Title Sheet

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Abstract

The aim of this thesis is twofold. Firstly it seeks to investigate how the respondents in a Survey conducted in Aalborg Zoo was involved in and understood Aalborg Zoo when they created content for a map connecting SMSes to location. Secondly it seeks to come up with suggestions in relation to how this can be used for persuasive interventions using maps. The different tools and concepts I have chosen in this project are useful for different purposes. Firstly I use Actor-network theory as introduced by Bruno Latour as a method to analyse the different agencies at play in Aalborg Zoo where I wish to make persuasive intervention. Secondly to provide a suitable transition from tracing agencies to designing for persuasive intervention I connect ANT to persuasive design building on previous work done by Anders Albrechtslund, Henrik Harder, and my-self. Thirdly I use the works on technological mediation by Don Ihde and Peter-Paul Verbeek to analyse how technology can be used to shape attitudes and behavior. However this can be done on different levels of the analysis. On one level I use the theories to analyse the technological mediation, which took place in Aalborg Zoo during the survey days. This is done to better understand how the technology used in the survey set-up mediated the interpretation and involvement in the Zoo. On another level I use the theories to design for persuasive intervention. And last but not least my conceptual framework connects to Nuccio Mazullo and Tim Ingolds analysis of Samí peoples understanding of place. This theory is used to understand the involvement in and understanding of place, looking specifically at *what* is mapped. In the thesis it is demonstrated that connecting to the surroundings through tagging a location with a text-message can be seen as a way of being involved in the surroundings while at the same time being a process of reading/writing through which the respondent understand this involvement. In the thesis I further demonstrate that the respondents through the task of creating content for the SMS map are involved in and understand Aalborg Zoo in relation to their individual projects. In this way the zoo visit through the survey task is used in the guest’s personal projects to profile themselves, act out emotions, increase their knowledge, and get ideals and dreams in relation to the child’s basic and sensory-motor needs fulfilled. This is done through processes where the animal is understood in ways, which goes against Aalborg Zoos initiatives to keep and communicate the animal as wild. The ways the respondents are involved in and understand Aalborg Zoo is used to suggest four virtual maps called MyZoos. Here the aim is to persuade the respondents to visit the not so frequently visited animals. In relation to this I suggest that these animals are connected to the routes and the themes of each MyZoo making them relevant in relation to the ways the respondents are involved in and understand the zoo. Moreover I suggest that each of the MyZoos incorporates tagging-texting activities by making it possible for the respondent to create content for the different areas in the MyZoo.

Reading Guide

This project consists of four major parts. The first is theoretical, the second is an analysis of the Aalborg Zoo and the survey set-up, the third part is an analysis of the SMSes sent from Aalborg Zoo, and the fourth is a conceptual part where I will develop suggestions for persuasive interventions in Aalborg Zoo. The appendix is in the back of the project on a CD. On this CD the SMS map can be found.

Preface

This project is created at the 10th semester as part of the elite programme at Persuasive Design at Aalborg University 2008. I would like to thank my supervisor Anders Albrechtslund for helping me through some of the difficult phases of the creation of this project. Moreover I would like to thank Anne Birgitte Nørgaard and Claes Løfgren for reading the proof and for giving good advice in general. And last but not least I would like to thank Tommy Faldt Pedersen for making the nice cover for the project and for being there in general.

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Introduction

In the broad perspective of consuming offered by the experience economy, users not only consume food, clothes and furniture they also consume places. This is especially evident when it comes to experience institutions like Aalborg Zoo designed with the intention of providing a certain experience. In the consumption of places the consumer relates experiences to place and thus construct his or her own experiential geography rebelling against or supporting the intention of the designed place. Furthermore people are emotionally invested in place. They feel they own their running route, their favorite spot at the library or the place they grew up.

In relation to this the artist and designer Christian Nold in his emotion maps of Greenwich (Nold 2009) and San Francisco (Nold 2009) has connected experience to location. Here the maps created were used as a means to intervene in urban environments with the intention of involving people in the perseverance and development of their neighborhood (Nold 2008). In other words, maps connecting experience to location was used as a means to change people’s attitudes and behavior in relation to their local area. Still maps connecting experience to location have rarely been used in persuasive interventions.

Inspired by these examples the concept of the SMS map was developed. It was part of a survey conducted in Aalborg Zoo, autumn 2008. The survey was a collaborative work between the research group ‘Diverse Urban Spaces’ and Aalborg Zoo. Here guests in Aalborg Zoo were asked to wear a technology called a Lommy while sending SMSes from the zoo telling the research team: what they where doing, what they where looking at, and what they where feeling. This made it possible to create a SMS map that on a quantitative scale connected the respondents’ communicated emotions and behavior to location.

Later on the persuasive qualities of the SMS map were explored in an article. Here it was argued that the SMS map played a double role as a method to gather data by *and* as a product wherefrom we could design persuasive intervention (Glud, Albrechtslund et al. 2009). In the article we primarily explored the first quality. In this project, however, I want to explore the second. From this the following research questions was formulated:

*How are the respondents involved in and how do they understand Aalborg Zoo when they create content for the SMS map?*

*How can this be used for persuasive interventions using maps?*

The Survey

I the following section I will shortly elaborate on the survey conducted in Aalborg Zoo. Since this is already done this in the Zoo-rapport (Glud, Harder et al. 2009) as well as in the article ‘The Persuasive Qualities of Maps’ (appendix A) this will only be a short introduction.

In week 42 2008 the research group ’Diverse Urban Spaces’ at Architecture and Design in collaboration with Aalborg Zoo conducted a survey. The survey investigated selected guests’ use of Aalborg Zoo and was conducted: October 12 (Sunday), 13 (Monday), 16 (Thursday), and 17 (Friday). The first three days it took place in the opening hours of the zoo from 9.00 a.m. to 5 p.m. And the last day it was carried out from 8.00 a.m. to 4 p.m.

# The case

The zoo project was conducted because the staff in Aalborg Zoo had observed that their guests tended to visit some animals more than others. As a result they categorized the animals into **‘**hit’ and ‘shit’animals. This posed a problem for Aalborg Zoo, since the aim was not only to provide the frame for a good experience, but also to teach the guests about animal diversity, which is crucial to promote the importance of nature protection. As a result Aalborg Zoo wanted to develop a strategy to persuade people to pay more visits to the ‘shit’ animals (Glud, Albrechtslund et al. 2009: 5).

As part of developing the strategy, the research team found four crucial questions in need to be answered regarding the way the guests made use of Aalborg Zoo:

* For *how long*do the guests stay in the different areas in Aalborg Zoo?
* *When* do the guests spend time in which areas?
* *Who* spend time in which areas?
* … and *why*?

Since the four questions all contain the question: *” where in Aalborg Zoo?”,* the research team decided to create a method that would make it possible to create four types of maps answering these questions.

* One type of map would answer *how long*the guests stay in the different areas.
* One type of map would answer *when* the guests spend their time in which areas.
* Yet another type of map would answer *who* spend time in which areas, looking at different age groups.
* The last type of map- the SMS map would answer *why*the guests spend time in certain areas connecting experience and location.

(Glud, Albrechtslund et al. 2009: 5)

In this project I am primarily occupied looking at the SMS map in relation to plan for persuasive intervention in Aalborg Zoo.

# The Concept

The first three questions could be answered by creating maps connecting location to demographic data such as age and GPS data. In order to answer the fourth question “*why* the guests spend time looking at specific animals” we developed a mapping method building on Actor-network theory and the wishes from Aalborg Zoo. Firstly we needed to connect experience to locationto answer the ‘why’ question. Secondly we had to bridge the gap between qualitative and quantitative methodswhen mapping. Actor-network theory stresses that we as researchers should take as our foundation actors ‘theories of action’ which afforded qualitative methods and Aalborg Zoo wanted the survey to be quantitative. From these demands the concept of an SMS mapwas developed. This map, on a quantitative scale, would display text messages from the guests in Aalborg Zoo at the coordinates from where they were sent.

In order to answer for *how long*, *when* and *who* spend time in different areas and *why* we developed a mapping method rendering it possible to connect this kind of data to location and display it in maps. Consequently in the zoo case we decided to combine different technologies and use the new device to create the four types of maps. The technologies combined were: lommies, which is a technology with a build in GPS, mobile phones, and an online questionnaire. We also used a modem from where the research team could receive SMSes and Google Earth and GIS to display the data. The respondents were asked to wear a 'lommy' while at the same time sending SMSes to a number created by the research team (Glud, Albrechtslund et al. 2009: 5). The respondents were instructed to write:

* What they were **looking** at
* What they were **doing**
* What they were **feeling**

…at different locations in the zoo.

(Glud, Albrechtslund et al. 2009: 6)

The four first types of maps answering for how long, when and who spend time in different areas in the Zoo could be answered by connecting demographic data from the online questionnaire to GPS data using Geographic Information Systems (GIS). The last type of map- the SMS map could be created connecting GPS data and the SMSes in GIS and display it in Google Earth. Since the lommy can register location and time and since the research team was able to see at what time a given SMS was received, time was used as the common denominator to connect a given SMS message to the coordinates it was sent from. We used Google Earth to display the connection between the data, since it enabled us to navigate and zoom in the map (Glud, Albrechtslund et al. 2009: 6).

# The Survey set-up

The practical survey set-up, enabling us to make the four types of maps, was based on earlier experiences in relation to park surveys conducted in Aalborg 2008 by Diverse Urban Spaces. All four days four helpers were distributed at two locations: two at the entrance responsible for recruiting respondents and two at the base handing out the GPSes. We calculated that we had to choose every 25th guest entering the Zoo to have enough lommies for a whole day. Consequently one of the helpers at the entrance counted the people standing in line. The other helper then informed the chosen guest about the survey and asked whether he or she wanted to participate. If number 25 declined, we asked number 26 etc. If the guest wished to participate, the first helper would show him or her to the base after the entrance. We also selected children old enough to speak for the survey (Glud, Harder et al. 2009: 15-17). However in some cases the child was too small to write SMSes and answer the questionnaire alone. Here we told the parent to help translate the questions in the questionnaire for the child to understand them and to write the SMSes for the child. This was done from a thought that parents are used to mediate the needs and feelings of their child. Consequently they could also write SMSes on the child’s behalf.

Immediately after the entrance two tables were placed under a parasol. Here two laptops and 45 lommies were located. At the table two members from Diverse Urban Spaces were in charge of handing out the GPS, helping the guests fill out the questionnaire (before and after the visit) and telling them about the SMS component. The GPS were handed out to the chosen guest. He or she was asked to carry it around his or her neck during the stay in Aalborg Zoo. Information on the SMS-component was given orally as well as on a small business card, with the telephone number they were supposed to use when sending SMSes. Furthermore the card contained information on what the SMSes were supposed to contain, namely reports on what they were looking at, what they were doing and what they were feeling in connection to this. The questionnaire was filled out on one of the two computers. When a question had many answering options or when the respondent was a child it was read aloud by one of the helpers. The questionnaire was filled out before people went into the zoo and when they returned with the GPS (Glud 2009: 15-16).

In the beginning of the survey it was our plan that we the last two days would send SMSes **back** to the respondents. These SMSes had been picked out from SMSes sent by participants the days before. The SMSes selected was those describing positive emotions from the areas with animals considered by the Zoo to be ‘shit’ animals. However we had some trouble with the modem those days, which caused that these SMSes was only sent to the respondents close to the base.

# The Results

I relation to plan for persuasive intervention to make the respondents visit the ‘shit’ animals more I will only present the results in relation to the GPS tracking. As it can be seen from the zoo rapport the ‘hit’ animals are: the animals at the tropical house, the sea lions, and the animals from the savannah and the ‘shit’ animals are: flamingo, parrot, capybara, baboon, coati, ring-tailed lemur & black-and-white ruffed lemur, and the nutria & spider monkey (Glud, Harder et al. 2009: 8). However ‘hit’ animals should not be confused with the areas wherefrom there were written the most SMSes since this could as well have been areas where the respondents were unsatisfied with something.

Mediation

Mapping involves a process of selecting attributes and highlighting the relationships between them. Similarly my work with this project can be seen as a mapping process where different ideas and concepts are highlighted and related through arguments. Using this approach I am inspired by smaller parts from different sources, which I combine in new ways. This means that the validity of my work in this project is guarantied by the craftsmanship of relating ideas and concepts through argumentation when creating my map. What is also important to understand from the mapping metaphor is that a map is created in a certain scale and from a certain perspective often supporting a given cause or intention. This means that even in the beginning of the process, when selecting theories for my theoretical framework, I am guided by the perspective of persuasive intervention posed in the research question.

A fundamental characteristic of persuasive design (PD) is to intervene with an intention of changing peoples attitudes and behavior (Fogg 2003: 1). This intervention is often described as a relationship between a persuader, a persuasive technology, and a persuaded person (Berdichewsky and Neuenswander 1999: 54). However as Albrechtslund, Harder and myself have earlier argued, several other actors are constantly negotiating our persuasive intentions. Consequently, if we want to design for persuasion, we must take into account these actors. We proposed that we do this by connecting to actor-network theory (ANT) since it is a tool to render it possible to see the communication situation as a network of actors or *mediators* all partly constructing it (Glud, Albrechtslund et al. 2009). In this project I will therefore use ANT as a method to analyse different agencies at play in Aalborg Zoo and from that obtain a more nuanced understanding of the communication situation in which I wish to intervene.

Since the aim of this project is to design for persuasive intervention I will connect ANT to PD. This will provide a suitable transition from tracing agencies to designing for persuasive intervention. The section ‘Persuasive Intervention’ will therefore work as a bridge to the following chapters, which will become increasingly more specific in relation to use maps for persuasive intervention.

When exploring how to design persuasive intervention using maps, the focus is on *technological mediation*- or the interface between human and technology and its impact on human attitudes and behavior. Here the work by Don Ihde and Peter-Paul Verbeek is useful, since both philosophers describe how technologies mediate the relation between human beings and the world in which each is constituted. Taking these two philosophers as my inspiration the mediating roles of technologies can be approached from two dimensions, which makes it possible to explore how technologies can cause changes in attitudes and behavior. The first primarily focuses on how technologies mediate our interpretation of the world and the second focuses on how technologies shape the way we are involved in it. These two dimensions are intertwined and are therefore equally important. Don Ihde primarily explores the first dimension and Verbeek the second. Moreover Verbeek also adds an ethical dimension to his philosophy of technology. The theories on technological mediation serve a double role in my conceptual framework. Firstly they can be used to analyse the technological mediation, which took place in Aalborg Zoo during the survey days to better understand the role of the technology in relation to how the respondents are involved in and understand the zoo. Here the focus is on how the survey set-up: lommies, mobile phones and online questionnaire mediated the interpretation of the Zoo and how people where involved in the Zoo. Secondly they can be used to design from, since they can help focus the analysis towards persuasive intervention using technologies. In the next chapter, ‘Image technologies’, I will go into more details with the visual aspect of maps. The next chapter ‘ Mediating Place’ goes even further focusing on the involvement and understanding in place, looking specifically at *what* is mapped. The last two theoretical chapters are therefore specifically aimed at leading the analysis into the design of a persuasive intervention.

As argued, the different tools and concepts I have chosen in this project are useful for different purposes. While ANT is primarily useful as a method to trace different agencies at play in Aalborg Zoo, theories on technological mediation is especially useful to analyse how technology can be used to shape attitudes and behavior. This means that ANT is primarily used in the introductory phases of the process while theories on technological mediation is primarily used in the later phases concerning how to plan persuasive intervention. However, as I will argue later on in the theory section ‘Persuasive Intervention’, the process of tracing agencies and designing for intervention is neither possible nor desirable to separate in practice. Consequently in practice these two processes will be intertwined.

In the following section ‘Actor-network Theory’ I will first elaborate on mediation from within ANT. In the second section ‘ Persuasive Intervention’ I will connect ANT to PD and explore how this connection affects the way we plan for persuasive intervention. In the third section ‘Technological Mediation’ I will focus on how technologies mediate the understanding and involvement of human beings. In the fourth section ‘Image technologies’ I will theoretically investigate the kind of technological mediation facilitated by image technologies. And in the last section ‘Mediating Place’ I will examine the special relation between place and experience, looking specifically at *what* is being mapped.

# Actor-Network Theory

Actor-Network Theory is a method to help trace new associations between actors in a network (Latour 2005: 44).Consequently ANT is not concerned with the essence but with the existence of things and adopts a constructivist view on nature and society wherefrom the thing itself is seen as multiple and as having more than one agency (Latour 2005: 131). Consequently what ANT seeks to trace is ‘matters of concern’, which is uncertain, negotiated, and objective agencies connected in gatherings or ‘assemblings’ (Latour 2005: 114). Tracing ‘matters of concern’ ANT offers a different view on actors, groups, and action and from that a different understanding of what it means to make someone do something – or persuade.

### A Network of Mediators

In ANT an actor is defined as a *mediator*. This means that an actor is anything that modifies a state of affairs by making a difference i.e. changing the course of action for another actor. Consequently actors count humans as well as non-humans such as animals, buildings, facts, emotions, divinities etc. (Latour 2005: 71). An actor that does not mediate anything does not act. Since ANT is concerned with tracing agencies it is important to be able to distinguish entities that act from entities that do not. Here an intermediary is defined as an entity that *transports* a meaning or element and a mediator is defined as an entity that *translates* it. In the first case we can deduct the output from the input in the second this is not possible (Latour 2005: 39).Translation is here understood as: “a relation that does not transport causality but induces two mediators into coexistence” (Latour 2005: 108). This results in an understanding where an actor is always part of a composition of several agencies and is therefore never alone when acting (Latour 2005: 44). In other words action is overtaken (Latour 2005). This entails that there is a dislocation in making someone do something except through several translations where a restraining and stable network is constructed (Latour 2005: 178, 180).

Groups are however not created once and for all but needs to be constantly performed to pertain their existence (Latour 2005: 34-35). To render relations longer lasting humans often use things (Latour 2005: 68). In relation to this it is relevant to look at ‘inscription devices’, which Latour and Wolgar (1986) defines as compositions of devices, that translates an entity into a figure or diagram (Jensen, Lauritsen et al. 2007: 68). Inscription devices make it possible for researchers to describe processes without being disturbed by their complexity and can therefore be used as a tool not to make the usual interpretations of scientific work (Jensen, Lauritsen et al. 2007: 68-69). I will go into more detail with this aspect in the section ‘Image Technologies’ in this chapter. Another important aspect of the use of inscription devices is that they are often black-boxed. This means that they are made to act as intermediaries (Latour 1987: first pages). Here the construction of the network is hidden and therefore can be managed much easier in the following translations. Therefore black-boxing is often used in the process of making networks into stable constructions as part of e.g. persuasion.

### Tracing Mediators

To help actors take the relay of mediators Latour proposes that we engage in empirical metaphysics. This means that we should take actors own accounts of what they are doing or their ‘theories of action’ as our foundation (Latour 2005: 47,51). It is done by keeping our vocabulary as researchers as poor as possible and by studying actors’ agencies according to accounts, figurations, and controversies.

Firstly agency is always made visible in an *account* as doing or transforming something. If it is not possible to make an account of an agency, it is not doing anything and is therefore not truly an agency. Moreover an account can have many other forms than spoken language (Latour 2005: 53). However I don’t find it to be clear from Latours description *who* should make the different agencies visible: the actors being studied or the researcher. If an actor for example uses a passive verb as in “the food is consumed” is the researcher then allowed to interpret it as being an act? As I have mentioned in the beginning of this chapter the responsibility of the map created in this project lies on the shoulders of me as a creator. From this I interpret that it is my ability to account for an agency that decides if there is an agency or not.

Secondly, to focus on agency we must be aware that what make actors do things can have different kinds of *figurations* (Latour 2005: 53). For example one figuration can have different agencies as well as one agency can have different figurations. That an agency can have different figurations is exemplified in the following accounts from Aalborg Zoo: “I am looking at reindeers. It is fun to see them in reality. Besides this I have only seen them in television” (SMS: 1073). If we agree that these different types of figurations: animals and the idea of television can work as mediators we can *compare* agencies across macro- and micro levels. That a figuration can have different agencies is exemplified in the following SMSes: “Looking at lions and tigers. They seem to thrive. In both cases there are cubs playing with each other. It is nice to see this kind of liveliness” (SMS: 149) and “We are looking at the tiger walking quietly around, it is sad that it does not have more space” (SMS: 114). Here the figuration ‘tiger’ has the two contradicting agencies ‘playing’ and ‘walking quietly around’. If we focus too much on the fact that two different agencies are connected to the same figuration we might miss the connection that ‘playing’ causes an emotion of ‘niceness’ and ‘walking quietly around’ causes an emotion of sadness. These emotions might be given to the respondents from other loci, such as television. Here lions are often shown in action packed scenes making people expect that this is their natural behavior. Focusing on ‘playing’ and ‘walking quietly around’ instead of figuration makes it possible to connect to the agency of television. As we can see, shifting the focus from figuration to agency, it becomes possible to *trace* other mediators.

Thirdly, Latour argues that we should study controversies. As we have seen earlier, introducing the inscription device in Aalborg Zoo made the respondents’ negotiate or discuss the roles of group members, the zoo experience, and the survey experience. These negotiations rendered visible a diversity of agencies (Glud, Albrechtslund et al. 2009: 6). In these examples the actors are part of a controversy subtracting agencies they disagree with and adding agencies they find legitimate (Latour 2005: 56). This means that studying controversies is studying negotiations of what agencies is at play. In relation to this, Latour argues that we should trace the connections between controversies rather than trying to settle them (Latour 2005: 23).

As we can see from studying accounts, figurations and controversies what is important is not *which* agency to choose, since we need to take several conflicting agencies into account. Moreover it is not important if these agencies have the figuration of groups, individuals, or concepts. What is important is *how* they act, as mediators or intermediaries. (Latour 2005: 58).

### Concepts for Tracing

As we have seen Latour argues that we should focus on tracing and connecting mediators. This is done by simultaneously carrying out two moves, which dissolves the micro- macro dichotomy: localizing the global, using the tool ‘oligopticon’ and redistributing the local, using the tools plug-ins.

#### Oligopticons

According to Latour, no place dominates enough to be global (Latour 2005: 204). Consequently the global must be localized. This is done using the concept of ‘oligopticons’. As we saw, actors are only bigger than others through several translations and are thus the performative result of inscription and instrumentation practices. Latour calls these practices ‘oligopticons’. To define an oligopticon Latour compares it to the concept panopticon. Jeremy Bentham first coined the idea of a panopticon, which he imagined to be an ideal prison making total surveillance of prisoners possible. However according to Michel Foucault the panopticon is utopia and, Latour concludes, therefore not a real place (Latour 2005: 187). Latour here argues that instead we should be looking from oligopticons, which are concrete places or ‘centers of calculations’ (Latour 2005: 181). ‘Oligo’ here comes from Greek and means ‘little’ (Latour and Hermant 1998: 28) and an oligopticon as a result is defined as something through which we see *little* but *see it well* (Latour and Hermant 1998: 48). In a broad understanding oligopticons can be seen as coordination mechanisms which creates limited but solid representation using inscription devices (Blok and Jensen 2009: 182). This means that oligopticons can be seen as methods that through inscription devices create a product or representation. Since the SMS map is a method as well as a product of that method it has the double role of being an oligopticon and a representation. An oligopticon is connected to other actors. As such the oligopticon is a network from where traces go to and fro.

If we studied one of the oligopticons summing up a part of the whole Paris we’d draw the same star, on the way there and on the way back. A city doesn’t consist of a general, stable frame in which private actions are nestled, like doves in a dovecote or tombs in a cemetery, but of a criss-crossing of stars, the branches of which serve as supports, obstacles, opportunities or décor for one another, unless, as is usually the case, they never meet, even though each of them is supposed to cover the entire city (Latour and Hermant 1998: 44).

Here Latour and Hermant describe an oligopticon as a star shaped networks creating a limited representation of Paris. Moreover there are several oligopticons which do not necessarily meet. But when they do meet there is a negotiation of meaning between their different ways of assembling agencies or making representations. However representations are often mistaken for panoramas. The Greek word ‘pan’ here suggests that they display everything and as such that they are frames around all actors (Latour 2005: 187). However when dealing with panoramas we, according to Latour, must be aware that: “The Big Picture is just that: a picture” (Latour 2005: 187) and what is important in relation to this is through which optics it is projected, where it is shown, and who it is addressed at (Latour 2005: 187). In other words: how it is constructed and its connections to other actors. Consequently panoramas see *more* than the oligopticons but they *do not see it well* since they are disconnected from other actors. Still, panoramas are constantly used as means to navigate and coordinate actions by and to imagine alternative futures from (Blok and Jensen 2009: 183).

#### Plug-ins

Just as there is no such thing as a global place Latour argues that no place is self-contained enough to be local (Latour 2005: 204). Therefore he proposes a move towards redistributing the local. This is primarily done focusing on ‘plug-ins’. Latour argues that the local such as the individual and face-to-face interactions are endpoints of other actions distributed in space and time. To have a local place it must be plugged into other places (Latour 2005: 200). Here Aalborg Zoo can be used as an example. Through plug-ins other places are acting in it: the office of the biologists acts through the carefully designed signs, WWF through the teddy bears in the shop, and the architects and engineers offices through the buildings and the designed landscape. All these sites have preformatted Aalborg Zoo by transporting templates through different mediators. By doing that, they make the zoo into a ‘suitable local’ (Latour 2005: 200). Similarly to become a subject, a person must be plugged in. To exemplify this, Latour compares humans to computers. When typing the URL for a given webpage it sometimes happens that nothing shows up on the screen and a pop-up suggests that you might not have the right plug-in. Consequently if you want to be able to see the webpage, you must download some software and install it on your system. This will enable you to “activate what you where unable to see before” (Latour 2005: 207). Through this comparison Latour shows that rather than possessing some “primeval interiority” human actors are also a composite assemblage of plug-ins coming from different loci (Latour 2005: 208). Emotions for instance can be given to us from books, television, conversations etc. This means that plug-ins are tools necessary for an actor to interpret a situation and to ‘subjectify’ herself. As a result we as human beings can *subscribe* to plug-ins in order to download a type of software and *become* competent. Competence is therefore neither something we are born with nor something we are moulded into (Latour 2005: 208-209). From this understanding, cognitive abilities does not reside in human beings but are distributed through *formatted* settings made of localizers and intellectual technologies (Latour 2005: 211). However it is important to note that domination is not transported but translated through them, and to be plugged in is therefore not the same as to be dominated by other loci (Latour 2005: 212).

#### Connecting sites

When simultaneously locating the global and distributing the local what moves to the forefront is: connections, vehicles, and attachments (Latour 2005: 220). From this it becomes important to understand 1) what types of connectors can transport agency through transformation, 2) the nature of the transported agencies, and 3) what lies in between the connections.

The type of connectors that makes it possible to transport agencies through transformation is by Latour called *standards*. These can be more or less materialized and therefore count documents, rapports, and maps as well as theories (Latour 2005: 229-231). To perform groups actors constantly use standards. For example a theoretical definition of how people are persuaded is a standard which in many ways have helped actors define what it is to be connected in power relations. When we collect accounts we therefore not only trace how actors are connected but also render visible their theories of what it is to connect (Latour 2005: 230-231).

To understand the nature of the transported agencies that succeeds in formatting the social, it is important to also look at what is not formatted in standards. When exploring an object we should, therefore, first look at its associations and secondly how it contributes to the vocabulary of the social- or other fields of study such as persuasive design. In other words we need to take serious beings that make actors act before considering them in relation to our own framework (Latour 2005: 235-236). When studying Aalborg Zoo it is therefore important to also attend to fictional characters as e.g. Disney figures as something, which makes actors do something. When social explanations are limited to standards, instead of being used as frameworks to explain the world, other types of connectors such as Disney and WWF becomes visible. These different types of connectors each have different ways of associating (Latour 2005: 239). Consequently mediators are beings that gather and assemble the collective in a certain way, which means that besides our own ontological repertoire there is a plurality of ontologies in our world (Latour 2005: 240-241).

To understand what lies in between the connections Latour argues that no social explanation can be made if we don’t focus on: “ (…) that which is not yet formatted, not yet measured, not yet socialized, not yet engaged in metrological chains, and not yet covered, surveyed, mobilized or subjectified ” (Latour 2005: 244). In other words we need to be aware of what we do not know. Latour calls this unknown territory: plasma. As a result, to interpret a behavior from ANT is not to connect it to a framework, rather it is a way to connect it to the plasma around it. It is to register what is outside and to which every course of action has to be connected in order to be carried out (Latour 2005: 244-245).

# Persuasive Intervention

To render it possible to trace mediators Latour argue that we need to separate the process of rendering visible agencies from putting into order as it is done when designing for persuasive intervention (Latour 2005: 257). When tracing associations we are satisfied with a plurality of metaphysics and when designing we are concerned with the ontological task of uniting this plurality into one common world (Latour 2005: 259). However in the following I will argue that the separation of these two processes is difficult since the actions of the persuasive designers cannot be cut off from the actions of the actors they study. The SMS map exemplifies this since it serves as both a method to gather traces by and as a product of that method. This means that the process of gathering and the process of designing are intertwined in the survey in Aalborg Zoo.

Connecting ANT and PD Albrechtslund, Harder, and myself proposed an expanded definition of persuasion, which takes into account human as well as non-human actors. This leads away from the cause effect thinking where a persuasive designer causes an effect on several other actors. Instead the persuasive intention is negotiated, resisted and translated by other actors than the persuasive designers, stakeholders and technologies (Glud, Albrechtslund et al. 2009: 4). Consequently ANT challenges the persuasive intention and gives a new perspective on persuasive intervention.

Opening the communication situation to other mediators by focusing on ‘matters of concern’ shows that it is not sufficient or possible to isolate all matters of facts, and develop a persuasive strategy from that. But how do we combine an understanding where everything is negotiated with an understanding that seeks to conclude into rules of thumb to design? In the article “The Persuasive Qualities of Maps”, we proposed that we should practice ‘research by design’ by engaging in iterative design processes experimenting with different combinations of technologies and introducing these into the territory to render visible diverse agencies (Glud, Albrechtslund et al. 2009: 4). As we saw in the zoo case introducing the technological combination of lommies, mobile phones and questionnaires made people negotiate the roles of group members, the survey experience, and the zoo experience. In this way we used technologies as experiments to render visible and trace the different kinds of agencies at stake in the zoo (Glud, Albrechtslund et al. 2009: 7). B.J. Fogg proposed a similar idea at the conference Persuasive 2009. On that occasion he argued that rather than planning for one big intervention we should make fast and small iterations. From this follows that rather than make people change their attitudes and behaviours at once, we should be focused on how to trigger smaller changes towards a specific goal.

The expanded definition of persuasion also entails that the persuasive designer is an actor under same conditions as other actors. As a result it does not make any sense to isolate the actions of the persuasive designer from the actions of other actors. As a result we proposed that we place the actors we study, the persuasive technologies, and persuasive designers in the same network and study the translations going back and forth. In this way we do not cut of the actions of the persuasive designer from the actions of other actors. To stress this even further we proposed that the actors we study should be involved in the design of the persuasive technologies and ditto products. However to support our persuasive intentions we will also have to create an obligatory passage place i.e. persuasive platform where actors have to go through, in order to be heard. Here we found that the SMS map, owing to its ability to work as a method and a product of that method, could work as a platform from where the respondents in Aalborg Zoo would be able to create content in the form of text messages (Glud, Albrechtslund et al. 2009: 4-5).

Because the SMS map has the double role of being a method to trace actors’ theories of actions and a product of that method, it can work as an experiment as well as a persuasive platform. In this way it can be used to render visible various agencies *and* work as a platform for planning persuasive interventions (Glud, Albrechtslund et al. 2009: 5). In the article we primarily explored the SMS map as a mapping tool. In this project I will however go more into detail with how it can be used as a persuasive platform to design intervention from. However as we have seen we can understand the SMS map from at least two different optics: oligoptic and panoramic. In the first case it is a place wherefrom different kinds of translations go to and fro. In the second case it is primarily the translations made form the SMS map which can be used to navigate and coordinate actions by and to imagine alternative futures from. Here the ‘oligopticon’ conceptualize the view in ANT and the panorama conceptualizes the view in PD. This means that in order to use the SMS map for persuasive intervention the data must be analyzed ordered and translated into a new map.

# Technological Mediation

As earlier mentioned Latour argues that ANT is a tool rather than a theory to *explain* something. Consequently the vocabulary should be kept as simple as possible to enable actors to speak for themselves. Supplementing ANT with the work by Don Ihde and Verbeek nuances the vocabulary. However this, according to Verbeek is not in directly opposition to ANT since the aim of post-phenomenology is not to create a theory to *explain* reality, but rather to better *understand* it (Verbeek 2005: 162). In fact, Verbeek argues, it is impossible not to theorize: “Without a suitable conceptual framework, no reports- and no actor-network theory- would be possible” (Verbeek 2005: 162). From this understanding ANT can be nuanced by concepts from other theories. Ihde and Verbeek each developed theories suitable to look at technological mediation, which is important when we wish to understand how technologies can change attitudes and behavior. The focus here is on human-world relations in which technologies play a role. As ANT stresses the communication situation is more complex than this and therefore each of the concepts: human, technology, and world can be considered as black-boxes. In this project I will therefore use ANT to unfold, and use post-phenomenology to hide, parts of the network. Translated to the SMSes in the map this means that I will use ANT to open the envelopes and trace the different mediators and the theories on technological mediation to hide some networks to focus on the aspects important to persuasive intervention using technologies.

### Hermeneutic Phenomenology

Ihde primarily focus on how technologies shape our perception and experience of the world (Ihde 1998: 1). Consequently Ihde proposes that technologies have transformational powers. These can be summed up in three points, which can also be used as guidelines in a concrete analysis.

* All technologies are non-neutral. Technologies transform situations.
* The transformation magnifies or reduces features of what and how something is experienced.
* Each technology has different patterns of amplification and reduction (Ihde 1979; Ihde 1998: 47).

To explore the pattern of amplification and reduction of a concrete technology, we must analyze its role in the interrelation between human beings and world. Here Ihde presents four different types of relations: embodiment relations, hermeneutic relations, alterity relations, and background relations. These four types of relations can be illustrated in the following way:

* 1. Relations of mediation:
1. Embodiment relations: (I-technology)🡪 World
2. Hermeneutic relations: I🡪 (technology-world)

2) Alterity relations: I🡪 technology (-world)

3) Background relations I🡪 (technology, world)

Fig. 1: Four types of human-technology-world relation (Ihde 1990: 107)

1) (Transparent) Embodiment 🡨🡪 Hermeneutic (Opaque)

2) (Quasi-I) Embodiment 🡨Hermeneutic 🡪Alterity (Quasi-other)

Fig. 2: Continuums of human-technology-world relations (Ihde 1990: 107-108)

In embodied relations the technology becomes an extension of the body and mediates perception (Ihde 1998: 95). Ihde uses an example of writing on a blackboard with a piece of chalk. While writing he discovers that he experiences the blackboard *through* the chalk (Ihde 1979: 7). Here the technology becomes transparent since the object for perception is the blackboard and not the chalk.

In hermeneutic relations the technology is more text-like and the perceptual focus is on the interface through which there is a reference (Ihde 1998: 95-96). Here Ihde uses an example of a heating system in a university. The heating system consists of dials, gauges, rheostats and switches and monitors the heating and cooling systems of the offices and dormitories. To find out the status in relations to heating and cooling an engineer can readthe dials (Ihde 1979). Consequently in hermeneutic relations we read *of* the technology. Here the object is not the technology, the dials, gauges etc. but the temperature wherefrom the world is interpreted.

In alterity relations human beings stand in relation *to* or *with* the technology as when e.g. operating a machine. Here the technology is seen as an *other*. Ihde illustrates this by comparing that of riding a sportscar with that of riding a horse. The resistance of a car is a malfunction while the resistance of a horse is disobedience (Ihde 1990: 98-99). The horse is independent- it is *an other* and the car is not.

Background relations are relations *among* technologies (Albrechtslund 2008: 22). Here the example is a thermostat. When setting it I engage with it momentarily and the rest of the time the machine resides in the background as something I am not aware of (Ihde 1979: 14). Here different types of monitoring can be seen as being part of background relations.

The above relations forms two continuums (Fig 2) and as such overlap. Moreover different types of relations are combined in human-technology experiences. In the first continuum (Fig. 2. 1) the extremities are embodiment relations and hermeneutic relations. In embodiment relations the body is extended by technology and in hermeneutic relations the world is represented in technology. In the first case the brackets are around human and technology and in the second around world and technology. As we will discover later image technologies such as mapping can be described in this continuum. Moreover the alterity relations form a new continuum together with embodiment and hermeneutic relations (Fig. 2.2). Here embodiment relations and alterity relations form the two extremes. In embodiment relations the technology is an extension of the body and therefore a Quasi-I. In alterity relations the technology is an *other* or Quasi-other. In the middle of the continuum are hermeneutic relations. These are neither transparent since they are read, nor opaque since we experience certain aspects of the world through them. Image technologies are examples of these, which I will go into more detail about later in this chapter.

Summing up technologies transforms our perception and experience by amplifying or reducing features of *what* and *how* something is experienced. To find out what is mediated by a given technology and how it mediates our experience we must therefore look at its role in the human-world relation. Ihde here proposes four types of human-technology-world relations: hermeneutic relations, embodiment relations, alterity relations, and background relations.

### Existential Phenomenology

Verbeek further develops the existential dimension of technological mediation focusing on how artifacts shape human existence. To do this, he argues that we need to conceptualize the mediation of action since action and existence mutually shape each other as it was the case with perception and experience (Verbeek 2005: 147). As such he seeks to describe how actions promoted by artifacts co-shape involvement in the world (Verbeek 2005: 178). To investigate the mediation of action Verbeek connects to Bruno Latours actor-network theory (ANT) and to investigate the mediation of existence or involvement in the world he is inspired by the work of Albert Borgman (Verbeek 2005: 178).

 According to Borgman devices make things available and something is available: “ if it has been rendered instantaneous, ubiquitous, safe, and easy” (Borgman 1987: 41). The availability of goods is provided by technologies without demanding any effort. To explain this Borgman compares the modern lifestyle to that of the American settlers:

[A] stove used to furnish more than mere warmth. It was a *focus*, a hearth, a place that gathered the work and leisure of a family and gave the house a center … It assigned to the different family members tasks that defined their place in the household … It provided for the entire family a regular and bodily engagement with the rhythm of the seasons that was woven together of the threat of cold and the solace of warmth, the smell of wood smoke, the exertion of sawing and of carrying, the teaching of skills, and the fidelity to daily tasks. (Borgmann, 1984: 41f)

This lifestyle, however, is reduced in time with the technological development resulting in technologies taking over the work (Borgman 1984: 136ff). Borgman in connection to this says: "If we are to challenge the rule of technology, we can only do so through the practice of engagement." (Borgman 1984: 207). In other words he argues that technology reduces engagement. Verbeek disagrees on this and argues that technology can “just as well enhance specific forms of engagement” (Verbeek 2005: 182). This is also the premise behind many contemporary technological inventions especially within the field of persuasive technology where technologies often are made with an intention of engaging its user. Borgman however argues that we need to create alternatives to technological consumerism, which consists in reforming technology in a device paradigm (Borgman 1984: 168). This paradigm must be related to a center provided by ‘focal things’ and ‘focal practices’. Focal things are defined as things that require skill and effort and as a result invite involvement with themselves and what they make possible. Focal practice is the dedication to a focal thing (Borgman 1984: 219). In *Technology and the Character of Contemporary Life* Borgman describes two focal practices: running and the culture at the table. He describes them as practices with an intrinsic value. They involve engagement and consequently are not pure means of getting from a to b or getting nutrition. Verbeek, however, criticizes this view by pointing out that Borgman confuses ‘effort’ with ‘engagement’. According to Borgman non-technological things calls for engagement since people have to be part of the realization of it. Verbeek, however, argues that the fact that a given technology diminishes effort does not necessarily mean that is not the same, as it diminishes the possibility of experiencing meaning and engagement in the task (Verbeek 2005: 187): “The lack of human involvement in the process does not mean that humans are not involved in the product” (Verbeek 2005: 190). Verbeek concludes that technologies not only reduce engagement but also amplifies it (Verbeek 2005: 189). This understanding entails that involvement in the form of effort and meaning-giving engagement can be treated as a dimension of technological mediation (Verbeek 2005: 191). Connecting to the zoo case this means that a map created without an effort from the guests in Aalborg Zoo can be just as involving as participating in the production of the SMS map by creating its content. Moreover the map as a technology can amplify and reduce certain forms of involvement. Consequently technologies shape involvement and can be related to the concept of mediation in a post-phenomenological vocabulary (Verbeek 2005: 191). This means that instead of speaking of the reduction of engagement we can speak of its *translation*, using a Latourian term. This means that technologies can encourage some ways of action (invitation) and discourage others (inhibition) (Verbeek 2005: 191). Moreover when exploring technological mediation of involvement, which includes both effort and engagement, we can also decide to which aspect of reality the involvement directs itself. Here Verbeek points out three different dimensions of involvement (Verbeek 2005: 192). Involvement concerning:

* The artifact itself
* The environment of the artifact
* The product of the artifact

Fig. 3: Three dimensions of involvement (Verbeek 2005: 192)

In the Zoo case involvement for the respondents can therefore concern the mobile phone or the lommy, Aalborg Zoo, or the SMSes and SMS map.

Human existence is translated by technological mediation of human action and its social context. In relation to this Verbeek argues that we need to develop the existential dimension of Ihde’s human-technology relations. In the mediation of action only the embodiment relations and the alterity relations are relevant (Verbeek 2005: 193). As we saw earlier, artefacts in embodiment relations withdraw from our attention - they are ready-to-hand. Borgmans analysis nuances this since his concept of involvement shows that artefacts can be ready-to-hand in an engaged or disengaged way. Another aspect appears when we look at alterity relations. Here the artefact is present-at-hand, it is the object of our attention *and* demands involvement. This shows that artefacts do not need to be ready-to-hand to be usable. Relating the concept of involvement to embodiment- and alterity relations ready-to-hand and present-at-hand are no longer seen as modes of human-artefact relations but rather as the extremes of a continuum where different human-technology relations unfold (Verbeek 2005: 194). Consequently artefacts mediate human action and involvement via embodiment relations and alterity relations. In alterity relations a distinction between ‘effort’ and ‘focal engagement’ can be made and the involvement can be with the device, its environment, or its products (Verbeek 2005: 195).

# Image Technologies

The SMS map is an image technology. When planning for persuasive intervention using the SMS map as a platform I therefore find it important to explore this visual dimension. To further understand the special features of image technologies I will turn to Don Ihdes visual hermeneutics, which explores the phenomenological and hermeneutic morphology of images.

Don Ihdes visual hermeneutics entails two concepts: *technoscience* and theperspective *Earth-as-planet*. *Technoscience* is a technologically embodied science (Ihde 1998: 51) where embodiment is defined as: “(…) the *technological extension of primary perception* through *instrumentation*” (Ihde 1998: 53). This means that technoscience works through an instrumental realism, which makes it possible for a mediated bodily perception (Ihde 1998: 53)of presumed subperceptual entities (Ihde 1998: 51). Earth-as-planet is the idea that we must have a sense of the whole earth as a measurable field. Ihde argues that earth was first seen as a planet when embodied in earth shots (Ihde 1998: 57). These two concepts give a special perspective to scientific images. Rather than taking the picture for the referent itself, or confuse the world with its picture, the picture in this perspective is itself instrumental and is read *through* (Ihde 1998: 58).

Full human perception, according to Merleau-Ponty, is multi-dimensioned and synesthetic (Ihde 1998: 160). This means that we always experience something with all our senses. In relation to this the visual perception is reduced (Ihde 1998: 124) and images as a result are reductive. First of all, images are framed space. What is presented in the picture is selected and is therefore different from lived-bodily space. Secondly the presentation is an on/off presentation*.* It is simply not on as long as consciousness as in ordinary experience. And third images lack depth. All these effects are *reductive* in comparison to full sensory experience. However scientific images, according to Ihde, is not reductive since they are read *through* (Ihde 1998: 90-91). To explore this quality we must look at the special kind of mediation image technologies facilitate. As we have seen, Bruno Latour by the concept ‘oligopticon’ argues that the image is never autonomous but refers to the work that produced it. In science it is produced in the laboratory using an inscription device. This means that the inscription device is a hermeneutic device and work done in the laboratory is a hermeneutic process (Ihde 1998: 149). In the laboratory scientific objects are thus *constructed*. On the other hand imaging in science, whether it is isomorphic or nonisomorphic, have a *truth function* since it presents something out there (Ihde 1998: 90-91). Combining these two understandings the laboratory, according to Ihde, is the place where scientific objects are made *readable* (Ihde 1998: 159). This process of ‘making readable’ is phenomenological as well as hermeneutical in its morphology. The phenomenological dimension affords methods to render it possible for things to speak for themselves (Ihde 1998: 151) and as we have seen ANT is such a method. However we should still be aware that the voice we give to things or elicit bodily from things is complex. If the thing is e.g. an instrument, the sound emerging when we strike it is the voice of the thing struck *and* the voice of the thing striking it (Ihde 1998: 151). A given media will therefore always transform the mediation (Ihde 1998: 124). Instrumentation is close to the perceptual experience and thus displays a phenomenological morphology. However ‘instrumental phenomenological variations’ shows *more*. With each variation a complex set of phenomena emerge (Ihde 1998: 59). For example the invention of photography stopped time, so that we could analytically observe the object again and again. The X-ray displayed the interior of objects (Ihde 1998: 165). The microscope displayed micro objects not visible to the human eye and macro-measurements made whole earth measurements possible (Ihde 1998: 166). Furthermore global positioning systems (GPS) connected to mapping technologies have made it possible to show a person’s exact position in coordinates. These variations upon perception can be translated into the humanly perceivable extending beyond what we as humans can see without aids (Ihde 1998: 186). However images within science not only have to be isomorphic as the ones just mentioned (Ihde 1998: 166). They can also be nonisomorphic and closer to being texts (Ihde 1998: 167). The relation here are thus hermeneutic and resembles that of reading (Ihde 1998: 168).

From this visual hermeneutics claims that the scientific objects is invisible only until we can come up with a technology that makes it visible (Ihde 1998: 177). In other words, image technologies displays *what could not be seen before*. At the same time, the visual hermeneutics claims that the scientific object is made visible in specific ways. This means that image technologies adds the dimension where *what is seen is understood*. What is implied here by Ihde is a “universal hermeneutics” (Ihde 1998: 187). Looking at image technologies as hermeneutic, Ihde expands hermeneutics to a ‘hermeneutics of things’. This implies that things not only co-shape our actions in the world but also our understanding of it. However a ‘thing’ is material and non-living. Here I will argue that places such as the zoo can be considered a visual display since nature is here made visible in certain ways. The zoo is constructed to show us what could not be seen (and touched) before e.g. animals and plants from different countries. Moreover in the zoo we can understand what we see, e.g. the polar bear is understood as an arctic animal through the design of its cave. Part of the zoos visual display is not only things but also animals and humans such as the educators and the zookeepers. This means that the animal is constructed and made readable in the zoo.

# Mediating Place

When exploring the persuasive qualities of mapping technologies I cannot ignore the role of the physical environment and the concepts ‘place’ and ‘space' which have been subjects for decades of conceptual struggles in philosophy and social science. However in relation to this project I am mostly interested in the concepts in relation to mapping technologies. Steve Harrison and Paul Dourish (1996) were some of the first to talk about place and space in relation to design of technologies. They define space as “ the structure of the world; it is the three dimensional environment in which objects and events occur” (Harrison and Dourish 1996: 68) and place as: “ a space which is invested with understandings behavioral appropriateness, cultural expectations, and so forth. We are *located* in “space” but we *act* in “place”” (Harrison and Dourish 1996: 69). From this understanding, space is defined as objective while place is defined as subjective and connected to meaning. However as Barry Brown argues, space and place is intertwined in action. This means that the abstract features of space is intertwined with place-like aspects “ in an ongoing embodied action in the world” (Brown 2009: 2). Rather than focusing on space and place as separate, I will build on concepts that binds them together. Consequently I will work with an understanding of mobility engagements or involvement in place as part of place production. Here I am inspired by Nuccio Mazullo and Tim Ingolds analysis of Samí peoples understanding of place.

When a Samí person is asked to render an account of a journey, he will re-enact the journey by recollecting the names of the places he passed. Every name will be recalled as an episode, topic or story and not as affixed to a specific location. Building on this view places can only occur along paths of movements, and their names can only be told in sequences in a narrative re-enactment of the journey (Mazullo and Ingold 2008: 29). Furthermore if someone asks where a third person is, the answer would be given in terms of what they are doing and the paths the person would take in a given activity: she is in ‘the herding forrest’, ‘the fishing forrest’ or the ‘berrying forrest’ (Mazullo and Ingold 2008: 31). Consequently life for Samí people is lived not *in* places but *along* paths. This means that the path is the primary condition in being or *becoming*. As a result places are formed through movement. Here movement is place-binding but not place-bound. This means that going from place to place is grounded in the perceptual engagement in the surroundings (Mazullo and Ingold 2008: 32). But movement takes time, which means that *being* must be intrinsically temporal. However time is variable. The length of a journey would be told as the time it takes to perform the task needed to reach the destination (Mazullo and Ingold 2008: 33).

In relation to this the concept of the taskscape appears. A task is defined as: “any practical operation, carried out by a skilled agent in an environment, as part of his or hers normal business of life” (Mazullo and Ingold 2008: 35). Just as every place is situated in a landscape, every task is situated in a taskscape (Mazullo and Ingold 2008: 34). Building on the idea that places occur along paths of movement, the landscape and the taskscape are intertwined. This means that humans as well as non-humans are part of the landscape. They interact and their interaction requires movement (Mazullo and Ingold 2008: 35). This means that mapping can be used to visualize the intertwined landscape and taskscape. This can be used to planning for intervention in relation to concrete behaviours taking place.

In relation to changing behaviour Gregory Bateson resolves the inner-outer dichotomy. ‘Mind’ from his perspective is immanent in the total system of paths wherefrom information flows from the person into the environment and back again. As such this supports the movements of ‘localizing the global’ and ‘redistributing the local’ proposed by Latour. The generative source of information must be understood in relation to this ’difference’, and all difference applies change. However, not all change entails difference. Bateson calls the movement that does make a difference for ‘meta-movement’. Consequently a movement of becoming is a meta-movement (Mazullo and Ingold 2008: 36) and a living being is a being whose movement is a process of becoming. As a consequence moving for a human being is a process of change. To cover the intertwinedness of the landscape with the taskscape Mazullo and Ingold comes up with the concept of a metakinesis-scape and defines it as: “ (…) an entire field of rhythmic interrelations (*a scape*) between movements of terrestrial travel and bodily gesture (*kinesis*) that are themselves (*meta*) movements of becoming that make a difference to both mobile beings and the world they inhabit “ (Mazullo and Ingold 2008: 37). The understanding of place just elaborated on do not attain to dwelling by means of building as Heidegger defines it (Heidegger 1971: 1). To the Samí people the conception of ‘home’ is open-ended and unbounded. To them the tent dwelling assembles the trails people follow in their dwelling activities. By following paths the individual remains grounded and the experience embodied within the dwelling (Mazullo and Ingold 2008: 32). This implies that dwelling is not just a synonym for ‘home’ but rather ‘homelike’.

A central term in mobility and place studies according to Bærenholdt and Granås (2008) is the concept of ‘enactment’. According to Bærenholdt and Granås the construction of places involves materialities, politics, imaginations, and communication technologies. The construction of place then comprises the engagement of people with their physical- material environment (Bærenholdt and Granås 2008: 3).

Two Oligopticons

Part of exploring how the respondents are involved in and understand the zoo by creating content for the SMS map is to look at how they negotiated the constructed setting of the survey. In relation to this at least two oligopticons are important: The office building at Aalborg Zoo and the base area from where the survey team operated. Tracing mediators from these two oligopticons will enable me to analyze the construction of the zoo and the survey set-up and thus the constructed setting wherefrom the respondents created content for the SMS map. Tracing mediators from the office building makes it possible for me to develop suggestions for interventions, which can be used in relation to the agencies already carried out by Aalborg Zoo. Tracing mediators at the base will make it possible for me to take them into account in the later on in relation to how the survey was negotiated.

# The Office Building

When entering the zoo you will see a fountain with a statue of a man carrying two young bears under his arms. The man is normally naked but during the survey days someone has dressed him in an AAB t-shirt on the occasion of AABs qualification for the UEFA cup. Walking clockwise around the fountain there is a building. In one of the windows of this building there is a sign saying: “ Homo Sapiens”. This is the office building. It contains the offices of all of the zoo personal and the cantina where the members of the zoo staff meets for lunch. In this building the offices of the information-team (consisting of the head of education and the event coordinator), the zoologists’, the educators, the secretaries, and the it- team is situated. All meetings and presentations regarding the zoo takes place in the office building. Consequently all plans of action for Aalborg Zoo is developed from here. From this building the zoo is associated in a specific way, which is represented in different kinds of material from posters, brochures, events, buildings, and signs *in* the zoo to the webpage communicating *from* the zoo. This material makes Aalborg Zoo into a preformatted setting and therefore partly constructs the experiences and the actions taking place in the zoo.

As I mentioned in the beginning, Aalborg was interested in making the guests in Aalborg Zoo visit a diversity of animals including the ones, which at the present time was not much frequented. In zoo office lingo these are called ‘shit’ animals. However these concepts translate the animals into animals that in them-selves are uninteresting or in some way performs badly. This way of thinking about the animals makes it difficult, if not impossible, to persuade people to visit them. However the information and communication department of Aalborg Zoo prefer to use the concepts ‘hit’ and ‘shit’ *experiences*. This alternative concept translates the animal into something possible to stage in a certain way in order to appeal to the guests. The latter implicates that translations can be done to make all animals more interesting. I will elaborate on this in the last chapter where I will come up with suggestions for persuasive interventions possible to employ to persuade the guests to pay more visits to the ‘shit’ animals.

However other agencies are also at play in the zoo office, which we need to take into consideration when planning for persuasive intervention. Here our contact person in Aalborg Zoo, the zoologist and educator Rikke Kruse Nielsen, elaborates on how the zoo is assembled from this building:

I think the general opinion among the personal in zoo is that our animals are wild animals and should remain as wild as possible in captivity. But I believe some people deviate from this attitude – without knowing it – so do not quote me!

It is important that we do not stage animals in a wrong context, so that they appear as pets. For us it is important that the animal is stimulated in relation to its nature and staged in relation to its natural environment.

If we are obliged to intervene in situations where e.g. animal mothers do not want to take care of their young it is important that the animals remain as unaffected by the situation as possible. In relation to this it is important that the reason for handling wild animals is communicated in a way so that there is no doubt about why we have close encounters with wild animals (Appendix F).

Contemplated from the office building, the animals in Aalborg Zoo are wild animals. However as it is demonstrated in the text above it requires several translations from the zoo personal to keep the animals wild. First, the behavior of the animals is kept natural through stimulation. Secondly, the zoo personal stages the animal “in relation to its natural environment”. This staging takes place in front of an audience and is done to keep the animal wild in the eyes of the audience and as part of communicating the animal as wild. When an animal mother does not want to take care of its offsprings, the zoo personal attemps to intervene without translating the wild animal into e.g. a tame animal. Moreover the zoo personal translates the ‘handling’ of the animal into communication about the ‘reasons for handling the wild animal’. As it is made visible here the zoo personal keeps the animal wild by stimulating and staging it and by communicating close encounters with them as ‘handling’ rather than ‘taking care of’. This means that the translations carried out by the zoo personal translates the animal into an animal to watch rather than an animal to interact with. Consequently Aalborg Zoo, from the office building, is assembled as a place where wild animals are sustained through different attempts to keep it untouched by humans.

As can be seen from this text it is not only important to act towards the animals in the right way to keep them wild. It is also important to communicate this action as ‘handling a wild animal’. In relation to this the homepage: http://www.aalborgzoo.dk/ is an important mediator. Here the themes of the zoo are defined at the top of the page as: experience, learn, and sustain. Under the theme *sustain* Aalborg Zoo today is contrasted with Aalborg Zoo 1935:

From consumer to sustainer

Aalborg Zoo opened in 1935 as a zoo typical for its time, a recreational garden with a collection of animals, with the purpose of entertaining and lecturing the audience. Often the animals came directly from nature via animal traders and the zoo as such were big nature “consumers”. Fortunately at lot has changed since then (Appendix G).

In this text Aalborg Zoo is connected to 1935 where animal traders catches animals from nature and trades them to Aalborg Zoo (1935). In this process Aalborg Zoo is translated into ‘ big nature consumers’. Aalborg Zoo (1935) gathers the animals in a garden and the associating between the garden and the animals makes up a new composition: a collection of animals. Aalborg Zoo then sells the collection to an audience (1935), and doing that translates it into entertainment and lecturing. The act of visiting the zoo is translated into recreation. In the last sentence: “Luckily a lot has changed since then” time translates Aalborg Zoo 1935 into Aalborg Zoo 2009 and in that process into something better, illustrated by the word ‘luckily’. As it appears here the agencies at play in Aalborg Zoo anno 2009 is interpreted as an improvement of the agencies at play in Aalborg Zoo anno 1935. What seem to be the primary agencies in Aalborg Zoo 1935 is buying and selling animals. First the zoo buys the animals from animal traders and then they sell them as an entertainment. According to this text it is not the buying and selling activities, which are dominant in Aalborg Zoo 2009. Through this connection to the past Aalborg Zoo 2009 is translated into a political correct place. However, this does not mean that it does not still engage in selling and buying activities. For example Aalborg Zoo is, through the ticket-sales, translated into a place to be consumed. Consequently since the zoo needs visitors in order to be able to perform their other activities they got to, constantly, perform Aalborg Zoo as an attractive product for the guests.

At the same page in the right column Aalborg Zoo connects to other places: Convention on International Trade on Endangered Species of Wild Fauna and Flora (CITES), International Zoo Educators Association (IZA), World Association of Zoos and Aquariums, European Association of Zoos and Aquaria (EAZA), and Danish Association of Zoos and Aquaria (DAZA) (Appendix G). In the following I will elaborate shortly on the plug-in to EAZA and go into more detail with IZA while letting the rest of the loci remain the plasma to which Aalborg Zoo is connected. This means that I will not trace the mediators to and fro these places. Aalborg is plugged into EAZA through different breeding programs. This means that CITES makes the zoo into a political correct local that do not trade with animal for enjoyment but to maintain biodiversity (EAZA 2009). Aalborg Zoo is plugged into IZA through the conservation education resources primarily provided on the webpage [www.izea.net](http://www.izea.net). Here IZA describes the conservation education as a process of: “influencing people’s attitudes, emotions, knowledge, and behaviors about wildlife and wild places” (appendix H). This is done through methods “to reconnect people with the natural world.” (appendix H). This means that the act IZA seeks to transport, through the different resources on the webpage, is the act of reconnecting to the natural world. This implicates that what is also transported is nature. In relation to this the Curator of Education at Disney’s Animal Kingdom on the website provides a *conservation education* program, which can be used by educators. Here the conservation education program is defined as:

(a way to) improve natural resource management by helping people become aware of the value of the natural resource, examining the threats to the well-being of the environment and motivating them to improve environmental management (Lehnhardt 2009: 1).

the process of positively influencing people’s knowledge, attitudes, emotions and behaviors about wildlife and wild places through the engagement and involvement of the audience (Lehnhardt 2009: 1).

*Conservation education* is described as a process to influence people’s knowledge, attitudes, emotions, and behavior. In other words conservation education is described as a persuasive process. Here the persuasive intention is to make people aware of natural resources and improve environmental management. Changing their attitudes, emotions, knowledge, and behaviour using methods that engages or involves them does this. However using the word ‘interpreters’ IZA acknowledges that the agency of involving is not carried out without some kind of transformation through the educators (appendix H). Lehnhard also acknowledges this translation of the methods proposing that the persuasive intention in the concrete situation should be clarified in a key message and a corresponding conservation action. Examples of such messages and actions are provided in the program. An example of a key message is: “People’s lifestyle choices have an impact on habitat and wildlife” (Lehnhard: 6-7) and the corresponding conservation action could be: “ Support wildlife conservation organizations through contributions or volunteerism” (Lehnhard: 6-7). The persuasive intention of reconnecting people with nature communicated by IZA is through the program provided by the Curator of Education at Disney’s Animal Kingdom translated into methods of engaging and involving people. These theories and tools are then used at the school service in Aalborg Zoo in relation to pupils from different schools in Jutland. ‘The School Service’ at Aalborg Zoo is described in the following manner on the official website for Aalborg Zoo:

Based on the zoo facilities, effects such as craniums, fur, and living animals, the school service has prepared exiting and different teaching. The teaching is an offer for schools and institutions in and outside of the region of Northern Jutland (more details under *prices*).

Every year 42.000 children and young people from schools and institutions visit Aalborg Zoo. In 2006 The School Service was teaching 11.520 pupils. Here themes such as “Animals at Home”, “African Savannahs”, “The Rainforest as a Habitat” and “Everyday Life in the Zoo” were among the favourites (Appendix I).

The school service at Aalborg Zoo involves educators and “effects such as craniums, fur, and living animals”. Here the “living animal” is used for teaching and is thus translated into a teaching tool. Moreover under the text is a photograph of a small boy holding a snake (appendix I). This photograph illustrates that the methods of engaging and involving people as proposed in the program provided by Lehnhard in the school service is translated into acts making it possible for the pupils to have close encounters with living animals such as snakes. Here engaging is translated into touching or interacting with animals.

Moreover the school service is a construction or display making it possible for pupils to see the interior of animals and to see animals up close. As such the pupils through the display provided by the school service can see what could not be seen before. Moreover the whole construction can be read in order to understand certain aspects of the world such as the home, the rainforest, the savannah, and the zoo. In that way the relation between the pupil, the school service, and the world is hermeneutic as well as embodied. Since the school service also makes it possible for the pupils to touch animals it is not only a place through which the pupils can see what could not be seen before and understand through seeing. It is also a place where they can touch what could not be touched before and be engaged through touching. In this way the school service at Aalborg Zoo translates the persuasive methods of engagement provided by IZA into bodily engagement. Aalborg Zoo translates the endangered animal into a tool, which can be seen and touched in a process of experiencing and learning about wild life and wild places. Consequently Aalborg Zoo translates the persuasive process of influencing people’s attitudes, emotions, knowledge, and behaviours about wildlife and wild places into a process of making the pupil reconnect with the animal through acts of touching, watching and theming. During this process the animal is translated into an animal to interact with. However this interaction is primarily limited to the school service and the smaller animals in the zoo.

From the office building I managed to trace different mediators, which co-shape Aalborg Zoo as a preformatted setting. One of the mediators was Rikke Kruse Nielsen, who spoke as a representative for the way the zoo is assembled from the office building. Moreover the website created at the office building worked as a mediator connecting Aalborg Zoo to other times such as Aalborg Zoo 1935 and other places such as CITES and IZA. These places act in Aalborg Zoo making it into not only a morally responsible place in relation to how the animals are handled but also a place for conservation education. At this point there seems to be two different translation processes or constructions of animals at play in Aalborg Zoo. The zoo personal stimulates, stages, and communicates the animal to keep it wild. The school service dissects, brings closer, and educates to make the animal engaging. In the first case, translations are carried out to keep the animal untouched by human hands and staged as wild. In the second, translations are carried out to connect people to the wild animal through touching and close ups. Consequently Aalborg Zoo is a place, which makes it possible for guests to re-connect to nature through close encounters with wild animals, while at the same time being a place where the zoo personal disconnects from animals through translations to keep the animal wild. Aalborg Zoo is thus constructed between actions of engaging and staging, re-connecting and disconnecting to animals.

# The Base

The second oligopticon I will analyze is the base wherefrom the survey was coordinated. This oligopticon was literally plugged into the office building with wires going from the computers at the table through the window at the zoologists’ office to wall sockets. Moreover the base was connected to two other oligopticons each transporting agencies into the survey: Diverse Urbane Spaces (DUS) at Architecture and Design and Persuasive Design (PD) at The Institute for Communication and Psychology for which I am a representative. Both of these associate the world in different ways and thus transported different agencies into the survey. DUS primarily associates the world in relation to the moving patterns of the guests and the ‘attractivity’ of different areas. This means that the goal of the survey seen from here to a far extend is to explore questions in relation to the attractiveness of different areas in the zoo. PD associates the world in a persuasive way developing concepts in relation to change people’s attitudes and behaviour using technology. This means that the goal of the survey seen from this locus was to plan persuasive intervention in the zoo using the SMS map. The hypothesis was that displaying the emotions of people on a map could be used persuasively. As a result I wanted people to communicate their emotions from different places in Aalborg Zoo. During the work with the project this goal however changed to be more concerned with how the respondents benefited from participating in the survey. In other words: the focus of the project shifted from mostly being concerned with the map as a product, to concern the map as a product and a method. Consequently the inscription device itself and the standards used in the survey to transport agency is also the matter of concern. The ways DUS and PD assemble Aalborg Zoo can primarily bee seen from the agencies transported through standards in the survey.

In the following I will concentrate on how the survey set-up was constructed to make people participate in the survey. This construction is not created once and for all but must be held stable through several translations using different standards. In the survey at least eight standards were used: an instruction sheet, four helpers, a base, a poster, a business card, a free ticket, and two technologies: the lommy and the mobile phone. Each of these was chosen because of their ability to transport certain agencies through transformation. However the agencies they transport in some cases were negotiated and transformed by other actors.

The instruction sheet was designed to brief the helpers in how to inform the chosen guests about the survey (appendix J). Through the instruction sheet the agency of making people participate in the survey was translated from an imperative into being information on the survey and an invitation to participate. The helpers transported this information and invitation to participate in the survey through a transformation from written instructions to face-to-face communication. Here face-to-face communication made most of the respondents at least pretend to pay attention to the information on the survey and the invitation to participate. Part of the information about the survey consisted in telling the chosen guests that they could get a free ticket for their next visit to Aalborg Zoo if they participated in the survey. The free ticket transformed the action of inviting people to participate into an action of paying them to participate. The free ticket made many people agree to participate and transformed the act of participating to help the research team into an act of personal gain. At the entrance the posters were placed in a poster stand at the beginning of the railing marking the line for the ticket sales (appendix K). Here the placement of the poster transformed the act of standing in line to buy tickets into an act of standing in line for the survey. Moreover the base was placed next to the entrance close to the path leading clockwise around the zoo. This path, according to the zoo staff, is the one most often chosen by guests. The placement of the base thus invited the guests to walk towards it. The instruction sheet, the helpers, the free ticket, the poster at the entrance, and the placement of the base all partly made people pass by the base when entering the zoo. This made many ask if they could participate in the survey, simply because they saw it as part of going to the zoo. Often guests who were not chosen at the entrance volunteered at the base. This behaviour shows that it was not only the instruction sheet and the helpers that transported the agency of making people want to participate. The helpers sitting at the base however rejected offers to participate from guests not chosen at the entrance, which made some guests get utterly disappointed. At the second survey day when I turned a family down, a man in the middle of filling out the questionnaire said: “ Ok, now I really have to make an effort”. The rejection together with the disappointment of other guests translated the task of participating in the survey into a task the participants had to put an effort into. On this occasion the survey was seen as part of the zoo experience. Another observation from the survey days was that many of the guests asked the helpers at the base were the toilets were and when certain events would be performed. If possible the helpers provided this information. In this way the act of making people participate in the survey by some of the respondents was translated into an act of helping people getting around in the zoo. This meant that the survey team in these cases was translated into zoo guides and the survey into a part of the zoo.

Making the chosen guests agree to participate in the survey however did not mean that they could not change their mind during the day. Therefore the inscription device was also created to make people keep on participating. First of all we needed them to still want to participate when they had filled out the questionnaire. Here the helpers at the base helped the respondents fill out the questionnaire by reading the questions aloud and click in the answers. The task of filling out the questionnaire was by the helpers transformed into a joined task, which meant that the respondents did not have to put an effort into handling the online questionnaire but could instead concentrate on being involved with the task of answering the questions. Moreover helping the respondents fill out the questionnaire made the task into something which could be done fast. As a result the respondents waiting in line became more willing to fill out the questionnaire - and the respondents filling out the questionnaire more willing to continue participating in the survey. In relation to the questionnaire the questions concerning ‘attractiveness’ can be especially important in relation to how the respondents carried out the task of creating content for the SMS map. These questions were the following:

12. Where are you planning on spending the most time in Aalborg Zoo?

13. Why are you planning on spending most time there?

15. What areas do you find the most attractive?

16. What animals do you like the best?

(Glud, Harder et al. 2009: 14)

In question 12,15, and 16 it was possible to range the areas and animals according to a top five list. Thus the act of answering which areas the respondents found the most attractive was translated into an act of rating the areas the person liked the most.

Moreover the lommy and the mobile phone were chosen because they invited actions that would make people agree to keep on performing the tasks of wearing the lommy and writing SMSes. To make people agree to walk with the lommy, a special model was chosen by the research team. This model had been tried out in earlier surveys in parks. It was chosen since the design of this lommy apparantly invited people to wear it during the whole survey. The lommy is at the size of a mobile phone and easily fits into a pocket, consequently it is attractive to be worn or carried around. Moreover it has a strap inviting the action of putting it around the neck and thus to be used in situations where the respondents do not want to wear it in their pocket or hands. In this way it invites to several ways of wearing it. Moreover the strap can be ‘broken’ if pulled hard enough, which means that it does not prohibit activities such as climbing in trees and playing at the playground. Consequently it does not prohibit being worn when the person is active. The design is robust with only two buttons and a cover to safeguard it from rain moreover it is not expensive looking. This invites the wearer to handle it casually. Moreover the lommy was chosen because of its un-cool design, which prohibits actions of steeling it. All in all the lommy is designed in a way inviting the respondents to engage in all the activities he or she wants while wearing it. However in some cases the un-cool look of the lommy made people ask if they could keep it in their bag, simply because they found it too ugly to wear.

In the survey we decided to use the private mobile phones that people brought with them. This means that accounting for what actions the mobile phone invites to do, is done thinking of a standard mobile phone. First of all the small screen on a standard mobile phone invites the user to write short messages on the go. Moreover, the phone being their own, people knows how to use it. Consequently the respondents did not have to put much effort into operating the tool itself. It can also be argued that a private phone invites private communication. However the survey setting might as well have translated actions of public communication.

In the survey we wanted the respondents to write about their emotions. The small business card handed to the respondents at the base transported this instruction, transforming it into a small reminder. The size of the card invited the action of ‘putting it into a pocket’ and at the same time prohibited the action of throwing it in the trashcan. In this way the design made the respondents ‘safe guard’ it and carry it around in the zoo. As we observed during the survey days, in some cases it made them ‘return’ the card at the base together with the GPS. Moreover the association between the two mediators, the pocket and the business card translated the instructions on the card to be something that could be pulled whenever needed.

As we have now seen the research team used several standards: an instruction sheet, four helpers, a base, a poster, a business card, a free ticket to get the respondents to participate and keep the engagement. Moreover these standards together with the placement of the base translated the survey into being part of the zoo experience for the respondents. Moreover the technologies was chosen too keep the respondents engaged in the task of creating content for the SMS map. Here the lommy invited the respondents to use it in all kinds of situations and the private mobile phone made it possible to write short messages on the go without putting too much effort into operating the technology it-self. As we also saw the business card made it possible to transport the agency of what to write into the zoo.

Paths in Zoo

I order to plan for persuasive intervention, I will look at how the respondents through the negotiation of the survey were involved in the zoo and how they understand the zoo. To explore this I will analyze the SMSes created for the SMS map by tracing the different mediators at play. However inspired by ANT I do not believe that it is possible to map all the mediators in Aalborg Zoo. Even if I opened every envelope in the SMS map and traced the mediators this would not be possible. Consequently I have decided to focus on some of the SMSes on the map while letting others remain unknown territory. But which ones should I focus on? ANT does not provide any guidance in relation to how to select data for an analysis except that I shall ‘feed of controversies’ or I might add investigate negotiations. However in relation to this, the SMS map is challenging since when we introduced the inscription device, this introduction itself made people negotiate the zoo experience, the survey experience and their roles in the group (Glud, Albrechtslund et al. 2009: 7). This implies that all the respondents potentially negotiate at least the set-up. Consequently in the following analysis I have chosen the four paths in a way making it possible to look at the most popular types of SMSes from the areas most accounted for in the SMS map. This does not mean that all the paths contain all the different SMS types and areas but simply that I have chosen the paths in a way so that each of the most popular types of SMSes and the most popular areas is present in at least one of the SMSes.

# Categorization in SMS Types

To be able to select the most used types of SMSes for the analysis and to gain an overview of the data, I decided to categorize the SMSes semantically. It is a rough categorization mainly made to be able to choose what SMSes to analyse and get an overview of how the respondents primarily negotiated the survey task. Moreover since the SMSes are categorized in relation to their content there will be cases where an SMS deviates from the categories. In addition the meaning of the SMSes is context dependent, which means that the same SMS written from two different places does not necessarily have the same meaning.

The categorization process was an iterative process where I pended between the SMSes and the developed categories. I stopped categorizing at SMS number 303 when it did not add any new categories or nuanced existing ones. During the categorization process I developed five categories of SMSes: *evaluation*, *interpretation*, *report*, *suggestion*, and *tag*. By evaluation I here understand when the respondent in some way review the value or efficiency of something. Interpretation is understood as when the person ascribes meaning to the surroundings by e.g. comparing animals to fictive figures or humans or ascribing feelings to animals. It should be mentioned that I see all the SMSes as ways to ascribe meaning to the zoo. This means that the name for this category is not entirely suitable. However I have chosen it for lack of anything better. Moreover I understand report as when the respondent in outline carries out the task provided by the research team describing what they are doing, what they are looking at, and what they are feeling. In some cases the respondents do not answer all three questions but only one or two of them. However I will still consider these reports. I understand a suggestion as when the SMS explicitly comes with an offer in relation to what can be changed in the zoo. And last but not least I understand a t*ag* as when the respondent writes an SMS only to mark a specific location as important as for example: “I look at monkeys” (SMS: 16) and “In the Africa land” (SMS: 6). Inspired by Latour the different types of SMSes can be seen as acts or ways of negotiating the task of creating content for the SMS map. This means that the respondents evaluate, interpret, report, suggest, and tag when they carry out the task. Moreover inspired by Verbeek and Bormann the respondents through these type of actions are involved in the world in specific ways.

To get an idea of how the task of writing the SMSes most often was carried out, I calculated how many times a given type appeared. As it can be seen the SMS types, which most often occur is evaluation (46 %), report (30 %), and interpretation (11 %) (Appendix D). These three types of SMSes all negotiate the task of creating content for the SMS map in different ways. Moreover there are also different ways of making the same type of SMS as we will see in the analysis.

Now I will concentrate on why the task of creating content for the SMS map was mostly negotiated in these three ways. Firstly, in the questionnaire - and especially the questions concerning the attractiveness of the zoo areas (question 15 and 16) - the respondents were asked to grade the different areas and animals. Accordingly, answering these questions may have translated the task into grading areas. Secondly, the directions of the research team transported in among other standards the business card mediated the type of SMS called ‘report’ since the respondents primarily executed the instructions from the research team in these types of SMSes. However I will argue that describing should not be seen as passively reporting, since this task, as we will see, was negotiated in different ways. And thirdly, the headline “Emotion Map” on the posters and the business card informed the respondents that their SMSes would be displayed on a map. This might have co-shaped the task into expressing emotions considered suitable for public display. In addition Aalborg Zoo as a public place co-shapes the SMSes sent into types of public communication, which especially the evaluations is an expression of. However the type of SMS called ‘interpretations’ seemed to be the respondents’ ways of translating the task of writing about emotions in relation to their surroundings by plugging in to different interpretations of animals from other places than the zoo and the survey set-up. However all the SMSes can be seen as translations of writing about emotions, which I will go into more depth with in the analysis of the SMSes.

As I have demonstrated the respondents primarily evaluated, interpreted, and reported when they wrote SMSes. Here it could be argued that the evaluations were primarily mediated by the questionnaire and the reports were primarily mediated by the instructions of what to write in the SMSes. Moreover the type of SMS called ‘interpretation’ can be seen as a way to connect emotionally to the surroundings by plugging into ways of understanding the animal. Moreover it can be argued that all of these types are mediated into public communication.

# The roles of the SMS Types

The different types of SMSes as part of the mobile phone also play roles in different human-technology relations. The type of SMS called a ‘tag’ is an example of a SMS mainly used to mark a certain position. Consequently when the respondents ‘tag’ they primarily use the mobile phone as a machine and not as a communication technology. In this situation the mobile phone plays a role in an alterity relation. Moreover the tag seems to imply that the task in general was mediated by the lommy into an act of marking a location. The other types of SMSes all primarily express situations where the focus is on the interface of the mobile phone, where an SMS refers to the surroundings in the zoo. Here I will argue that the respondents themselves are readers of their own texts and thus read of the technology. This means that they are simultaneously engaged in understanding the zoo through reading while at the same time being engaged in writing the SMS. In these cases the mobile phone plays a role in a hermeneutic relation. However it can also be argued that since the respondents are used to write SMSes they will primarily do it in a way as if they operated a machine. In this situation the mobile phone and the SMS is part of an alterity relation where the focus is primarily on the surroundings – the zoo. This means that the act of writing an SMS in the survey is an act of connecting to a location on a map by placing a mark, while at the same time connecting to the surroundings through the mobile phone in a process of reading and writing. Connecting through tagging is as we saw part of an alterity relation while the text of the SMS is part of a hermeneutic relation. Consequently the connection to the surroundings through tagging with a text-message can be seen as a way of being involved in the surroundings while the at the same time being a process of reading/writing where the respondent understand this involvement.

# Categorization of SMSes in Areas an Paths

To be able to divide the SMSes into areas I named all the areas in Aalborg Zoo. Here I was inspired by categories made by the respondents and the categories used by the zoo staff. This signifies that I have added and renamed some areas in the table from the zoo rapport. Firstly I have renamed the restaurant to ‘bistro’ since this is what the respondents call it. Secondly some of the respondents name the area containing goats and rabbits ‘‘children’s zoo’ . In order to take into account their text message as well as the ones using ‘goat’ or ‘rabbit’ I have therefore chosen to use the over-category ‘children’s zoo’ for this area. Thirdly I have added events such as “Safari Simon” and “ The Windsimulator” since they are mentioned as places in the SMSes. In the table there are thus four types of areas: areas without animals (except humans) such as the bistro and the bench area, larger areas containing several animals such as children’s zoo and the tropical house, smaller areas named after the animals in them and events (appendix C).

I divided the SMSes into areas to be able to see which ones where the most accounted for. Since the GPS sometimes oscillated, this was done by locating a given SMS on the map and crosscheck location with content. In most of the cases the respondents wrote their location in the SMS. In situations where the SMS accounts for one location and the GPS for another, the SMS gets the last word. This means that the GPS track was mostly used in cases where it was impossible to see from the content of the SMS wherefrom it was sent. In cases where an SMS mentioned two areas both of them are taken into account. After dividing the SMSes into areas I numbered them to make it visible exactly which SMS I am talking about in the analysis (appendix D). After dividing the SMSes into areas it was possible to see which areas were the most accounted for. Here I have limited myself to the top five list:

1. Chimpanzees: 94 (9 %)
2. Polar bear: 85 (8%)
3. Orangutan: 67 (6%).
4. Tropical House: 37 (3 %)
5. Children’s Zoo: 19 (2 %)

To be able to follow individual paths and see which SMSes was sent not only from which area, but also from which respondent and at what time I divided the SMSes into time and phone numbers (appendix E). This enables me to see which respondent sent which SMSes and in what order. Consequently I can follow paths from chosen respondents in Aalborg Zoo.

# Four Paths in Zoo

In my analysis I am inspired by Nacullo and Naccio to work with paths. As we have seen paths can be considered conditions in being and becoming. As such they can be helpful to understand how the guests *are* in the zoo and how and what they *become* during their stay. However, what can be seen from the SMS map is snapshots of perceptual engagements in the surroundings. Consequently the SMS map does not show processes of becoming through movement but rather processes of becoming through ‘tagging’. Moreover I will argue that since a visit in the zoo takes approximately 2-4 hours the movements of becoming are modest.

To be able to develop concepts for persuasive intervention in Aalborg Zoo I am inspired by Don Ihdes understanding of the laboratory as a place where scientific objects are made readable. This means that I see the creation of the suggestions for the persuasive intervention as a process where I make things speak for themselves while simultaneously making them readable. To make things speak for themselves I will use ANT to trace the different mediators at play in the four paths I have chosen. Moreover the analysis is my way of making the paths readable in order to come up with a suggestion for persuasive interventions. Consequently to create maps on the basis of paths, I will focus on the ways the respondents were involved in the zoo and how they understood it when carrying out the task of creating content for the SMS map. Also I will analyse how the respondents negotiate the survey task since carrying it out is intertwined with the way the respondents are involved in and understand the zoo.

As I have argued, when the respondents write an SMS it can itself be seen as an act of marking a place on the SMS map. However if I look only at this act, the different agencies at play in the SMS are enveloped. In the following analysis I will open the envelopes to make visible the different mediators at play. However it is not all negotiations I can render visible from the SMS map. Firstly, the SMSes are often written by one person. This means that contradicting accounts from other members in the group are not necessarily made visible in a given SMS. Secondly, it is not possible to decide if two respondents where at a given place in the same time span except if they wrote the SMS at the exact same time. Still we cannot know if two respondents each writing SMSes at the exact same time communicate to each other about the agencies at play in a given area. Consequently it is not possible to look at controversies or negotiations between the different respondents or members in the group visiting the zoo together. However the individual negotiation of the zoo experience and the survey experience can be made visible from the SMSes.

#### Path I: Projecting the Ego in the Zoo

As the first path I have chosen to follow the respondent writing from the number: 30359892. The SMSes sent from this number is primarily of the type evaluative. The path goes through the following areas: chimpanzee, elephant and lion, Rothchilds giraffe, orangutan, tiger, and children’s zoo.

Thefirst SMS is sent from the chimpanzees: “Monkeys in cages …yet another sign of western decadence” (SMS 941). Here three actors are at play: monkeys, cages and western decadence. Westerns decadence is here acting by, among other things, caging animals. Using the word decadent caging the animal is here translated into an immoral and selfish act. Moreover the SMS becomes a critique of a specific western lifestyle where animals are caged to fulfil human needs for entertainment. Consequently the SMS is a negative evaluation, which morally judgesthe act of caging animals.

The second SMS is sent from the elephants and lions: “ At the elephants and lions…aesthetical irritated...” (SMS: 975). Watching the area at the elephants and lions the respondent translates the survey task into a report of a feeling of ‘irritation’ towards this area. As a result the SMS is a negative report of the area at the lions and elephants.

The next SMS to be written is: ” Giraffes …ok atmosphere ” (SMS: 1079). Compared to the earlier SMSes it seems like the respondent primarily elaborates on the agencies at the places where there is something he or she finds critical or negative. Since the environment or the situation does not act negatively there is so to speak nothing to write home about. However writing this SMS is not an act of indifference in relation to the area. Rather it can be considered a way of registering or tagging a point of positive impact.

In the fourth SMS sent from the orangutans the respondent writes: ”Monkey house …definitely much funnier to concentrate on analyzing the human beholder than the poor monkeys …the couple of percentages that separates our genome in most cases seems to be in the monkeys favour” (SMS: 1024). In this SMS the situation where humans watch monkeys makes the respondent associate humans and monkeys by a plug-in to biology and the concept genome. In this connection both humans and monkeys are translated. In the watching situation humans are translated into something funny to analyse and the monkeys are, using the term ‘poor monkeys’, translated into beings for whom the respondent feel sorry. That the humans are funny to watch is further translated by the concept of genome. Genome as a mediator in this situation translates the human-monkey relation into something, which “seems to be in the monkeys favour” and monkeys into something smarter than humans. Thus genome as a mediator is used in a translation process where humans are compared to monkeys and found to be inferior beings. In this way the whole construction of humans watching animals in a critical and satiric tone is deemed degrading for the animal and ridiculing for humans. Consequently the task of writing an SMS is translated into a negative evaluation of the human behaviour of watching animals in the zoo. At the same time it becomes a critique of Aalborg Zoo making such behaviour possible.

The fifth SMS to be written from the respondent says: “ Tiger cub house…artificial maintenance of biodiversity based on a romanticized reactionary worldview. Is it not a false security…” (SMS: 1122). Here the tiger cub house acts by artificially maintaining biodiversity and, by doing that, transports agencies connected to a romanticized reactionary worldview. In this way the tiger cub house acts as an illusive maintenance of biodiversity. By asking the question: “is it not a false security” it seems like the SMS is an act of debating this ambivalence. However it is a rhetorical question. This means that the task of creating content for the SMS map is translated into a negative evaluation of the agencies transported by the tiger cub house.

The last SMS is sent from the children’s zoo and says: ”Rhymes for actual nature protection…opium for the people? Emotion: a tad divided” (SMS 930). Here it is questioned if the zoo is as a place where rhymes for nature protection are used as opium for the people. Opium for the people is a saying meaning that someone has constructed a consolidating illusion and this makes the respondent feel emotionally divided. Consequently the SMS can be categorized as a negative evaluation of the nature protection initiatives made by Aalborg Zoo.

In the above analysis I have made it visible that the task of creating content for the SMS map is translated into primarily negative evaluations, which in a critical tone rejects the agencies carried out by Aalborg Zoo. In this way they resemble the type of graffiti created to express an opinion towards the established and traditional. Moreover this type of SMS does not debate but rather state a personal opinion. Therefore this path primarily can be understood as a way where the respondent projects his or hers own opinions on the areas in the zoo and not as an attempt to be involved in situations in the zoo (except for at the orangutan cage). In this presentation Aalborg Zoo is understood as an exemplary case of the misery of postmodern culture and an illusion constructed through agencies, which are morally wrong, in bad taste, and degrading for animals and humans. Consequently the respondent uses the task to bash the agencies carried out by Aalborg Zoo and to introduce him- or herself as a person able to look through what he or she believes to be the falseness of Aalborg Zoo.

#### Path II: Involvement through Projection and Perspective

The second path I have selected was written from number: 26227103. In this path there are examples of the three SMS types: report, interpretation, and evaluation. The path goes through twelve areas: fossa, chimpanzee, reindeer, polar bear, elephant, ring-tailed lemur & black and white ruffed lemur, savannah, warthog, penguin, and pygmy hippopotamus.

The first SMS is sent from the fossa and says: “I am looking at the fossa. I have never seen something like this before” (SMS: 988). Here experience as a mediator translates the fossa into something never seen before. Lack of experience is here the only plug-in the respondent has to describe what she has no ready-made plug-ins for. The task of describing emotions is here translated into a task of describing the respondent’s lack of experience in relation to the fossa.

The second SMS to be sent says: “Now we are at the monkeys. It gives a warm feeling to watch them, since they live in flocks and are family animals. A social animal ” (SMS 932). The respondent here plug into behaviour as a common denominator for humans and monkeys. In this way he or she induces the behaviour, ‘living in flocks’, into coexistence with the human behaviour of living in families and being social. The result is that the monkey is translated into a human-like monkey and this connection makes the respondent feel warm. The SMS here works as an act of interpretation where the monkey is translated through the mediator ‘human behaviour’.

The third SMS is of the type interpretation and says: ”Now I am standing looking at a reindeer. I feel like Christmas is coming up” (SMS: 1072). Here the respondent plugs-in to Christmas tales about Santa and his reindeers. This plug-in helps the respondent interpret the reindeer in terms of Christmas and interpret his or hers own emotions in the situation as someone having positive expectations in relation to Christmas.

The fourth SMS is a report and says: “ Now I am standing watching the polar bear, gives the feeling that this kind of animal lives in cold environments” (SMS: 1049). Here the polar bear and its environment mediate a feeling or sensation of cold or of freezing, which makes the respondent conclude it lives in the cold. Consequently the survey task is translated into a report of a sensation of cold.

In the fifth SMS the respondent writes: ”Looking at a hippo. Feel like singing.” (SMS: 1068). This SMS is a positive report where the respondent through a ‘feeling of singing’ expresses emotions such as joy or happiness.

The next SMS is sent from the elephant and says: ” Now we are watching the elephants. I feel small because it is big” (SMS: 963). In this SMS the association between the elephant and the respondent mediates a feeling of small or humble in relation to the animal, which can be understood as a feeling of acknowledging oneself as small in relation to the grandiose nature. The SMS here acts as an interpretation where the human is understood in relation to the animal.

The following SMS says: “Now I am standing at thering-tailed lemur. It is an animal laying in bunches and it gives me a feeling of coziness ” (SMS: 1078). Here the behaviour of the ring-tailed lemur is translated into a feeling of coziness, which can be understood as a warm, safe and homelike feeling. This SMS is thus a positive report of a feeling towards the ring-tailed lemurs behaviour.

In the next SMS from the Savannah the respondent says: “Now I am sitting looking at the giraffes, while eating my packed lunch. It is entertaining to gaze at the giraffe when it stretches neck, munch, move its ears, walk around looking with its big eyes” (SMS: 1104). Here the giraffe’s behaviour is graded in relation to how entertaining it is. Here I will argue that the respondent plug in to the entertainment industry where the products such as fictive characters are graded in relation to how entertaining they are. Consequently this SMS translates the task of creating content for the map into a positive evaluation of the giraffe’s performance and in this process translates the giraffe into a performing animal.

At the penguins the respondent writes: “ I am looking at the penguins, they are amusing to watch because they waddle, splash, and fool about in the water as well as on the ground.” (SMS: 1040). In this SMS the respondent translates the task of creating content for the SMS map into an evaluation of the penguins in relation to how funny they are. Seen in the light of the SMS sent from the giraffes this evaluation of the penguins also plugs into entertainment industry and in this process translates the animal into a performing animal.

The last SMS written from this respondent says: “We are standing looking at the warthog, it reminds me of Pumba from Lions King. But it looks uglier in reality”(SMS: 1139). In this SMS the respondent ascribes to the plug-in of Disney’s animated film ”Lions King” which features a warthog called Pumba. Here the warthog is translated into a nice looking and cute animal. This translation is by the respondent used as the scale against which the real warthog is measured. This means that the task of writing the SMS is translated into evaluating the appearance of the warthog through the common denominator between the animal world and the human world: Disney. In this process the real warthog is not translated into a cute Disney figure rather the Disney figure is translated into ugly reality. All in all the survey task is here translated into a negative evaluation of the warthog.

Following this path I made it visible that the respondent translate the task of creating content for the SMS map into evaluations, interpretations and reports. As demonstrated, the SMSes are all attempts to connect the human and the animal world. To facilitate this connection the respondent in the evaluative and interpretative SMSes use different mediators such as behaviour and the entertainment industry. In this process the animal is translated into a human-animal and a performing animal. In the descriptive SMSes the respondent on the one hand describes a grandiose feeling of being small in relation to the nature, on the other hand describes a feeling of homelike peace and quiet. Consequently Aalborg Zoo is assembled as a place where the human world can be mirrored as well as put in perspective. Here the respondent connects to the zoo through a homelike feeling or resemblance and feelings of grandiosity. Moreover the statements primarily are expressionistic in their style reporting feelings of warmth, coziness, coldness, ugliness, delight (feel like singing), and humility (feeling small). This means that the respondent translates the survey task into reporting the feelings the encounters with the animal causes.

#### Path III: Involvement through Empathy and Learning

The next path I have chosen is conducted from the number: 20737576. This path goes through the areas: kiosk 1, lion, orangutan, savannah, aviary, and camel.

The first SMS says: ”Standing at the monkeys. Much more exiting…now you really get a feeling of being in a zoo” (SMS: 126). The respondent here translates the task to be a positive evaluation, the monkeys as being exiting and as giving a feeling of being in zoo. This means that the monkeys are translated into what the zoo experience is about or the ‘heart’ of the zoo experience.

In the second SMS the respondent writes: “Looking at the tiger. It has little space. I feel pity for it. ”(SMS: 307). In this SMS the association between the tiger and the small space mediates a feeling of pity. Consequently the task of writing about emotions is here translated into negatively describing the cage of the tiger as being small.

The third SMS says: ”Moving on to the most beautiful guy of them all. The lion. It hurts me inside, I feel sorry for it because it has to stay in that small cage ” (SMS: 130). Here the lion is translated into a beautiful and thus an extraordinary creature whom we need to respect by not putting it in such as small cage. In this SMS the lions and the small cage mediate a feeling of pity and a feeling of hurt. The task is here carried out as a negative evaluation of the lion in the small cage.

The fourth SMS says: “Orangutan…attractive animal undoubtedly we origin from a monkey species. But again - much, much, much too bad cages they are living in. That is the worst thing about going to the zoo. One feels pity for the poor animals” (SMS: 177). In this SMS the association between the attractive orangutans and the bad cage translates the orangutans into ’poor animals’. Furthermore the orangutans and humans are associated by a plug-in to the concept evolution where humans origin from monkeys. This means that the monkey is here translated into a creature evolutionarily close to humans, a creature which we therefore ought to respect. This further translates the negative evaluation of the cages made in the earlier SMS into a much stronger evaluation: “much, much, much, too bad cages”. Here it almost seems like the familiarity between orangutan and human makes the respondent feel more appalled by putting this animal in a small cage. Moreover the strong evaluation may have been translated by the earlier negative evaluations of the cages, which is expressed by the word “again”. This means that this SMS represents the last straw to break the camels back. Moreover the situation of orangutans in cages is negatively evaluated as the worst thing about going to the zoo. Consequently the survey task is translated into a negative evaluation of monkeys in small cages.

The fifth SMS says: ”The giraffes. Savannah. Nicely made area” (SMS: 263). In this SMS the savannah, which is a large open area for animals is positively evaluated.

The sixth SMS the respondent send is: ”Standing at the birdcage. There is some activity in the cage today. It is usually quiet” (SMS: 13). This SMS is a report, which is translated by memory of how the birds most often act.

The seventh SMS says: ”We have learned a lot of things about the animals by answering questions. Good idea.” In this SMS answering questions for the group have translated the activity of going to the zoo into learning about animals. This is by the respondent evaluated positively as being good. Moreover since this is the last SMS and since the respondent writes that they have been answering question*s* this SMS becomes an evaluation of answering questions *during* the day. This means that the task of answering questions may have mediated the task of writing SMSes and the group’s journey through zoo.

In the above path the respondent primarily carried out the task by negatively evaluating animals in small cages as the worst thing about zoo. Through these evaluations the zoo is primarily assembled as a place where animals we should respect are put in much to small cages. And thus the animal is translated into an animal-other, towards whom the respondent feels empathy. However as I have also made it clear from the last SMSes Aalborg Zoo is also assembled as a place where the caged animal is translated into learning by answering questions. Consequently the conditions, which are evaluated negatively, are also the conditions for learning. In this way the task of participating in the survey while visiting the zoo becomes a part of the respondent’s personal project of increasing his or hers own knowledge while being involved in animals through sympathy. As we saw the respondent especially shows sympathy towards the monkeys, which are considered the ‘heart’ of the zoo experience.

#### Path IV: Involvement through Imagination and Play

The next path is from the number: 24809831. This path goes through the areas: aviary, chimpanzee, polar bear, baobab tree, kiosk 1, tropical house, sea lion, and children’s zoo. All of the SMSes in the path close with the greeting: “Best Regards Naja Jacobsen”. The tone in this kind of regard is official, which might have been mediated by the research team, which told the respondents that their SMSes would be published on a map. Consequently the task of writing the SMS is here translated into writing what resembles a small letters. In SMS 689 the respondent writes “I am playing at the play ground …mom has the GPS standing …I think it is fun to climb and slide…and I feel happy…Best Regards Naja Jacobsen”. Since Naja is playing at the playground and refers to her mother I will argue that Naja is a child. As mentioned in the section describing the survey set up, parents in some cases wrote SMSes for their children. Since the tone in the SMSes from this path is grown up using inverted commas (SMS: 676) and since they are written in a very consistent and accurate way for a little child, I will argue that Naja’s mother in all probability writes the SMSes.

The first SMS written from the aviary says: ”I am standing watching birds…I feel happy…feel like I can fly in the air too. Best Regards Naja Jacobsen” (SMS: 466). In this SMS the watching situation consisting of the two actors, the birds and Naja, mediates a feeling of being happy. Moreover imagination mediates a feeling of being able to fly for Naja. Here the task of writing the SMS is translated into a report of sympathetic insight in the bird’s and Najas behaviour.

“I am standing watching the chimpanzees…I feel happy…I would like to climb like them. Best Regards Naja Jacobsen” (SMS: 535). Here the watching situation mediates a feeling of being happy and a whish to climb like the chimpanzees. This feeling seems to be mediated through play. Consequently the survey task is translated into a report of sympathetic insight in the monkey’s and Najas behaviour through play.

“ I am standing watching the polar bear…I feel happy and sad…sad because I cannot enter and swim with it. Best regards Naja Jacobsen. ” (SMS: 713). Here the watching situation partly constructed by the zoo through the built environment invites Naja to watch the polar bear swim which makes her happy. At the same time it inhibits her from swimming with it, which makes her sad. Again it seems like Najas emotions in relation to not being able to swim with the polar bear is translated through play. In this process the animal is translated into a playmate. Here the task of writing the SMS is made into a report of Naja’s ambivalent emotions in the constructed watching situation.

“I am standing in the baobabtree…I feel happy…I think it is exiting…Best regards Naja Jacobsen” (SMS: 478). Here the experience of being in the baobabtree where it is possible to hear stories and touch different effects translates Naja’s emotions into being happy. The survey task is here translated into a positive evaluation of the experience in the baobabtree.

“I am standing eating a hotdog and drinking cacao…it makes me happy because I was thirsty and hungry. Best regards Naja Jacobsen” (SMS: 598). In this SMS the translation from hungry & thirsty to getting something to eat translates Naja’s mood into being happy. The task is here carried out as a positive report of eating.

“I am standing in the tropical house…I am wondering, how fun to be a turtle, a clown knife fish, an emperor tamarin, or a smooth-fronted caiman ... I feel happy... Best Regards Naja Jacobsen” (SMS: 848). In this SMS the watching situation is through the mediator imagination translated into the idea of how it is to be an animal. Consequently the task of writing the SMS is translated into a report of a sympathetic insight in the animal’s life.

“ I am standing watching the sea lions…I feel sad because I cannot swim with them…and happy because they are beautiful and funny…Best Regards Naja Jacobsen” (SMS: 812). As in the case at the polar bears, the constructed watching situation inhibits actions of swimming with the penguins and invites actions of watching them swim. Again the watching situation is translated into ambivalent feelings for Naja and the feeling ‘sad’ is mediated by her whish to play with the penguins. Consequently the SMS describes the ambivalent feelings of Naja in the constructed watching situation.

“ I pet the goats…It makes me happy because they are so sweet, soft, and funny…one of them wanted to kiss me …it was nice of it …best regards Naja Jacobsen.” (SMS: 522). Here Naja petting the goats translates her feelings into being happy. Moreover she positively evaluates the act of the goat kissing her as a nice behaviour and the goats as sweet, funny and soft. This SMS is thus a positive evaluation of a close encounter with the goats.

“I am playing at the play ground …mom has the GPS standing …I think it is fun to climb and slide…and I feel happy…Best Regards Naja Jacobsen.” (SMS: 689). In this SMS Naja is climbing and sliding. This experience translates her mood into happy. By writing: “Mom has the GPS” it becomes visible that the lommy mediates the behaviour of the mother and the child. As we have seen earlier the lommy was chosen since its design did not inhibit the respondents from wearing it during all kinds of action. However if the person wearing it is a small child the lommy in relation to that child is big. This means that the lommy for a small child inhibit active behaviour. Since none of the earlier SMSes mentions the GPS, I will argue that it is mentioned because the shift from child to mother translates the task of wearing it into a focal practice. In this situation both mother and child is involved in the task of handling the GPS. Moreover the switch from Naja to the mother seems to imply that Naja has been wearing the GPS until now. As I argued in the beginning the mother writes the SMSes. Consequently it seems fair to conclude that Naja has been wearing the GPS while the mother has been writing the SMSes. Here it becomes visible that the task of creating content is translated into a group activity. The task of writing the SMS is here translated into a positive evaluation of the activity of climbing and sliding and a report of how the task of wearing the lommy was negotiated.

I am watching the penguins get fish…I am looking at them ”under water”, I like this the most…it makes me happy to see them…Best Regards Naja (SMS: 676). In this SMS the situation where the penguins are feed is mediated through the water into the emotion happy. Moreover watching the penguins eating fish under water makes Naja evaluate the whole experience positive as the experience she likes the most.

Following this path it becomes visible that the respondent translates the survey task into describing and evaluating. She positively evaluates the animals and situations where she can be active and interact with the animals or effects. Moreover she describes ambivalent emotions towards the constructed watching situation and describes sympathetic insight into animal life and behaviour. Consequently Naja assembles the zoo through play and imagination: she wants to play with the animals and she imagines how it must be to live and act like them. In this process the animal is translated into a playmate. However the constructed watching situation to some extent prevents her from getting these needs fulfilled, since it primarily invites actions of watching the animals and inhibits interacting with them- except in children’s zoo. This means that Aalborg Zoo is assembled as a place where Naja to some extend can fulfil her needs for sensory-motion such as climbing and sliding and primary needs such as eating and drinking while at the same time prevents her from fully interacting with the animals through swimming. Moreover these needs are mediated through the mother, which means that the survey task is translated into expressing her ideals and dreams in relation to give Naja a nice day in the Zoo, which includes fulfilling her sensory-motor and basic needs. In this way the SMSes also becomes expressions of what childhood is like. Moreover the style is held childish expressing only very basic needs and moods (happy-sad) and focusing on play and imagination as ways to be involved in the zoo. Moreover the tone is official each letter ending with Regards Naja Jacobsen.

# Patterns

The above analysis has demonstrated that the respondents primarily negotiate the survey task by connecting the human and the animal world except for path I which disconnects to the whole concept of a zoo. The connection is made possible by carrying out three moves that can be considered ways of being involved in the zoo that also changes the understanding of the zoo. Firstly the respondents *project* the human world onto the animal world through plug-ins to behaviour, the entertainment industry and through the concept of childhood. In this process the animal is translated into a human-animal, a performing animal and a playmate. Secondly, the respondents put the human world into *perspective* in relation to the animal world through genome and size translating the human into funny and small and the animal into smart and grandiose nature. Moreover one of the respondents felt empathy for the animals translating the animal into an ‘animal other’ that puts the act of caging into perspective. And thirdly the respondents *mirror* the animals through sympathetic insight into animal behaviour such as wanting to live and behave like animals.

These ways of being involved in the animal are all attempts to make it possible to write about emotions in the Zoo. Consequently being involved in the animal to a far extend is mediated by the survey set-up. However this involvement was translated in different ways, some of which goes against Aalborg Zoos initiatives to keep and communicate the animal as wild. However as we saw in the sections ‘The Zoo Office’ there is another important mediator namely paying for admission to Aalborg Zoo. This mediates the experience into something that should be worth the money. In other words the respondents pay to get something out of the visit in relation to their individual projects focusing on:

Path I: My opinions and my ego

Path II: My emotions

Path III: My knowledge/learning/intellect

Path IV: My ideals and dreams, and indirectly the basic and sensory-motor needs of my child

In this way the zoo visit through the task of creating content for the SMS map is used in the guest’s personal projects to profile themselves, act out emotions, increase their knowledge, and get ideals and dreams in relation to the child’s basic and sensory-motor needs fulfilled. In relation to this the animal is translated into something, which can help the respondents carry out their projects in the zoo.

Persuasive Intervention in Zoo

As I have demonstrated in the section ‘The Base’ the survey task to some extend was translated into being a part of the zoo experience and the technologies was chosen to support a ‘normal’ day in the zoo and keep the respondents engaged in the task. Moreover we saw in the section ‘Categorization in SMS types’ that the different standards in the set-up mediated the task into evaluations, interpretations, and reports. In the section ‘The Roles of the SMS Types’ we saw that connecting to the surroundings through tagging with a text-message can be seen as a way of being involved in surroundings while at the same time being a process of reading/writing where the respondent understands this involvement. Moreover in the analysis of the SMSes we saw that writing about emotions in the zoo made the respondents be involved in the animal and understand this involvement from their personal projects of going to the zoo. Here I will argue that this involvement and understanding of the zoo can be used in persuasive intervention for each of the respondents.

What I have made visible in the analysis of the SMSes is the metakinesis-scapes of the four respondents. Since the SMS map only gives access to snapshots of involvement, the metakinesis-scape I am talking about does not show processes of becoming through moving in the surroundings, but rather processes of becoming through tagging the surroundings. This means that ‘becoming’ is a process where the respondent through involvement with the surroundings understand this involvement. In the following I will use these metakinesis-scape to re-enact place and especially the places containing the ‘shit’ animals. This is done as part of creating suggestions for persuasive interventions in the zoo. Here I find it fruitful to use maps since they are ways to display the metakinesis-scapes by connecting experience and location. In the following I will build on the hypothesis *that making it possible for the respondents to create content for their own metakinesis-scape can be used in persuasive intervention*. Consequently in the following I build on the hypothesis that in order to design for persuasive intervention in Aalborg Zoo we need to support how the respondents are involved and how they understand Aalborg Zoo through their personal projects.

In this chapter I will relate to the concrete case of making the guests pay more visits to the ‘shit’ animals. Moreover I will focus on how the wishes from Aalborg Zoo connect to how the four respondents was involved in and understood the zoo. From that I will suggest persuasive interventions for each of the four paths. These suggestions shall be considered experiments and part of an iterative design process towards making people visit the ‘shit’ animals more in Aalborg Zoo.

# Translations of ‘Shit’ Experiences

In relation to persuade the respondents to visit the ‘shit’ animals I also need to support the agencies carried out by Aalborg Zoo. As I elaborated on in the section ‘Two Oligopticons’ Aalborg Zoo makes several types of translations. Firstly, they translate the animal into a wild animal. Secondly, they perform Aalborg Zoo as an attractive product to make people visit it and come back. And thirdly, they want to change attitudes and behaviour to make people become more aware of nature resources and improve environmental management through involvement. Here I will argue that involving is not enough to persuade since persuasion not only concerns changing behaviour but also attitudes. This means that persuasion is not only a matter of making the respondents visit the animals by guiding them to these areas or making them ‘tag’ these animals. It also concerns changing their understanding of these animals as something, which fits in with their personal projects of going to the zoo. However this process of translating the animals should still keep the animal wild. In this chapter I will discuss how it is possible to shape both the involvement and the understanding in relation to the so-called ‘shit’ animals. This means that I will put forward suggestions in relation to persuade the four respondents to visit the ‘shit’ animals more often as well as understand them as part of their project of visiting the zoo. It is important to understand that it is *the experience of the animals*, which can be translated in these maps and not the real animal. This means that the animal might not ‘perform’ in a way that supports the persuasive intention. Therefore there is a danger in translating the animal into something interesting in relation to the respondent’s own projects. Here I will be aware of presenting suggestions that does not present the ‘shit’ animals as acting or doing specific things. Instead I intend to focus on what the respondent can do if he or she visits a certain animal. Exceptions from this are the sea lion show and the different feedings in the zoo. In the first case the animals are trained to perform in certain ways, in the second the performance is eating which can hardly go wrong.

As it can be seen from the zoo rapport the ‘hit’ and ‘shit’ animals are defined on the basis of how much time people spend at them. It can be discussed if time spent looking at an animal can tell anything about how popular it is. However I will not go further into this discussion in this project, since I will primarily focus on persuading the respondents in relation to visit ‘shit’ animals as a concept and not in relation to specific animals. The shit animals all have something in common, for example it is not possible to pet them. Moreover they do not resemble human in looks, except for maybe the baboon.

# Four MyZoos

As I elaborated on earlier in ‘Technological Mediation’ artefacts shape our actions and involvement in the world and our perception and understanding of it. As mentioned in my research question I have chosen to use a map as a technology for the persuasive intervention. A map makes it possible to make a visual representation of the metakinesis-scapes of each of the respondents and connect the ‘shit’ animals to these. Preferably the maps I will suggest for the persuasive intervention in Aalborg Zoo can be downloaded to smart phones or PDAs with GPS, making it possible for the respondent to see where he or she has been and what he or she has been doing in the zoo. As we saw in the analysis, tagging and writing SMSes made the respondents be involved in the surroundings while at the same time understanding them. Therefore I will suggest that it is made possible to tag the different areas by creating content for them. This content can be other things than text such as pictures, colours, or sounds. I call the maps MyZoos since I will suggest that a map is made for each of the respondents supporting their personal projects in the zoo. Each of the four MyZoos can be supported by other initiatives such as boards at the different ‘shit’ animals. However, in the following I will concentrate on the maps.

The MyZoos should serve as a navigation tool where different routes in zoo can be displayed. Moreover the maps are not only created to use for navigating by but also to change the experiences with the ‘shit’ animals in ways supporting the projects of the respondents and the goals of Aalborg Zoo. Consequently the maps developed will show what could not be seen before which is an overview of the zoo and its areas. But at the same time they will make what is seen e.g. the ‘shit’ animals involving and understandable in relation to the respondents’ projects. In the following I will develop suggestions for a MyZoo for each of the respondents. The suggestions made here are not bulletproof strategies but rather examples of what can be done to make small persuasive interventions that support the ways in which the respondents are involved and understand the zoo.

### MyZoo I: Comment

As we saw the respondent conducting path I did not connect to the concrete situations in Aalborg Zoo in the SMSes except for the situations at the cage of the orangutan where the person analysed the human behaviour. Primarily the respondent was involved in the task of writing the SMS in relation to a personal project of promoting his or hers opinions and it was done in a critical tone. Moreover the person understood the zoo as an illusion constructed through agencies which was considered morally wrong, bad taste, and which degraded humans and animals.

How is it possible to involve this respondent in the zoo and especially the ‘shit’ animals when he or she looks at the guests and criticize the whole construction? This seems to be a case where the respondent is not part of the target group for Aalborg Zoo. However I will here try to come up with a suggestion in relation to how the projects of this person could be supported in a MyZoo.

Since it seems like the respondent is very focused on projecting his or hers ego onto the zoo I will suggest that a ‘comment’ MyZoo is made. This MyZoo would make it possible for the respondent to write comments in the different areas in the MyZoo and publish the MyZoo on Aalborg Zoos webpage. This type of MyZoo would however not help the respondent to become involved in the animals but it might make it more attractive for the person concerned to return to the zoo, which is a persuasive goal in itself.

### MyZoo II: Sensation

As I made visible the respondent in path II connected to animals through resemblance and the entertainment industry. Moreover the respondent described grandiose feelings of humility (feeling small) as well as homelike feelings in relation to animals and nature. The respondent translates the survey task into describing the feelings in an expressionistic style. Through this process Aalborg Zoo was assembled as a place where the human world can be mirrored as well as put in perspective.

Since some of the SMSes in path II connects to entertainment industry the different areas on the map in the MyZoo could be categorized in relation to famous animals in e.g. animated films. This would however translate the animal into a cute almost human like creature and would go against the associations Aalborg Zoo wants to bring about, presenting the animals as wild. To support the agencies carried out by the zoo and the respondent’s own project I will therefore suggest a ‘sensation’ MyZoo where the different areas in zoo is divided into the different kinds of sensations it is possible to get there. This could be a sensation of humid in the tropical house or a sensation of cold referring to the ice blue colours at the polar bears, or maybe sensations more mystical such as feathery as the flamingo to tease the respondent’s imagination. This MyZoo could be made as a treasure hunt where the respondent collects different kinds of sensations for the areas in the MyZoo. Some of the sensations on this route could be connected to the ‘shit’ animals. Moreover to involve the respondent further in the ‘shit’ animals, the MyZoo could suggest that the respondent select colours or textures for the different ‘shit’ animals that fits the sensation he or she gets in front of them.

### MyZoo III: Learning

As I made visible the respondent conducting path III was involved in the animals through empathy but also saw it as part of his or hers personal project towards learning about animals. Moreover the respondent seemed to be more involved in animals resembling humans such as orangutangs.

The MyZoo could here consist of a question hunt in the zoo where the respondent answers questions in relation to animal rights. The zoo is already doing similar initiatives as it is also seen from the last SMS sent from this path. In this MyZoo the areas in the maps contain questions in relation to a given animal and the answer can be found by visiting the animal. The answer is written into the area in the MyZoo in order to get to the next animal. Since it seems that this respondent is mostly interested in animal rights in relation to monkeys because of their resemblance to humans, I will suggest that the questions amplifies the connections between humans and ‘shit’ animals in relation to animal rights. To support the connection to these animals through empathy I will suggest that the questions especially in relation to the ‘shit’ animals appeal to pathos.

### MyZoo IV: Activity

As we saw the mother mediated the needs of the child. This means that the suggestion for a map is primarily made for her. In path IV the respondent assembled the zoo through interaction and imagination and expressed wishes for Naja to be able to get her sensory-motor needs fulfilled. Here I suggest that the areas in the MyZoo are categorized in activities and especially ones where it is possible to touch and interact with the animals such as the children’s zoo. However the areas could also be divided into activities it is possible to make at the different animals. Here the MyZoo could suggest a route of different activities the respondent can follow in. In this quest it could be possible to make small video clips of the activities for the MyZoo in relation to ‘hit’ as well as ‘shit’ animals. Since it is not possible to touch the ‘shit’ animals it might be an idea to write suggestions of other activities into these areas, which to some extent is connected to the animal such as “stand on one leg” at the flamingos. However it is difficult to make activities in relation to all the animals. Here I will suggest that the map in these areas appeal to different ways of sensing such as smelling, hearing, and seeing. In this way the areas in zoo could be named in relation to the different kinds of sensations the person might get there such as: fish smell, twitter, darkness etc.

**Recap**

The four suggestions for MyZoos are only examples of how the different paths in the SMS map can be put at use in Aalborg Zoo. However it gives an idea of how the involvement and understanding of the zoo can be used to persuade in practice. The four suggestions for MyZoos can be tested on the respondents or introduced to other guests as experiments. This can be done to see if using the maps changes their behaviour and understanding in relation to the ‘shit’ animals. From these four suggestions of interventions I will argue that by supporting the ways the respondents already are engaged and their actual ways of understanding the zoo, it is possible to design for the respondents involvement in and understanding of the zoo. In relation to this, the ‘shit’ animals were presented as part of the different projects of going to the zoo and thus were translated into experiences rather than human-animals. This way the four different MyZoos can be used to re-enact Aalborg Zoo in relation to the respondents’ personal projects and through this re-enactment it might be possible to persuade people to visit the ‘shit’ animals more.

Conclusion

In the beginning of this project I asked:

*How are the respondents involved in and how do they understand Aalborg Zoo when they create content for the SMS map?*

As I have demonstrated connecting to the surroundings through tagging a location with a text-message can be seen as a way of being involved in the surroundings while at the same time being a process of reading/writing where the respondent understand this involvement.

The respondents through the task of creating content for the SMS map are involved in and understand Aalborg Zoo in relation to their individual projects. In this way the zoo visit through the survey task is used in the guest’s personal projects to profile themselves, act out emotions, increase their knowledge, and get ideals and dreams in relation to the child’s basic and sensory-motor needs fulfilled.

This is done through processes where the human world is *projected* onto the animal world, put into *perspective* in relation to the animal world, and in processes where the respondents *mirror* the animals through sympathetic insight into animal behaviour and life. Through these moves the animal is understood in ways, which goes against Aalborg Zoos initiatives to keep and communicate the animal as wild.

Moreover I asked:

*How can this be used for persuasive intervention using maps?*

The ways the respondents are involved in and understand Aalborg Zoo can be used to design for persuasive intervention. I relation to this I came up with four suggestions for virtual maps called MyZoos that support the respondents’ ways of being involved in and understand the zoo while supporting the goals of Aalborg Zoo. Each MyZoo consist of a map with a suggestion for a route that passes the ‘shit’ animals. Moreover the areas on the maps are categorised in relation to the respondents’ projects of commenting, sensing, learning, and being active respectively. The ‘shit’ animals were connected to the routes and the themes of each MyZoo making them relevant in relation to the ways the respondents are involved in and understand the zoo. Moreover tagging-texting can be used to further involve the respondent in the surroundings while at the same time making him or her understand this involvement. Consequently I suggested that each of the MyZoosincorporates tagging-texting activities making it possible for the respondent to create content for the different areas in the MyZoo.

Discussion

As I have made it visible through this project the SMS map shows snapshots of situations. In this way it makes it possible to enter action and see how the respondents are involved in and understand the zoo. However, working with the SMS map I have also discovered some difficulties.

As I have argued it was not possible to make negotiations between group members visible from the SMS map. As Albrechtslund, Harder, and my-self have argued the respondents share the task of participating in the survey e.g. one person wears the GPS while another writes the SMS. This means that the involvement and understanding of zoo to a far extend is shaped by the negotiations taking place between different persons and not just the individual writing the SMS. In relation to future work on surveys like this I will therefore suggest methods that renders it possible to see the negotiations between the group members. Especially in path IV it would have been interesting to see how much the child participated in the survey. Did the child say anything and if so how was the zoo negotiated in the conversation between mother and child? To be able to see negotiations between the group members I could have used methods such as participatory observation or methods where the guests film them-selves by e.g. wearing a videohat. Here Bruno Ingemann, among others, has used the videohat to film museum guests’ conversations, body movement, and the direction in which they looked (Rung 2009).

As I argued in the theoretical chapter ‘Persuasive Intervention’ we should let the ones we study into the design process. In relation to the zoo project it could therefore be interesting to make it possible for the respondents to participate in the production of the four MyZoos. In relation to this Christian Nold have made workshops where he showed his respondents the mappings of their GPS track and gave them the opportunity to negotiate the meaning in groups and write it into the maps. This way of involving users would be a hybrid between a focus group interview and a design workshop where the map is used as a prop to start conversations. This means that ideally each of the respondents in the analysis could have been asked to join in the process towards developing the suggestions for the four MyZoos. Moreover the creation of the map would facilitate negotiations as well as collaboration between the members in the group in relation to how they are involved in and understand the zoo. Exactly the collaborative and social aspect of creating a MyZoo could be interesting to study since this in it-self could be part of a persuasive process towards making people be involved in and understand the zoo in new ways.

Moreover the analysis of the SMSes at times felt like repeating what the SMS already had stated in a much simpler way. Here the workshop where the group negotiated the visit in the zoo would have given a longer and more coherent text than separate SMSes. This might have made the tracing of agencies more rewarding. In retrospective it could have been solved using another theory than ANT to analyse the SMSes. Moreover the momentary pictures the SMSes gives also posed some problems. Firstly, it made it difficult to trace the connections between the different SMSes, even when they came from the same respondent. Secondly, since I could not connect the SMSes by movement except for accounting for their succession I had to compile the meaning provided by each SMS in one big picture at the end of each path. This has some drawbacks since it is not entirely possible to make a metakinesis-scape, with only a few glimpses of agencies along a path, which is not visible. A metakinesis-scape as the one Nuccio and Mazullo speaks of would have made it possible to look at small changes in relation to becoming and would have added a dimension of movement to the analysis of the paths, which is what makes the SMS map new in relation to other methods such as open questions in questionnaires or interviews. However there are still some things that makes the SMS map unique in relation to other methods for example the SMS map makes it possible for the respondents to write while they are experiencing, which made their comments much more connected to the specific places than they would have been if they had filled out a questionnaire after their visit. Moreover the SMS map makes it possible for the viewer to investigate different areas in relation to their popularity.

As we saw several standards was at play in the survey, which to a certain degree shaped the engagement in the survey task. For future works it could be interesting to create a setting less structured and allow the respondents to decide what they wanted to write to us. This would make it possible to see in which ways and for what purposes people could use a map connecting experience and location in their everyday life. Here I think it could be fruitful to look at how this type of map could be used for collaboration in a less institutionalized setting such as people’s own neighbourhoods as Christian Nold has already done since people are invested in other ways in places where they live than places where they pay to get a good experience.

Appendix

**Appendix A:** The article “The Persuasive Qualities of Maps”

**Appendix B:** The SMS map

**Appendix C:** The table of areas in Aalborg Zoo

**Appendix D:** SMSes sorted into place and time

**Appendix E:** SMSes sorted in telephone number.

**Appendix F a:** Email correspondence with Rikke Kruse Nielsen

**Appendix F b:** Email correspondence with Rikke Kruse Nielsen

**Appendix G:** From consumer to sustainer

**Appendix H:** <http://www.izea.net/education/conservationed.htm>

**Appendix I:** [www.aalborgzoo.dk/laer](http://www.aalborgzoo.dk/laer)

**Appendix J:** The instruction sheet

**Appendix K:** Poster

**Appendix L:** Business Card

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