device is not

autonomous from its environment but embedded and entangled in it, avoiding the bifurcation between the device as an object and the subject which controls the device. The notion of distributed agency helps show the branding practices adapts to the environment and modifies elements of it into its discourse, as seen above with the enrollment of national statistics and draft guidances from the US FDA (Muniesa et al., 2007, p. 2-3, Asdal et al., 2007, p. 43)

The material-semiotic perspective sheds light on how not only material, but also linguistic practices are encompassed in the branding practices as a market device. The use of the word “smoke-free” is a metaphor in PM's branding practice which renders the heat-not-burn technology as “smoke free” and not the clouds produced by e-cigarette vapour. Moreover, the rhetorical skills of Pia along with her background in science communication are elements in the branding practices of PM which allow for the promotion and the legitimization of the IQOS as a desirable market product vis-a-vis the competing e-cigarette.

4.9 Conclusion. “Hot” but not “cloudy”

This chapter has accounted for the practices of differentiation enacted by Philip Morris (PM) which value the iQOS and devalue the e-cigarette. These practices are studied through marxist perspectives, economic sociology and Boltanski and Thévenot's orders of worth within valuation studies. Marxist perspectives have contributed with how PM materially transforms the iQOS through investments in science and technology. Economic sociology has shed light on how values are socially constructed from the iQOS through their branding practices, appellations to cigarettes, national statistics and FDA regulations. These objects transformations and social constructions respectively modify and perform the iQOS as a valuable object of the smoke free economy, and exclude the e-cigarette from it.

Boltanski and Thévenot's framework has been read together with marxist and economic sociology perspectives in order to shed light on how PM's practices of differentiation are enacted by drawing on logics from the civic and the market order of worth. While traditional applications of Boltanski and Thévenot's framework have shown the tensions between these logics, the empirical material in this thesis sheds light on the how these logics complement each other in valuating the iQOS.

Valuation perspectives shows how values do not exist intrinsically as part of the iQOS or the e-cigarette but are “staged” (performed) through active “scripts” (strategies) and “props” (tools and techniques) which are specific to PM’s “stage” (site). One could say the e-cigarette inherently is a smoke-free product, however it is not enacted as a valuable part of the smoke free economy through PM’s practices of differentiation, therefore it is not smoke-free in this specific performance. While e-cigarettes release vapour clouds, the iQOS heats tobacco. PM’s performance of the smoke free economy is therefore *hot* but not *cloudy*. “Nevertheless there are limits to performativity...Modification efforts to dot always succeed” (Asdal, 2015, p. 185) in enacting *heat* in the smoke free economy. PM’s performance of the smoke-free economy might clash, go along with, or be dependent on other performances of what a smoke-free society and economy is.

5 Vapour is Not Smoke – Public E-cigarette Enactments

In this chapter I will delve into the second community of practice that modifies the e-cigarette - the Norwegian Union of Vapers (NUV) (In Norwegian: Norsk Dampselskap). The empirical material for this chapter is based on the social media platforms and the website of NUV, NUV's hearing reply on changes to the Norwegian tobacco laws due to the introduction of the e-cigarette in the law, and an interview with two board members of the NUV. I am interested to investigate what the e-cigarette is for this community and how they wish it were regulated. Compared to the three other actors that will be accounted for in this thesis, the NUV stands out as a grassroots, user-based organization with scant economic resources for advancing their aims (Interview 13.09.2018, NDS URL). This contrasts specifically with the former community accounted for in this thesis, Philip Morris, one of the world's largest tobacco giants backed by large economic interests. The NUV on the other hand, wishes to disassociate with the e-cigarette with tobacco and is driven by the activism and experience-based knowledge of their members who work voluntarily.

I encountered the Norwegian Union of Vapers when I first started researching articles and opinion pieces in the Norwegian media on e-cigarettes. NUV can be defined as a flat grassroots movement springing from the engagement of individual “vapers” who come together in order to share experiences on e-cigarette use as well as influence policies on e-cigarettes. The vaping union defines themselves both as a user-organization in that they organize users and give them advice on e-cigarette use and safety, as well as a political organization by influencing e-cigarette regulation. I was surprised by the high engagement of their users in their Facebook group and page; actively commenting about the benefits of e-cigarette in passionate ways, and sharing advice on e-cigarette products and use with other members.

The pragmatic perspective on issue formation by Marres (2007) will shed light on how the union mobilizes their concerns in the debate, while work by Rabearisoa et al. (2014) and Barry (2007) will shed light on how knowledge practices enables their political articulations.

On the other hand, Asdal's political technology concept will show how the adaptation to an already established political infrastructure of the state disables their inclusion. Thus, the focus of this chapter is on technologies and practices that enables and disables the NUV as public outside central governing authorities to participate in the e-cigarette debate.

5.1 E-cigarette attachments as resources

Through the interview with two board members of the NUV I learned that the members of NUV constitute a community, also outside their online foras. They first meet online due to a common interest in e-cigarettes and later encounter in physical meetups where users vape together, talk about e-cigarettes and eventually also personal matters. One of the NUV board member describes in the interview: "It is very social. We also have bigger events spanning over several days, the latest being held this summer. We talk about e-cigarettes, barbeque, and enjoy ourselves. It is social, not political. It creates well-being and makes it easier to quit smoking because there is friendship in e-cigarettes. " Smoking is to a large degree a lifestyle which can organize the lives, rituals and habits of those who consume it. The Vaping Union's main goal is to provides an alternative community and social arena than the smoking lifestyle. Bonds are created between people that are attempting to quit smoking, making it easier to quit. Members meet because they have a common interest in e-cigarettes and these social bonds may also develop into friendships. This social foundation solidifies the organization and makes them a closer entity when advocating politically for the e-cigarette, as I will expand on later.

One of the union members I interview says "It is pretty random that I got engaged in Norwegian Union of Vapers. I am actually "dugnadssky" [a Norwegian word meaning: shy of organized activities for a "community cause], so it is a miracle that I started engaging myself in this type of thing. After a while the politics in it has also gotten more interesting" (Interview 13.09.2018). The political interest in e-cigarettes surged from a a personal interest in e-cigarettes, and a social interest in the community surrounding it, not because political engagement was the goal in the first place. The social and personal interest developed into a political engagement.

The work on patient organizations by Rabeharisoa and Callon can be used to study the user groups such as the NUV. Work from Rabeharisoa and Callon (1999; Rabeharisoa 2006 in Rabeharisoa et al. 2014) points to how patient organizations have shifted from communities that help patients to being involved in evaluating the evidence base of the health-related issues they are personally involved in. The empirical material in this thesis also shows that members become a part of NUV due to personal connections with the e-cigarette. While the foras are initially used in order to share tips and advice, as well as to organize social events around e-cigarette vaping, some members establish such passionate connections with the e-cigarette that they become politically engaged with advancing the e-cigarette through activism. The personal becomes political.

E-cigarette users have a strong bond amongst each other due to having in common a passionate and dependent relation to e-cigarettes. Lippman and Dewey's concept of attachments shows that the connection that users have with objects of dependency in their environment, such as the e-cigarette, is a socio-material resource that enables their engagement in the e-cigarette debate. The concept of *attachments* developed in STS by Emilie Gomart and Antoine Hennion (1999 in Marres, 2007) refers relations between humans and non-human entities characterized by active commitment and dependency (Marres, 2007, p. 16). When a dependent relation is under threat as in public controversy, the human entities mobilize these attachments. The socio-ontological understanding of issues argues that publics attachments are constitutive of issues and mediate actors' involvement with these issues (Marres, 2007, p. 17). Issues are conceptualized as entanglements of actors' attachments. These entanglements are resources that are mobilized when publics engage in controversy.

E-cigarette vapers are dependent, emotionally engaged and often identified with their e-cigarette and vaping lifestyle, attached and entangled with the e-cigarette. The attachment to the e-cigarette is enforced by the community of vapers who share the same vaping lifestyle. The government, through proposing to regulate e-cigarettes in the same law as cigarettes, in practice equally strictly as cigarettes, threatens this socio-ontological embeddedness between vaper and e-cigarette because e-cigarettes will become, as cigarettes, a product which is difficult to access. The threatening of this attachment between e-cigarette and its user prompts the vaping union to engage themselves in the e-cigarette debate. Lippman and Dewey argue that publics come into being through involving themselves in issues that affect their

livelihood and when current institutions fail to deal with problems in a way they deem reasonable (in Marres, 2007).

5.2 Vapour, not smoke

The importance that e-cigarettes have in the union's members' daily lives, the attachment between e-cigarette user and e-cigarette, influences the union's political articulation of the e-cigarette as a legal, harm-reducing alternative to cigarettes. In NUV's hearing reply to the government's amendments to e-cigarette regulations, they define the organization's aim as that of wishing to influence Norwegian legislation and policies through their positions amongst e-cigarette users, so that vapour with nicotine becomes fully legal and justifiably regulated as a harm reduction alternative to tobacco (Norsk Dampselskap, 2016, p. 3. Own trans.). The NUV actively emphasizes that e-cigarettes contain vapour and that the point is to make vapour legal - a distinct object from smoke.

In the section above I have shown how the NUV creates social arenas for users of e-cigarettes in order to provide alternatives to the smoking lifestyle. The NUV's efforts to disassociate e-cigarettes from cigarettes does not only manifest itself through their social activities but also in their political articulations. In the interview with the NUV board they say: "Vapers are concerned with the fact that when they quit smoking, the word cigarette doesn't feel right. They want to move away from that term, and the fact that the e-cigarette is in in the tobacco law stings a bit since they have moved away from tobacco." (interview). E-cigarette vaping is seen as a separate activity than cigarette smoking and according to the NUV, must be regulated differently. NUV states that the only similarity between e-cigarettes and cigarettes is the "inhaling of nicotine" (own translation). E-cigarette vapour is enacted as something distinct than cigarette smoke, as opposed to the Ministry of Health and Care Services which say it is difficult to tell the difference between smoke and vapour (Helse og omsorgsdepartementet, 2015-2016, p. 33) which also reflects on their proposal to regulate e-cigarettes in the same law as cigarettes (the Norwegian Tobacco Act), and thus as a product kin to tobacco.

The NUV on the other hand draws associations to perfume and inhalators in their description of the e-cigarette, which contributes further to detaching the e-cigarette from the cigarette.

The e-cigarette is described in the hearing as:

...an aerosol, with an optional taste and nicotine amount, created through an electrically controlled element that creates vapour. E-cigarettes are in other words a tool that converts liquid to aerosol, without using combustion. The aerosol is inhaled directly from a mouth piece. The aerosols have taste and smell. E-cigarettes have more traits in common with perfume than with cigarettes. The same can be said about the potential allergens in the e-cigarette vapour, or the aromas in the vapour that eventually could cause inconveniences for others (Norsk Dampselskap, 2016, p. 4. Own trans..).

The union actively attempts to disassociate the e-cigarette completely with the cigarette. This contrasts with Philip Morris which enacts their competing reduced risk product, iQOS, by showing its similarity to the cigarette.

5.3 Epistemic practices that modify the e-cigarette

Up to now I have shown how the NUV's attachments to the e-cigarette and the e-cigarette community enables them to participate in the e-cigarette debate as well as influencing their positions on e-cigarette regulation. Now I will delve deeper into how the NUV mobilizes knowledge in their political work. First I will show how the NUV uses alternative research based knowledge than central authorities to open up the e-cigarette issue. Next I will elaborate on how the NUV builds their own user-based knowledge to enable their activism.

The NUV is keen to portray that they base their political argumentation on research based knowledge. In NUV's hearing reply to the Norwegian government's amendment of tobacco and e-cigarette regulations, they oftentimes refer to a report from Public Health England (PHE), specifically a statistic showing that e-cigarette vapour is 95% less harmful than tobacco smoke (Norsk Dampselskap, 2016, p. 5. Own trans.). The report is also referred to on their website and social media articles (NDS URL). On the other hand, the Norwegian Ministry of Health and Care Services says that the findings in the report from PHE have been

criticized from several actors (Helse og omsorgsdepartementet, 2015-2016, p. 22). NUV bases their argumentation for a more liberal regulation of e-cigarettes on alternative research-based knowledge than the health authorities.

Through the mobilization of alternative expert research from PHE, NUV contributes to opening up the e-cigarette issue and creating controversy around it. Barry argues that science can close down the space of the political as well as make issues political. He distinguishes between *politics* and the *political*. *Politics* deals with historically specific practices that manage dissent while the *political* deals with spaces of dissent which are not to be reduced to politics. He argues that science makes objects political depending on the spaces within which these objects circulate (Barry, 2007, pp. 290, 295-297). It is namely the enrollment of the scientific fact from PHE in NUV's hearing reply, its circulation in this political space, that makes the health effects of e-cigarettes a *political* concern. The PHE report has *political* effects in that it enacts another side of the e-cigarette issue than the Norwegian Health and Care Services and creates a space of dissent.

The NUV does not only enroll research-based knowledge by attaching it to their own political argumentation when participating in the e-cigarette debate, but they also engage in their own epistemic practices based on lay-methods, differing from expert practices. In the interview the NUV board members state that they craft simple questionnaires and investigations which they send to their members or other e-cigarette users if the evidence to support their claims regarding e-cigarette regulation is lacking. They claim to use the knowledge and skills in their networks to find people that can construct these investigations.

Below I have included an example of such an investigation and its visual representation through a word cloud crafted by the NUV titled "What has vapour done for your health?" (NDS URL B. Own trans.). The investigation is based on a questionnaire answered by 500 of their members. The questionnaire shows that shifting from from cigarettes to e-cigarettes provides a self-reported health benefit for e-cigarette users. The words picked in the world cloud show that the self-perceived effects of vaping e-cigarettes on health for e-cigarette users are positive and associated with enhanced quality of life. From biggest to smallest, the most visible words in the world cloud are: breath, sense of smell, taste, fitness, health, sense of taste, smell, form, smells, energy, cough, the breath, lung capacity, better, economy,

conscience, sleep and hair. I interpret the crafting of this investigation as a move to disassociate the e-cigarette further away from cigarettes. E-cigarettes are associated with improved health benefits compared to cigarettes for e-cigarette users.

Similarly, in the interview with the board members of the Norwegian Vaping Union, one informant whom works as a nurse explains that the union has experienced a rise in members because e-cigarettes improves the health of its users and “health engages people”. She continues, “My profession makes me interested in e-cigarettes. Within smokers as a group there are a lot of social cases; such as people that can’t work due to disabilities and disease. Many of them become vapers. They say their life quality increases [with the e-cigarette].” The debilitating and disease-inducing cigarette thus stands in contrast with the empowering and life-providing e-cigarette.

The materialities of the questionnaire and the world cloud converts users’ experiences with the e-cigarette into responses in an investigation, which can be used by the NUV to influence the public and decision makers. Their members experiences are thus mobilized as resources in the NUV’s knowledge-building activities. This knowledge is characterized by different methods and routines than those that are research based, with oftentimes clinical trials and peer review. These epistemic practices get their value from being involved and attached, surging from the subjective, self-reported effects of using e-cigarettes, as as opposed to the seemingly detached scientific practices of professional researchers.

The dynamics between epistemic activities of users and political activism highlighted in Rabaharisoa’s work on patient groups can be used as inspiration to study the NUV. The term *evidence-based activism* shows how patient organizations shape health care services and policies through taking part in their own epistemic activates; through weighing, assessing and reordering of knowledge the epistemic nature of their condition is transformed (Rabehariosa et al. 2014, p. 114). Similarly, the NUV builds their own epistemic knowledge through the investigations which transform the e-cigarette as something that leads to improved health, thus attempting to redefine the issue at stake. Through the questionnaire and the investigation, users engage in their self description - what it means to be an e-cigarette vaper - and thus take

an active part in articulating knowledge on e-cigarettes. This parallels how patient organizations take an increasingly active part in the defining their conditions, reflecting the evolving nature of patienthood, through their engagement in biomedical research on their condition (Rabeharisoa et al. 2014, p. 113).

User groups which engage in evidence-based activism collect experiences and build experiential knowledge, which gives shape to their concerns (Rabeharisoa et al. 2014, p. 115). The NUV board members say that they craft investigations when there is lacking research based evidence to support their claims. Using the contacts the NUV has with the vaping community and the experiences of these members as resources, they build their own user-based knowledge forms which is used as a resource in their political activism towards the e-cigarette. This is a way of taking matters in their own hands, in the same way as the pragmatic perspective on issues would argue that publics do, when established institutions fail to deal with matters of concern in a way that attends to their concerns. Work on evidence-based activism adds in this way another dimension to the pragmatic perspective on issue formation by focusing on how epistemic practices feeds into the political articulation of concerns by publics.

5.4 Disabling technologies

Callon shows how matters of concern, much like the concept of attachments, are endangered entanglements between humans and non humans (such as between e-cigarette vaper and e-cigarette) that he believes should be articulated and accomodated in society through democratic processes (in Marres, 2007). While the previous section has accounted for the enabling socio-material configurations such as attachments and evidence-based activism, this section will account for socio-material technologies of politics that limit publics in their articulation of matters of concern in the form of the hearing-institution. The concept of political technologies sheds light on how publics' issues are mediated through centrally built technologies.

Asdal says that publics come into being through their co-production with the architecture and materiality of public administration (2008, p. 20). It is not only publics that come to being in co-production with the government's infrastructure, but also the concerns of these publics. Rabeharisoa et al. 2014 points out how the articulation of user groups concerns is an act of

linking concerns to issues that stakeholders are already caught in (p. 116). Publics thus adapt to the regulatory framework and political infrastructures of the central governing authority to voice their concerns. The amendment of e-cigarette laws in Norway is a political process that is initiated by the Health and Care Services Ministry due to the implementation of the EU directive on tobacco which according to Norwegian law must be processed by Norwegian parliament as all EU directives. As a result, the ministry opened up a hearing round since e-cigarette laws were to be amended, which allowed up for the NUV voice their e-cigarette concerns.

The hearing is a political technology which NUV can link their concerns through. Political technologies are “tools of democracy” in that they tie periphery actors, the public, and their practices – the NUV and their perspectives - with the center in which decisions are made. External actors to the government are invited to voice their concerns on the changing e-cigarette regulations. The hearing is in this way an enabling democratic technology. However the hearing of the changing of tobacco laws also come with disabling scripts (Asdal 2011, ch. 7). Up to process of inviting external actors into the hearing, a lot of work has already been done by the Health and Care Services ministry. The hearing letter that it sent out includes an already processed suggestion by the ministry on how the e-cigarette is proposed regulated. Already established policy documents determine these suggestions. The Ministry requests input on very specific questions from the hearing participants, as opposed to open questions (Helse- og Omsorgsdepartementet, 2016).

The architecture of the hearing as a political technology determines the opportunities for external input on e-cigarette regulation. The material shows that the hearing allows for narrow and concrete openings to form the e-cigarette issue in later stages of decision making as opposed to in the initial stages. The NUV expresses concern with a lack of inclusion in the decision process making regarding the e-cigarette, specially at an early stage of the political process. NUV argues that as first hand users of e-cigarettes their perspectives would give a greater understanding of e-cigarettes as a harm reducing substitute for cigarettes which leads to less cigarette smoking, instead of the health authority’s view of the e-cigarette as a tobacco surrogate that encourages the use of tobacco (Norsk Dampselskap, 2016, p. 6. Own trans.).

Research leader in the institute of tobacco-research at *Folkehelseinstituttet* (In English: Norwegian Institute of Public Health) Karl Erik Lund also argues that first hand user perspectives in e-cigarette and cigarette regulation are not viewed as valuable compared to user perspectives in other areas of addiction.

As a user you are of course genuinely concerned with product safety, and with your expertise you will be able to add knowledge and a user perspective that the regulatory authority today lacks. It is a paradox that the health authorities have not opened up for user participation in the tobacco field. In other areas of addiction such as gambling, alcohol and drug use, user involvement has led to politics becoming far more pragmatic and humane. (Jensen, 2015).

Conclusion

The Norwegian Union of Vapers is first and foremost a social collective of e-cigarette users which exists for members to share their experiences with e-cigarettes, get help, and find a community of like-minded vapers who wish to disassociate themselves from cigarette smoking. They emphasize that vapour is distinct from smoke, more similar to inhalators and perfume than cigarettes, and that e-cigarettes improves their health and quality of life. E-cigarette users are personally *attached* to the e-cigarette, and to the community of e-cigarette vapers. The pragmatic perspective on issue formation helps shed light on how this entanglement, *attachment* or involvement with the e-cigarette and e-cigarette community, if you will, becomes a resource that they mobilize when articulating their political viewpoints on e-cigarette regulations in the e-cigarette debate. The personal attachment with the e-cigarette is mobilized as a political and a public concern.

Moreover, the concept of *evidence-based activism* can be read together with the pragmatic perspective on issue formation. User groups have shifted from not only helping their members and creating a community, to politically advocating for their causes in the public through engaging in their own epistemic practices. Through creating their own knowledge forms publics take matters in their own hands, in the same way as the pragmatic perspective on issues would argue that publics do, when established institutions fail to deal with matters that threaten publics' livelihoods. Through these epistemic activities publics reconfigure the issue at stake, in this case, that e-cigarettes are about health and improved quality of life. The last section of the chapter has however shown the limitations for publics to engage in issues that

concern their livelihoods. The materiality of the hearing institution as a political infrastructure prevents users in forming the e-cigarette issue at an early stage, moreover, user-perspectives in tobacco policy have been shown to not be valued compared to the regulation of other addictive objects.

6 Enacting the Political E-cigarette Through Research Reports

When looking for empirical material for my masters thesis my wish was to find a political debate that involved scientific controversy. By asking for help on Twitter I came into contact with a researcher at The Norwegian Institute for Alcohol and Drug Research (NIADR) (Norwegian: Statens institutt for rusmiddelforskning) who gave me the idea to look at drug policy generally and tobacco policy (which encompasses e-cigarettes) specifically. He told me about Karl Erik Lund, who was a research leader under the NIADR at the time. He is now at the National Institute of Public Health (NIPH). Lund stood out in relation to other researchers. He has an outspoken and radical position on the positive public health effects of e-cigarettes vis-a-vis cigarettes, claiming that e-cigarettes could help 200 000 of the 800 000 daily smokers in Norway who struggle to quit out of the smoking habit. Lund asks in the nationwide newspaper *Aftenposten* if the minister of Health and Care Services cares less about smokers lives than other lives since 8000 early smokers' deaths could have been prevented if e-cigarettes were regulated less strictly than cigarettes (Lund & Nord, 2016). On the other hand, other scientific voices urge to regulate the e-cigarette strictly due to its unknown health consequences and the lack of available research since it is a new product in the market (Grønli, 2012). Lund's comments on the health effects of e-cigarettes were what got me interested in the position of other actors within and outside the scientific community. This specific debate surrounding the regulation of e-cigarettes in Norway became the starting point for the empirical material in this thesis.

The aim of this chapter is to look at how the scientific reports of the NIPH and the NIADR influence the e-cigarette debate. Both research institutions are placed under the Ministry of Health and Care Services and both reports are requested by the ministry in the context of revising e-cigarette regulations. However, the texts have different functions in the political debate, which is what I will explore. I will answer how these reports enact different scientific and political versions of the e-cigarette, and how these enactments influence the e-cigarette debate in different ways. In other words, what do these scientific and political enactments do to the e-cigarette debate? This chapter will discuss the research reports of the NIPH and the

NIADR since their position on the risk of e-cigarettes differs the most. Their reports and evaluations are largely based on research that has already been done on the e-cigarettes, on existing literature, rather than on research that has been done by the research institutions themselves.

6.1 Theoretical perspective

The reports will be viewed as material technologies that make governing possible (Asdal, 2011); however in different ways. While the NIPH report influences how the e-cigarette is proposed regulated by the Ministry of Health and Care Services, the NIADR report suggests alternative ways of regulating the e-cigarette. I will specifically look at the scientific risk assessments in these reports as practices (Skarstad, 2008) that enact scientific versions of the e-cigarette in terms of risk/no risk, less risk/more risk, and how these practices open up for political enactments of the e-cigarette through theoretical perspectives of Skarstad (2008) and Law (2011). These risk assessments are not seen as neutral tools, but technologies making political action possible. In the STS spirit I will make visible the constructed boundaries between the scientific community and the political structures surrounding the e-cigarette. I will look at how the reports take part in political work more than merely “providing politics with a factual and independent basis upon which policies can be founded” (Wynne 1982 in Skarstad 2008, 100).

6.2 The harm reducing e-cigarette

I will start by going through the main findings in the chapters written by Karl Erik Lund in the NIADR report and ultimately how the risk models in the report enacts the e-cigarette. The report is titled “How significant are electronic cigarettes? -For smoking cessation, as a gateway to smoking amongst young people, for the renormalization of tobacco smoking in society and as a possible drug intake method” (Sirus, 2015. Own trans.). The report was requested by the Ministry of Health and Care Services and was to assist in summarizing available knowledge on how a change in e-cigarette regulations could affect tobacco policy and public health (Helse- og omsorgsdepartementet, 2015-2016, p. 16).

The Norwegian Institute for Alcohol and Drug Research (NIADR, in Norwegian «Statens institutt for rusmiddelforskning» (Sirus) is an independent research institute under the

Ministry of Health and Care Services. Their aim is to carry out research and document and spread knowledge about drug issues, with a particular emphasis on perspectives from the social sciences (Sirus, 2015, p.2). This differs to the NIPH who researches more broadly on public health,. From 2015 the NIADR ceased to exist as an independent institute and were encompassed by the NIPH (Müller, 2015).

In the NIADR report, Karl Erik Lund claims the e-cigarette has a harm reducing *potential* (Sirus, 2015, pp. 8, 15). This stands in contrast to enactment of the e-cigarette in the NIPH rapport as an object of risk. The harm reduction perspective on e-cigarettes in the NIADR report does not end up influencing the Ministry's proposal on e-cigarette regulation, however contributes to the debate in that it proposes an alternative e-cigarette policy. Throughout the report Karl Erik Lund argues that the harm-reduction perspective in Norwegian tobacco policy should be implemented as a supplement to traditional tobacco policy and that e-cigarettes should be regulated as a harm-reducing alternative to cigarettes (Sirus, 2015, p. 9). Norwegian tobacco policy has been built on information, restriction, taxation and smoking cessation assistance, while harm reduction has not been implemented, he argues (Sirus, 2015, p. 10). In the tobacco field, harm reduction means that smokers who are not able to quit smoking are encouraged to switch over to nicotine products of reduced harm, even though the use of these still involves the exposure to toxins and nicotine dependence (Sirus, 2015, p.9).

Karl Erik Lund points to the fact that current tobacco policy is not leading to the decrease in the amount of heavy smokers in Norway. SIRUS has calculated that 200 000 of the 700 000 Norwegian smokers are not likely to quit smoking (Lund et al., 2011, p. 12). Continuing with the traditional tobacco policy that has been used up to date such as providing information on the harm of smoking, higher taxes and stronger regulation will have a limited effect. These smokers are well informed about the health consequences of smoking and pay a high financial price to consume cigarettes (Sirus, 2015, p. 11). He argues that most likely, most of 5000 deaths caused by cigarette smoking in Norway could be reduced if smokers would consume nicotine through e-cigarettes rather than regular cigarettes (Sirus, 2015, p. 16).

Even though long-term studies are still not available, current toxicological evaluations, experiments on animals and measurements of acute physiological consequences in humans

show that switching over to e-cigarettes will cause reduced risk for the individual smoker, he argues (Sirus, 2015, p. 9-10). His evaluation of the e-cigarette as harm reducing at individual level is based on the American Food and Drug Administration's Tobacco Control Act stating a product is harm reducing when:

...the product will significantly reduce harm and the risk of tobacco related disease to individual tobacco users» and «benefit the health of the population as a whole taking into account both users of tobacco products and persons who do not currently use tobacco products. (Sirus, 2015, p. 13. Own trans.)

While in the report Lund states that the documentation on the reduced harm of e-cigarettes is convincing at individual level, he claims it is more challenging to research the effects at a population level. If e-cigarette liberalization leads to the recruitment of non-smokers, delays smoking cessation, leads to double use of e-cigarettes and cigarettes and recruits youth into smoking then the health hazards at a population level would be negative. These consequences are still unknown; however, the *potential* for it being harm reducing at a population level is still there, he says (Sirus, 1/2015, p. 14-15).

Lund states that the harm reduction ideology challenges the biomedical reductionist perspective on risk which dominates current tobacco policy. This risk perspective is present in the NIPH report, as I will later show. In the biomedical perspective risk is viewed in terms of the possible harm that users may experience from potentially dangerous substances either from the liquid in the vials or the vapour that is inhaled. By solely applying this perspective on risk, the use of e-cigarettes would not be recommended.

The comparative perspective on the other hand evaluates the risk of e-cigarettes by comparing it to the risk of cigarette smoke. Lund argues that there is a broad agreement in the medicine community that switching from e-cigarettes to cigarettes is beneficial for the individual smoker. The American Food Administration's Tobacco Control Act applies the comparative perspective on risk when assessing the health risk of e-cigarettes at individual level.

Lastly, the public health risk model weighs the potential costs for youth that may be recruited into smoking vs. the benefits for smokers who are able to quit smoking through e-cigarettes.

Lund states that it is a big challenge for research to reflect the costs and benefits of e-cigarettes in such a public health perspective; however does not exclude the possibility of it doing so (Sirus, 2015, p. 11-12).

To summarize, Karl Erik Lund enacts the e-cigarettes as having a harm reducing *potential* through the public health risk model, and as an object of reduced harm for the individual in the comparative risk model. Through the comparative risk model, the total health risk of vaping is seen in relation to the total health risk of smoking, which is considered very low (Sirus, 2015, p. 13-14). Such a perspective on risk opens up for the NIADR to recommend the Ministry of Health and Care Services to regulate e-cigarettes as an object of reduced harm. This means not as a tobacco product or a drug, but rather less strictly than ordinary cigarettes, for example as a consumer good. Moreover, they suggest that it should be permitted to consume e-cigarettes in places where cigarettes are not such as in hospitals, schools, aircrafts, etc (Sirus, 2015, p 78). The comparative risk model thus opens up to enact the e-cigarette differently than the cigarette, as opposed to the biomedical risk model in the NIPH report, which enacts them in the same way, as I later will show. The NIADR report thus contributes to the e-cigarette debate by enacting an alternative e-cigarette policy than the political enactment of the e-cigarette in the biomedical risk model in the NIPH, which ends up influencing the Ministry's proposal.

6.3 The harmful e-cigarette

I will now discuss the second research report, drafted by the NIPH, and how the e-cigarette is enacted as an object of risk through their risk assessment practices. The Norwegian Institute of Public Health (NIPH) is a national competence institution placed under the Ministry of Health and Care Services. It is responsible for knowledge production and systematic reviews for the health sector and is the official advice giving organ to the authorities on matters of public health

(NIPH URL). The report of the NIPH is like the NIADR report requested by the government. The aim of the report is to assess the health risks associated with a possible regulation of e-cigarettes (FHI, 2015, p. 3). The report enacts the e-cigarette as an object of risk due to the

lack of long term studies on the health effects of e-cigarettes, the lack of a complete health evaluation as well as the harmful effects of nicotine in the e-cigarette.

The NIPH points to nicotine as the “the main component” in e-cigarettes with “regard to the unwanted, harmful health effects” in the report (FHI, 2015, p. 14). The NIPH argues that the intake of nicotine from e-cigarettes seems to be similar to that found in tobacco smoking indicating that “similar nicotine-related effects are expected on the cardiovascular system, lung development in unborn children and in later life, reproductive health... and cognitive effects...”. Moreover they find that “similar harmful nicotine-related effects can be expected for passive exposure to e-cigarettes as for regular cigarettes”. Passive exposure to e-cigarettes can affect the cardiovascular system, have stimulatory effects and contribute to addiction ’ (FHI, 2015, p. 16. Own trans.). The report enacts the e-cigarette as an object of risk by drawing comparisons to cigarettes, enrolling nicotine, a harmful substance which is present in both objects. E-cigarettes are thus associated with the same harmful substances as cigarettes.

The NIPH emphasizes “that the use of e-cigarettes alone will still involve a risk of adverse health outcomes among users, particularly associated with the intake of nicotine“ (FHI, 2015, p. 15. Own trans.). Through this statement the report assesses the consumption of e-cigarettes as being associated with risk due to the isolated damage of a toxicological component, nicotine, as opposed to assessing risk by comparing the harm of e-cigarettes with the harm of cigarettes, as in the NIADR report.

The NIPH is from a public health perspective, concerned with preventing the younger generation from smoking regular cigarettes and therefore with the possibility that e-cigarettes can act as a gateway drug for regular cigarette consumption amongst vulnerable youth. Due to the uncertainty as to whether e-cigarettes are a gateway drug for regular cigarettes, the public health consequences are still associated with risk. The concern for youth is in line with the government’s Public health policy which states that there is a particular responsibility towards youth and children and that the majority of efforts should be directed towards them (Ministry of Health and Care Services, 2014-2015, p. 10). Moreover, the NIPH questions that e-cigarettes are an object of reduced risk for individual smokers, as opposed to what the NIADR claims, due to the lack of independent data as to how how smokers as a group transition to e-

cigarettes and the uncertainty as to whether the double use of cigarette and e-cigarettes leads to reduced health risks (FHI, 2015, p. 16).

All in all it can be said that NIPH emphasizes the lack of data as well as the harmful effects of nicotine when enacting the e-cigarette as an object of risk. This uncertainty due to the lack of studies raises concern and leads to the fact that the e-cigarette as an object of risk cannot be excluded. Following the government's policies on Public Health, preventing youth from taking up smoking is a main concern, and emphasized to a greater extent than that of heavy smokers who cannot quit smoking, compared to the NIADR report.

6.4 Different risk assessment practices

The NIPH and NIADR have different models for risk assessment which lead to different enactments of the e-cigarette. The NIPH utilizes the biomedical reductionist perspective on risk, in which the health consequences of the individual components in the e-cigarette are evaluated isolatedly. In this perspective the lack of long term studies and a complete health assessments is evaluated as too much of a risk, as well as the health risks of nicotine in it of itself. The NIADR on the other hand emphasizes a comparative perspective which they draw in by enrolling a definition from the American Food and Drug Administration in which e-cigarettes are viewed as harm reducing for the individual smoker who cannot quit smoking, relative to the health risk of continuing smoking (SIRUS, 2015, pp. 12-13).

Scientific methods generally , and the risk models specifically, are not neutral tools but technologies that transform the assessed e-cigarette through different methods of assessing risk. The view of scientific practices as tools that modify objects they study is inspired by Guro Skarstad's (2008) studies of meetings between two knowledge traditions – toxicology and nutrition – and how their assessments on the health risks of fish contribute to modify the cultural position of the fish they assess as a healthy food in Norway. Discourses on risk exclude issues (Wynne 2002 in Skarstad, 2008, p. 108) in the same way as the risk models in the reports. For example in the biochemical reductionist model the isolated risk of the individual components in the e-cigarette are assessed. The e-cigarette's risk is not assessed relative to the risk of more harmful alternatives such as in the comparative risk model.

The issue in the biomedical model is whether there is presence of risk or not, isolatedly focusing on the harm of the components in the e-cigarette, such as nicotine. The fact that there is more or less risk relative to the 4000 chemicals released from combustion in cigarettes is irrelevant in the biomedical risk perspective. On the other hand, the comparative model on risk says that the e-cigarette is not free of risk but evaluates risk in a comparative perspective, relative to harm from the use of cigarettes. The risk of the e-cigarette is assessed with a different risk-scale, in terms of more or less risk relative to other objects, as opposed to the biomedical model which operates with a scale of presence/absence of risk. The methods and the scales to assess risk in the two models differ, which leads to the enactment of the e-cigarette as a reduced harm object in the comparative model, and the e-cigarette as an object of risk in the biomedical reductionist model.

6.5 Enacting the political e-cigarette

Both these risk models do not only contribute to modify the e-cigarette through scientific risk assessments in terms of risk/no risk, less/more risk, but also as object of politics. The risk models in the reports of the NIPH and the NIADR are seen as practices that brings specific knowledge into politics and which produces entities and objects that take part in political life (Skarstad, 2008, p. 100). The knowledge they bring into politics are the scientific facts – the risk evaluations of the e-cigarette – which opens up for political enactments of the e-cigarette in the political e-cigarette debate. On one hand, the biomedical risk evaluation of the NIPH influences the decision of the Ministry of Health and Care Services to ban indoor vaping from e-cigarettes, as I will soon discuss. This risk evaluation leads to indoor vaping being regulated in the same way as indoor smoking, and thus to a continuation of Norwegian Tobacco Policy through e-cigarette regulation. On the other hand, the comparative risk evaluations of the NIADR opens up for the articulation of an alternative e-cigarette policy, which stand in contrast to traditional Norwegian Tobacco Policy and the Ministry's proposal. The different risk models in the reports thus contribute to the e-cigarette debate in different ways, either by influencing the Ministry's policies or by articulating alternative policies.

The findings in this thesis show that scientific texts, such as these reports, enact political versions of the e-cigarette. However these political articulations differ due to the different functions of the scientific texts; they are different political technologies. The NIPH report

shows to reproduce the policies of the state; while the the NIADR report enacts new political possibilities. The different functions of these texts relate to the different roles in society of the research institutions that produce these texts. The NIPH, as opposed to the NIADR, is the organ giving official health-related advice to the public and the government. In this way, the NIPH is not meant to be critical to the policies of the government but rather give official public health advice that informs regulation. The NIADR on the other hand is able to engage in critical research, and can propose alternative policies even though they are owned by the Ministry (Müller, 2015).

This helps explain how Karl Erik Lund criticizes traditional tobacco policy in the report which he says has not led to a decrease in the amount of smokers. To solve this problem he suggests harm-reduction as a supplementing policy to traditional tobacco policies. The comparative risk model in his report enacts the e-cigarette as having less risk than cigarettes which opens up for this political proposal of regulating e-cigarettes more liberally vis-a-vis the cigarette. This liberalization means that the e-cigarette is suggested and regulated as a consumer product and not a drug, as a well as allowing for its consumption in places where the cigarette is not such as hospitals and schools (Sirus, 2015, p. 78). The NIADR's political articulations of the e-cigarette stands in contrast to the Ministry's proposal which is to regulate e-cigarettes in the same way as cigarettes largely due to the scientific articulation of the e-cigarette as an object of risk through the biomedical risk model in the NIPH report.

The conclusions on nicotine in the report by the National Institute of Public Health (NIPH) is why the ministry proposes to ban indoor vaping in the same way as passive smoking in its proposition to the parliament:

“The main conclusion in the National Institute of Public Health's report is that the use of e-cigarettes does come without health risks, either for the user or people in its proximity... On this background the ministry suggested in the hearing that the use of e-cigarettes should be included in the smoking ban so that the use of e-cigarettes is banned where smoking also is not not allowed” (Helse- og omsorgsdepartementet, 2015-2015, p. 32. Own trans.)

I argue that risk assessment practices are “ a way - or rather, a set of different ways - of ordering reality, or rendering it into a calculable form. (They are ways) of presenting events

so that they might be made governable in particular ways, with particular techniques and for particular goals” (Dean 1999, s. 177). Pointing out risk is a way of signaling that objects must be governed. Pointing out the dangers of passive exposure to vapour due to the uptake of nicotine by the biomedical risk model shows how science intervenes in politics because it orders that passive exposure to e-cigarettes should be governed and dealt with. These risk assessments are thus ordering activities that produces political possibilities (Asdal et al, 2007, p. 9).

Similarly, Law also studies how scientific models shape the phenomena they study and their political possibilities. Through the development of foot and mouth epidemic in 2001 he looks at how different epidemiological models enact different versions of the actual epidemic and its causes, as well as the political possibilities of the epidemic (Asdal, 2008, p. 8). In the same way, the biomedical risk model in the NIPH’s report not only enacts the e-cigarette as an object of risk but also opens up new political possibilities as to the regulation of e-cigarettes. As Barry argues, science is fundamental to politics in that its practices may open up (and sometimes close down) politics (Asdal et al., 2007, p. 44). With new scientific facts and discoveries comes the opportunity for new political realities as scientific knowledge brings new knowledge about the world to the table.

Science may create new areas for doing policy and intervening in society such as when it came to indoor vaping, which hadn’t been regulated up to now. However, not all scientific facts will lead to new political realities. The NIPH’s conclusions on nicotine in the report however did, as it ended up influencing the Ministry’s proposal which was to ban indoor vaping. The scientific fact on the harmful effect of e-cigarette vapour on third parties thus traveled outside the scientific report and was translated into the Health and Care Ministry’s proposal. The scientific fact enabled passive vaping as a phenomena to come to life, and also opened up for the political enactment of the phenomena which was to regulate indoor vaping in the same way as indoor smoking. By pointing out the risk of nicotine to third parties, which they claim is the same in cigarettes and e-cigarettes, the biomedical risk model contributes to the continuation of Norwegian Tobacco Policy through the regulation of e-cigarettes. Passive vapour is thus banned in the same way as passive smoking, and encompassed under the smoking ban, even though vapour is the release of aerosol and not smoke. Vapour thus becomes regulated as new smoke under the smoking ban in the Norwegian Tobacco Act.

6.6 Conclusion

This chapter has attempted to answer how research institutions with different functions and which are tied to the state in different ways influence the e-cigarette debate. The scientific reports from these research institutions are political technologies in that they are technical arrangements outside of the central governing structures which enable politics; they enable governance and also create controversy. The main finding in this chapter is that these reports are different types of political technologies that contribute to the political e-cigarette debate in different ways. On one hand, the report of the NIPH contributes to the political e-cigarette debate in that it enables the Ministry's governance of the e-cigarette; the scientific facts enacted by the report on the health effects of e-cigarettes influences the Ministry's proposal on e-cigarette regulation. On the other hand, the NIADR report contributes to the political e-cigarette debate through enacting controversy; it enacts an alternative political proposal on e-cigarette regulation. Specifically, the risk assessments in these reports, considered as practices, are technologies that modify the e-cigarette in terms of a scale of risk/no risk through the biochemical reductionist model, and in a scale of less/more risk through the comparative model. These practices enact political versions of the e-cigarette in the form of political proposals on e-cigarette regulation which are introduced to the political e-cigarette debate.

7 No Ministry, No E-cigarette Problem

“The main reason for why e-cigarettes are encompassed by the “smoking law” is that the exposure to e-cigarette vapour can cause health risks for certain vulnerable groups” (Helsedirektoratet. Own trans.). This explanation by the Norwegian health authorities does not say why e-cigarettes are encompassed by the smoking law, or the Norwegian Tobacco Act, which is the same law that regulates cigarettes, even though e-cigarettes are a tobacco-less product. Rather, it explains the health-related reasons for tightening e-cigarette regulations. In this chapter I will turn to how the Norwegian Health authorities, by way of the Ministry of Health and Care Services, enacts the e-cigarette. A motivation for turning to the health authorities was mainly the question of how e-cigarettes become enacted in relation to cigarettes and encompassed under the Norwegian Tobacco Act even though they are a tobacco-less product.

Previous chapters have attended to publics at the margins of the e-cigarette debate, and the scientific community, tied to central governing authorities, and how they influence the e-cigarette debate. This chapter will explore e-cigarette politics in practice (Asdal, 2008, p. 12) by attending to the central governing authorities - the Ministry of Health and Care Services. We turn our perspective back to the traditional sites of public administration which too often are forgotten in STS as politics has rather been looked for everywhere but in the formal centers of political authority (Barry, 2007, p. 292, Asdal & Hobek, 2016, p. 97). Rather than looking for politics everywhere, such as in the pragmatic approach, I will explore the policy making process of the e-cigarette through efforts of the Ministry by using Kingdon’s policy stream metaphor in order to organize the chapter but also to show how everyday political procedures shape the e-cigarette.

Specifically I will look at the Ministry of Health and Care Services’ proposal on the revision of e-cigarette regulations (Helse- og omsorgsdepartementet, 2015-2016). This chapter shifts the focus to how the central governing authority transforms conditions related to the e-cigarette into *problems*, creates and mobilizes *contexts* that enable these problems to rise, *links* other issues to the e-cigarette, as well as how external forces such as a EU-directive on tobacco prompt the *political* will for politically processing the e-cigarette in Norway, shaping

it in particular ways. These practices are viewed as ordinary techniques and devices of public administration which open up the e-cigarette debate but also manage it, closing the e-cigarette controversy, through proposing policy that contains the e-cigarette in particular ways.

7.1 Process streams in policy making

The policymaking process, as argued by Kingdon (2003), involves three process streams which flow independently of each other: *problems*, *policies* and *politics* (Hermansen, 2015, p. 933). The coupling of these three streams creates the necessary momentum to move issues from “the “government agenda” (under discussion”) box to the “decision agenda box, and to lead government finally to change public policy” (Larkin, 2012 p. 26). The *political* stream is the political will for passing policies. The *problems* stream is the government's articulation of specific questions and concerns regarding e-cigarettes which call for a solution. The *policy* stream is the articulation of e-cigarette policies - solutions to the problems that are articulated (Hermansen, 2015, p. 933).

I view these process streams as practices in the policy-making process of the e-cigarette which enact and shape the e-cigarette in specific ways. Through looking at these process streams, the ordinary processes of policy making, “politics as usual”, which oftentimes are “taken for granted as mere substrate”, will be made visible (Asdal, 2016, p. 99). I consider these process streams as political infrastructure which enable other actors, discussed in previous chapters, such as the Norwegian Union of Vapers and the scientific community, to articulate their concerns with the e-cigarette. Techniques and devices that circulate in these processes streams are ordinary technologies of public administration (Asdal, 2014, p. 2112), which also deserve our attention.

7.2 No Ministry of Health and Care Services, no e-cigarette problem

Hermansen adds another maxime as an extension to Marres’s “No issue, no public” and Asdal’s “No public, no issue”, which is “no issue entrepreneur, no problem” (Hermansen, 2015, p. 946). As an extension of Hermansen’s maxime I can also add: “No Ministry of Health and Care Services, no e-cigarette problem”. The Ministry of Health and Care Services acts as an issue entrepreneur of the e-cigarette issue by applying a set of techniques “in order to turn conditions into political problems, with the aim of constructing... a policy window”

(Hermansen, 2015, p. 945). What distinguishes a condition from a problem is that a condition is the simple state of something while a problem is when this condition is transformed into concern that is put on the political agenda (Hermansen, 2015, p. 933). The techniques issue entrepreneurs apply to raise awareness about their concerns, which will be discussed in this section, are *problem definition*, *issue linkage* and the *creation of contexts*. These techniques modify matters of fact, conditions, into issues that are to be politically treated and processed. These issues are deliberated and discussed and subsequently managed by being turned into policy in the policy stream. I begin by discussing problem definition and the e-cigarette problems raised by the Ministry in the problem stream.

Problem definition

Problem definition is the first step in the problem stream. Hodwood and Gunn (1984 p. 109) tell how problem definition takes place when problems are recognized, placed in the public agenda, and articulated, as well as that its causes, components and consequences further explored (Rocheffort & Cobb, 2005, p. 152). Problem definition involves raising conditions and transforming them into problems. It is the framing of issues. Issues are formed by the interpretative maneuvers of the actor which defines it, and viewed from a certain angle. Matters are included and other are excluded (Rocheffort & Cobb, 2005, p. 153)

The following problems related to e-cigarettes are defined by the Ministry of Health and Care Services in the hearing letter and proposal on the revision of e-cigarette regulations. Attention is thus drawn to these selected problems. Defining these problems sets limits as to what aspects there is concern about regarding the e-cigarette which in turn also influences the questions that are debated in the public e-cigarette debate. The information that is gathered by raising these concerns will later be used by the Ministry to contain the e-cigarette issue in the policy stream.

1. *Uncertainty of what the e-cigarette is as a product and the research on its health effects:*

Since the e-cigarette is a relatively new product there is still a lot of uncertainty as to what the e-cigarette is. Rapid product development is taking place, changing the

nature of the e-cigarette and leading to new product types. Knowledge on the health effects of

the e-cigarette is uncertain since it is a new product and hasn't been used for long. The uncertainty of what the e-cigarette is as a product and the research behind it makes it difficult to regulate.

2. *The current ban on e-cigarettes with nicotine is inefficient:*

Even though there is a ban on the sale and import of e-cigarettes with nicotine the ban is inefficient because it is steadily broken as people privately import e-cigarette from abroad for private consumption. Thus, the ban does not work efficiently and the government is not able to enforce it. In other words, current regulation does not work and is inefficient.

3. *E-cigarettes as a gateway to cigarette smoking in youth:*

The government is afraid that e-cigarette vaping may lead to the renormalization of cigarette smoking and that e-cigarettes have a gateway effect towards smoking cigarettes amongst youth.

4. *The health of smokers who cannot quit and don't have access to harm reducing alternatives:*

The Ministry (2014-2015, p. 73) points to data from NIADR (Norwegian Institute for Alcohol and Drug Research) showing that 200 000 of the 700 000 daily smokers have a low probability of quitting smoking. If harm reducing alternatives such as e-cigarettes were made accessible, the health of its users, which mostly are smokers, would improve due to the lower health risk of e-cigarettes compared to cigarettes. Current regulation does not allow for this.

5. *The dangers of passive vaping:*

Findings from the NIPH (National Institute of Public Health) report point to the harmful effects of passive vaping by concluding that third parties are exposed to the same levels of nicotine in passive exposure to e-cigarette vapour as in cigarette smoke.

6. *Similarity of cigarette smoke and e-cigarette vapour:*

The resemblance of e-cigarette vapour and cigarette smoke makes it hard for the authorities to distinguish one from the other in enforcement settings. The government doesn't want the population to be exposed to e-cigarette vapour in places where smoking is banned.

(Helse- og omsorgsdepartementet, 2015-2016).

Issue linkage

Another technique that issue entrepreneurs employ in the problem stream of the policy making process is that of issue linkage (Sebenius 1983 in Hermansen 2015) "a political science concept for analysing how adding or subtracting issues and parties from policy processes can alter the outcome" (Hermansen, 2015, p. 946). The raising of the above concerns by the Ministry of Health and Care services, specifically concerns B-F, links the e-cigarette issue with issues related to cigarettes. E-cigarettes are enacted in relation to cigarettes, and thus under tobacco policy even though e-cigarettes do not contain tobacco. E-cigarettes are seen as either being able to solve or contribute to problems associated with cigarettes. For example when it comes to concern c (e-cigarettes as a gateway towards cigarettes amongst youth) e-cigarettes are seen as possibly contributing to youth taking up smoking, and thus as an obstacle to a smoke-related problem. On the flip side, when it comes to concern d (the health of smokers) e-cigarettes are seen as a potential solution for smokers who cannot quit. The linkage of e-cigarettes to cigarettes and its enactment as a tobacco issue enacts the e-cigarette as a drug that must be regulated in the same way as cigarettes under the Tobacco Act. This linkage with cigarettes prevents the e-cigarette from being enacted as a consumer product, for example under the regulation of cosmetics, or under its own national legislation with elements from the regulation of electronic products, such as the Norwegian Vaping Union and NIADR wish. The ministry says that e-cigarettes cannot be regulated as a consumer product due to public health concerns (Helse- og omsorgsdepartementet, 2015-2016, pp. 21, 23). By linking e-cigarettes with cigarettes, e-cigarettes are associated with the same threats to public health as cigarettes.

Creation of context

Another technique used by issue entrepreneurs in the problem stream is that of context creation (Hermansen 2015). Contexts do not merely surround the issue as an external factor, but are situations which take part in enabling concerns and issues to rise (Asdal, 2012, p. 382) , such as the ones presented above. Contexts are the reason and the background for the becoming of issues and are woven together with issues (Asdal, 2012, p. 384, 388). Actors can actively create contexts as well as use available contexts to their advantage in order to open policy windows. Contexts are co produced by and together with issues (Hermansen, 2015, p. 946). Some of these situations, contexts or weavings will now be accounted for.

The mobilization of external expertise is a way issue entrepreneurs can create contexts. Hermansen points out how a characteristic of issue entrepreneurs is linking different types of external expertise which they use as leverage to define and raise issues (2015, p. 945). Due to the amendment of e-cigarette regulations, the Ministry commissioned three state tied research institutions to draft reports on the health effects of e-cigarettes as well as the effects of new e-cigarette regulations on tobacco policy and public health. These reports serve as the knowledge basis for the government's proposals on the amendment of e-cigarette regulations (Helse- og omsorgsdepartementet, 2015-2016, p. 16). These reports can be analyzed as a *context* created by the ministry which enables them to create awareness for certain problems and concerns with e-cigarettes and raise them to the political agenda. The NIADR report shows how 200 of the 700 000 smokers are not likely to quit smoking and that access to e-cigarettes could help improve the health of these smokers (Helse og omsorgsdepartementet, 2014-2015, p. 73). The NIPH report shows that available knowledge suggests that “individual smokers will experience reduced health risks by replacing regular cigarettes with e-cigarettes” (Helse- og omsorgsdepartementet, 2015-2016, p. 22. Own trans.). Moreover the Health Directorate’s report concluded that “e-cigarettes with nicotine can increase the chances of smoking cessation compared to e-cigarettes without nicotine” (Helse- og omsorgsdepartementet, 2015-2016, p. 23. Own trans.). The findings in these reports are drawn upon by the Ministry in order to help raise awareness about problem D - *The health of smokers who cannot quit and don’t have access to harm reducing alternatives.*

The concept of *context creation* helps point to the permeable materiality of the proposition as a space of public administration, as external contexts such as the research reports, are woven together with, and help produce e-cigarette issues in the proposition. The permeable materiality of the proposition stands in contrast to the material architecture of the bureaucratic office studied by Marx Weber. Weber shows how the materiality of the bureaucratic office as a space of public administration acts as a physical and enclosed space, distant from the issues it handles, enabling disaffection, objectivity and authority (Asdal, 2008, p. 15).

The findings in the research reports are mobilized as a context by the ministry not only to draw attention to *problems* or *issues*, such as the health of hardcore smokers, but also to enact

novel policies, such as that of harm reduction. The ministry states that in Norway the government has concentrated its efforts to help smokers to quit completely, and not transition to harm reducing products (Helse- og omsorgsdepartementet, 2015-2016, p. 22). The emergence of electronic cigarettes has intensified the debate on whether harm reduction should be a supplement to traditional tobacco policy (Helse- og omsorgsdepartementet, 2015-2016, p. 72). The ministry thus proposes for e-cigarettes in Norway to be sold legally, which previously was illegal, for the sake of smokers to have a harm reducing alternative to smoking cigarettes (Helse- og omsorgsdepartementet, 2015-2016, p. 23).

Asdal and Barry have pointed to how a lot of spaces of public administration are not organized in order to promote innovation within policy, but rather to administer and follow business as usual; what Asdal calls a ‘politics of no politics’ (Asdal, 2014, p. 14). However, the example above shows how the ministry’s mobilization of external research reports led to innovation, or a change of direction within the policy stream of tobacco regulation to that of harm reduction. Harm reduction is the encouragement of smokers to transition to less harmful products that still contain risk, such as e-cigarettes (Helse- og omsorgsdepartementet, 2015-2016, p. 22). Traditionally the government's policy instruments to reduce tobacco use have been based on three principles within medicine ethics: the no harm principle (warning against using products that can have harmful consequences), the precautionary principle (warning against using products that may have harmful risk in the future) and the loss of autonomy principle (warning against products that are addictive). Harm reduction as a policy option breaks with these principles and with traditional tobacco policy. The ministry states that harm reduction as a political strategy has up to now not had a place in tobacco policy (Helse- og omsorgsdepartementet, 2014-2015, p. 72).

Alternatively, it is possible to trace contexts which the Ministry of Health and Care Services draws upon, enabling business as usual in policymaking - a ‘politics of no politics’. Such a context is the government’s Tobacco Strategy (Helse- og Omsorgsdepartementet 2013-2016). The health authorities draw upon this context in order to enact e-cigarette issues and policies which represent a continuation of current tobacco policy, as opposed to a departure from it, such as the above example showed. In this way, context creation can also be a tool of policy making which produces non-politicized objects. “Preventing youth from using tobacco is the main focus in the Ministry’s efforts with tobacco prevention” (Helse- og

omsorgsdepartementet, 2015-2016, p. 7. Own trans.). The Tobacco strategy's goal of preventing youth from taking up smoking is a cigarette issue which is transferred to the regulation of e-cigarettes. For Norwegian health authorities it is important that e-cigarettes are regulated in a way that prevents the recruitment of youth. This is mainly due to the possible effects that e-cigarettes may have in renormalizing smoking. The ministry points to research showing that the potential gateway effect of e-cigarettes towards cigarettes cannot be excluded (Helse- og omsorgsdepartementet, 2015-2016, p. 22).

The ministry says that harm reduction policies such as liberalizing e-cigarette for adult smokers to have access to products with less risk must be seen in relation to policies that limit its exposure to non-smokers, such as youth and children. The ministry thus proposes the additional regulation of banning passive vaping indoors in the same way as passive smoking in order to limit the arenas in which youth and children are exposed to e-cigarette vapour because e-cigarettes can potentially lead to cigarette smoking (Helse- og omsorgsdepartementet, 2015-2016, p. 22). In this way, e-cigarettes are proposed regulated in the same way as cigarettes.

The concern for youth is an issue enabled by the context of the Tobacco Strategy. It is a particular cigarette issue which has now also become an e-cigarette issue; a matter of concern which influences the regulation of e-cigarettes. The tobacco strategy does not open up for regulating the e-cigarette in novel ways, but instead it leads to business as usual in that it enables indoor vapour to be proposed regulated in the same way as indoor smoking. This represents a continuation of the legacy from traditional tobacco policy through the regulation of the (tobacco-less) e-cigarette.

7.3 The political stream

We now turn our attention to the European Union's Tobacco Product Directive (EU TPD) - a device which entered the Norwegian health authorities policy making space, forcing Norwegian authorities to take political action towards the e-cigarette regulation in the first place. The implementation of the revised EU TPD of 2014 and its harmonization with Norwegian law can be seen as a process in what Kingdon calls the *politics* stream of policy making. The politics stream has to do with the political will for passing policies (Hermansen,

2015, p. 933). While the EU TPD did not spark the political will for passing e-cigarette policies directly, it did spark the political necessity to revise e-cigarette regulations in Norway in the first place, which led to opening up the e-cigarette debate in Norway. According to Norwegian national law, all EU directives must go through parliament before they are harmonized with Norwegian law. I will soon show how the necessity to implement the EU TPD in the political stream opened up for external e-cigarette policies brought by the EU-directive, driven by an EU-logic of economic standardization, as well as sparking the enactment of e-cigarette policies specific to Norwegian conditions.

More than a process in the political stream, the EU TPD can also be viewed as a technology which enters and circulates the Norwegian health authority's e-cigarette policy making space (Asdal, 2014, p. 2111). The Norwegian Health and Care-services ministry states that "with the tobacco directive it is for the first time drafted a common harmonized regulatory framework for e-cigarettes" in Europe (Helse- og omsorgsdepartementet, 2016, p. 5. Own trans.). The lack of a harmonized regulatory framework has meant that national authorities have fallen on different regulatory approaches (Helse- og omsorgsdepartementet, 2016, p. 11. Own trans.). The EU TPD often mentions its goal of contributing to a "smooth functioning of the internal market" in order to ensure "the free movement of goods across the Union" (EU TPD). A harmonization of e-cigarette regulations makes it easier to exchange e-cigarettes freely across Europe and for country's to have equal access to the product, rather than it being unevenly distributed among countries in the economic area. The harmonized regulation of the directive enacts a standardized version of the e-cigarette that is to apply to all countries in the European Economic Area that pass the directive in order to facilitate e-cigarette trade amongst the countries.

Timmermans and Berg's concept of localized universality shows how overarchings standards (such as the EU TPD) are implemented in a setting not only by replacing local practices (such as national laws) but also by negotiating with, and building off of them (1997, p. 274). Several amendment proposals to the Norwegian Tobacco Act, such as the proposal to legalize the sale and import of e-cigarettes with nicotine in Norway, are based on the new harmonized regulation the EU TPD (Helse- omsorgsdepartementet, 2015-2016, p. 6). However, the implementation of the overarching standard not only opened the opportunity for deliberation and implementation of regulations brought by the directive in Norway, but also

led to the mobilization of a whole political process on e-cigarette regulations in which information was gathered from experts and civil society, which also led to additional regulations on e-cigarettes, specific to Norwegian conditions, such as that of banning indoor vaping in the same way as indoor smoking. The banning of indoor vaping became an extension of the already existing Norwegian smoking ban on indoor smoking, under the Norwegian Tobacco Act.

The concept of localized universality shows how the EU TPD as an overarching standard is implemented by adapting to local regulations. On one hand the EU TPD as a standard implements external EU-driven regulations into the Norwegian regulatory framework such as legalizing e-cigarettes with nicotine. These standards come from an EU logic of standardization for the facilitation of trade amongst EU-countries. On the other hand the implementation of these “universal” standards also spark local conversations which open up for e-cigarette regulations specific to the Norwegian context, such as the banning of indoor vaping, which was an extension of the Norwegian smoking ban.

7. 4 Conclusion

In this chapter I have looked at practices which modify the e-cigarette in the Norwegian health authority’s policy making space. Instead of focusing on how publics and the scientific community contributes to the e-cigarette debate I have shown how ordinary techniques of public administration in the problem and political stream of the policy making process set the agenda and boundaries for what issues and policies are relevant in the e-cigarette debate. Firstly I have shown how the Ministry acts as an issue entrepreneur of the e-cigarette issue, turning conditions of the e-cigarette into problems that are to be dealt with politically. The Ministry employs several strategies to bring about e-cigarette issues and policies such as problem definition, issue linkage and context creation. I have also shown how interferences in the political stream of the Ministry by way of the European Tobacco Product Directive, open up the regulatory process of the e-cigarette, implementing external e-cigarette policies into the Norwegian law based on European Union logics. This interference also sparks local conversations and locally adapted e-cigarette policies to the Norwegian context.

The policy making space of the government is not only permeable to EU directives but also to contexts, such as research reports and the tobacco strategy. These contexts enable e-cigarette

issues and policies. Contexts can both be used to enact continuation (non-political objects) or innovation within the policy stream. The Tobacco strategy is a context mobilized by the Ministry which enacts the e-cigarette as a non-political objects. It enables the continuation of current tobacco policy through e-cigarette regulation in that passive vaping is banned in the same way as passive smoking is banned. The ministry not only enacts the e-cigarette as a continuation of the cigarette through *context creation* but also through *issue linkage*, a tactic in the problem stream. As a result e-cigarettes are proposed regulated under the tobacco act, and as a product kin to cigarettes, associated with the same threats to public health as cigarettes. On the other hand, the research reports are mobilized as another context. Their findings lead to innovation within the policy stream in that e-cigarettes with nicotine are legalized in order for established smokers to have a harm reducing alternative to cigarettes.

Chapter 8 – Through Flow and Fire – Holding the E-cigarette Multiple Together

8.1 Multiplicity

While the previous chapters have looked at the enactment of the e-cigarette in different, planes, practices and sites I will now attend to the relations between these spaces and how they are held together to make the e-cigarette “work”. The “various performances” of the e-cigarette “have all kinds of tensions between them, but to separate them out as if they were a plurality of options is to skip over the complex interconnections between them” (Mol, 1999 p. 86). Similarly, Mol (2002) shows in her ethnographic study in a Dutch hospital how different atherosclerosis enactments interfere and coordinate with each other. Separating the multiple e-cigarette enactments would be to look over the crux in Mol’s argument which is that objects are multiple rather than plural - “more than one - but less than many” (Mol, 2002, p. 55). The different object enactments overlap and even depend on each other. The relational aspect of material-semiotics alerts us to how identities are produced in relation to others. “Nothing ever “is” alone. *To be is to be related.*” (Mol, 2002, p. 54).

Up to now it might seem that e-cigarette’s topology is full of tensions. However, I will attempt to account for how the e-cigarette’s enactments are linked in different ways. The multiple enactments of the e-cigarette in the different communities are first and foremost held together through the practices of the Ministry of Health and Care Services. This is because the Ministry initiated the e-cigarette’s policy making process and opened a window for diverse actors to enact their concerns. In chapter 7 I built on Hermansen’s maxime “no issue entrepreneur, no problem” (2015, p. 946) by claiming - No Ministry, no e-cigarette problem. The ministry acts as an issue entrepreneur of the e-cigarette issue, turning e-cigarette conditions, states of affairs, into e-cigarette problems that are raised to the public agenda. The opening up of the e-cigarette’s regulatory process is what enables e-cigarette users, the tobacco industry and research institutions to articulate their concerns, anxieties and hopes with the e-cigarette. The practice of opening up the regulatory process by the Ministry is not “foundational”, but is the “beginning of and the condition for everything else” (Mol, 2002, p. 40).

What created this space in the first place was an interference; that of the European Tobacco Product Directive (EU TPD) with Norwegian legislation. The EU TPD was to be implemented and harmonized with Norwegian law. By Norwegian law, when EU directives are adopted they must be processed through parliament. This forced the government and the parliament to take a stance on how to regulate the e-cigarette. When practices interfere with one another such as the EU TPD and Norwegian legislative framework, they can be productive of new practices (Singleton, 2012, p. 425) - such as this (policy) window, which provided an opportunity for different communities to articulate and enact the e-cigarette.

The policy-making space created by this interference is permeable, at least in its initial stages. The government calls for the creation of research reports on e-cigarettes and invites external actors through a hearing round in order to gather information on the e-cigarette. These research reports and external actors interfere in the policy making process and in the Ministry's site, articulating their concerns through the governmental channels, whether it be through the hearing round or via government commissioned research reports. These external enactments are "dependent on" (Mol, 1999, p. 84) practices of the state. The Ministry "fits" these external practices together and weaves them into the policy-making process, as well as including their articulations in the ministry's proposition to the parliament. This is a coordination act by way of the government, in which the "flow" metaphor of Mol (Mol, 2002, p. 115), would be an adequate way of portraying the government's activities. Even though there is controversy and tension between these articulations, even though the articulations do not "cohere" (Mol, 2002, p. 115), they still live side by side, "alongside" each other (Singleton, 2012, p. 406) in the initial stages of the policy making process. The democratic assemblage has, at this stage, a harmonious dynamic. "There are no competing sides to choose between or fight for" (Mol, 2002, p. 115), yet...

Mol's (2002) conceptual metaphor for understanding practices in the hospital are in their root harmonious. Even though different enactments of atherosclerosis clash, they coexist. They coordinate by keeping to their own space. Similar to Helen Verran's notion, they "go on together", by respecting their own differences (1999 in Singleton, 2012). But is this an adequate metaphor to conceive of politics, in which different actors fight for the *same* space?

Do adopted policies include the multiple, dissenting articulations which want to be heard? Are these coordinated in the policy? Or are some silenced and displaced, or live in subcultural forms?

8.2 The flows of issue articulation

Opening up the e-cigarette issue by the government does invite multiple articulations, allowing for controversies to unfold and linger on, side by side (Mol, 2002, p. 99). However, deciding on a final policy in the policy-making process, I argue, leads to silencing and displacing voices. Policy-making is about opening and closing; listening to the various perspectives of stakeholders, weighing pros and cons of options and landing on one policy option. Some will be hurt by the policy that is chosen, others will benefit. As Gill et al. (2017) state: “different policies look after some things and neglect other things” (p. 11).

When practices clash, one of them will be privileged over the other (Mol, 2002, p. 47). In the policy-making context of the e-cigarette, the National Institute of Public Health’s (NIPH) enactment of the e-cigarette in their report “comes before” (Mol, 2002, p. 40) all other enactments of the e-cigarette - before the enactment by the National Drug Institute (NIADR), before e-cigarette users concerns, and definitely before Philip Morris’ enactments. The Ministry ends up listening to the conclusions in the NIPH’s report - conclusions pointing to the dangers of passive exposure to e-cigarette vapour due to equal levels of nicotine as in passive exposure to cigarette smoke. Due to the NIPH’s conclusions on these risks, the ministry proposes to ban indoor smoking. Contrastingly, the recommendation by the NIADR to permit e-cigarette consumption in places where cigarettes are banned, such as in schools and hospitals, is sidelined. The Norwegian Union of Vaper’s wish to separate e-cigarette and cigarettes regulations in separate laws, and for them to be seen as separate objects is also disregarded. Lastly, Philip Morris’ wish for a smoke free society to include their reduced risk product, the iQOS, is not accounted for. The ministry’s enactment of “smoke free” does not include heat-and-burn, nor vapour.

8.3 The fire space of policy

I would like to agree with Law in that “there are spaces and objects that lie outside networks”. Outside the network of the Ministry’s e-cigarette policy enactment there lies alterity - the

NIADR's enactment of the e-cigarette, that of e-cigarette users and Philip Morris. The e-cigarette policy of the government sets limits to what can be *included* in it, generating "forbidden spatial alterities", "deleting those alterities" (2002, p. 102).

Rather than the flow metaphor of Mol, I suggest there may be more adequate metaphors to conceive of the topology of e-cigarette policy, and perhaps also of other objects that are made into policy. When practices clash they do not always *flow*. A more adequate topology is that of *fire*. The e-cigarette policy achieves its shape, its consistency, in fire space - by *simultaneous* absence and presence. Like a star pattern "a link between a single present centre and multiple absent others". Presence is what is visible, what becomes policy - the enactment of the NIPH, of passive exposure to vapour as something that involves risk, of indoor vaping as something to be banned as a result. Absence are all those enactments that are silenced and displaced by policy - the enactments of NIADR, e-cigarette users and the tobacco company. These alternate enactments is that which the "authority of presence" - the authority of the policy - depends on (Law and Mol, 2001, pp. 615-616). Without silencing alterity, there would be no policy. That is the dependency in the fire space of policy. While practices in the initial stages of policy making *flow*, when these practices are turned into policy there is *fire*.

8.4 Concluding remarks

As we now come to the end of this thesis I will give some concluding comments on the research questions.

What is the e-cigarette? The making of the e-cigarette can be understood of a set of interferences (Singleton 2012). The interferences of the different communities with reality through their practices that enact the e-cigarette. The interference between the EU Tobacco Product Direct and Norwegian legislation which open up for the revision of e-cigarette regulations and produce a political space for communities to articulate their e-cigarette concerns. The interference of the communities' e-cigarette articulations with the government's policy making space and the coordination of these through *flow*. The interference between what becomes e-cigarette policy, and the alternate policy options that are silenced in the space of *fire*. And lastly, the interference of this thesis in the reality and policy

of the e-cigarette through bringing together these diverse worlds and translating them into this thesis.

How is the e-cigarette enacted in different practices? This thesis has traced corporate, activist, scientific and bureaucratic spaces that enact the e-cigarette. In the corporate space of Philip Morris, the e-cigarette has been enacted through branding practices that exclude the e-cigarette from their performance of the smoke-free economy. In the activist space of the Norwegian Union of Vapers, through users' personal attachments and experiences with the cigarette, and through user-based epistemic practices that enact the e-cigarette as an object of health. In the scientific space, through research reports that act as different types of political technologies which either influence how the ministry regulates the e-cigarette, or suggests alternative regulations. And lastly, in the bureaucratic space, through the employment of policy making techniques which define the e-cigarette issue in certain ways, link it to cigarette issues, and propose policies which set limits for the e-cigarette debate.

How are these e-cigarette enactments related? In the introduction I proposed how this thesis is the study of a power struggle between different actors who seek to define an object in the making. Through tracing their articulations of the e-cigarette I have found local linkages between these tensed enactments. I have localized the e-cigarette multiple. When policy objects are opened up and their boundaries redrawn there is coordination, there is *flow*. The articulations differ but they find ways of going on together, of coexisting. They keep to their own space. However, when it comes to conceiving of objects being made into policy the power struggle becomes real. There is war as the enactments fight for the same space. However, war can be settled, and this is through *fire* - simultaneous single present and absent multiple alterities. This is an empowering thought for anybody who is concerned with alterity. Alternate articulations have been crucial in developing what becomes policy. Although dissenting voices have been extinguished, they have still *produced*, an *enabled* the present, that which is policy. Resistance and dissent has contributed to pushing the boundaries of what the e-cigarette becomes.

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Appendixes

Interview guide. Pia from Phillip Morris Norway

- What is your role in Philip Morris?
- Can you tell me about Phillip Morris?
- What is the relationship between Phillip Morris Norway and Phillip Morris international? Do you have the same message, goals and ambitions?
- Could you explain more about iqos, and other products that heat tobacco?
- "Designing a smoke free world. How long will the world's leading cig company be in the cig business?" Can you elaborate on this statement on your international website?
- Phillip Morris has employed many researchers (toxicologists, biologists, chemists) to make e-cigarettes. Why do you do this? Why is this important to you?
- What new products does Phillip Morris produce, which are less harmful than cigarettes. Are these products sold in Norway?
- What distinguishes heat and burn products from e-cigarettes?
- How do you want products like Iqos and e-cigarettes to be regulated in Norway in relation to e-cigarettes. Should they be stricter or less strictly regulated?
- What is PM position regarding harm reduction?
- Do you want to continue to sell and promote cigarettes in the future?

Interview guide. Norwegian Union of Vapers

- Why did you decide to engage yourself in the NUV?
- Can you say a bit more about the organization?
- Are you more a political group or a group that helps consumers?
- How many resources do you use on political advocacy vs. Helping your users?
- What relationship does the board have with the rest of the members?
- How is the organization built up?
- How professional do you consider yourself?
- How do you work with political advocacy and lobbying?
- How do you communicate and engage the public in your issues?
- Do you agree with researcher Lund in his claim that e-cigarettes are a user-driven health revolution?

- How do you believe e-cigarettes should be regulated?
- What are your thoughts about the proposals to the Norwegian tobacco act?
- What are NUV's ties to the tobacco industry?

Forespørsel om deltakelse i forskningsprosjektet

”Hva er e-sigaretten? Ulike oppfatninger av hva e-sigaretten er og hvordan den skal reguleres”

1 Bakgrunn og formål

Masteroppgaven er skrevet ved senter for Teknologi, Innovasjon og Kultur ved det Samfunnsvitenskapelige Fakultet ved Universitetet i Oslo. Formålet med masteroppgaven er å studere hvordan e-sigaretter reguleres og defineres av ulike samfunnsgrupper, herunder forskere, (for)brukergrupper, tobakkindustrien og myndigheter. Jeg studerer e-sigaretten fordi det er en "object in the making", et objekt hvis identitet forhandles fram av ulike samfunnsaktører, og med store uenigheter om hva det skal være i henhold til ulike loverk, hvor det skal plasseres og hvordan det skal reguleres. Hva objektet er henger sammen med hvordan det skal reguleres, og hvilken rolle og status det skal spille i samfunnet vårt. Oppgaven er en kontroversstudie, det finnes ikke et entydig svar på hva e-sigarettern er. Ulike samfunnsgrupper forsøker å påvirke myndighetene om hva e-sigaretten skal være.

Phillip Morris forespørres om å delta I studien fordi som student har jeg mange spørsmål om hvilken rolle tobakkindustrien, og dere spesifikt, har når det gjelder hvordan e-sigaretter og andre tobakk-erstaningsprodukter skal reguleres. Spesielt har jeg spørsmål om hvordan dere jobber politisk med dette spørsmålet og hvordan dere kommuniserer uttad. Jeg ble tipset å kontakte dere av Virke, som jeg kontaktet etter at jeg så de hadde arrangert et arrangement under Arendalsuka om e-sigaretter.

2 Hva innebærer deltakelse i studien?

Deltakelse I studien innebærer å delta på intervju om de overnevnte spørsmålene. Jeg ønsker å vite mer om deres bedrift, hvordan dere forholder dere til Phillip Morris internasjonalt, hvordan dere bruker forskning I argumentasjonen deres og hvordan dere formidler budskapet deres. D

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt. Personlig informasjon som direkte kan kobles til din identitet, som navn og stillingstittel, vil være offentlig i oppgaven. Personlig informasjon som epost og telefonnummer vil bli slettet i etterkant av endt masteroppgave.

Prosjektet skal etter planen avsluttes 17.10.2017.

Personopplysninger som epost og telefonnummer vil lagres fram til prosjektet avsluttes. Deretter vil denne informasjonen slettes.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli slettet.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med meg, Kristina Klakegg, 97141759. Min veileder er Susanne Bauer (susanne.bauer@tik.uio.no), førsteamanuensis ved Senter for Teknologi, Innovasjon og Kultur.

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

(Signert av prosjektdeltaker, dato)

Forespørsel om deltakelse i forskningsprosjektet

"Hva er e-sigarett? Ulike oppfatninger av hva e-sigarett er og hvordan den skal reguleres"

Bakgrunn og formål

Masteroppgaven er skrevet ved senter for Teknologi, Innovasjon og Kultur ved det Samfunnsvitenskapelige Fakultet ved Universitetet i Oslo. Formålet med masteroppgaven er å studere hvordan e-sigarett reguleres og defineres av ulike samfunnsgrupper, herunder forskere, (for)brukergrupper, tobakkindustrien og myndigheter. Jeg studerer e-sigarett fordi det er en "object in the making", et objekt hvis identitet forhandles fram av ulike samfunnsaktører, og med store uenigheter om hva det skal være i henhold til ulike lover, hvor det skal plasseres og hvordan det skal reguleres. Hva objektet er henger sammen med hvordan det skal reguleres, og hvilken rolle og status det skal spille i samfunnet vårt. Oppgaven er en kontroversstudie, det finnes ikke et entydig svar på hva e-sigaretter er. Ulike samfunnsgrupper forsøker å påvirke myndighetene om hva e-sigaretten skal være.

Styret i Norsk Dampskaps foretak forespørres om å delta i studien fordi dere er en sentral samfunnsaktør som forsøker å påvirke retningen for e-sigaretters utvikling. Dere har flere medlemmer bak dere. Dere er en politisk aktør, dere bruker forskning i deres argumentasjon og samtidig er dere en forbrukergruppe som har tett kontakt med daglig brukere av e-sigaretter. Styret i Norsk Dampskaps foretak vil jeg tro er en av de aktørene med mest oversikt over brukeres opplevelser og standpunkter hva gjelder e-sigaretter.

Hva innebærer deltakelse i studien?

Deltakelse i studien innebærer å delta på intervju om Norsk dampskaps foretak, hvordan dere operer, svare på spørsmål om organisasjonen, om deres syn hva gjelder e-sigaretter og hvordan dere forsøker å påvirke norsk lovgivning og regulering av e-sigaretter. Intervjuet vil vare mellom 1-3 timer. Annet offentlig materiell på deres nettsider og sosiale medier kanaler vil også benyttes i studien. Dataen vil registreres i form av notater og, hvis dere ønsker, lydopptak.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt. Personlig informasjon som direkte kan kobles til deres identitet (som navn, telefonnummer og epost) vil lagres av studenten privat, og kun for å få kontakt med dere i senere anledninger (opp til prosjektslutt). Personlig informasjon skal slettes i etterkant av endt masteroppgave.

Det vil være organet styret i Norsk Dampskaps foretak som vil gjenkjennes i oppgaven, dere vil ikke gjengis ved navn (epost eller telefonnummer) i oppgaven.

Prosjektet skal etter planen avsluttes 17.10.2017.

Personopplysningene, (navn, epost, telefonnummer), skal lagres fram til prosjektet avsluttes. Deretter vil all kontakt mellom student og informant (dere) slettes, slik at det ikke er mulig å spore tilbake til deres personlige identitet. Opptak (hvis det forekommer) skal også slettes etter endt prosjekt

(17.10.2017). Det er kun studenten som vil ha tilgang til personopplysninger og opptak fram til det slettes.

Frivillig deltakelse

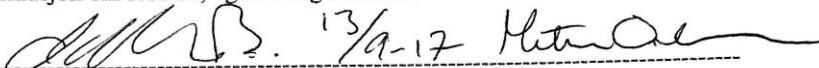
Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert.

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med meg, Kristina Klakegg, 97141759. Min veileder er Susanne Bauer (susanne.bauer@tik.uio.no), førsteamanuensis ved Senter for Teknologi, Innovasjon og Kultur.

Studien er meldt til Personvernombudet for forskning, NSD - Norsk senter for forskningsdata AS.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

_____  13/9-17 Mette Orten

(Signert av prosjektdeltaker, dato)

André Berdighsen METTE ORTEN