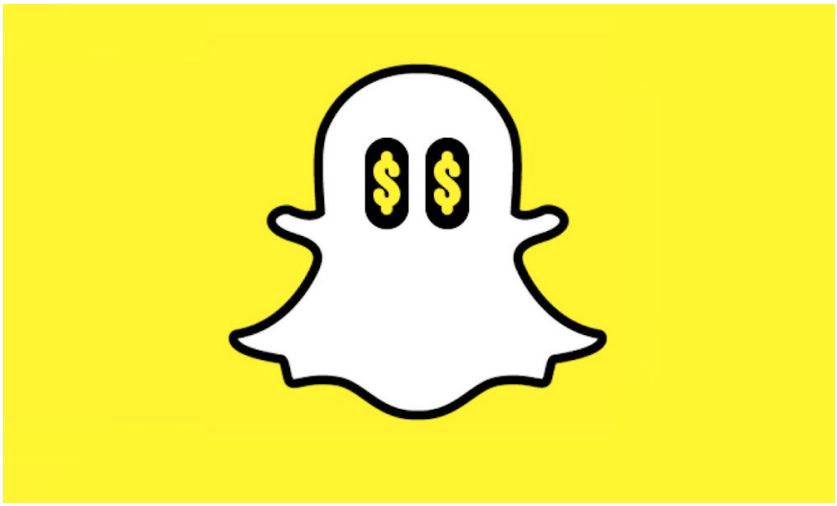
Children and Snapchat:
a playground for advertising



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It all depends on what you mean by social, doesn´t it?

- *Fahrenheit 451* by Ray Bradbury (1953)

Conversation pieces:

As a parent, I feel that I have lost control of what my kids are doing on social media.

- Oslo father with kids ages 12 and 15, on 07.10.17

Technology is evolving so much faster than our society has the ability to protect us as citizens.

- USA documentary film “Do You Trust This Computer?” released April 2018

The brand should be the hero or focal point of your content.

- Shonduras (Shaun Todd McBride) 2016 Snapchatter of the year at conference “Snaphappen” on 22.09.16 in London

I actually think the question is more, what is the right regulation rather than "Yes or no, should it [the internet] be regulated?"

- Mark Zuckerberg, CNN interview 21.03.18

Children and Snapchat: a playground for advertising

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Note: Where texts are translated from Norwegian, it is my own translation work. Original Norwegian texts are included either as footnotes or within the text.

Abstract

This study uses approaches and tools from the field of Science and Technology Studies (STS) to explore the evolving digital realm of social media where children are the primary users. Illustrated in a playground metaphor, this study examines children´s experiences on social media, to understand interplays of social, commercial and digital and how children can be affected. How is children´s social "play" influenced by advertising? I focus specifically on Snapchat as Norway´s most-used social media by children with 81% of 9-18 year olds as users (Norwegian Media Authority 2018). Considering that Snapchat does not allow users under age 13, this statistic is surprising. Or, is it? Also surprising is that Norway has strict laws limiting advertising to children, yet Snapchat exists solely on revenue from advertising. This thesis seeks to explore **"How does Snapchat appeal to children, how do children react to advertising on Snapchat, and what does this say about the need for regulation in the digital?"**

At the same time, this topic begs inclusion in the larger-scale STS discussion of the evolving dynamics between humans and nonhumans where boundaries, roles and power are increasingly blurred and transient, and issues of perception and multiplicities further complicate attempts at achieving broad understanding or consistent interpretation (Mol 2002; Latour 1999b). In this case, humans and nonhumans, embodied as children and social media, provide one look at how definitions, boundaries and rules are being challenged and adapted in a constant and mutual flow of interaction and influence. By drawing on the playground as a metaphoric element, I invoke a familiar image to help illustrate a broad range of issues in this study in a symbolic yet meaningful way.

STS theories and qualitative research insights from participatory observations and interviews are used to sketch out and analyze the playground. Material semiotics, scripting and mediation help to illustrate zones of interaction, such as Snapchat´s use of "hooks" to attract and stimulate use by children. Feminist questions of boundaries of life help to consider how social media have become extensions of the child in sensing and interacting within a social environment. Other theories and works such as design ethics and governance are considered for their useful insights to the study´s evolving understanding of social media use, the role of advertising and concerns for regulation and safety. This study contributes to the unfolding conversation about social media use as seen, in part, through the eyes of children, finding that advertising is unclear for children and government regulation is needed.

Acknowledgements

I have truly enjoyed and learned from this study. I hope that this is reflected in my writing. I am grateful to many who shared their knowledge and encouragement.

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Second, thanks to Alma Leora Culén, my partner in design at IFI, for encouragement, literature recommendations and for being my bridge into the field of interaction design.

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Fourth, thank you to the TIK Centre for my spot in this transformative, cross-disciplinary program which values people of different backgrounds. I hope that this academic setting can also help inspire more workplaces in Norway to place greater value on diversity, not only in background and gender, but in age as well.

Finally, I want to thank my family, especially my husband and daughters, for their encouragement and patience. My oldest daughter bravely told me that I should go on a writing retreat, knowing that she would have to make her own lunches; my middle daughter inspired this study´s introduction, took over long walks with our dog and would only read my messages if I sent her Snaps; and finally, my youngest daughter was my Snapchat mentor despite being only 9 years old at the beginning of this study and generously volunteered to feed our dog and fill in many of the gaps of what needed to be done while I was writing. You are my sunshines.

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1 Introduction

The car is packed. We are about to leave for a family summer vacation. The five of us, two large and three small, are walking out the door. One of my daughters is heartbroken and crying, because she just found out that we are traveling to a place without internet and her virtual pets will die if not fed. I react with immense displeasure for the designers of a game who would prey on the sensitivities of a child to stimulate usage. How can this be allowed?

Now, some years later, social media are using this strategy of "hooks" to stimulate and grow active daily usage by children, with the underlying goal of increasing operating income through advertising. Instead of dying virtual pets, Snapchat, for example, uses the threat of broken communication "Streaks" between friends to keep users engaged on a daily basis. Accompanying this active use is exposure to advertising that, while some of it adheres to requirements for being clearly marked, other instances seem to ignore transparency requirements and yet still other forms present new types of embedded ads where rules may not yet even exist. Content marketing, for example, "can lie directly on the border between media and marketing" (Viken 2016, p. 140). This incongruity stirs up questions of user risk and the need for regulation.

On the other hand, in an unprecedented era of digital technology innovations and new paths for creating economic growth, there needs to be space for emerging technologies and businesses to develop and thrive. Advertising becomes both a problem and a necessity of innovations in the digital, as authority figures need to balance stimulating new businesses with protection of users, particularly children.

New digital technologies, especially in evolving fields such as social media, are much like children, finding their way and carving out their own space in an existing world, often disrupting the environment. As children grow and develop, the playground is an iconic place of testing skills, interests and boundaries, both socially and with those in authority. By drawing on the playground as a metaphoric element, I invoke a familiar image to help illustrate a broad range of issues in this study in a symbolic yet meaningful way.

1.1 Research topic

This study uses approaches and tools from the field of Science and Technology Studies (STS) to explore the evolving digital realm of social media where children are the primary users. Illustrated in a playground metaphor, this study examines children´s experiences on social media, to understand interplays of social, commercial and digital and how children can be affected. How is children´s social "play" influenced by advertising? I focus specifically on Snapchat as Norway´s most-used social media by children with 81% of 9-18 year olds as users (Norwegian Media Authority 2018). Considering that Snapchat does not allow users under age 13, this statistic is surprising. Or, is it? Also surprising is that Norway has strict laws limiting advertising to children, yet Snapchat exists solely on revenue from advertising. This thesis seeks to explore **"How does Snapchat appeal to children, how do children react to advertising on Snapchat, and what does this say about the need for regulation in the digital?"**

At this point, this project may appear to be a normative study, a crusade for children, which intends to highlight a problem area in need of further investigation and potential action. This is not the intention. As someone with the dual perspective of having worked in the technology sector and being a mother, I am as curious to understand digital business models as I am wary of the potential threats to children. I seek to understand the playground.

At the same time, this topic begs inclusion in the larger-scale STS discussion of the evolving dynamics between humans and nonhumans, where boundaries, roles and power are increasingly blurred and transient, and issues of perception and multiplicities further complicate attempts at achieving broad understanding or consistent interpretation (Mol 2002, Latour 1999b). Digital technologies are extending increasingly beyond traditional boundaries, weaving together encounters with business, science, art, culture and research. Not only are our past beliefs challenged by new media in the digital, but our envisioned future is called into question as well. In this case, humans and nonhumans, embodied here as children and social media, provide one look at how definitions, boundaries and rules are being challenged and adapted in a constant and mutual flow of interaction and influence between user and platform, subject and object.

My research begins with a paradox. Advertising towards children in Norway is strictly limited. It is not allowed, for example, to advertise on Norwegian TV programs for children (Lovdata). New internet-based media, however, such as social media and online games have within the past 15 years largely replaced TV-viewing as a primary leisure activity of children (Norwegian Media Authority 2016). These new digital media survive mainly on income from advertising by presenting ads in different forms. How can online advertising for children be allowed while TV advertising is not?

The interdependency between opportunity and risk as well as friction between business and policy is addressed by Livingstone and Brake specifically for children in the digital in how "technological innovations afford the commercial world new possibilities for targeted and embedded marketing, while public policy is also required to address new online risks to children´s wellbeing" (2010, p. 75). The authors warn of a lack of media education in schools in teacher training and curricula that may impede children´s media knowledge from keeping sufficient pace with media marketing practices (ibid).

The topic of risk to children on the internet is not a new one. Much of the early focus was on the risk of sexual predators, pornography and bullying (Livingstone, Mascheroni and Staksrud 2015). Now, however, online advertising is gaining attention. Livingstone, Mascheroni and Staksrud outline commercial risk, such as from embedded marketing, as one of four key risk types in their research of children´s online risks (ibid). Risk related to advertising, however, has generally seen limited research, and I have been unable to find a study where the primary focus of the research is on the child´s experience with advertising on social media. It is this area which I wish to explore and contribute in this sociotechnical study.

1.2 Scope and relevance

Is Snapchat dangerous? Are social media dangerous? Questions of danger in the digital are looming. The fact that technology is developing faster than human ability to regulate and ensure safety standards further adds to concern for danger as technology companies are left largely to self-regulate in digital markets. Technology itself is neither inherently dangerous nor completely neutral (Latour 1999b; Verbeek 2008). It is therefore vital to examine closely the relations and interactions among actors involved in digital networks, both human and

nonhuman, to see where potential for danger exists. Does moral responsibility lie with designers who create and script the technology, with the users who decide the practical use of the technology, or somewhere in between where perhaps technology itself also plays a role? Development of effective regulatory policy depends on understanding and monitoring where influence and control exist in the digital.

Former Google Design Ethicist Tristan Harris is one of many raising a red flag about the dangers of social media. According to Harris, social media companies are using a combination of psychology, design elements and artificial intelligence to create addictive platforms which seek to capture and hold hostage users´ attention (Pletten 2018). Harris, who left Google to establish the Center for Humane Technology and the "Time Well Spent" movement sees the threat of social media addiction, also known as the "digital attention crisis" as a critical turning point for our collective future (Harris 2016). Harris warns, "This is a battle for the future of humanity. I´m not kidding"[1] (Pletten 2018, p. 6).

This study finds itself amid a growing public debate about the risks and rewards of social media use. The four quotes at the start of this document (page V) offer a glimpse of the discourse from some of the many channels engaged. From film depictions, newspaper articles and casual conversations between parents, to thought leaders and users of social media platforms, concerns about the internet as a "wild west" territory (Livingstone, Mascheroni and Staksrud 2015; Lund 2018) are widespread. On any given day, there are news events about the internet with announcements, speculation about the future and specific reports of harm or good, such as bullying incidents or new business success. The barrage of issues during this study posed a challenge for maintaining the topic focus. Public and political discussions around social media, as well as broader speculation about implications of the digital revolution, contributed significant and relevant insights but also threatened several times to derail the focus of this project. I often felt as if my topic were a moving target, that I had less control over the subject than I originally thought, and that I was being carried along in a stream of unfolding events, hoping to land somewhere relatively close to where I had started. At the same time, children and social media continued to interact on a largely unsupervised playground with few rules.

[1] Original text: "Dette er en kamp for menneskehetens fremtid. Jeg tuller ikke."

What began, therefore, as an endeavor to map out and analyze digital advertising practices targeting children on social media branched quickly and forcefully into areas such as design ethics, privacy and regulation. My initial plan of study centered around collecting children´s experiences on Snapchat and analyzing user habits and perceptions of advertising. Current events, however, worked to widen the scope of the study.

Three important developments occurred during the course of this project which expanded the study analysis. The first was a major update to the Snapchat user interface which was not well-received by users. The second was the news that Cambridge Analytica had misused private data obtained unknowingly from Facebook users. The third was the release of a European policy for user data protection, GDPR (General Data Protection Regulation). These events had both direct and indirect implications for Snapchat users and contributed notably to developing practices and user experiences. These milestones are therefore included in the content of this study.

In his April 2018 U.S. congressional testimony, Mark Zuckerberg noted the irony of starting Facebook in his dorm room at Harvard and now working to prevent interference in global state elections on Facebook (YouTube 2018). There is power in the digital which if misused can lead to serious consequences. A seemingly innocent personality test on Facebook was ultimately used as a tool by a digital predator to influence political votes in 2016 such as Brexit and the U.S. presidential election. At this point, we must admit that we have yet to grasp adequately the potential impacts of social media and digital technology use. With the advanced adoption of digital technologies in Nordic countries (Chakravorti, Bhalla and Chaturvedi 2017), Norway provides an ideal setting and case for looking at issues of risk and regulation in relation to new technology use. This study, therefore, contributes a very relevant analysis to the unfolding conversation about implications of digital technology use as is seen, in part, from the view of children on the Snapchat playground.

1.3 Chapter structure

This section presents the structure of the analysis in this document. Chapter 2 describes specific theory and method tools used to construct and analyze Snapchat on a figurative playground, as well as how children are engaged as informants in this qualitative study. STS theories of relationality, subjectivity and governmentality combine with design theory and

ethical considerations to provide a range of insights for understanding how social is practiced in the digital. The qualitative data collection process based on ethnography and interviews with children is described in detail. The chapter closes by addressing the considerations of working with children as informants and presents limitations of the study.

Chapter 3 activates the theory and tools described in Chapter 2 to build the foundation of the playground by establishing the setting for social media and filling the playground with relevant actors: children, advertisements, parents and others. The chapter continues by addressing the first part of the research question: **how does Snapchat appeal to children?** We considering interview data from children informants to explore techniques Snapchat uses to attract children both initially and over time, including how Snapchat scripts rewards and punishments to incent desired behavior and punish undesired behavior.

Chapter 4 sets the playground into action to address the second part of the research question: **how do children react to advertising on Snapchat?** Ethnographic observations show how children encounter and respond to various types of ads on Snapchat. Of particular importance is whether or not children recognize advertisements and how they respond accordingly. Questions of power and influence on the Snapchat playground are also considered. We next look at how the flow of playground interactions can be disrupted such as with the Snapchat update in late 2017 and with discovery of the Cambridge Analytica data breach in 2018. The chapter ends with observations from my own autoethnographical Snapchat use which supplement observations from the children informants in building a detailed understanding of risks to children.

Chapter 5 considers the cumulative observations and insights of this study to address the final part of the research question: **what does this say about the need for regulation in the digital?** Before discussing regulation, we consider the prevalence of advertising and questions of danger and morality in the digital. The chapter then draws on a relevant model of governance by Foucault (2007) to address regulation and show how multiple levels of governance in the digital can work together.

Chapter 6 concludes the study with findings, suggestions for further research and final thoughts on the digital conversation.

2 Entering and engaging with a digital playground: theory and method

“Playgrounds are outdoor environments where children have more freedom to interact in ways that are largely independent of adult-imposed constraints” (Hart 1993, p. 1). The internet is a digital environment where companies have more freedom to interact with the market in ways that are largely independent of regulatory constraints. Imagine the Snapchat playground.

Social media and internet companies in general are much like children on a playground. With developing technologies for bodies and new business models for minds, they set out to test the market to see what works and what does not, what brings value and what does not, and where boundaries lie with their various stakeholders. Boundaries are tested and pushed, and some businesses bully other businesses. Sharing is neither natural nor easy for most, but sustainability practices develop. The similarities to children are intriguing.

In another light, playgrounds are to younger children what social media are now to older children. Playgrounds are places of exploring, testing boundaries, learning, building friendships and developing self-identity. Conversely, playgrounds can also be places of disappointment, injury, fear, intimidation and danger. Exploration and play can happen in physical spaces with metal equipment as well as in virtual spaces with digital features. Friendships are made and loyalties are tested in both. There is social inclusion and exclusion. “Social development and peer relationships play their way out on the playground with bullies, conflict, normative behaviors and play styles of accepted and rejected children” (Hart 1993 p. 2). Such is also social media.

I find that using a figurative playground as an analytical tool for mapping children´s experiences with Snapchat not only provides a fitting structure for analysis but also helps unlock some of the reasons why Snapchat can be so appealing to social media´s youngest users. Use of the playground framework helps to bridge the new with the familiar.

This study´s approach is inspired by and builds on insights from Science and Technology Studies (STS) and design theory which emphasize relationality, subjectivity, governmentality and ethical considerations for human and nonhuman actors. Ontological practices where children, Snapchat and others interact in the digital are examined for their attempts to build meaning in a new and rapidly growing realm. No longer are we simply trying to understand what is, but we are struggling to make room for and describe unfamiliar territories of which we have little experience or control. This sociotechnical study of children and social media is one of those unfamiliar territories.

The following sections describe the specific theory and tools used to construct and analyze the Snapchat playground, as well as how children are engaged as informants.

2.1 Science and Technology Studies (STS)

What does it mean to be human? What does it mean to be social? These are a couple of the many questions arising from technology´s growing role in society which has dislodged much of what we have long held to be true. We are in a digital era of uncertainty where realities are being destabilized, challenged and redefined with technology advances. Nonhuman actors are increasingly sharing our world and engaging in our lives, from digital assistants to massive production robots. Children have a clear advantage over adults in this era in that their learning slates are clean; their brains are not cluttered with the need to unlearn before they can learn. Adults, however, are often not quick to release their grip on what is comfortable and what has worked before. Even the field of research has been criticized for relying too heavily on traditional methods to delve into new areas (Law 2004).

STS scholar John Law claims that traditional orderly research methods do not fit with our complex and changing world (ibid). He argues that “while standard methods are often extremely good at what they do, they are badly adapted to the study of the ephemeral, the indefinite and the irregular” (ibid, p. 4). Law calls for “heterogeneity and variation” in method (ibid, p. 6). For this study of children´s use of Snapchat, I have tailored a method within STS which serves the irregularity and newness of the situation. STS works to understand a new world inhabited by humans and nonhumans.

Replacing “old notions about how science discovers and describes reality”, Science and Technology Studies (STS) is an interdisciplinary research field which examines social and political aspects of how science and technology issues arise and evolve (Asdal, Brenna and Moser 2007, p. 9). STS has a dual orientation towards the subject-object dynamic, seeking understandings of how technologies “participate in the social world, being shaped by it, and simultaneously shaping it” (Law 2004, p. 12). STS is itself an evolving field and provides needed creativity and tools for investigating interplays between different contexts and spaces, and is therefore well-suited to this study of a rapidly evolving social media platform for children.

One criticism of the developing field of STS is that it has been unable to establish a “systematic link between empirical case studies and abstract problems” (Gläser et al. 2017, p. 5). Other scholars criticize the timidity of STS in offering solutions to cases (van de Poel and Verbeek 2006). In the newness of the internet arena, however, I would be skeptical of methods which promise systematic solutions. Many of the problems of the digital are new and do not fit in systematic definitions. I draw therefore on a wide scope of STS theory and techniques to develop an understanding of children´s use of Snapchat and conclude with addressing the need for regulation. Advantages and disadvantages of the method will be examined in the text.

The next sections describe how different STS theories of relationality, subjectivity and governmentality help to shape insights from the digital playground.

2.1.1 Webs of relations

The Snapchat playground is alive and buzzing noisily with a mesh of interactions among children, devices, Snapchat features, advertisements, influencers and other actors. Who are the actors, how do they play, and what happens when they play together? Technology is a cultural practice (Asdal, Brenna and Moser 2007) and well-suited for analysis on the playground. Described below are how STS theories of material semiotics, design scripting and mediation map and contextualize playground actors, their relations and interactions for analysis.

The material semiotic playground

Material semiotics builds the structural foundation of the playground by identifying the actors and examining the relationships between subjects and objects, or humans and technology, and how and where meaning is created. Material semiotics includes "sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located" (Law 2009, p. 141). With vital openness, material semiotics helps to map and understand the many relationships in this study among participants, both material and immaterial, human and nonhuman. Material semiotics is often compared to actor-network theory (ANT), but according to Law, "It is better to talk of 'material semiotics' rather than 'actor-network theory'. This better catches the openness, uncertainty, revisability and diversity of the most interesting work" (ibid, p. 142).

Given the immense range and mutability of interactions between social media and users, material semiotics allows a wider freedom than ANT in that it "does not have to imagine a single actor-network" and "the need for a centre has gone" (Law 2009, p.153). This provides space to consider multiple webs of relations and multiplicities of child users and other actors. Material semiotics also avoids the need to consider concerns raised by Latour, Law and others about practical misinterpretations of what ANT is or is not as a theory or tool (Latour 1999a; Law 2009), thus freeing energy to consider and address the issues at hand. One key issue that will be addressed in this material semiotics study is how advertising is positioned dynamically within the relationship between user and social media platform.

Technology innovations introduce new actors. Among the actors born out of the digital is the "transactional actor" which is based on interactions between two or more humans (or nonhumans) and captured digitally in networking devices (Ruppert, Law and Savage 2013, p. 35). Transactional actors in Snapchat, such as "Snaps" and "Streaks" will be introduced in Chapter 3 and are among the most influential actors in this study.

Scripting the playground

How do the actors play on the playground? How users play and behave with technology is grounded in technology design and "scripts" which inform and influence use. Scripts are "instructions" for technology use which are co-constructed by design and use over time. Technical objects, such as the smartphone, "point to an end, a use for which they have been

conceived" (Akrich 1992, p. 205). Scripting involves a process where "technical objects define a framework of action together with the actor and the space in which they are supposed to act" (ibid, p. 208). Here, it is important to remember that the "actor" need not be human.

Scripting of Snapchat is evolving steadily as the platform itself evolves and is interpreted by users and other actors on the playground. This study considers how parent company Snap Inc. scripts Snapchat to attract users, incent daily usage and expose users to advertising. We also look at how users intervene in Snapchat´s scripts by re-scripting use (Akrich and Latour 1992) which spreads to other users, and can alter the initial intentions of technology design. Design scripts "are not entirely predictable" (van de Poel and Verbeek 2006, p. 227). Scripts are thus also "living" actors, being interpreted and reinterpreted by multiple actors in different contexts (Akrich 1992).

With little government regulation of Snapchat and internet platforms in general, questions of ethics related to technology design and use are important to consider. Here, I wish to explore the boundaries of STS by drawing on design theory from other fields such as engineering and interaction design related to questions of responsibility and accountability. Social media extend across a wide range of fields; it is therefore relevant to consider how perspectives and normativities from other disciplines inform or create friction with STS. To this end, Mol assures us that "importing texts from other fields tends to be a good way to say `new´ things" (Mol 2005, p. 22).

One of the imported scholars is technology philosopher Peter-Paul Verbeek whose work spans technical fields such as engineering and interaction design as well as STS. His research informs this analysis, particularly with regard to engineering ethics for technology design. Does technology itself bear some of the responsibility for how it is used? Who bears responsibility for unforeseen social effects of technology use (van de Poel and Verbeek 2006)? Van de Poel and Verbeek call on STS researchers to take a stronger moral role in producing research "which is empirically informed and critically contextualizes the moral questions it is asking but at the same time does not shy away from the effort to actually answer them" (ibid p 234).

In considering the need for regulation, this study examines influence and responsibility where designers, children and their scripts form a "playgroup" with Snapchat and coexist on the digital playground, sharing in the responsibility and morality for actions and consequences of technology play. Is regulation needed to ensure morality?

Mediation and action on the playground

What happens when human and nonhuman actors play together on the playground? Closely linked to material semiotics and scripting is mediation. Mediation captures perspectives of "action" that occur within material semiotic webs. I start with a basic principle from Latour: all action is mediated (1999b). Mol adds, "even the lived experience of one´s own body is mediated" (2002, p. 26). Scripts can be seen as mediation devices between user and technical object, or in this case, between child and Snapchat. Latour defines mediation, sometimes used interchangeably with the word "translation", to mean "the creation of a link that did not exist before and that to some degree modifies the original two" (1999b, p. 179). He goes on to say that mediations become so "convoluted" that boundaries between actors are indistinguishable (ibid, p. 197).

This study examines a range of mediations on the Snapchat playground to see what is created or effected between various points of interaction. How does Snapchat mediate children´s social contacts and self-expression? What are the different ways in which advertisements are mediated to children? Another type of mediation is through "hooks" which Snapchat uses to attract children and stimulate frequent usage. "Hooks" will be examined in detail in Chapter 3 for their performative function to ensure that the playground fills with children each day.

As part of a larger world inhabited by both humans and digital nonhumans, this study of children and Snapchat also considers in a broader sense how technology "plays a mediating role" between children and the world (Verbeek 2015, p. 28). Feminist insights which are presented in the next section illustrate why children´s perspectives are unique and vital to understanding a digital world.

2.1.2 Feminist subjectivity and prosthetic technology

Thus far, use of theory on the playground has not accommodated the uniqueness of children as the focus of this study. What makes Snapchat so attractive to children? Feminist studies in

STS shine a light on issues of subjectivity and equality in knowledge production, bringing meaningful insights which can be applied to children. Feminist questions of boundaries of life also inform this study on how nonhuman actors such technologies may not be separate from, but rather extensions of, the child in sensing and interacting within a social environment (Haraway 1988).

Feminism in STS challenges researchers to consider the impossibility of objectivity in both method and perspective. In other words, despite my most diligent efforts to remain neutral, my perspective as a mother, for example, has invariably already woven itself into the design and outcomes of this study. Significant bodies of literature in STS center on questions of method subjectivity and multiplicities of perspective. Law writes that method is never pure but always performative, helping not only to describe realities but also to produce them (ibid). Haraway also stresses the influence of practice and cautions researchers against seeking the one ultimate and true perspective, the existence of which she calls a "god trick" or an "illusion" (ibid, p. 587). Armed with the identical data collected in this study, another researcher may arrive at different results or even contradictory interpretations. In studies of children and social media, Turkle, for example, warns of social dangers (2011) while Brandtzæg finds evidence of positive social capital (2012). "How real is real?" is thus a relevant and symbolic STS question posed by Latour to represent the challenge of knowledge creation (Latour 1988, p. 105).

Haraway proposes that researchers seek "heterogeneous multiplicities" of situations that can be considered separately and provide limited but potentially more realistic views (1988). She encourages the use of "subjugated" positions, in which research subjects are not acting from a position of power which can greatly hinder objectivity (ibid, p. 584). Rather, subjugated positions offer a better chance to approach objectivity. Children generally occupy subjugated positions in the world and therefore can make attractive informants where their input is relevant. This study´s inclusion of views and experiences from 10 different children, therefore, gives a range of subjugated and candid accounts which work to strengthen the study. Implications of my own subjectivities as researcher will also be addressed.

Another feminist insight for this study is the boundary between child and technology. Is it the human child who is interacting with Snapchat? We could rather say that it is the child´s smartphone which is interacting with Snapchat as a mediation device. Conversely, we could

consider, as Haraway challenges us to do in her *Cyborg Manifesto*, how being human is being disturbed and redefined by technology (2000). Haraway uses the term "prosthetic technology" to describe how technology extends our senses (1988, p. 589). Has the smartphone become an extension of the child? Has Snapchat become an extension of the child?

Haraway takes Latour´s view of nonhumans as "full-fledged actors in our collective" (Latour 1999b, p. 174) one step further. Rather than separate actors, Haraway suggests that nonhumans are extensions of our human existence, absorbed into what it means to be human (1988). The question then becomes: Are we cyborgs, or are nonhumans actually somewhat human, or are we together a hybrid species? This could be what Latour means when he says of mediation that "a third agent emerges from a fusion of the other two" (1999b, p. 178). Latour and Haraway come at this point from different angles but seem to end in agreement. A current example of the blending of human and nonhuman boundaries is a legal case in Norway in which human personal data, such as age and gender, may be extended to include also a person´s IP address linked to a networked computer (Husby 2018, p. 45). A person´s IP address would therefore be part of and have the same rights of privacy protection as other human data.

2.1.3 Governing the playground

What are the rules on the playground and who enforces them? Are there established laws for advertising on social media? Are the laws enforced? Who has authority? Are social media "safe" for children? Perspectives from STS theories and literature such as governance and informatics are considered for their insights in developing understanding of social media use related to concerns for safety and regulation.

With little current government regulation, we must depend on social media companies themselves to self-regulate their actions and respond to public concerns and issues in a healthy manner, not only for their users but for society in general. Parents also serve a role as regulators for their children; however, practices vary widely across families from strict limitation of social media to little or no supervision (Livingstone, Ólafsson and Staksrud 2013). Foucault, in his *Lectures at the College de France,* lays out a model for governance with three levels of regulation: self, family and state (2007). This particular framework is

quite relevant and useful for this study´s analysis of the need for regulation of social media and the digital and will be presented in more detail in Chapter 5.

STS and design theory insights lay the groundwork for construction and analysis of the Snapchat playground. To extract meaningful insights and observations from the playground, it is essential to include children as informants. The data collection method of this study is outlined in the sections following.

2.2 Qualitative tools at work

This study uses qualitative tools – ethnographic participant observations, interviews and document analysis – to collect detailed evidence of children´s experiences with Snapchat and its advertising practices. Using these data, I imagined a figurative social media "playground" into the study as an illustrative metaphor to assist the analysis and presentation by bridging an unfamiliar territory with a recognizable one.

While not a mixed methods study, this research takes as one starting point quantitative data from the *Children and Media* (*Barn og Medier*) research reports produced every two years by the Norwegian Media Authority, along with other reports (Livingstone and Brake 2010; Pew Research Center 2018; EU Kids Online 2014) which provide measures of children´s internet use in other countries or regions. From these data, I obtained many of the initial issues which this case raises for investigation and designed specific data collection points for interviews with children.

The following sections outline the specific tools used for data collection.

2.2.1 Interviews and ethnographic observations

How can I best engage with and gather evidence from the playground? The essential part of this study was the collection of user experiences and opinions from Snapchat users, the children. This also presented the most challenging work. In planning the project, there were central questions that I wanted to explore about children´s Snapchat use such as:

- Why do children choose to use Snapchat?
- Where and in what forms do advertisements appear?
- Do children recognize advertising on Snapchat?

- How does advertising impact the children´s user experiences and attitudes?

In the past, research data about children´s media use has been obtained primarily from parents and not directly from children. One reason for this is that data obtained from parents has been viewed traditionally as more credible than data obtained from children (Staksrud 2013). Another reason is simply the challenges of working with children, especially young children. Some statistical reports of social media use disregard children altogether and only consider users from 18 years and above (Ipsos 2018).

Staksrud argues that children have the right to be heard as is documented formally in the UN Rights of the Child article 12 and that "research is a real channel that one can be heard through" (ibid, p. 92). I have personal experience working with children in design of digital media projects with university students, and I value the honesty and creative energy that children bring. Children meet Haraway´s ideal of having a subjugated position where their "standpoints are preferred because they seem to promise more adequate, sustained, objective, transforming accounts of the world" (1988 p. 584). I knew early on that I wanted to include children directly in this research study. The only question was how best to do this.

At the outset of this project, I conducted an informal poll of local teenagers about their favorite social media and found that Snapchat was indeed the preference because of its unique features such as Stories, filters, Streaks and points. My first goal, therefore, was to understand why Snapchat was so appealing from a user perspective. Before I could consider the child perspective, however, I needed to become a Snapchat user myself to experience firsthand how its design and features could attract and stimulate usage. I had been using Facebook occasionally for about 10 years but had never used Snapchat or any other social media.

As an adult, I found Snapchat to be challenging initially and not as easy to learn as Facebook. Snapchat runs only on mobile phones and tablets without wasting a single pixel of screen space for user instructions. There is, however, "How to Use Snapchat" information on Snapchat´s support webpage site (Snapchat 2018c) and no shortage of helpful how-to videos posted by all sorts of users on YouTube, but when you are in the app on your phone, you are on your own.

Ironically and unsurprisingly, I received wonderful and patient help from a 9-year-old who gave me a brilliant personal tutorial, showing me in detail how to use Snapchat and even walking me through making my own "Bitmoji", or personal cartoon avatar. My mini-mentor then showed me how to take a picture and use "filters" to give myself rabbit ears or a beard, add a message and then send it to others. I was immediately sold. The visual and creative capabilities of Snapchat are engaging and fun. I could see why this was appealing to children.

Once I was familiar with Snapchat´s features and use, I began to plan for conducting interviews and participant observations with children informants to explore their usage habits and how advertising plays a role in their use of Snapchat.

Among the challenges of this type of ethnography with children is the problem of being able to observe authentic online behavior with an adult present. On a deeper level, Haraway warns of the danger of "appropriating the vision of the less powerful while claiming to see from their positions" (1988, p. 584). With an adult watching a child using Snapchat, the observable user behavior is most likely altered and therefore compromised. Because of this, pure user behavior observations could not be the goal for this study. I therefore designed a data collection approach combining interviews and participatory observations with an online challenge to distract from the research process and yet still provide relevant insights.

The first part of the approach was a short interview where I began by explaining the purpose of the research and ensuring that each child understood that their input was absolutely confidential. The interviews needed to be fairly short so as not to lose the informants´ interest early in the process. I designed the interview to last approximately 10 minutes, depending on how much information each informant wanted to share. The questions were semi-structured, beginning with specific demographic and usage information and gradually becoming more open-ended to encourage individual thoughts and ideas.

Directly following the interview was an approximate 30-minute participatory observation where the informants were on Snapchat. Instead of asking the informants simply to show me what they normally do on Snapchat, I challenged them to go on Snapchat and do what they normally do, but during the session, whenever they saw something that was or could be an advertisement, they were to take a screenshot. If they were uncertain if something was an advertisement or not, they were asked to go ahead and take a screenshot. Giving them this

challenge within the observation session, seemed to focus their energies away from me and onto the task of finding advertisements. It also stimulated discussion that proved to be very valuable. My role as an active participant therefore became part of the process instead of being a distraction. I tested this strategy with a few children and found that it worked well. I was also satisfied with the amount and type of data that was collected.

10 subjects between the ages of 10 and 17 were selected. To help ensure gender neutrality, five girls and five boys were selected for the study. Five of the subjects were under age 13 which is the legal age for using Snapchat. Of the other five users age 13 or older, three of them had started using Snapchat before they were age 13. While not statistically significant, it is interesting to note that 80% of the users in this study began using Snapchat before age 13. Children´s newspaper *Aftenposten Junior* reported in 2018 that 75% of children between ages 9 and 13 are using social media (Midtskog 2018, p. 5). This suggests that this study´s sample, though small, may be somewhat representative of the larger children´s population.

Included also in this study are autoethnographic insights from my own personal observations as a Snapchat user during the research period. These insights were added where they supplement observations from children and contribute to a deeper understanding of the Snapchat playground with its attractions and risks to children.

2.2.2 Supplementing with texts

There was certain other critical information which I was not be able to obtain from the children informants and which needed to be gathered separately. Analysis of relevant documents helped to inform about the history of Snapchat and the legal framework for advertising on social media, as well as current related political and social issues. This information helped paint a necessary and more complete context for the Snapchat playground from which I could gather and interpret observations with children.

Biennial research reports, *Children and Media* (*Barn og Medier*), from the Norwegian Media Authority, provided not only critical information about children´s use of social media in Norway but also evidence of how quickly the social media sector is growing. Comparisons of report structure and measures over time, for example, offered evidence of the difficulties of keeping pace with the digital.

Asdal asserts the role of documents as not only evidence of environments, but also having the power to contribute to, or "modify", the environment itself (Asdal 2015). Again, the issue of subjectivity presents itself in this study. Research reports and newspaper and online articles are included in this analysis with their inherent subjectivities and power to influence. My choices of texts are intentional, however, based on informed selection for the value that these different elements bring and not by accidental chance.

These texts completed the initial groundwork for this study and helped prepare the playground for interview and ethnographic insights. The combined groundwork and resulting insights provide a broad and abundant base of information to address the research questions.

2.3 Study integrity

A final consideration of this study´s structure is how rigor has been maintained in the method. First, as a researcher, I have been very aware of my subjectivities but have looked for ways in which they might be used to advance the work instead of hindering objectivity. How have my contexts influenced the research specifically?

I am conducting this study from at least six perspectives: novice researcher, novice Snapchat user, experienced mother, experienced ICT professional, dog lover and female human. Critical reflexivity asks the researcher to reflect on the design and execution of the project in terms of how the researcher´s own personal beliefs and experiences may influence the project (Dowling 2016). With the impossibility of objectivity (Haraway 1988), I will not attempt to claim that I have packed away all sides of me except for the researcher while working on this project. Rather, I have tried to be aware of how my experiences, beliefs and contexts may influence and benefit the study work.

One tool that I have used, at the recommendation of my advisor, is a research journal to record my thoughts and observations frequently throughout the project. This tool has helped me not only to keep track of new ideas and questions, but also to consider multiple perspectives during the project.

These perspectives have opened many doors which hopefully have worked to enhance the study overall. As a mother and as someone who has worked with children, I had an advantage in securing interviews and participant observations with children which are the heart of this study. Further, I was experienced with the methods and need to treat children respectfully as "competent and knowledgeable informants" (Staksrud 2013, p. 75).

Subjectivity also includes the irrational. Being a dog lover, for example, may not seem relevant, but it likely increased my curiosity and interest in exploring Donna Haraway´s feminist writings which are grounded from time to time in clear respect and fondness for her canine companions (2003). Were I instead "dog phobic" (ibid, p. 3), this study might have suffered from the absence of Haraway´s insights for completely unjustifiable and non-academic reasons.

In facing up to the reality of multiplicities, we must also consider how multiple realities can "overlap and interfere with one another" (Law 2004, p. 61). I have therefore been very aware of how my personal role as a mother could add conflict, putting me in the mindset of a protector, seeking first and foremost to identify and eliminate risks to children. This is a role which I have tried to avoid. My research intention has been to understand the environment of Snapchat which has captured the attention and energies of children and how that environment enacts advertising for survival. Risks to children are an important part of the study in how they inform the need for regulation. On a larger scope, I hoped to grasp a glimpse of the evolving norms of social communication among children and the roles that technology plays, also with regard to the general human-nonhuman dynamic.

The following sections illustrate other areas of research rigor by describing the care that went into engaging children informants and establishing where the research is limited.

2.3.1 Working with children

Traditionally in social science research, children have been treated as "objects" rather than "subjects" (Staksrud 2013 p. 75). Staksrud writes that children are active and not passive users of the internet and should be included and treated as research informants with the same value as adults. It is important therefore to research with the child, not on the child (ibid).

This study takes seriously the experiences and perspectives of children as social media users in providing data on how advertising impacts their experiences on Snapchat. Parents are not included in this study, except in a couple of cases where input was collected in separate conversations.

In preparing for interviews with children, Staksrud gives good preparatory advice. She advises, for example, to pay careful attention to word choice and power issues, and she also recommends doing test interviews in advance (2013). During the first few test interviews, I modified the interview guide to remove what did not work, crystallize what did work and add content that was missing. To minimize any perceived imbalance of power between me as the adult interviewer and the child informants, I dressed in casual clothing and sat beside the informants, often in their homes where they had an advantage of comfort and power.

Informed consent was secured for all study participants. At least one parent for all the informants under age 15 was informed verbally of the study purpose and interview method. The three subjects over age 15 were able to give informed consent themselves. No personal identifying data was gathered during the interviews. All participants and parents of participants were therefore agreeable to receiving verbal information about the research project and giving verbal consent. Interview sessions were recorded via telephone and coded anonymously.

Finally, no compensation was given for participation in the study with the exception of two participants who were offered cookies afterward. It is unlikely that the cookies provided any incentive for participation or resulted in any effect since the two participants had already given their consent to participate.

2.3.2 Limitations

This study was limited in time and scope, considering Snapchat use and experiences of only 10 children users. While the gender of participants was divided equally between girls and boys, and the ages of the participants were also divided equally between underage and legal age users, no other characteristics were considered such as ethnicity or family income. The small size of the study precludes population generalizations but can contribute insights from specific users which may be applicable for others.

Some of the observations with informants touched on peripheral issues such as authenticity of social communication in the digital. While the usefulness of pursuing these issues exists, the scope of this master´s thesis did not allow for investigation beyond the focused area of this study.

Finally, the rate of technology development is so swift that new features and issues arise steadily. If social media research studies are even a few years old, they run the risk of being outdated and irrelevant. This study, therefore, relies heavily on its own ethnographic data collection for current information and was unable to find comparative studies for which to validate the findings.

This study is also likely to be outdated shortly after it is finished, if not sooner.

3 The playground

Before I could enter the Snapchat playground, I needed to understand the layout and dynamics of the playground. Where is the playground? Who plays on it? What sort of equipment is there? Is it cool or boring? Does it have scary stuff? Is there supervision? I also knew that I could not be an adult sitting on a bench the whole time on the playground. I needed to engage firsthand in play to be able to relate to children´s perspectives. With a variety of users and activities on the Snapchat playground, creating a representation for analysis was challenging. Mapping, as with the use of the playground metaphor, helps to create "momentary stability" in an environment of otherwise "generative flux" (Law 2004, p. 7).

The following sections activate theory and method to build the foundation of the playground for study. First, we establish the setting of the social media environment, and second, we introduce the relevant players, both human and nonhuman, and how they interact. Once the playground and actors are in place, we explore the first part of the research question "*how does Snapchat appeal to children?"*

3.1 The setting

It is essential first to consider the setting of the Snapchat playground. Digital playgrounds are more complex than traditional playgrounds and their unique qualities must be recognized. Examining the characteristics of digital social media playgrounds will allow us to later examine specific relationships and actions which occur with greater understanding. The setting includes the circumstances of social media, evolving norms of advertising, the legal framework for advertising to children, and safety issues.

3.1.1 Social disruption

Social media are a hallmark of the digital age and have disrupted social norms around the world, particularly for children and youth. What it means to be social is changing and is already vastly different from even one generation earlier. "The very language of social relationships is being reframed" (Livingstone 2008, p. 394), for example, with "profiles" and "messaging". One Oslo father reflected, "Social is evolving into something that parents have

no context for…ambiguous relationships and interaction. Some seem good, others seem not so social. It remains to be seen what the new dynamic will be, `the new social´".

By historical business measures, the rate at which social media have appeared and developed into a dominant business sector is staggering. Launched in February 2004, Facebook is less than 15 years old and is currently the 77th largest public company in the world, according to Forbes magazine (2018). On Forbes´ list of the 2000 largest companies, Facebook is larger than Norwegian company Equinor (former Statoil) at #91 which was founded in 1972 and American company Coca-Cola at #209 which was founded in 1892. Thomas Kuhn would likely agree that we have seen a paradigm shift in business development norms.

The culture for social media among children is one of rapid adoption and eagerness to experiment with new digital capabilities (Livingstone and Brake 2010). Social media have become a primary means of social expression and have altered patterns of social behavior. New social norms are reflected everywhere, appearing even in pop music expressions such as the song by The Chainsmokers: *How many likes is my life worth?*

Unlike a physical playground, there is no physical human contact on digital social media playgrounds. Turkle raises concern for the impact of technology on children who choose digital communication over face-to-face contact (2011). Brandtzæg, on the other hand, finds evidence that social media supplement other forms of contact, including face-to-face, and can actually enhance social contact as a whole (2012). Both Turkle and Brandtzæg, however, express concern in their work about evidence of loneliness among social media users.

The Norwegian Media Authority conducts a biennial survey *Children and Media* (*Barn og Medier*) to gather data about children´s use and experiences with media in general. The results of these surveys demonstrate clear trends of increasing social media use and growth in the number of especially young users (Norwegian Media Authority 2018). When combined with similar survey results from other countries and regions (Livingstone and Brake 2010; Pew Research Center 2018; EU Kids Online 2014), questions surface as to the potential social impact to children on a global scale and, further, to general human development. These research data are critical in helping educators, parents, policy makers and others understand social media trends, anticipate impacts and create informed practices and policy for children going forward (Livingstone, Mascheroni and Staksrud 2015).

Policy, however, is lagging behind technology. Evidence of the rapid development of social media can be seen in the changing structures of research reports themselves. A look at the *Children and Media* reports over time shows changes in measures and language which are running to keep up with technology and unable to provide a basis for time comparisons. The 2008 report, for instance, looks at children´s engagement in online "chatting" (p. 47). The subsequent report (2010) introduces the word "social" ("*sosiale aktiviteter*" p. 12) as well as "web community" ("*nettsamfunn*" p. 34). In 2012, the report adds a separate category to measure "social websites" ("*sosiale nettsteder*" p. 40). In 2014, the term "social media" appears for the first time and has its own category for measure. "Social media" is then expanded in 2016 to have its own report section. Facebook is first mentioned in the 2010 report (p. 6) and Snapchat first appears in the 2014 report (p. 8). These changing report formats and contents demonstrate the challenge of keeping current with social media. The Norwegian Media Authority admits that children´s use of digital media is developing so quickly that substantial changes are required for each survey (2018).

Ironically, while the *Children and Media 2016* report addresses children's experiences with advertising, the *Children and Media 2018* report makes no mention of advertising, sending a signal, whether intentionally or unintentionally, that encounters with advertising are not a concern. This study of advertising on Snapchat, however, provides evidence to the contrary that advertising should be an area of attention. If it is difficult to stay current in designing research, how much more difficult is it to make informed decisions about policy from the results of research?

Ethnographic and open-ended data collection methods are increasingly important for producing meaningful research for rapidly evolving digital environments. Several of the most striking observations in this study could not have been designed into a survey. I did not know what I did not know, but luckily the children knew and shared. Here, we encounter another paradigm shift – one where children can have more control and knowledge than researchers. Law writes that "ethnography lets us see the relative messiness of practice" (2004, p. 18).

The setting for the social media playground is lively and dynamic, marked by disruption and changing conditions day-to-day. This is part of the excitement and attraction of the Snapchat playground with new features being added frequently and new and younger children coming

to play. The playground is never empty, but filled and busy with room for all. The playground is also filled with advertisements.

3.1.2 Normalization: "Senator, we run ads"

Advertisements are invited onto the Snapchat playground to interact with children in play. Advertisers pay for their ads to be on the playground and these payments make it possible to keep the playground up and running. The Snapchat playground therefore does not charge children money to play, nor does it seek funding from the community to support the playground. Rather, the more kids there are on the playground, the more advertisements come, and the more money is available to maintain and grow the playground. Seems like a "win-win", but is it really, and do children see it that way?

Social media companies such as Snapchat depend primarily on advertising for revenue to exist and grow. During testimony to the U.S. Senate in April 2018 when asked how Facebook could sustain a business model in which users do not pay, Mark Zuckerberg looked surprised at the question and answered famously, "Senator, we run ads" (YouTube 2018). This simple question and answer between U.S. Senator Orrin Hatch and Zuckerberg, with a 50-year age difference between them, symbolized for many the disconnect between industrial and digital thinking.

Advertising is accepted as the primary motor for income for social media and many others operating digital businesses. This runs contrary to industrial age thinking where advertising is generally a cost of business, instead of a revenue stream. This flipped business model adds yet another paradigm shift to our material semiotic field and enables "one of digitalization´s great opportunities for marketing" in the form of "content marketing" (Barland 2016 p. 14).

A primary type of advertising on social media is "content marketing". Content marketing, also known as embedded marketing or hidden marketing, has varying definitions and contexts (Pulizzi 2012; Barland 2016), but specific to social media, content marketing can be thought of as online content in which the subject or a visible element in the content is being promoted either directly or indirectly. The Consumer Authority describes "hidden marketing" as advertising which is "blended together with various gaming, play and entertainment elements" (2018 p. 8). This can be, for example, a video where a celebrity blogger tests a

product, a “news” story which includes a product, or a game or quiz themed around a product or brand.

Pulizzi describes content marketing as a shift in advertising to storytelling (2012). He writes that while storytelling has long been a form for advertising, digital capabilities have made it possible for new and appealing outlets for storytelling (ibid). With content marketing on the Snapchat playground, advertisements in the form of celebrity endorsements, games and storytelling can be just as much fun to play with as other children and playground features.

Digital functionality enables also more effective forms of advertising with the possibility of reaching tailored demographic groups (Barland 2016). On Snapchat and other social media, users enjoy free service in exchange for exposure to advertising and for collection and re-use of users´ demographic and usage data. This market negotiation creates an ideal platform for marketing campaigns where ads can more effectively target and reach potential customers. What happens though when the customers are children?

3.1.3 The legal framework

Before we address advertising to children, we must first address a question of disparity. Why aren´t social media such as Snapchat held to the same standards for advertising as traditional media such as TV?

The Norwegian broadcasting law (“kringkastingsloven”), which applies primarily to TV and radio services, restricts advertising to children. Section 3, part 1 states that “There can be no transmission of advertisements in connection with children's programs or advertisements which target children directly in television or audiovisual pay services” (Lovdata). This law was established in 1992 and is still in effect today. Ironically, commercialization of the internet was also beginning at the same time.

Internet-based services such as social media, gaming and streaming services have largely replaced TV as a primary source of media entertainment for children. The Norwegian Media Authority reports that “Children aged 9-18 spend significantly more time on YouTube and

streaming services as compared with TV channels"[2] (2018, p. 24). The report goes on to describe increasing use of social media with 89% of all children aged 9-18 using one or more social media. Just two years prior, only 58% of children aged 9-16 reported using social media (Norwegian Media Authority 2016). While not directly comparable due to different age spans, these measures in any case suggest significant growth of social media use for children.

The Norwegian broadcasting law is strict but provides diminishing value over time for children in that it covers a fading medium for children and does not apply to non-Norwegian broadcasters or internet broadcasting services. New media are subject to the Marketing Control Act of Norway which was established in 2009 (Consumer Authority 2009). In addition to general requirements for advertisers, the Marketing Control Act has special provisions for marketing to children and applies also to non-Norwegian advertisers who advertise in Norway.

Unlike the broadcasting law, the Marketing Control Act allows for advertising to children. Instead of clear boundaries, though, the Marketing Control Act establishes rules which at times seem vague and lay the groundwork for differing interpretations and even misuse. For example, Chapter 4 *Special provisions relating to the protection of children*, Section 19 *General provision* states that "When a commercial practice is directed at children, or may be seen or heard by children, particular care shall be exercised with regard to the impressionability, lack of experience and natural credulity of children". Interpretations of "particular care" can and will vary.

Similarly, Section 3 addresses transparency in stating that "All marketing shall be designed and presented in such a way that it is clear that it is marketing". How is "clear" defined? Social media companies are operating on a new field with a new business model and are experimenting with new forms of advertising to see what works and what does not. Precedents for what is clear and what is not are still being established. Standards for what is clear can also vary across geographic, cultural and other borders.

[2] Original text: "... barn og unge i alderen 9-18 år bruker betydelig mer tid på YouTube og strømmetjenester sammenlignet med tv-kanaler."

An example of differing interpretations occurred when online store Stayclassy.no published a video on Snapchat for a contest where users could be eligible to win a "fidget spinner" if they forwarded the video to all their friends. Stayclassy would pick 30 winners but would verify first that the winners had in fact sent the video to all their friends. The Consumer Authority found this video to be in violation of the Marketing Control Act as a hidden advertisement which also violated a general ban for spam. They further cited a lack of "particular care"[3] for children by promising prizes and warning that there would be a check to see if the video had been forwarded to all friends. In response, Stayclassy disagreed, arguing that they were not running an ad, but a contest, which was not targeting children specifically (Consumer Authority 2017b). With interpretations such as this on the part of the advertiser, it is possible that regulatory authorities will end up wasting time arguing semantics with "clear" violations.

To address concerns of differing interpretations, the Consumer Authority has published guidelines to make it clearer and easier for social media advertisers to conform to the requirements of the Marketing Control Act (Consumer Authority 2018b). In 2017, the Consumer Authority checked 20 of Norway´s biggest "influencers", social media celebrities who receive payment on social media for advertising products. They found excessive use of marketing in social media posts and violations in 70% of the marketing posts. The very worst was on Snapchat. 18 of the 20 influencers received warnings to remove illegal advertising or risk penalty (Consumer Authority 2017c).

Here widens the disparity. Not only is social media advertising less restrictive than TV broadcasting advertising, but violations are also handled gently. Advertising violations among these top 20 influencers received "warnings" as did Stayclassy in the preceding example. What about violations from other advertisers? When do warnings translate into concrete penalties? It appears that social media, and in particular Snapchat, have been running advertisements in Norway with no clear boundaries, accountability or consequences. The morality of social media firms, advertisers and influencers has thus been the primary source of protection for children. Is this sufficient? It also seems that media authorities are being gentle with new social media businesses perhaps to give them time to learn and adjust. Do TV advertisers have this same flexibility?

[3] Original text: "særlig varsomhet"

On the Norwegian TV playground, advertisers targeting children are not allowed. It is not surprising then that these advertisers would flock to social media playgrounds where they find more freedom, more children and little risk of penalty for promoting their products. The legal framework of the Snapchat playground is loose. Supervision is lagging, and there are few, if any, negative consequences for violations. How safe then are social media and the internet for children?

3.1.4 Safety

The internet has been referred to as a "wild west" (Livingstone, Mascheroni and Staksrud 2015; Lund 2018) without rules and authority and where new technologies are tested out to see what potential and effect they can have. Greater freedom also brings the potential for greater danger. In their research, Livingstone, Mascheroni and Staksrud identify commercial risk from content marketing as one of four primary online risks for children together with aggressive (bullying), sexual (predators and pornography) and values (racism) risks (2015).

The Consumer Authority cautions that children have difficulty distinguishing advertising from other types of communication. "Play and entertainment elements", such as are common in content marketing, can hold children´s attention longer and engage them directly in participation with advertising which can increase impact and make the advertising seem more compelling (Consumer Authority 2018, p. 8). On top of this, children lack the necessary experience and knowledge to recognize the motives of advertising and may be even more vulnerable to marketing messages (ibid).

In considering safety in playground design, playground designer Beckwith distinguishes between "challenges" and "hazards" (1988). "The fundamental difference between a challenge and a hazard is that a hazard is something which is hidden, or at least not perceived by the child. A challenge, on the other hand, is something the child may see as dangerous but is visible and clear (ibid, p. 50). Thus, a hazard carries with it the risk of harm whereas a challenge offers primarily stimulation. Unclear or hidden advertising can therefore be considered a hazard to children on social media playgrounds. An important question arises: how well do children recognize advertising?

One section of research report *Children and Media 2016* (Norwegian Media Authority) examines issues related to advertising. Many of the questions focus on reactions to advertising, but one question is particularly interesting: "*Do you agree or disagree that sometimes it can be difficult to recognize advertising?*"[4] (p. 36). From among approximately 2500 respondents between the ages of 9-16, 28% agreed that it can be difficult to know what is advertising, 44% disagreed with the statement and 19% neither agreed nor disagreed.

44% of the children, less than half, believed that they could recognize advertising. This measure does not gauge children´s actual ability but rather their belief about their ability. This Snapchat study, however, produced observations of children trying to recognize advertising and found that none of the children were able to recognize advertising consistently. Some of the advertising was also unclear to adults. These findings will be detailed in Chapter 4. How can advertising be so difficult to detect?

Another risk to children lies in the appeal of social media and its hold on the attention of users. Turkle writes that "Technology is seductive when what it offers meets our vulnerabilities" (2010, p. 1) "People are lonely. The network is seductive" (ibid, p. 3). A growing number of technology experts, such as Tristan Harris from Google and Chamath Palihapitiya from Facebook, have left their companies because of ethical concerns for the design and use of technology and are warning of the dangers of internet and social media addiction (Aldridge 2017; Pletten 2018). When I described this Snapchat study to one friend, he responded, "The deeper issue is that companies are using knowledge about dopamine and brain chemistry to engineer influence on kids and impact the way they are developing, rather Machiavellian, in the name of stimulating advertising revenues".

One question which must be asked is, with a business model based on advertising, can social media companies be trusted to make operating decisions based on the best interests of their users, children in this case, as well as the needs of society? That is, can social media companies be trusted without regulation to operate in ways which may be contrary to what secures maximum income? Regulation is one way to ensure responsible behavior of companies.

[4] Original text: "... noen ganger kan [det] være vanskelig å vite hva som er reklame" (enig eller uenig?)

A well-organized playground with clear rules can minimize risks and maximize play value. Discussing safety and risk is important also for the Snapchat playground. Positive aspects of Snapchat use will also be considered later in this study. Now that we have established the playground setting with backgrounds for social media, advertising norms, the legal framework for advertising and safety issues, we are ready to open the playground for use.

3.2 The players

Who is it that enters the playground? Snapchat is unique among social media, and there are digital actors who are found only on this playground. This section presents the players on the Snapchat playground and contextualizes their roles and significance. Among these actors are: Snapchat, children, advertisements, influencers and authority figures.

3.2.1 Snapchat

The first one to enter the playground is the social medium itself, Snapchat. Snapchat is not only the defining element of this playground but is also an active player.

Snapchat is the leading social media app for children in Norway with 81% of children aged 9-18 as users (Norwegian Media Authority 2018). Launched in 2011 by students at Stanford University, Snapchat is an interesting and unique case in the social media field. Parent company Snap Inc., positions itself without any reference to social media:

> *Snap Inc. is a camera company.*
> *We believe that reinventing the camera represents our greatest opportunity to improve the way people live and communicate.*
> *We contribute to human progress by empowering people to express themselves, live in the moment, learn about the world, and have fun together.*
> (Snap Inc. 2018a)

Similarly Snap Inc. presents Snapchat along the same lines:

> *Snapchat is a camera*
> *No, not the kind with a flashbulb and a lens cap. It's a new kind of camera that's connected to your friends and the world. Over 180 million people use it every day to talk, play, learn — and take some pictures, too.*
> (Snap Inc. 2018b)

Rather than staking a claim in the social media market, Snap Inc. seeks to set itself apart from the field and be seen as an innovator in reinventing the concept of the camera. This strategy is manifested in marketing messages and unique visual features of Snapchat and has been successful particularly with children as evidenced by market reports where Snapchat is consistently rated the top social media app by young users both in Norway and the United States (Norwegian Media Authority 2018; Pew Research Center 2018).

In Norway, Snapchat is a leading social media app also at a total population view. Currently in 2018, Snapchat has 2.59 million registered profiles in Norway, more than any other social media except for Facebook with 3.45 million registered profiles (Ipsos 2018). By comparison, the number of registered profiles in Norway for Instagram is 2.22 million and Twitter is 1.18 million (ibid). Worldwide, the difference between Snapchat and Facebook is much greater with 255 million users for Snapchat and nearly 2.2 billion users for Facebook (Statista 2018).

Snapchat allows users from age 13. The Norwegian Media Authority, however, reports that over 30% of both boys and girls age 9 use Snapchat. This percentage rises steadily until age 13, when nearly 100% of children are users by the time they are legally old enough to use Snapchat (Norwegian Media Authority 2018). Children who register under age 13 must provide a false birthdate to appear age 13 or older. The ethnographic observations of this study include children from age 10 and had little trouble finding children under age 13 who use Snapchat. 80% of this study´s children informants started using Snapchat before age 13. Research reports, such as this one and those from the Norwegian Media Authority, monitor underage social media use as a segment and produce texts describing the large percentages of underage users. This can contribute to the normalization and even possible stimulation of increased underage use. "Practice is persuasion" (Haraway 1988, p. 577).

Norwegian children´s newspaper *Aftenposten Junior* recently featured a cover story on underage use of Snapchat and reported: "New research from the Norwegian Media Authority shows that the majority of children between 9 and 13 use the app [Snapchat]"[5] (Midtskog 2018, p. 4). Having read this or seen the research, parents may feel more secure in allowing their underage children to use Snapchat. The *Aftenposten Junior* article also featured a visual diagram showing 3 of 4 children between ages 9 and 13 using social media. For some parents who do not want their children excluded socially, this could even stimulate encouragement of their children to use social media to avoid being left out. This is a fitting example of how practice can influence reality. "Method is not, and could never be, innocent or purely technical" (Law 2004, p. 143).

Interestingly, Snapchat allows users to change their birthdates as if to make it easier for young children to bypass the age requirement and adjust their age later when they are over 13, thus keeping their user profile intact. The Snapchat app warns the user who is about to change his or her birthdate that there are a limited number of times allowed to change the birthdate. This leads one to wonder about the possible reasons that one would need to change a birthdate, other than correcting an earlier underage registration.

The uniqueness of Snapchat extends even to language. Within the new vocabulary of social media, Snapchat has its own vernacular which is used widely among users. A message is called a "Snap" this word is used as both as a noun and a verb. Users send "Snaps" to their friends and they "Snap" messages to each other. Snapchat refers to its users as "Snapchatters", and has strangely chosen to capitalize many of the names for its features, especially those which include the word "Snap" in them. Snapchat is also referred to by some users as simply "Snap". This special use of language contributes to a unique culture which seeks perhaps to build loyalty among "Snapchatters" by distancing Snapchat even more from other social media.

Once registered, users can take pictures and make videos or create Stories which can be altered and enhanced easily with filters, stickers, text and other effects. Users can also create a personal "Bitmoji" cartoon avatar which can serve as a profile image and integrate automatically into sticker and filter possibilities. Filters and stickers are changed

[5] Original text: "... ferske tall fra Medietilsynet viser at de fleste barn mellom 9 og 13 bruker appen."

continuously, so users always find fresh design elements to use in content creation. The combined editing options of Snapchat give substantially more possibilities for creative self-expression than with other social media, incorporating also clever humor and surprises into design possibilities as well. In short, Snapchat is very "playful", and it is not difficult to see the attraction for children to the Snapchat playground.

Unlike Facebook or Instagram, there is no option for friends to "like" a Snap or Story. This relieves some of the social pressure associated with social validation of content. One other differentiating feature is that user-created content disappears after viewing. Snaps disappear immediately after viewing while Stories disappear after 24 hours. Users are able to see how many people view their Snaps and Stories before they disappear. Friends can reply to Snaps and Stories with another Snap or by using a chat function.

With content that disappears, Snapchat users avoid the enduring and more serious social media risks of persistence, searchability, replicability and invisible audiences as detailed by danah boyd (2007). Although, with screenshots and the ability to save chats, it is still possible to capture some content. Users are notified if someone screenshots a Snap.

One new feature of Snapchat is the Snap Map which allows users to see where their friends are and make themselves either visible or invisible to individual friends. Users can also view Stories posted for public viewing by users around the world by tapping on a country or area on the globe. Hot spots, where multiple stories are posted, are indicated with colored spots on the globe. In this way, the Snapchat playground extends excitingly all over the world. Added in 2017, Snap Map has been criticized though for its potential risks to enable stalking or to heighten painful social situations of exclusion (Li 2017).

On playgrounds, it is common to have an adjacent "toddler playground" sectioned off as a safer zone for the very youngest children. Snapchat also offers a toddler playground. "SnapKidz" is Snapchat´s app for kids under 13. Children can play with the filters and make pictures, but they are not able to send or receive pictures or add friends (Hartvig Abrahamsen 2015). Thus, as is typical with toddler playgrounds, SnapKidz has smaller slides, shorter swings and limited experiences in general. Play is typically guided and controlled more by parents or other adults on the toddler playground to protect the youngest from injury. During

this study, I failed to find anyone who had used, or anyone who knew of anyone who had used SnapKidz.

Snapchat does not appear to be promoting SnapKidz as an option. When I tried to register on Snapchat as a child age 10, I was kicked out of registration with the message, "Sorry, it looks like you´re not eligible for Snapchat … but thanks for checking us out!" (*Figure 1* below). Ironically, there was no referral or link provided to SnapKidz. Therefore, it seems that the main Snapchat playground is the real attraction, for both Snapchat and for younger kids who would rather sneak onto the bigger kids´ playground by registering with a false birthday than play on the toddler playground.

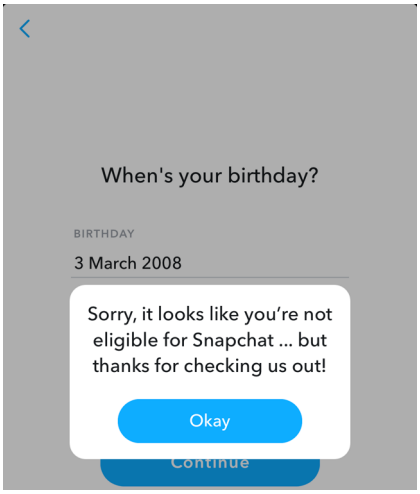


Figure 1: Trying to register as a child age 10

Attractive and new, full of innovative features for play, and with the promise of new features to come, the Snapchat playground has quickly established itself as the top social media playground for children. Creative self-expression and communication attract even the very youngest users. There is a fence around the playground to control who enters, but next to the entry gate is a hole in the fence which allows anyone to slip in without worry of penalty.

3.2.2 Children: digital natives or cyborgs?

With Snapchat now ready to play, the primary users, the children, can now enter the playground, either through the gate or by climbing through the hole in the fence. For underage children, sometimes it is the parents who show their child the way through the hole in the fence, and sometimes it is the child who shows the parents how they climbed through the fence alone on their first visit. In either case, there are few parents who object to the hole in the fence by insisting that their children wait until they are age 13 to enter the main gate.

The following section, considers how children should be characterized on this material semiotic field of play.

In a basic sense, this study adopts the broad definition of children from Part I, Article 1 of the United Nations Convention on the Rights of the Child which defines children as persons under the age of 18. The word "child", however, carries inherent associations of vulnerability and inexperience which, while they may apply to the advertising portion of this study, do not necessarily apply well to the technology analysis where children are digital participants on the same level (or higher) as adults.

Much like Callon´s scallops of St. Briec Bay, children have long been "silent actors" (2007, p. 71) with their views and needs represented through others (Staksrud 2013). Technology, though, shifts the playing field to where age does not equate to ability or knowledge. Children can possess equal or greater knowledge than adults about technology issues. Any adult who has received help from a child to fix a mobile phone can attest to this shift in the balance of power.

Should children informants then be defined simply as "children", or is this label terribly lacking and non-descriptive of the potential and importance of children for a study of Snapchat? Prensky introduced the terms "digital natives" and "digital immigrants" to signify those who have lived their entire lives with digital technology versus those who have had to adapt to technology (2001). This distinction is important because it depicts the balance of power between children and adults with technology. The word "native" implies a stable state while "immigrant" implies an inability ever to be fully native. These words carry power and a lack of power respectively. This power balance is important on the Snapchat playground.

The impact of technology on children´s development is a subject of research and debate in many fields. Scientists do not yet know how children´s development is affected by technology use, but with different experiences stimulating the brain to develop in different ways, it is "very likely" that digital native brains are physically different than digital immigrant brains (ibid, p. 1). "Whether or not this is literally true, we can say with certainty that [children´s] thinking patterns have changed" (ibid, p. 1).

Not only are children thinking differently, but they are also using technology to extend their sensory and experience possibilities. Donna Haraway´s writings on the cyborg can be transposed to children and their devices. Smartphones are one example of a "prosthetic technology" (Haraway 1988) in which the boundary between body and device blurs. Rather than being a separate device, the smartphone can be seen as an extension of the child, which supplements sensory, social and intellectual functions. Similarly, Latour refers to these blurred boundaries between human and nonhumans as "entanglements" (Latour 1999b). In Norway, 99% of children between the ages of 9-18 have access to a mobile phone (Norwegian Media Authority 2018). 99% of children in Norway, therefore, are cyborgs.

In an extreme sense, marketing messages on Snapchat could be viewed as injecting advertising into children´s bodies. This is an uncomfortable image for anyone let alone a parent, but is it very far from reality? In one analysis of Latour´s 2004 work *How to Talk about the Body*, Cohn interprets Latour´s ideas of the developing human-nonhuman dynamic as reconceptualizing the body without stopping at the skin (Cohn 2013).

Children are not the only group to have cyborg or nonhuman qualities. Haraway contends that "we are (all) cyborgs" (2000, p. 292). Among adults, there is a self-proclaimed "new species" evolving. Artist Neil Harbisson was born color blind but is able now to sense colors with an antenna implanted in his skull. He is also able to receive telephone calls through the implant. The antenna is a noticeable part of Harbisson´s physical appearance. As a performance artist in Spain, he uses the implant as part of his identity and art to draw attention to his belief that he is both cyborg and transspecies (Cyborg Arts 2018). Another example is Professor Kevin Warwick from England who claims to be the world´s first cyborg and is donating his "normal" life to research by experimenting with technology implants in his body linked to his nervous system (Warwick 2018).

While these adults are intentionally modifying their bodies towards a cyborg identity, children are part of a "natural" evolution of the cyborg. Latour describes the evolution of the body as "an interface that becomes more and more describable as it learns to be affected by more and more elements" (2004, p. 206). This report will continue to use the term "children" for simplification purposes but hopes that the value of children´s digital native and cyborg qualities are now attached to their label, at least for the duration of this study. Regardless, the Snapchat playground is now full of life and abilities beyond any other playground.

3.2.3 Advertisements

Next, the advertisements enter the playground. Ads can look like other children and will often actively invite children to play such as with a game or by using a filter. Because of the need to separate advertisements with their commercial intent from non-commercial content, ads are required to be marked as “ad”, “advert”, “annonse” or similar term. Therefore, if the ads adhere to playground rules, they will be wearing special t-shirts with an advertising marking on them. The ads can still be fun to play with, but if they are labeled correctly, the children will recognize who they are and can better judge whether or not they want to play with them.

One might at first think that advertisers would be on the playground, but they are not. Rather, it is the creations of marketing efforts, the advertisements, which are interacting directly with the children. This is a significant point, because the advertisers have no direct contact with the children. Advertisers are therefore removed from the interaction with children and focused on the goals of the advertising campaign: to sell products. Advertisements mediate a relationship between the advertiser and the potential customer, in this case, a child. This mediation works in three different forms: direct ads, influencers and Snapchat features such as filters and Stories. These different forms of advertisements coexist on the playground. Thus, many opportunities for diverse forms of contact ensure that children with their various contexts and behaviors will likely encounter one or more forms of ads.

3.2.4 Influencers

Some of the children on the playground have status. These are the “cool kids” who the children want to play with and be associated with. These cool kids, known as “influencers”, are social media personalities who have cultivated followings among social media users and achieved a celebrity status. They are believed to have the capability to influence their followers with their opinions. This makes influencers very attractive as mediation devices for advertising products on the playground.

Influencers look just like other children on the playground, and they do not wear t-shirts marked as advertising. Rather, these “cool kids” work to get children to play with them. They often have large crowds around them and engage in sometimes specular acts of play which

attract still more attention. Influencers often use content marketing in which ads are embedded within a larger Story in the form of product reviews, endorsements or product news. If there is embedded advertising in a Story, the content is required to be marked as advertising (Consumer Authority 2018b); however, as mentioned previously, an inspection of Norway´s biggest influencers in 2017 found the majority of content with advertising to be in violation of the Marketing Control Act (Consumer Authority 2017c). Influencers often have "channels" in which they post regular Stories. In between their Stories can also be separate and unrelated advertisements. This would be the equivalent of a TV commercial break where the "cool kid" goes away for a moment and is replaced temporarily by another kid who should be wearing an ad t-shirt.

3.2.5 Authority figures

Lagging behind and the last ones to enter the playground are the authority figures: parents, teachers, caregivers as well as instruments of policy and law. Authority figures work to maintain order, fairness and protection on the playground. Government authority figures are not actually on the playground, except for an occasional inspection. Rather, they are represented by their outputs of policy and law as the "rules" of the playground. These rules are displayed visibly, and although they may not always be followed, they have the power to intervene and disrupt play.

Here, we must also take a step back, because children themselves are also authority figures, functioning as the first level of authority with self-regulation to control their own behavior and avoid risk. Snapchat and influencers are also responsible to regulate their own behavior and morality. When children are not able to self-regulate, they depend on adults such as their parents or teachers to keep them safe. Beyond adults are government authority figures.

Among the most relevant government authority figures in Norway for the Snapchat playground are the Consumer Authority and the Norwegian Media Authority. The Consumer Authority ensures that consumers are protected from unfair or illegal marketing practices and contracts, and conducts checks and controls for illegal behavior by advertisers (Consumer Authority 2018e). The Norwegian Media Authority monitors media presence to ensure that the population has access to a diversity of media (Medietilsynet 2018a). The Norwegian

Media Authority also produces statistics of media use among children and adults which contribute to policy decisions by the Norwegian government.

For the Snapchat playground regulatory authority is still developing. There is limited governmental presence such as with the Marketing Control Act. The internet gives generous space for digital businesses such as social media to develop where often innovative products and services may not be covered clearly or completely by existing policy and law.

3.3 Appealing to children

With the main players established on the playground, we can now begin to look at some of the performative aspects of the playground and address the first part of the research question "*how does Snapchat appeal to children?*" How are children attracted to the Snapchat playground and why do so many return each day? Insights from interviews and observations with children as well as my some of my own reflective observations are built into this analysis.

There are other social media playgrounds in the same neighborhood such as Facebook, Instagram and Twitter. Why do 81% of children ages 9-18 in Norway chose primarily the Snapchat playground (Norwegian Media Authority 2018)? What brought them to the playground in the first place? What keeps them coming back? How has Snapchat scripted use and incentives which support these behaviors?

Playgrounds can be judged by their overall "play value" (Beckwith 1988, p. 72). Playground designer Jay Beckwith defines play value as "the ability of an environment or device to stimulate and sustain human play behaviors" (ibid, p. 72). This definition from 1988 works surprisingly well also for today´s digital social media playgrounds and will be used as a basis for understanding the play appeal of the Snapchat playground. Beckwith goes on to explain that "a key ingredient involved in determining play value is novelty" (ibid, p. 72). Can it be the novelty of Snapchat which stimulates and sustains usage by children?

This section explores how Snapchat has designed novelty into its playground through unique features, or "hooks", which attract and sustain children´s attention. We consider also how

Snapchat has scripted rewards for use and punishments for non-use and how these scripts influence users over time.

3.3.1 Hooks

Novelty "leads the child naturally" into exploration and experimentation (ibid, p. 72). Play value grows with opportunities for self-expression as an "intrinsically motivated activity" (ibid, p. 73). That is, play value grows when the child can enact self-chosen play among stimulating yet approachable play options and produce evidence which can be shared with others, demonstrating achievement and reflecting the child´s uniqueness. A child swinging across monkey bars for the first time who yells for attention is seeking an audience. "Watch me now!" Similarly, a child making a video of a dance with friends who shares it on Snapchat is seeking an audience. "Look at this!" The playground has always been a place for experimentation and audience. Snapchat is a digital playground set apart from other digital playgrounds by higher play value. This is not to suggest that digital play is equivalent to or a replacement for physical play; rather, these comparisons help merely to build bridges between the familiar and the new.

One word is missing so far: fun. Playgrounds with high play value are also fun. When asked why they use Snapchat, this study´s children informants mentioned many of the following unique features: filters, Streaks, Stories, stickers, points and trophies. These innovative features were created and introduced by Snapchat and offer enticing possibilities for entertainment and creative expression. Snapchat is a fun, inclusive and easy playmate on the playground. When asked why he uses Snapchat more than other social media, one informant said, "Snapchat is a fun way to chat. You can see the people you are talking to. You can see their expressions in addition to just talking to them."

Snapchat has been categorized perhaps incorrectly in the past as a photo sharing application by the Norwegian Media Authority in its Children and Media 2016 report which grouped Snapchat together with Instagram, Pinterest and Flickr. This categorization misses the point of why Snapchat is appealing to children. There is picture sharing, but pictures function as the bottom layer of a more complex communication. Pictures are the base of an innovative system of visual chatting.

Evidence of Snapchat´s visual novelty is found in how it scripts users to create content. Facebook and Twitter, for example, script content based on text communication. The user starts with a prompt to create a text message to which "multimodal" content such as image, video and sound (Livingstone, Ólafsson and Staksrud 2013, p. 303) can be added. Twitter is known for challenging users to create maximum 140-character messages. Snapchat, on the other hand, opens directly to the camera, thereby scripting users to create visual content where text can be added.

Snapchat´s scripting of visual communication and its unique features can be considered disruptive within social media. This is demonstrated by the responses of other social media companies. Snapchat´s Stories feature, for example, was copied almost identically by Instagram in 2016 (Newton 2016) and Facebook in 2017 (Newton 2017).

Snapchat´s style of visual content may be the future of communication in the digital. This view is shared perhaps by Mark Zuckerberg who deflects criticism that Facebook is copying Snapchat´s features by responding that Facebook is on a path to build "the first mainstream augmented reality platform" (Constine 2017). Reading between the lines of this statement puts a label on what makes Snapchat so novel: Snapchat is the first augmented reality social platform. It makes sense then that children would be the first adopters of this disruptive, but playful technology.

The element of surprise is also part of Snapchat´s appeal as features are updated steadily so that there are always new possibilities for content. The result is an escalating cycle of exploration, experimentation and mastery (Beckwith 1988) in which graphics skills develop along with the content. Based on input from children, I selected three of Snapchat´s most influential features – filters, Streaks and Stories – to consider the ways in which they "hook" children´s interest.

Filters

Filters are Snapchat´s most visible hooks, attracting both children and adults from even outside the playground to play. Several of this study´s children informants mentioned that they were initially attracted to Snapchat because of the filters. Filters give users augmented reality and other advanced editing capabilities which create surprising and fun content.

Occasionally, though not often, a filter will function also as an advertisement with a brand image or a marketing message.

While writing this paragraph, I opened Snapchat to see what filters I might find and immediately saw my workstation transformed into an aquarium with sea life swimming around my keyboard. Reversing the camera towards me, I saw myself sitting amid the sea life and coral. This filter is one of 20 which I could choose. Once I take a picture or video, I can choose from another set of 15 filters from which to add further effects such as date, place or weather stamps. I can also add stickers and text and even draw on the image. Who could resist playing with this toy?

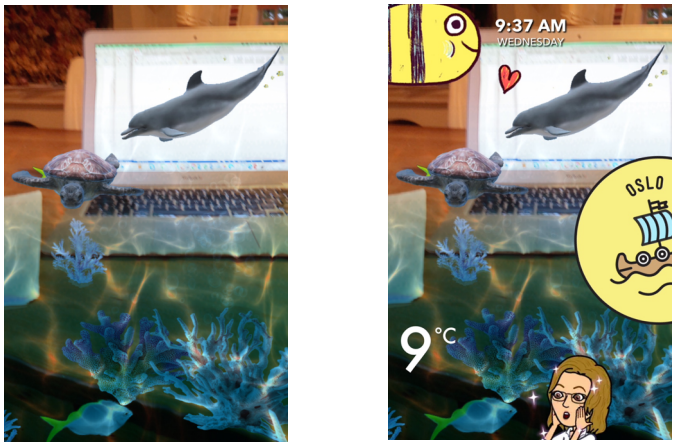
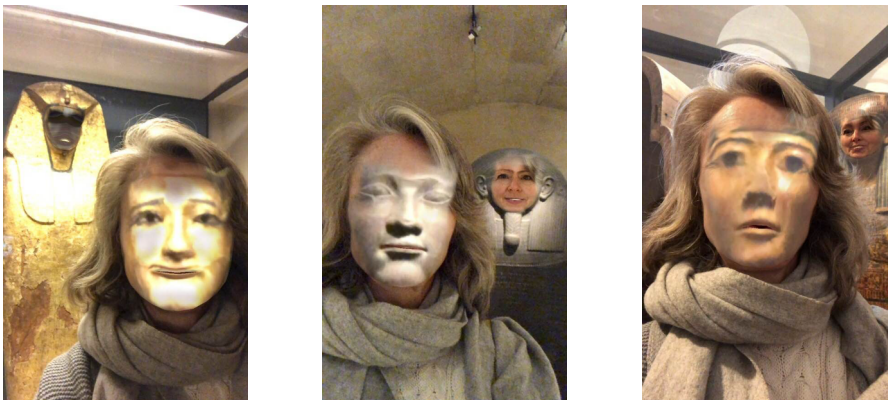


Figure 2: Playing with Snapchat filters and stickers

Using Snapchat filters on their smartphones, children can play alone or with friends, creating exciting content not possible with other social media. Videos add another dimension of creative possibilities with, for example, voice alteration or playback speed variation. One informant told of the enjoyment of showing friends new features. On a trip to a museum, my 10-year-old took great pleasure in showing me how to face-swap with ancient Egyptians (*Figure 3*). Another visitor saw what we were doing and asked us to show her how to do it. Thus, our museum visit was mediated through and enhanced by Snapchat, enabling deeper engagement with museum artifacts as well as with other visitors. We took the Snapchat playground into the museum and increased the cognitive and social value of the visit. With Snapchat and its user-created artifacts, we see evidence that "digital devices and the data they generate are both the *material* of social lives and form part of many of the apparatuses for *knowing* those lives" (Ruppert, Law and Savage 2013, p. 24).

Figure 3: Playing with Snapchat´s face-swapping effects at a museum 21.02.18



On a side note, it should be mentioned that Snapchat differentiates between "filters" and "lenses" as separate visual features. All the children informants, however, referred to both these features as simply "filters". When asked about "lenses", the informants looked confused without exception about what the term meant. For consistency, therefore, I follow the children´s lead in language, grouping filters and lenses together as "filters". This is an example of user control in deciding the language script for Snapchat.

During this research study, Snapchat also became more of a literal playground in the digital, adding among its filters a series of games where results and images could be shared with friends, inviting them also to play the game. This is yet one more way to engage users and hold their attention in the digital, a place which many believe already holds enough or too much of their attention. This study did not investigate the appeal of games specifically, but this is an area which could be investigated further.

While informants generally agree that filters are fun to play with, they also thought that filters lose their novelty over time and become less of an appeal for using Snapchat. Younger informants mentioned filters more often than older informants. All informants admitted to playing with filters at first, but especially the older informants agreed that, as one informant said, "It´s not cool to send too many Snaps using filters". During study observations, most of the older informants sent "clean" pictures, as one informant called them, edited only with minimal text or stickers. As filters lose their appeal with some of the users, Snapchat has other hooks ready to stimulate usage in different ways.

Streaks

Whereas filters function well to attract users initially, Streaks are effective as hooks for stimulating continued and regular use. Streaks, as well as Snaps, are examples of new "transactional actors" in the digital (Ruppert, Law and Savage 2013, p. 35).

A Streak is established between two friends who send each other Snaps at least once every 24 hours for 3 days or more. Streaks manifest as a number with the count of streak days next to the friend´s name on a friend list. Whereas Snaps and other content vanish automatically after a short time, Streaks are a lasting representation of a cumulative relationship over time. Streaks are not visible to the public or to other friends but are shared only between the two people concerned. Streaks enact the mediation function of delegation (Latour 1999b) in how a history of Snaps is captured and represented in a Streak. "An action, long past, of an actor…is still here, today" (ibid, p. 189).

There is social value in having a Streak and even higher social value in having multiple Streaks. A Streak is physical evidence of a social bond and demonstrates a commitment to continued friendship. Streaks are social affirmation. One informant described how being someone´s "longest" streak gives status, and to be several people´s longest streak adds considerably to the social value. Streaks can be difficult to maintain and require daily upkeep. Snapchat publishes on its website an explanation of how to maintain a Streak (*Figure 4*).

In order to keep a Snapstreak going, you and your friend must both Snap (not Chat) each other at least every **24** hours.

This means that if you waited **24** hours or more to Snap your friend, or if your friend waited **24**hours or more to Snap you, then you may have lost your Snapstreak 😓 .

If your Snapstreak has ended, you can begin a new one by Snapping with a friend. Usually a new Snapstreak will appear on the second or third consecutive day that both you and a friend Snap each other.

Please Note: Snaps sent with Memories or Spectacles content to other Snapchatters do **not** count towards your Snapstreaks. Also, Snaps sent to a group don't count for Snapstreaks you have with individual Snapchatters! 😉

Figure 4: Snapchat user support for Streaks (Snapchat 2018a)
(Note: Snapchat uses the term "Snapstreak" here which I have not seen previously and which none of the informants used. Perhaps this term was introduced to protect against competitor attempts to offer Streaks.)

How do Streaks transform behaviors? Snapping “at least” every 24 hours means that users must Snap more than daily to maintain the Streaks. One informant advises that to be safe, she sends two Snaps per day to all her contacts with which she has a Streak: one good morning Snap and one goodnight Snap. She says that this contributes, though, to a lot of what she calls “empty” Snaps with meaningless content just to protect the Streak. She confided that she is beginning to tire of sending “empty” snaps.

Streaks can have both intended and unintended effects. On the one hand, Streaks can stimulate increased communication and sharing among friends as there is an incentive to send more frequent Snaps to maintain a Streak. On the other hand, if Streaks are intended to increase the frequency of communication, but result instead in increased “empty” Snaps just to maintain the Streaks, one must question the value of the practice. Latour cautions on deviations of the technical: “What should have been a means may become an end” (Latour 1999b, p. 191). For Snapchat, Streaks contribute to an increased number of Snaps, but for the users, Streaks may have the opposite effect of fewer meaningful communications.

Streaks are more than hooks, though, and more than digital incentives. They are evidence of “life” in the digital. One informant experienced a relationship break-up in which the couple´s Streak was a negotiating point in dissolving the relationship. As a part of the relationship, like a child, the Streak had to be addressed and agreed on as to its future: would it be maintained or abandoned? Ironically, the informant revealed that it was easier to end the relationship than to end the Streak. The couple agreed to continue investing in the care of their Streak. Streaks are a by-product of human digital relationships on Snapchat. “Digital data is itself a materiality that is ´alive´, embodied and mobile” (Ruppert, Law and Savage 2013, p. 24).

Some of the informants, especially the younger ones, mentioned that Streaks were too stressful or that they “did not care so much” about them. While Streaks are effective at stimulating frequent use with some users, it remains to be seen if this effectiveness will last, or if it will ultimately backfire as users tire of the stress of maintaining Streaks. The pressure of having to play on the same playground once or twice per day, every day may grow old.

Stories

Another hook to stimulate regular use of Snapchat are Stories. Stories are a big part of play on the playground where children can both watch others and participate by creating their own Stories, or by being part of a Story that a friend is making. Stories can be shared with friends as "My Story" or submitted to Snapchat "Our Stories" to be made public. Stories are most often short videos crafted in the spirit of sharing and storytelling.

Publishers with commercial interests create most of the Stories. All Stories are found in the "Discover" section of Snapchat where friend Stories are separate from other Stories. Here is found also most of the advertising inserted between Stories or embedded as content marketing within Stories. There are many themed "channels" which users can subscribe to for regular content about an area of interest or celebrity information. Magazines such as People, Cosmopolitan and National Geographic, for example, have their own channels for publishing content. "Influencers" who often are compensated for advertising products within Stories are also found here.

Stories bring a risk of exposure to content which may not be healthy or suitable for children, especially underage children who are registered with false birthdates. Norwegian children´s newspaper *Aftenposten Junior* characterized the risk of underage use of Snapchat as "you can receive ads for products that you should not see"[6] (Midtskog 2018, p. 5). While this statement is true, this study found that a greater risk exists in Story content. Snapchat publishes "Community Guidelines" for Stories and provides a link to report inappropriate content (Snapchat 2018b), but ethical standards and curation of content are not guaranteed in practice. Nor are these guidelines developed with underage children in mind. Publishers are competing for views and often use tactics of sensationalism to stimulate interest, thereby also driving potential for advertising income. During ethnographic observations, it was unfortunately common for informants to encounter Stories, for example, with inappropriate sexual content and sexualizing particularly of women. Examples are provided in Chapter 4.

Ambivalence towards technology and what is possible sways between fascination and fear. Akrich shows that scripting, or the ways in which we take a technology into use are influenced by the surrounding culture (1992). In a culture of increasing commercialism,

[6] Original text: "... å lyve på alderen kan gjøre at du får reklame for produkter som du ikke burde se."

sensationalism and advertising are to be expected in social media where users do not pay for access. Therefore, understanding digital spaces where children participate is of great importance to managing risk and crafting effective policy going forward.

3.3.2 Rewards and punishment

The previous section described how scripted filters, Streaks and Stories function to attract users and encourage regular visits to the Snapchat playground over time. The next section explores some of the consequences of good and bad behavior.

In maximizing use, how does Snapchat reward desired behavior and punish undesired behavior? Akrich shows how users are "groomed" to behave in desired ways (1992). Devices are scripted with a "set of rewards and punishments that is intended to teach proper rules of conduct" (ibid, pp. 218-219). In the case of Snapchat, rewards and punishments are scripted in the digital, but can extend to the physical world.

Rewards

Snapchat rewards its users with various positive reinforcements of good behavior. Examples include points, trophies and Streaks which are presented here.

Points are awarded for use and show at a glance how active a user has been. For every Snap that is either sent or opened by a user, Snapchat awards the user 1 point. Users can see their friends´ points but not other users´ points. Points are never taken away but only accumulate with use over time. Points appear to have more value with older informants. Many of the younger informants did not even know about points or how to check to see how many they had. All the informants under age 13 had less than 10,000 points. Some of the older informants had several hundred thousand points. Many of the older informants also knew which of their friends had the most points. One informant told with awe of a friend having over one million points. While points are interesting, it is unlikely that they are a strong motivator for behavior, but rather serve as an indicator of the level of someone´s Snapchat use. Like Streaks, points are also a lasting representation of a user´s cumulative interaction over time.

Trophies are another form of reward, appearing in a "Trophy Case" on the user´s profile. Trophies are awarded for completing various actions on Snapchat such as "sent a Snap with two filters", "sent 50 video Snaps" or "sent a Snap between 4 and 5 in the morning". The Trophy Case is full of graphical locks where the actions required to open them are unknown. Once a particular action is met, the user is notified of a trophy and the related lock has changed into an icon representing the achievement. Users can only see their own trophies. The design intention may have been to stimulate curiosity and to reward users for experimenting with new actions on Snapchat. Although trophies most closely resemble physical "rewards", they are ironically perhaps the least effective of all Snapchat rewards. Informants were aware of trophies, but none mentioned trophies as a particular interest or motivation.

Streaks, on the other hand, are seen as medals of social honor and are very motivating, particularly with older informants. Described previously as a hook, Streaks also function as a reward by displaying achievement of the number of consecutive days which two friends have Snapped each other. The five older informants had 106 Streaks or an average of 21 Streaks per informant. The highest number of Streaks for one user was 46. The five younger informants had 16 Streaks or an average of 3 Streaks per informant. Three of the younger informants had 0 Streaks. Streaks are a visual reward for good behavior which have meaning well beyond Snapchat, reaching into the fabric of social relationships to affirm friendships. Streaks celebrate milestones, such as 100 days, when a special formatted number appears instead of the normal number (*Figure 5*). Streaks acknowledge the effort of steady communication but perhaps more importantly demonstrate a bond between friends. There must be mutual agreement between friends to create and maintain a Streak. Streaks were mentioned as effective motivators for daily Snapchat use by several of the informants.

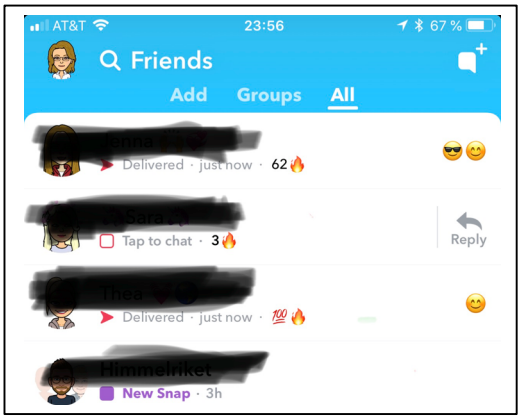


Figure 5: Streaks of 62, 3 and 100 days displayed on a friend list

Punishment

Punishment, on the other hand, works to transform undesired behavior into "good" behavior. While most of the incentives that users encounter on Snapchat are positive, there is at least one significant punishment for non-use of Snapchat: a broken Streak.

Snapchat is unforgiving when it comes to maintaining Streaks. Users are given a warning if they are about to lose a Streak in the form of an hourglass which appears at around 20 hours since the last Snap. If the friend who has not Snapped does not send a Snap within the 24-hour limit, the Streak will be lost. Regardless of the reason such as travel, access to the app, illness or just plain forgetting, Streaks perish if not attended to within the time limit. Snapchat makes no differentiation between short and long Streaks. For a "living" digital artifact which has been cared for over a long time period, this punishment can feel like a real loss.

Opinions about this punishment vary widely among the informants. One younger informant said, "It´s no big deal. I just start again." An older informant who told of maintaining Streaks for three years (with one Streak over 1,000 days) said that if these Streaks were lost, "I´d be very angry at myself and then I probably would use Snapchat less. It wouldn´t be worth it to start all over again. It´s a lot of work."

Impacts to users from rewards and punishments vary and can be substantial. Though commercial risk from advertising is the main risk focus of this study, it is clearly not the only risk to children on the digital Snapchat playground. "When technologies are in design, their scripts are not entirely predictable" (van de Poel and Verbeek 2006, p. 227). The need for careful consideration for children as users is important in technology design.

Using theory and insights from study data, this chapter built the foundation of the Snapchat playground and introduced the main actors, human and nonhuman, to be able to start addressing the research question. This chapter then analyzed the first part of the research question "*how does Snapchat appeal to children?*" using primarily insights from interviews with children. We saw how Snapchat´s unique and visual features such as filters, Streaks and Stories "hook" children´s interest and stimulate frequent use and how scripts of rewards and punishment further motivate use. Chapter 4 next takes us onto the playground to explore advertising and actions on the digital playground.

4 Action on the playground

Having established the playground and familiarity with Snapchat´s appeal as to who comes to play and why, we are ready to enter the playground to address the second part of the research question "*how do children react to advertising on Snapchat?*" Using interview data and ethnographic observations, this chapter considers interactions on the playground. First, we examine how children respond to various forms of advertising which they encounter. Do they recognize ads? Afterwards, we look at various current issues of control and risk on the Snapchat playground to get an understanding of children´s overall "safety".

We are now entering the "wild west" digital Snapchat playground as constructed in large part from participatory observations with children. In portraying this social domain on paper, I am struck by the immense challenge of trying to recreate the digital, which is almost entirely visual, using text. The calmness and neatness of this report stand in stark contrast to the vivid, living, complicated and multisensory realm of the digital which it tries to portray. Snapchat *is* an augmented reality. Rather, it is augmented *multiple* realities. I fear that this report may be doing that which Law cautions against in social science methods: "The very attempt to be clear simply increases the mess" (2004, p. 2). Chapter 3 began including illustrative visual elements, and this chapter increases the use of visual examples to assist in communicating the environment but still comes up very short of adequate.

In addition to visual aspects of Snapchat, there are also entirely new patterns of communication and social behavior in the digital. While logic might suggest that technology can simplify social interaction and communication, STS analysis suggests otherwise. Patterns and relationships with the digital are complex and according to Latour much more "convoluted" than earlier patterns of communication (1999b, p. 197). From divided attention and performance pressure to "flattened" communication with abbreviated language and friends who have never been seen in person, social in the digital is intricate. Turkle adds that while we hope for social efficiencies that technology can bring, "new devices encourage ever-greater volume and velocity" (2011, p. 280).

Part of what makes Snapchat and other social media well-suited for advertising is the increasing energy and attention given to activity on the platforms. Several informants said

that they check Snapchat every time they hear their phone peep with a new message. One very active user informant admitting to checking Snapchat "probably more than 100 times per day". The social fear of missing out on something important is a forceful part of the motivation to check Snapchat frequently, especially when information is short-lived. "Anxiety is part of the new connectivity" (ibid, p. 242).

What do children experience and do in the digital? This study´s ethnographic observations and interview data investigate these questions from the Snapchat playground where I was given passage and permission to participate. I wanted to learn from digital native cyborgs in their native environment. Focusing on encounters with advertisements, this study´s observations represent only a small fraction of possible experiences on one digital playground but work to identify some of the larger collective issues materializing in the digital social interests of children.

The Snapchat playground is full of both human and nonhuman actors. The many and different types of actors make it of little consequence to look at individual relationships. The interrelational dynamic as a whole must be considered. A closer look reveals a mesh of relationships in which it becomes impossible to distinguish the human from the nonhuman (Latour 1999b), and therefore even playmate from advertisement. Multiple actors are at work concurrently, transforming an environment of many mediations into a large field of intermediations. On the Snapchat playground, therefore, are "dynamic intermediations which weave together the embodied materialities of diverse life forms to create richly complex distributed cognitions" (Hayles 2005, p. 213). This chapter attempts to capture some of these elusive intermediations related to advertising, control and risk.

I spent many days on the Snapchat playground, playing, observing and interviewing children about their Snapchat use, paying particular attention to appearances of advertising but considering also other experiences as they may impact risk to children. The sections in this chapter look at different frames of intermediations on the playground: children´s ability to recognize advertising, children´s control over play choices, and disruptions on the playground such as with a Snapchat update, the Cambridge Analytica data breach and privacy regulation with GDPR. This chapter concludes with reflections from my own autoethnographic observations where they help supplement experiences of the children informants in the digital social.

4.1 Recognizing ads

Children venture out to play on the playground and encounter others they do not know. Some of these others are advertisements which invite the children to play. They can be "hidden", taking a variety of forms and mixing with various play and entertainment options (Consumer Authority 2018a). If these advertising others are following the playground rules, they will be wearing t-shirts clearly marked with "ad" (or other similar term) on them. Not everyone follows the playground rules.

Between October 2017 and February 2018, I accompanied 10 children individually onto the Snapchat playground to see what sorts of advertisements they encountered, how adept they were at recognizing advertising and how they responded to each occurrence. The children were between the "real" ages of 10 and 17 with five under age 13, which is the legal age for using Snapchat, and five over age 13. According to their profile age, however, all were between ages 13 and 17. Five were girls and five were boys. The children ranged from occasional to very active users of Snapchat.

Study observations are mediated through me as participant observer and rely on my ability as an informed adult to distinguish advertising content from other content. A significant number of advertisements on the playground were not wearing marked t-shirts or any other label. Some of these advertisements also play on the nebulous boundaries of content marketing, making it difficult not only for children but also for adults at times to distinguish advertising.

Observations from this informant group showed a wide range of beliefs and ways of experiencing advertising. After conducting a basic interview which helped frame a context for each child, I watched and posed additional questions as the children used Snapchat. All the informants were made aware that the study concerned advertising to children on Snapchat. Accordingly, the informants were given the task of taking a screenshot whenever they spotted an advertisement or were unsure if something was advertising. The task of recognizing advertising stimulated discussion in which the children often communicated uncertainty or confusion. This verbal interaction was essential, because as I quickly realized, visual observation alone was not enough to understand the environment. The combination of actions and non-actions on Snapchat with verbal descriptions of the thinking behind each action or non-action helped collect relatable and meaningful observations.

How well do children recognize advertising? The Norwegian Media Authority´s *Children and Media* study in 2016 found that 44% of children believed that they could recognize advertising. Observations in this study, however, suggest that while children were effective at identifying marked ads, *none* of the children informants who encountered content marketing were able to determine consistently and correctly which content was advertising. This was not a problem with the children´s cognitive abilities but rather with the unclear and at times even misleading nature of content marketing. Content marketing seeks new and clever ways of attracting and holding the attention of viewers by embedding advertising within other content. Several examples of content marketing ads are presented in this chapter.

The following sections group the results of ethnographic observations where advertisements were collected into four categories: (1) advertisements recognized, (2) advertisements not recognized, (3) content believed incorrectly to be advertising and (4) unclear content. Examples of actual ads captured by children informants are included in each category.

(1) Advertisements recognized

Advertisements which were recognized can be broken into two groups: *marked* ads and *unmarked* ads. On the Snapchat playground, marked ads typically contained the label "ad", "advert" or "annonse" (Norwegian) in the bottom right corner of the screen. Marked ads were spotted easily and captured by all this study´s informants. That is, I observed no clearly marked ads which went uncaptured by the informants. *Figure 6* below gives examples of ads captured by informants which were clearly marked.

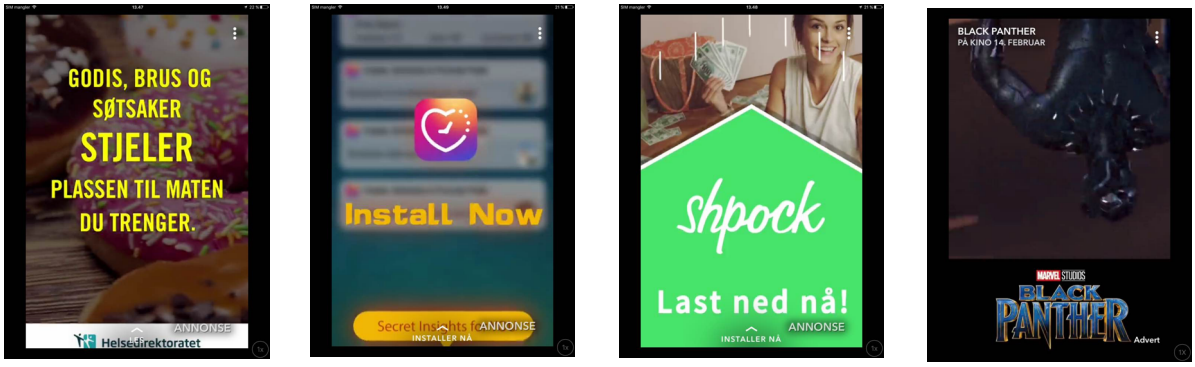


Figure 6: Examples of recognized advertisements which are clearly marked

Other advertisements were unmarked but were still recognized as advertising. Therefore, while these ads were not wearing the required t-shirt or label on the playground, they were still recognizable to the informant who identified them. Examples shown below in *Figure 7*, are unmarked ads identified by informants. Although unmarked, these ads all feature the product clearly and resemble advertising forms which are common also in other media such as magazine and TV. Children may have been able to translate experiences with other advertisements to recognize these as ads. Recognition, on the other hand, does not mean that these ads do not need to be marked. Further, it is unlikely that all the other informants would have consistently recognized all these unmarked ads.

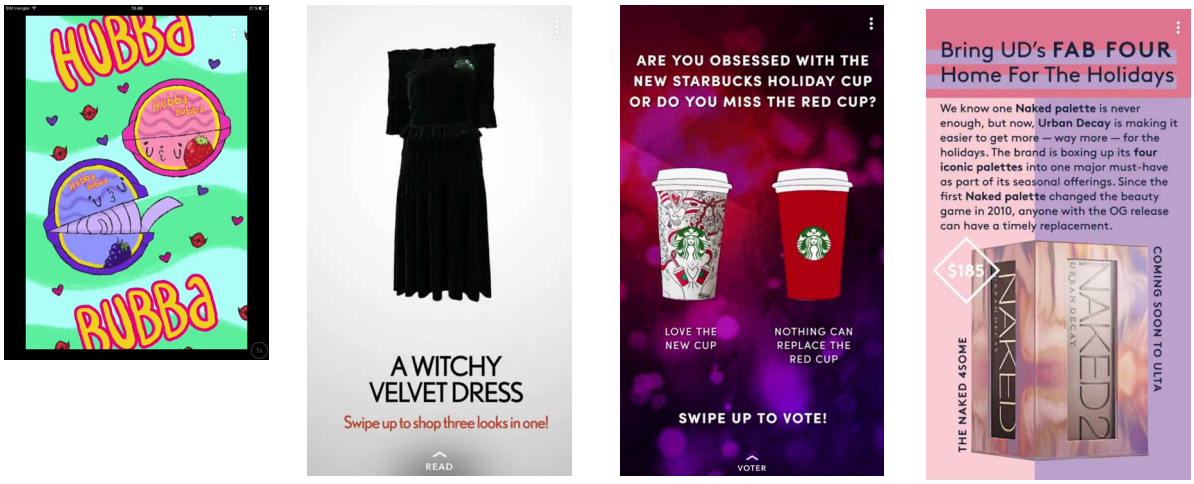


Figure 7: Examples of unmarked but recognized advertisements

When asked how they recognize ads, informants mentioned that they look for an "ad marking" or that an ad will "come out of the blue", "suddenly something else comes up", "something doesn´t fit with other content", or "suddenly appear like an ad for cheese that doesn´t fit with the Story". One older informant mentioned looking for a brand. Ad marking is therefore very important to children who may not recognize unmarked ads or ads which are embedded or blended in with other content.

It is important to specify that in ethnographic sessions on Snapchat, each informant encountered different content. While observations of the same group of ads across all informants would have made an interesting comparison, it was not possible with this study´s live content.

The ad examples shown so far in *Figures 6* and *7* show marked and unmarked ads which were identified by children informants. As will be demonstrated in the next sections, the confusion over what is or is not advertising increases significantly with content marketing.

(2) Advertisements not recognized

Some advertisements went unrecognized by the informants, particularly ads delivered by influencers. In instances where ads went unrecognized, I asked the informants if they thought the specific content was advertising, and after listening to their reasoning of why they did not believe it to be advertising, I asked them to go ahead and take a screenshot for me as an example of content. I did not tell the informants in these instances that they were incorrect, nor did they seem to regard taking a screenshot for me as a correction for failing to capture an ad.

Influencers are also required to mark their advertising, but the guidelines for marking are also unclear and open to interpretation. According to the Consumer Authority, "It is sufficient that [the advertiser] is mentioned in your post or that it is clear from the context, for example, in cases where it is obvious which advertiser is being promoted in the ad"[7] (2018b, p. 6). The words "sufficient", "clear", "obvious" and "context" all leave room for interpretation, and together, they contribute to the problem of unclear advertising particularly for children. The Marketing Control Act advises advertisers to exercise "particular care" when advertising to children (Consumer Authority 2009), but has the that same care been exercised in creating the guidelines for marking advertisements which can target children? What might be obvious to an adult may not be obvious to a child? Ethnographic observations described below show some of the ways in which ads from influencers were confusing to children.

[7] Original text: "Det er tilstrekkelig at dette blir omtalt i innlegget ditt eller at det går tydelig frem ut fra sammenhengen, f. eks. i tilfeller hvor det er åpenbart hvilken annonsør som omtales i reklamen."

One informant watched an influencer give a product endorsement (*Figure 8* below, left image) and said that a product review by an influencer was that person´s "opinion" and therefore was not advertising. Similarly, another informant encountered an unmarked advertisement on a channel which she subscribed to (*Figure 8* below, right image). She said that since she had subscribed to that channel, the ads "do not count" as advertising.

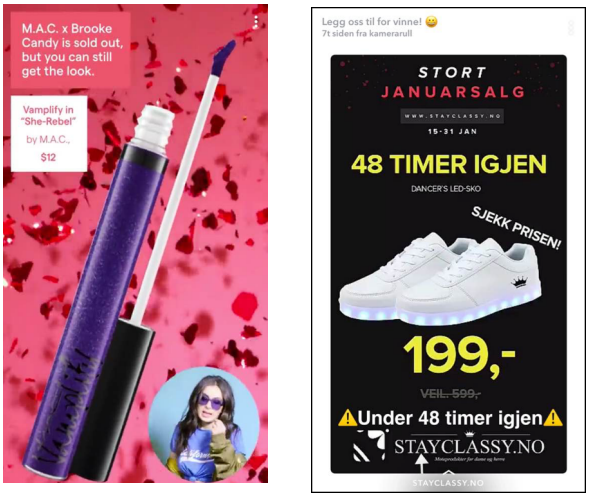


Figure 8: Examples of ads not recognized as advertising

Neither of these ads were marked in a way that was clear to either me or the children, yet I interpreted them as ads while the children informants did not. These examples demonstrate situations of faulty reasoning that can occur when children lack knowledge about advertising and new advertising environments such as social media. Previous research has identified the need for teaching digital marketing awareness in schools to equip children to handle digital ads in an informed way (Livingstone, Mascheroni and Staksrud 2015).

(3) Content believed incorrectly to be advertising

Some informants took screenshots of content which they believed incorrectly to be advertising, or for which they were uncertain. These informants interpreted advertising as anything with a brand or product mentioned. *Figure 9* below shows four examples of content misinterpreted as advertising. From left to right in the figure, one informant believed that a Story about an ice hockey match was an ad for the sport of ice hockey. Another informant saw a story related to the #metoo movement which displayed the Amazon logo with content about an executive accused of harassment and believed it to be an ad for Amazon. A story about music being released was believed to be advertising for that music. Finally, a paparazzi

picture of a celebrity was believed to be advertising for the brand of clothing she was wearing, Hilfiger, which was mentioned in the Story. While the topic of this study and the challenge given to informants of finding advertisements may have contributed to a higher number of examples captured, the evidence remains that informants were often confused about what constitutes an advertisement. These examples also demonstrate some of the uncertain boundaries between Story content and advertising.

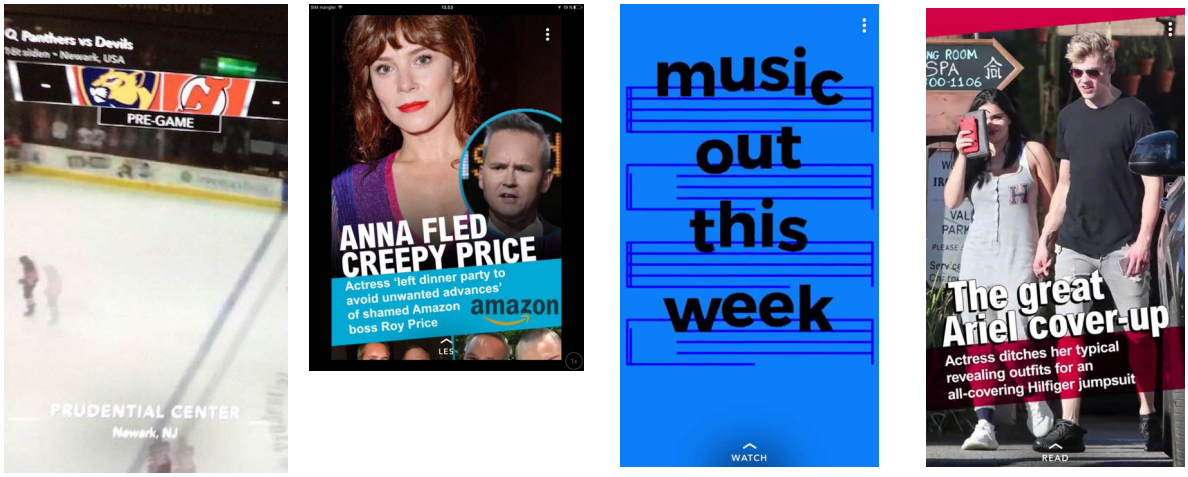


Figure 9: Examples of content thought incorrectly to be advertising

(4) Unclear content

Surprisingly at times, neither I nor the observant were able to determine if certain content was advertising. My role as authority figure was compromised in one sense, but in another sense, the ambiguity served an important function to emphasize the changing nature of advertising and the amount of confusing content which children cannot possibly be expected to navigate. This obscurity helped to facilitate discussions on equal ground where neither of us knew the answer, and we could consider possibilities together.

Examples of unclear content encountered during observations were most often related to the boundaries of content marketing and the need for consistent and clear marking of advertising. Among the examples of unclear content were (*Figure 10,* from left to right) “Food trends that totally defined the 2000´s” with a picture of Jamba Juice; “Do you have the same McDonald´s order as these 10 celebs?”; “Road to the Runway: Behind the scenes images reveal what happens at Victoria´s Secret Fashion Show casting”; and “Kim and Kourt´s tree

hunt: Kardashian sisters search for the perfect Christmas tree as they film holiday special". The ads were all captured by informants as possible advertising, but are they all actually ads?

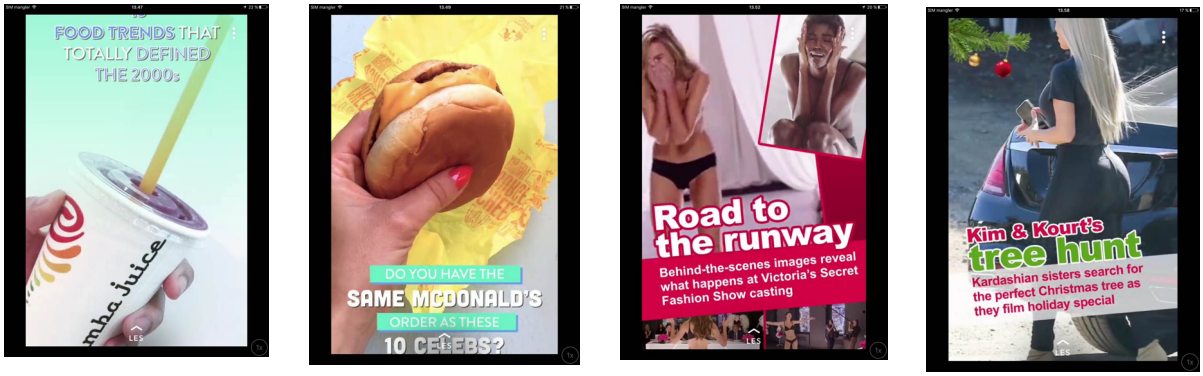


Figure 10: Examples of unclear content

In determining whether or not these are advertisements, we lack critical information as to who is the creator of these Stories. Since anyone and everyone can publish on the internet (Barland 2016), content is largely uncurated. Motives for posting content vary from user to user and not all content contains marketing even if a brand is mentioned. If Jamba Juice created the food trends Story (*Figure 10,* far left), then it should be marked as advertising. Similarly, if McDonald´s created the Story of celebrity orders (middle left), this content should also be marked as advertising. Conversely, if a fan of McDonald´s created the celebrity orders Story, it would not be advertising by McDonald´s, but rather a personal Story created by a user. The Kardashian example (far right) raises another question: is promoting a channel which includes advertising considered advertising? Where do the boundaries lie? Advertiser information, however, is often missing or unclear. Better and consistent marking of content would help to resolve these confusing transparency issues.

Still other types of unclear content include examples where the formatting of the ad itself led to confusion or misinterpretation by informants.

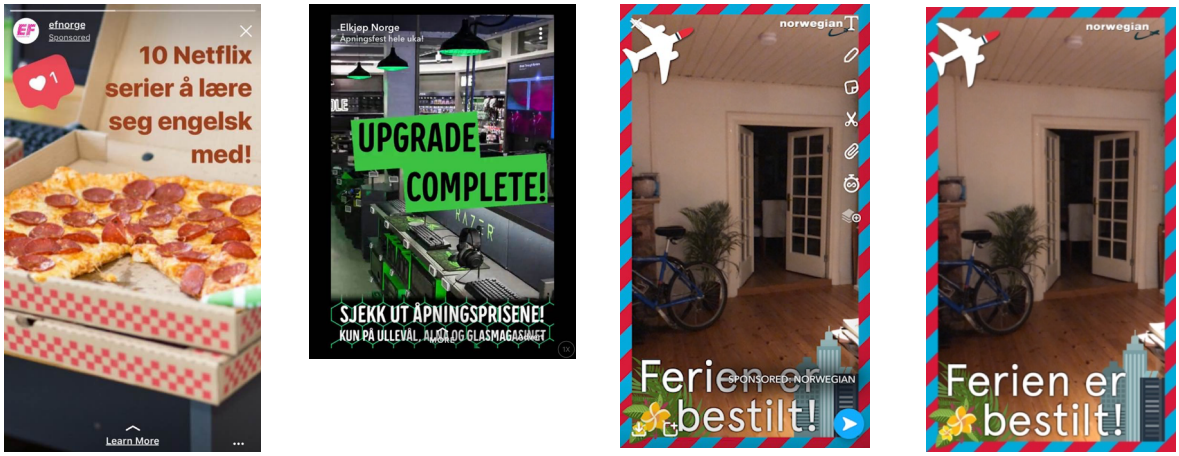


Figure 11: Other examples of unclear content

The ad on the far left above in *Figure 11* demonstrates the importance of clear identification of the advertised brand. This ad was captured by one informant who believed it to be an ad for Netflix; however, the brand marked in the upper left corner shows that it is instead an ad for a language school. The middle left example was also captured as an ad, but the marking "advert" is completely covered by the ad design and was not seen by the informant. Finally, the middle right image shows a Snapchat filter which is marked as an advertisement where the ad design partially covers the ad marking "Sponsored: Norwegian". Here, however, the marking was visible enough to the informant, but once a Snap was created with this filter, the ad marking disappeared as shown in the far right image. Therefore, while the ad is marked for the user who creates a Snap with it, the user´s friends who receive the Snap would receive an unmarked ad. The person Snapping therefore becomes unknowingly complicit in spreading unmarked advertising. This type of temporarily marked ad could also give the impression that the sender is endorsing a product or brand.

Content marketing, or advertising through "storytelling" (Pulizzi 2012), was the largest source of confusion for the informants. The Consumer Authority requires that sponsorship on social media be clearly communicated "It should always appear in your post who you are advertising for"[8] (2018b, p. 6). We encountered, however, very few examples of marked content marketing. Seeing an advertisement delivered via an influencer, or "cool kid", on the

[8] Original text: "Det skal alltid fremgå av innlegget ditt hvem du reklamerer for."

playground can mean that feelings of interest and trust are woven into an ad, blurring the commercial intent and boundaries. It is through this lens that we should consider content marketing as its own actor, neither entirely content nor advertising, but the result of a combination which can be viewed as fusion through mediation (Latour, 1999b).

Is an influencer who engages in merchandising and excitedly promotes an upcoming launch of merchandise in a Story considered advertising? The Norwegian Consumer Authority says "yes" (2018b, p. 4), but instances of violations such as the ones below in *Figure 12* continue. What if the influencer is not from Norway? Influencers such as Kylie Jenner and Jeffree Star *(Figure 12)* are celebrity American influencers whose reach extends around the world. How and to which advertising rules are they accountable? Their messages are delivered to Norwegian children, yet it is unlikely that they have collected and translated advertising guidelines of Norway and other countries to ensure universal compliance. This issue is for authority figures to resolve, those who can address internet regulation across geographic borders.

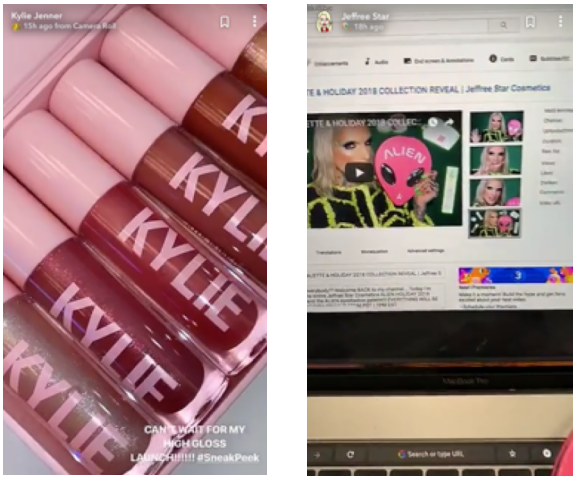


Figure 12: Unmarked content marketing from American influencers, Kylie Jenner and Jeffree Star

Adding to the confusion of content marketing can be the visible presence of other ads which *are* clearly marked. Visibly marked ads combined with unmarked content marketing may mislead users, especially children, into believing that all advertising is marked and that what is not marked is not advertising. Unmarked advertising content is then regrettably left up to the child to question as to its intent. Given that content marketing on social media is relatively new, informants in this study generally lacked knowledge and experience in how to

distinguish this type of advertising. Clear marking of all advertising is therefore imperative, as are clearer boundaries for influencers and other advertisers for how to mark advertising.

"Instructions for marking advertisements in social media" (Consumer Authority 2018b) is an 11-page text document with guidance on what defines an ad and how to correctly mark ads on social media. The guidance covers language, formatting and placement of ad markings and gives a visual example for some media. For Snapchat, the document advises "On Snapchat, you can mark ads by writing clear text on the picture, or by using other tools as long as the marking is clearly recognizable as advertising"[9] (ibid, p. 7). The visual illustration for Snapchat is below.

Figure 13: Illustration from the Consumer Authority for how to mark ads on Snapchat

In addition, the Consumer Authority published a 28-page text document with general guidelines and requirements for marketing specifically to children (2018a). Among other topics, the document addresses content marketing as "hidden advertising" which is "blended together with various gaming, play and entertainment elements" (ibid, p. 8). The document also cautions also against marketing sensitive products for children such as unhealthy food and addresses potential consequences for violations.

Despite the requirements outlined in these two documents, there is still a wide range of interpretation possibilities by influencers and other advertisers. Whether through genuine misinterpretation or intentional pushing of boundaries, it is possible for advertisers to arrive

[9] Original text: "På Snapchat kan du merke reklame ved å skrive klar tekst på bildet, eller benytte andre virkemidler så fremt det er klart gjenkjennelig som reklamemerking."

at a variety of interpretations, for example, of what "clearly recognizable" means. This is evidenced by the rate of incorrect and insufficient marking of advertisements found during this study. The rules are competing with various interpretations by advertisers, who each have their own "detailed, active, partial way of organizing worlds" (Haraway 1988, p. 583). Further, personal interpretations in the digital are able to thrive especially when accountability for these interpretations is not yet a credible threat. The authoritative objectivity or "positioned rationality" (ibid, p. 590) of the Consumer Authority in attempting to establish "correct" practice stands amid a growing number of digital advertising methods which ignore practice when they can push into new and undefined areas of the playground.

Complicating attempts at establishing effective advertising policy is that influencers are a new type of business in the digital, made up largely of everyday social media users who have attracted a following by profiling themselves. The freedom of the internet means that it is possible for someone who has attained success on social media to be inexperienced with managing a business or adhering to advertising rules. In addition, in the visual world of the digital, "text" may not be a clear language for digital native influencers who speak "visual". "Language is a source of one person´s power and another´s powerlessness" (Asdal, Brenna and Moser 2007, p. 28).

The use of text documents to establish authority over a dynamic and complex digital environment which operates primarily visually is a good illustration of a mismatch between earlier practice and what is new in the digital. "Simple clear descriptions don´t work if what they are describing is not itself very coherent" (Law 2004, p. 2). Visual methods of communication in the digital may be more effective at communicating boundaries, especially where new digital practices such as content marketing are concerned. Ruppert, Law and Savage discuss the heightened need for visual communication over "textual devices" in the digital (2013). "Visualization now becomes a means of showing how ´excessive´ information can be reduced to a form in which it can be meaningfully, if partially, rendered for interpretation" (ibid, p. 36). In the context of their article, Ruppert, Law and Savage present visualization as a tool in social science methods with the digital, but I suggest here that visualization can also serve as a governance tool. "Visualization becomes a summarizing inscription device for stabilizing and representing patterns" (ibid, p. 36). Visualization can therefore perform the same function for social scientists interpreting data as for influencers

interpreting advertising guidelines. Visual communication can help script towards consistent compliance with marketing law.

Rather than hanging lengthy lists of rules on the playground which go largely unread, authorities might consider borrowing some of the visual tools of content marketing in the digital to communicate advertising rules in the language of digital natives. What would happen, for example, if one of Norway´s trusted digital native influencers was featured in an engaging video "reacting" to examples of ads demonstrating both compliance and incompliance on various social media. For influencers on Snapchat, a living visual instruction in the "native" language, as opposed to a single visual image (*Figure 13*), ironically embedded in text, may help in communicating proper conformance to advertising transparency.

Ethnographic observations show that a substantial amount of advertising on Snapchat is unclear to children. Given the potential for confusion on the playground with both playmates and the type of games, it becomes important to consider if children are in control of their play on the Snapchat playground. The next section considers how children react to advertisements.

4.2 Controlling play – reacting to ads

One of the developmental benefits of playgrounds for children is the opportunity to exercise free choice of play (Woolley and Lowe 2013). Do children exercise free choice of play on the Snapchat playground? When asked what they do when they encounter ads, most of the informants said that they typically "just tap over them". They expressed general disinterest for advertisements and believe that they have developed "mental filters"[10] (Barland 2016, p. 27) for resisting advertising content.

This belief in control, however, is precisely what makes content marketing powerful. Encountering advertising embedded within other appealing content, children no longer distinguish ads as separate entities to simply tap away. As we saw in the previous section, content marketing ads are perceived differently and may not be perceived at all. Therefore, while tapping away some forms of advertising, children may not be aware that they are encountering still other forms of ads in other contexts on Snapchat.

[10] Original text: "mentale filtre"

Content marketing represents a shift in advertising strategy from "push to pull" where users are enticed to engage with advertisements (Barland 2016, p. 41). The "pull" aspect suggests that users may have more control in choosing whether or not they engage with an ad, but this is not always the case when it is not the ad that they "pull" but rather the surrounding content. This blending of advertising and content often results in imperceivable boundaries (Viken 2016).

There are multiple forms of ads spread around various places on the Snapchat playground. A view from above the playground reveals a field tightly woven with advertising. The shift in paradigm from media with clearly delineated advertisements to social media with various forms of advertising at various turns is unsettling, especially for a digital immigrant. The prevalence of advertising should not be surprising, though, as Snapchat follows the social media business model of earning operating income through ads. Research suggests, however, that excessive advertising, the "advertising clutter", on social media may reduce the general effectiveness of all advertising (Knoll 2016).

Questions of power in the digital, especially where children are concerned, are vital to explore. Are children at the mercy of a craftily designed technology which controls their actions through hooks, rewards and punishments to expose them to advertising in a myriad of ways, or are children still in control of their behavior and play choices on the playground?

Former Google and Facebook technology designers, Harris and Palihapitiya, warn of design intentions to manipulate user behavior and create addictive social platforms (Aldridge 2017; Pletten 2018). With influencers and diverse advertising forms inviting children to play and engaging as playmates on the playground, it is not clear that children effectively still exercise free choice of play. Knoll points out that earlier research has shown that "children do not necessarily comprehend the persuasive intent of advertising and constitute a particularly vulnerable audience" (2016, p. 293).

This issue of control also invokes a central STS question of the neutrality of technology (Verbeek 2008). What is the role of technology on the Snapchat playground? Is it simply to give structure to the playground? Verbeek points out that technologies are never neutral in that "they always help to shape the context in which they fulfill their function" (ibid p. 92).

The potential of technology to exert its own influence works also with the influence of designers who mediate technology use through scripts. How much control is then remaining for the children users?

Designers script technologies for use, but the "designer fallacy" holds that technologies are not driven entirely by design intentions (Ihde 2008). The resulting and developing interaction between technology and user, here as Snapchat and child, also defines technology use over time. Scripts are shaped and reshaped in a revolving process of intermediations where technology, designers and users, each influenced by their own contexts, interpret and reinterpret use. In theory, therefore, children have the ability to influence and maintain control, but in practice, more research needs to be done to determine the impact of social media technology on children and how different children respond to different scripts. Research cautions that media reports may "amplify the perceived risk of harm" of social media use to children (Livingstone, Ólafsson and Staksrud 2013). We need to understand better the impact to children of social media both in risk and practice.

One challenge of understanding the digital is the rapidly changing nature of the environment. Analyzing risk to children is difficult. The reality of continual change must be factored in. The following sections 4.3 and 4.4 detail two events which disrupted the Snapchat playground.

4.3 Playground revolt – the Snapchat update

What happens when there is a disturbance on the playground and play is disrupted? One day recently upon arriving at the playground, children found that their familiar play structures had been replaced by new ones. There was a sign informing children that changes had been made to increase their enjoyment, but the children had been fond of the older structures and didn´t immediately like the new ones.

This situation occurred in late 2017 when Snapchat began implementation of a major application update which altered many of Snapchat´s familiar features. Snapchat´s redesign in late in 2017 claimed to separate the "social" from the "media" by dividing content more clearly between friends on one side and "publishers, creators and the community" on the other side (Snap Inc. 2017). Confusion ensued, however, as friends´ Stories and commercial

content mixed, and most of this study´s informants felt that the update was not an improvement but "extremely irritating" as one informant put it. Several informants also thought that there seemed to be more advertising in the new version of Snapchat.

The changes resulted in general dissatisfaction in the general user community. The user response escalated into an organized protest enabled by another technology platform, change.org, in which a digital petition was created and signed by over 1.2 million people in early 2018. The official response by Snap Inc. was to sympathize with the users but assure them that in time they would come to appreciate the new format. Subsequently though, users noticed update changes, some of which met their requests for returning certain features to their pre-update format.

The organizer of the petition issued the statement in response in *Figure 14* below.

> MAY 25, 2018 — With the most recent update for Snapchat, we've seen many features that have been returned and improved upon. Friends & celebrity stories are back on the story tab and have been categorised in a more explicit way. The problems in the messages tab have been fixed and snaps and chats no longer randomly move around the tab, a source of frustration for many users. In general I believe, as many of you do too, that Snap Inc. has listened to our plea and improved the app beyond the early 2018 version.

Figure 14: Snapchat update petition response (Change.org 2018)

Therefore, what began as a Snap Inc. design-initiated change, resulted in a user backlash in which feedback led to subsequent modifications of many of the earlier changes. While Snap Inc. appeared publicly to stand by its update, it silently made changes which appeased many of the user complaints. This cycle of change and feedback supports the designer fallacy in showing how design is subject also to user response. Especially critical feedback from a collective voice of users can be effective as in this case. Snapchat requires advertising revenue to survive, but it depends first and foremost on users to view the advertisements. This demonstrates a somewhat democratic quality in scripting of Snapchat where Snap Inc. is receptive to and reliant on feedback from its users. Are children given equal voice in feedback, or do they have the same ability as adults to react?

The Snapchat update took place during interviews and observations with this study´s informants. I added a note to the interview guide to ask informants if they had seen the

update and if so, what they thought of it. The children voiced generally the same dislike for the “extremely irritating” update as the wider user community, but one notable difference was their submissive reaction to the changes. Whereas adult users were aware of their ability to complain and petition Snapchat for change, none of the children informants voiced a desire to complain. Rather, the children seemed dissatisfied but reluctantly accepting of the update. This acceptance demonstrates in part the trust that children put in technology and their general vulnerability to what they encounter.

4.4 Predator on the playground – Cambridge Analytica

What happens when someone breaks the rules on the playground? Is there accountability and if so, who decides the consequences? During the course of this study, rules were broken on another playground, the largest digital playground of all. Only in reality, it wasn´t a playground, it was Facebook, and the implications of this breach created a ripple effect across all digital media. This serious breach was committed by a predator, an app which pretended to be an innocent child on the playground.

In April 2018, the developing discussion about digital personal data privacy was heightened suddenly and dramatically with the revelation that Facebook, with 2 billion users, had exposed 87 million of these users to potential abuse of their personal data by giving Cambridge Analytica access to their user profile information (Lapowsky 2018). Cambridge Analytica had created an app which lured Facebook users into a personality quiz with the devious intent of harvesting data from users and their friends. In response to this breach of trust, Facebook CEO Mark Zuckerberg was called in to testify before the U.S. Congress. He fielded questions and concerns from American politicians ranging from a broad fear of Russian intervention in U.S. elections to overly complicated user terms for Facebook. Zuckerberg commented on the fallibility of the digital in saying that failures can and should be expected when building up a business to the scale of Facebook (YouTube 2018).

Cambridge Analytica whistle blower Christopher Wylie warned that “for free social media, we have given away our privacy” (CNN 2018b). Although the Cambridge Analytica scandal affected only Facebook, it stimulated questions of the need for regulation across other social media, including Snapchat. I spoke with one Facebook employee who said that what the

Facebook data privacy hearings revealed to her was not so much criticism of Facebook but a broader and more general fear of the internet which crystalized around Facebook.

While Snapchat and its users were not directly impacted by this predator, the impact heightened awareness of the need to ensure the general safety of all humans and their information in the digital. Underage children on social media present a special risk (Livingstone, Ólafsson and Staksrud 2013). Snapchat has by far the largest percentage of underage users on its platform in Norway. How will Snapchat protect children and prevent predators on its playground?

The next section discusses the current state of regulation of the internet.

4.5 Playground protection - European GDPR

The ripples from the breach by Cambridge Analytical raised an awareness of the need for internet regulation. While not a direct result of Cambridge Analytica, GDPR and its impeccable timing shined a positive light on the EU as a first-mover in internet regulation for protection of user data. Although GDPR applies to European countries, many regard GDPR as an important first step in coordinated and broad regulation of the internet. Some American companies, such as Facebook, are adopting GDPR´s compliance standards (YouTube 2018).

A second round of contact with the children informants in this study occurred after the implementation of GDPR. The timing provided a convenient opportunity to ask informants about their experiences with and knowledge about GDPR. Has GDPR had any impact on the children or their situations? Generally, the informants were unaware of GDPR. None of the children´s parents had changed their minds about their child´s use of Snapchat. All the informants continue to use Snapchat.

After GDPR went into effect on 25 May 2018, one underage informant reported that she lost her access to Instagram when she was asked to re-enter her personal data including birthdate to confirm her age. This was very upsetting to her as she lost her profile and many pictures and communications which were stored there. This attempt at age regulation by Instagram was ultimately ineffective though as this child informant waited a few weeks and then re-registered as a new Instagram user with a new account. She said that if she is asked to

provide her birthdate again by Instagram or any other social media, she will provide the false birthdate. We learn from our "mistakes" and modify our behaviors.

Facebook, through self-regulation, is responding to the Cambridge Analytica breach not only by adopting GDPR standards but also other safety measures as well. Ad transparency is a current initiative where Facebook users will be able to click on an advertisement for more information such as who the ad is targeting, advertiser company info and links to the advertiser´s other ads (YouTube 2018). At this time, it is still too early to see results of GDPR and other regulatory initiatives such as from the Norwegian Consumer Authority. Efforts at regulation and improving transparency are essential for developing security in the digital and ensuring human safety.

The presence of GDPR in this study is important not so much for its direct and immediate impact to children but as a step towards a more solid authoritative presence on the playground. GDPR is part of a "narrative inscription" (Hayles 2005, p. 200) which is changing the way we think about protection on the internet and will impact future actions of designers, advertisers and others regarding users, including children. Evidence of this narrative inscription can also be seen in the public discourse on regulation, for example, with newspaper *Aftenposten* calling for stronger regulation of Facebook. "[GDPR] is good with regard to privacy, but it doesn´t help with much else. It is time for the EU to regulate also other sides of the business"[11] (Editorial 2018b). GDPR is paving the way for broader regulation.

This chapter next concludes with supplementary observations from my own autoethnographic experiences with daily Snapchat use.

4.6 Digital immigrant impressions

My own impressions and experiences using Snapchat gave me an empathetic and able view from which to engage with others on the playground. I, too, enjoyed showing some of the informants features which they did not know about such as points or how to change your birthdate. Although my context as an adult was much different, I felt there was less of a

[11] Original text: "Det er bra med hensyn til personvern, men hjelper ikke på så mye annet. Tiden er inne for EU til å regulere også andre sider av driften ..."

difference between us on the Snapchat playground than there would have been on a physical playground. We engaged the digital together. Together we were confused about what was advertising, irritated about the Snapchat update and working daily to keep our Streaks going. Upon losing all my Streaks one day, I was devastated. I felt the real pain that is there.

I also played on the playground, and without realizing it, I too had become a cyborg. On a writing trip away from my kids, my phone became an extension of my body and Snapchat an extension of my voice. Physically, my phone was always within reach. Emotionally, daily Snaps became a connection and comfort which was surprisingly real. On previous trips away from my kids, I felt sadness at the airport upon departing, but not on this trip. As I passed certain airport points which carry fond memories of family trips, I Snapped pictures to my kids and told them I was missing them. When their reply Snaps came quickly back, I felt as if they were with me in a way. The digital bridged the physical distance and kept us together. During the rest of the trip, morning and nighttime Snaps back and forth helped fill my empty mothering void and became an important part of each day. One night, I realized I had gone to bed without placing my phone on the nightstand. As tired as I was, I got up to find my phone and place it near me so as to feel closer to my kids. I am changed by this new path of connection, mediated by Snapchat, with its virtual connections giving real physical and emotional effects. I am also wary of the potential for harm.

While on the playground, I wandered around to see what other content there was aside from advertising. What else are children seeing? My profile is set to my real age which is over 18, so my digital playground shows me content which children may not see…that is, unless their profile age is set to age 18 or above. Without age verification, it can be assumed that there are children who have access to adult content. In fact, one of this study´s youngest underage informants turned profile age 18 during the study year. I wrestled with an ethical dilemma of how to protect this child without breaking my confidentiality agreement. Further, the thought struck me that if 10% of this study´s informants have an 18+ profile age, and if this rate were relatable to the total children´s population where 81% use Snapchat (Norwegian Media Authority 2018), that would translate to over 46,000 children ages 9-17 in 2018 having access to adult media content on Snapchat (Statistics Norway 2018). While an informant group of 10 is not statistically significant, the chance of any children having access to adult media content is worth investigating.

Figure 15 below shows content examples from Discover Stories which I captured wandering the playground one day. These examples are from one "typical" session and not a collection over time of what I found to be most extreme.

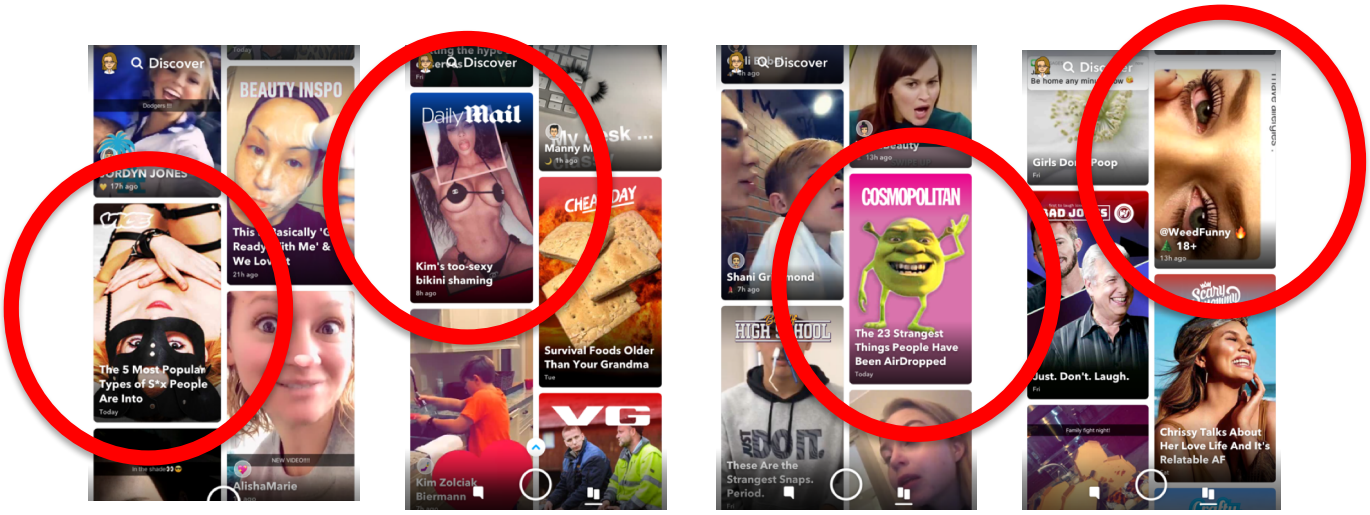


Figure 15: Snapchat Stories which children may encounter

From left to right in *Figure 15*: "The 5 Most Popular Types of S*x People Are Into", "Kim´s too-sexy bikini shaming", children´s animated film character "Shrek" used to draw users into Cosmopolitan´s channel known for sexual content, and "WeedFunny 18+", a channel which promotes and normalizes smoking marijuana. This is the point at which I am tempted to abandon my efforts as neutral researcher altogether. Forgetting for a moment that I am a mother, but thinking only as a human being, I question the worth and safety of any of this content on a platform which caters to children. Only one of the channels is marked for "18+". I wondered if the children informants had seen similar content.

During the interviews with informants, I asked them if they ever see content on Snapchat that they think they should not be seeing. Among the answers from underage informants were: "*All the time. Sometimes I go in on one channel and something totally different comes up*"; "*Yes, people drinking alcohol in Stories*"; "*No*"; and "*Not usually*". The over age 13 informants answered similarly: "*Not from advertisements, but I think some of the Stories can be kind of inappropriate*"; "*Some guys are kind of creepy and they send kind of creepy things*"; "*Yeah*"; "*No*"; "*No*"; and "*Yes, and I don´t like it*". One underage informant told of seeing a Story of someone from her school smoking.

During study participant observations, as we wandered together through Stories, there was a significant amount of sexualizing of women in bikinis or with very little clothing. We also encountered frequent sexual references which, frankly, were embarrassing for both me and the informant to encounter together. For children who are still developing cognitively and emotionally, this type of sensationalism and sexual content can be confusing and dangerous.

Snapchat is a powerful social technology which is more than just a social media app. Technologies function also as "active mediators that help shape the relation between people and reality" (Verbeek 2008, p. 94). Livingstone, Mascheroni and Staksrud argue that "the question is no longer just that of children´s relationship with the internet as a medium, but also with their relationship with the world as mediated by the internet" (2015, p. 9). Largely uncurated Story content as typified in *Figure 15* can function to normalize beliefs for children of what is real and common in society. To understand the true impact to children though, we need to consider their role as digital "agents" (ibid). "It is only by understanding children´s agency that we will understand how children learn to cope and become resilient when engaging with the internet" (ibid, p. 15). I am grateful to Livingstone, Mascheroni and Staksrud for this important point which helps me regain my researcher neutrality and ability to proceed. Under age 18 digital natives are not just vulnerable and impressionable children.

In the same way that Snap Inc. described separating the "social" from the "media" with the Snapchat update (Snap Inc. 2017), I also separate the social from the media in use. I enjoy the social but find little value in the media Stories. Unfortunately, it is the media with its income from embedded content marketing which makes the "social" possible. What are the ethical boundaries for Snapchat´s media content?

I do enjoy Snapchat and I let my kids use it. All except for one of the 10 informants were enthusiastic users of Snapchat. Based on input from informants, hooks such as Streaks are an effective incentive for stimulating frequent use of Snapchat. Based on my mostly positive experiences of maintaining Streaks during this study, I also became hooked on Snapchat. Streaks can be effective for maintaining regular contact when it might otherwise stop in person such as can happen at times between parents and teenagers. Sherry Turkle reports the value of digital social connections echoed by a group of mothers who felt that digital connections enabled better than expected contact with their kids during their first year away at college (2011). This was countered, however, by a concern that texts could seem

superficial and temporary as compared to handwritten letters. “The digital is only ephemeral if you don´t take the trouble to make it permanent” (ibid, p. 299). Snapchat, with its disappearing content, and even Streaks which disappear as soon as they are left unattended, are good examples of the power, but also the ephemeral nature, of the digital social.

Latour likens technology and its environment to a “crooked labyrinth” and points out that technology with its multifaceted functions and representations is always more than a tool (1999b). Where this labyrinth will lead and how social interactions mediated by technology will continue to develop will be interesting to follow. Although I will always be a digital immigrant, I am fascinated to watch the interactions between the digital and the physical as they are given time and space to develop.

This chapter explored how children recognize and react to advertising on social media and how issues of control and safety on the playground arise and are impacted by the changing nature of the digital. We are now ready to conclude the analysis of this study in Chapter 5.

5 Leaving the playground

Tired after a long day of play, my mind is filled with thoughts and experiences from the Snapchat playground. Walking out of the gate, I begin to synthesize all the impressions and wonder how best to answer the final part of the research question "*what does this say about the need for regulation in the digital?*" Before addressing this question, this chapter will summarize the analysis thus far, beginning with a look at some of the differences between digital and physical spaces as guided by the playground metaphor.

Physical playgrounds were originally conceived as safe play spaces for children in an increasingly urbanized world (Frost 1988). The Snapchat digital playground differs considerably in both its intention and function. Instead of a singular focus on healthy development for children, this social media playground has a dual motive of social interaction and commercial gain. Unlike physical playgrounds which carry no demand or expectation of children, the Snapchat playground expects children to participate in meeting and interacting with commercial actors through advertisements which target children directly.

There are new risks and benefits specific to digital playgrounds. "The digital is bound up with processes of reterritorialization, and the creation of new knowledge spaces, institutions, actors, devices and apparatuses" (Ruppert, Law and Savage 2013, p. 34). The Snapchat playground is also unlike any other digital playground, containing new transactional actors, such as Snaps and Streaks, and new visual methods of communication. Snapchat has new ways of providing and seeking value to and from its visitors who are in large part children.

In trying to understand the digital, we must recognize differences between concrete and abstract perceptions. In her work with atherosclerosis in the medical field, Mol demonstrates how disease can be both concrete and abstract at the same time in how it is experienced differently by patients and doctors (2002). Social media, such as Snapchat, can also be concrete and abstract at the same time. We have seen how Snapchat can be concrete to the child who uses it while abstract to parents and authority figures who work to understand its risks and value. Snapchat carries different meaning for different actors.

The mixture of subjective views considered in this study from children, designers, influencers, authority figures and others make it challenging to reach a cohesive set of findings. What reality will this study arrive at and enact as "the product of specific enacted and visible out-therenesses" (Law 2004, p. 65)? With my own subjectivities included, I adopt Law´s suggestion for producing a singular view among multiple realities: I will not find a singular view; I must enact one. "Realities may be made and remade. They are made and remade" (ibid, p. 69).

Chapter 3 looked at tools and techniques Snapchat uses to appeal to children. Chapter 4 considered how children recognize and react to advertisements on Snapchat. This chapter attempts an opinion about the need for stronger regulation. The sections following complete the study analysis with summary insights about advertising on Snapchat, risk to children, and morality in the digital. This study then concludes with suggestions for further research and final thoughts.

First, we consider the findings about advertising on Snapchat.

5.1 Advertising is pervasive

This study´s 10 informants captured 125 ads, or suspected ads, during the ethnographic sessions. The range was from 0 to 64 ads and depended heavily on how the informants spent their time on Snapchat. If they played with filters and sent Snaps to friends, there were almost no ads. If, however, they spent time in Stories, the number of ads increased quickly.

The playground can often seem blocked with ads or influencers standing in front of all the playground equipment. Children are unable to get onto the swings, for example, without first engaging with an ad or an influencer. Sometimes ads pop up and stop the children mid-play or just after they have gotten onto the equipment, and sometimes a new piece of playground equipment turns out to be an ad. Advertising is pervasive, and there is deep confusion among children about how to identify what is advertising.

Despite informants´ best efforts to avoid or ignore advertising by just "tapping past", the digital is clever and evolves to survive. New digital advertising methods develop and anticipate attempts to circumvent ad engagement by spreading into new forms to reach

children. Some of these forms are disguised within engaging content so as not to be recognizable. Other forms are mediated by personalities on the playground whom children enjoy and trust. These new methods carry a risk of being misunderstood by children.

Boundaries separating commercial from non-commercial content can be difficult to distinguish and at times even non-existent with embedded advertising. Observations in this study show how it is unrealistic for children to determine where boundaries lie. Particularly unclear is content marketing. Informants demonstrated frequent faulty reasoning and misinterpretations when trying to identify advertising. Earlier mentioned examples include informants who claimed that subscribing to channel content nullified any included advertising; who believed that influencer product reviews are opinions and not advertising; and who misidentified pure content to be advertising such as with coverage of an ice hockey match. These mistakes demonstrate just a few of the possible misinterpretations. Media education in school which addresses advertising coupled with better ad transparency would help children´s ability to distinguish advertising from other content more effectively.

Next, we consider an overall view of Snapchat: is it dangerous or valuable for children?

5.2 Is Snapchat dangerous?

Is the Snapchat playground an example of a potentially dangerous platform for children, or is it a developing social medium which can enhance social contact? Perhaps, is it something in between? This section looks at differing views of the risks and value of Snapchat.

First, let´s consider what it means to be dangerous. We look once again to the playground. The slide is an iconic play structure on playgrounds. Is the slide dangerous? Google defines dangerous as “able or likely to cause harm or injury”. Implicit in this definition is a second actor to which the harm or injury could happen. It is therefore only with a child on the slide that harm or injury is possible and conditions for danger are satisfied. If children were not allowed on the slide, it would not be possible for the slide to be dangerous. How then can the slide be the cause of harm or injury if it is only the child playing on it who makes it dangerous? The slide is an inert object, whereas the child is an active agent on the slide. One could argue, therefore, that it is the child who causes the harm or injury and not the slide. Is it the child then who is dangerous? Danger is a performative result of neither the child nor the

slide alone, but through a partnership of play between child and slide in which responsibility for danger (and safety) must be shared. The "use" performs the danger.

Taking this reasoning, we can look at Snapchat. Is Snapchat dangerous? Are social media dangerous? If Snapchat is the slide on a social media playground, is it the platform or the user which is dangerous? We can apply traditional notions from STS such as Latour´s analysis of the agency of guns (1999b), but the digital is often quite different. The digital is more complex. Whereas Latour also concludes that "responsibility for action must be shared among the various actants" (ibid, p. 180), a gun does not learn from and adapt to the preferences of its user, but social media do. Snapchat is not an inert object but rather an evolving digital actor which engages and interacts with its users and learns from their responses. Turkle claims that the digital "gives us more and more of what we think we want", but not necessarily what we want (2011, p. 284). "We have entered a realm in which conventional wisdom, always inadequate, is dangerously inadequate" (ibid, p. 286). The digital, therefore, should not be viewed as entirely separate from the humans with whom it interacts. On the playground, Latour and Haraway might suggest here that we have become a hybridization of both the slide and the child (Latour 1999b, Haraway 2000). We cannot attribute danger to either technology or user exclusively, but must explore a hybridization of actors. Technology and user combine in "use". Snapchat becomes part of our human identity. We are part of the digital. "They are us" (Latour 1999b, p. 214).

This primary mediated relationship between user and platform both "modifies the original two" actors (Latour 1999b, p. 179) and is composed of earlier actions of many other actors, subjectivities, motivations and intermediations through what Latour defines as a delegation function of mediation. Past actions of designers, business decisions, advertisers, authority figures, policy instruments, parents, friends and others are joined together so that "there is no plausible sense in which artifact, corporate body, and subject can be distinguished" (ibid, p. 197).

We are cyborgs, but this transformation did not start with the digital. It started long ago. Latour challenges us to consider that there has been a hybridization of the human species since primitive humans began using tools (ibid). The digital elevates hybridization to a new and more complex level. Mol writes that "Cyborgs live in two countries: that of the machine and that of the organism" (2002, p. 137). The issue, therefore, is much more complex than

simply assigning a risk value to Snapchat. The risk must be shared among a range of actors and the boundaries are ever unclear.

Mol, however, points to the dichotomy that exists between "the objective reality *out there*" and daily life which is filled with "practices that are thick, fleshy, and warm" (2002, p. 31). Both abstract and concrete views are important. Cyborg insights, while intriguing on a more abstract level, may not help illuminate daily risks to children. To be able to assess the active risk to children, we need to dig down into daily life and practices.

Study observations of user practices and experiences gave no indication that Snapchat itself poses a direct threat to users. Like technology designers Harris (Pletten 2018) and Palihapitiya (Aldridge 2017), Turkle raises the question of platform addiction but declines to address it as an issue because of the impossibility of "discarding" the internet as the addictive substance (2011, p. 293).

I asked the children informants to rate the "danger" of Snapchat on a scale from 0 to 10, 0 being not at all dangerous and 10 being so dangerous that they should not be using it. The informants gave Snapchat an average rating of 3.3. Most felt Snapchat was not dangerous but that occasional content or ads were not appropriate. One informant who had just turned 13, noted wisely that the danger would depend on the age of the user.

Particular situations of potential danger such as with underage use can be identified and monitored so as to minimize overall danger. The Norwegian Media Authority advises parents on its website that "If children claim to be older than they are, they need to be prepared that others may perceive and treat them as if they are older."[12] (Medietilsynet 2018b). The Norwegian Media Authority recommends that parents follow the minimum age 13 requirement for use of social media but leaves the choice ultimately to parents to decide and govern. There is, therefore, no risk of penalty to either parents or children for underage use. The risk is to the safety of the children. This study´s observations suggest that there is insufficient communication to parents of the concrete risks to underage users.

[12] Original text "*Hvis barn utgir seg for å være eldre enn de er, må de være forberedt på at andre kan oppfatte dem som eldre og behandle dem som det.*"

As shown in Chapter 4, danger can exist both in advertising practices and in Stories with content unrelated to ads. Channels and their Stories are competing for views and often use "sensational" content to stimulate interest. Attention-seeking stories which are meant to drive views and advertising revenue can actually work to normalize attention-seeking behavior. Sensational or shock stories which may have sexual or drug content, for example, can influence vulnerable users. I came across the following additional content while wandering around the playground (*Figure 16* below):

Figure 16: Other examples of Snapchat content which children may encounter

The Story on the left shows a male youth smoking what he describes as a "morning ritual". We are left to wonder what he is smoking, but he clearly wants viewers to think his behavior is "cool". Normalizing smoking and unhealthy habits is dangerous for vulnerable children even over age 13. It may or may not be a result of content such as this that one underage informant reported seeing a Snap from a student at school who was smoking.

The image on the right is an advertisement for a VPN service which offers private and anonymous browsing and downloading of content from several different countries. The picture in the advertisement is unclear in its intention but the ad may be meant to suggest access to sexual content. Advertising this type of service on a platform used by children carries also risk.

Risks of these types of content as well as other adult (18+) content are not communicated concretely to parents. Warnings such as from *Aftenposten Junior* ("receive ads for products

that you should not see") and the Norwegian Media Authority ("others may perceive and treat them as if they are older") describe the type of content exemplified in *Figure 16*, but in a language which comes from, to borrow from Mol, the "objective reality out there" as opposed to specific language from "fleshy and warm daily life" (2002, p. 31). General language may not motivate concern and action on the part of parents to understand and minimize risks to their children. Danger is better able to hide in the abstract than it is in the concrete. When we fail to see specific potential danger, the risk of harm to children may increase.

Consider the following example: a child who registers at age 9, with a profile age of 15, will receive content and advertising targeting a more mature youth who has more education and life experiences than a 9-year-old. When this child turns 12, he or she would still be underage, but would now be delivered content as an adult with profile age 18. This is the equivalent of allowing a child age 12 to sit unsupervised in a movie theater, watching a film rated for adults age 18 and above. The risk is potentially worse as Snapchat delivers "real-life" content as opposed to the "fictional" content in movie theaters. Targeted mass marketing and content algorithms cleverly deliver adult content as in *Figures 15* and *16* to adults, but in this case, a child age 12. One specific suggestion which media authorities could make to minimize risk is to recommend that parents who allow underage children on Snapchat ensure that their child´s profile age is minimized and is changed to the real age as soon as the child turns 13. Parents can take advantage of Snapchat´s feature to change the profile birthdate not only to allow, but also to protect.

Finally, it would be unfortunate to emphasize only the risks and not some of the positive uses and outcomes of participation by children on Snapchat. As mentioned earlier, Brandtzæg finds evidence of increased social capital where social media is used to enhance other forms of social contact (2012). Another positive example is the #neveragain campaign by U.S. high school students to protest for stronger gun control. The movement was spread effectively on Snapchat and highlighted on Snap Maps during the public demonstration marches of #marchforourlives on 24 March 2018 (*Figure 17* below). Snapchat can be a powerful tool for communication and can legitimize voices of children who are working for change.

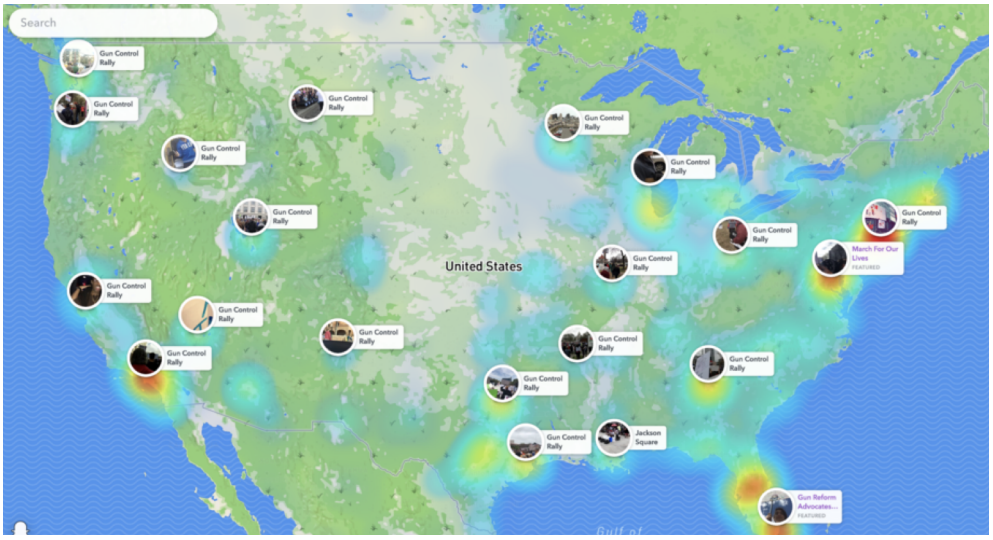


Figure 17: Gun control rallies organized by U.S. high school students and shown on Snap Map, 24 March 2018 #marchforourlives #neveragain (image: Daily Kos)

All experiences and considerations are relevant as we seek to understand how digital technology such as Snapchat is affecting children and what we can do to manage life in the digital. The next section addresses the abstract issue of the morality of technology.

5.3 Do social media have morality?

Questions of the morality of social media are linked to their design. Returning to the playground and the slide example from the previous section, we can ask: "Are there other conditions which may lead to harm or injury?" Here, we consider the design of the slide. Faulty design can contribute directly to the likelihood of harm to the child. If, for example, the sides of the slide are not smooth but instead jagged metal edges, children who hold on while sliding would have injured hands by the time they reach the bottom. Were it not for the jagged edges, the injury would not have occurred. Hence, design and designers have a responsibility for safety.

Social media design which contributes directly to the likelihood of harm or injury to the child is dangerous. Questions of risk and danger stimulate broader questions of ethics. Can we depend on technology designers and advertisers to act "ethically", especially towards children? What defines ethical behavior in the digital, and how are standards established? Complicating the answers to these questions are subjective notions of ethics. To what extent do social media have or engage in ethics by design?

Van de Poel and Verbeek advocate using STS insights "to recognize, describe, and analyze ethical issues in engineering design" (2006, p. 224). They criticize designers for having an "externalist approach" which focuses too much on the outcomes of technology design rather than considering also the "internal dynamics" of processes which feed design (ibid, p. 224). Verbeek warns that "it is a mistake to locate ethics exclusively in the `social´ realm of the human, and technology exclusively in the `material` realm of the nonhuman" (2009, p. 65)

Building on Langdon Winner´s article "Do artifacts have politics?" in which bridges were shown to discriminate against population groups (Winner 1980), Verbeek considers "Do artifacts have morality?" (2008). He concludes that artifacts do, in fact, appear to exercise morality in their mediation functions as evidenced by the role that technologies play in guiding humans to arrive at answers for ethical questions. An example is how ultrasound technology informs the decisions of parents of an unborn child. Technologies, and therefore social media, are "active mediators", influencing both human behavior and interpretation of the world in ethical and other decisions (ibid, p. 94).

Ethical standards in the design of social media flow into ethical standards of use. Designers "materialize morality" through technology scripts (van de Poel and Verbeek, p. 227). Scripts in the digital can have far-reaching implications such as stimulating kind or unkind behaviors on social media among children. Tromp, Hekker and Verbeek contend that "Designers can no longer hide behind the needs and wishes of the consumer; instead, they have to take responsibility as "shapers" of society (2011, p. 19). Placing the heavy burden of shaping society on technology designers, however, may go too far in failing to account for the active role that users have in how they use and rescript technologies. Technologies "need to be interpreted and appropriated by users in order to be used" (Verbeek 2009, p. 71). We can say that "In terms of affordances, then, social networking sites frame but do not determine" (Livingstone 2008, p. 403).

By appealing to children with playful filters and advertisements, designers of Snapchat have assumed an inherent ethical responsibility for the safety of children. While this responsibility is shared among also children and their parents, designers must consider their broad moral obligation to work to protect children´s actions and experiences while they are on Snapchat. Questionable ethical practices such as allowing users to change their profile birthdate seem

counter to efforts to prevent underage use. On the other hand, a recent change in the placement of emojis on Snapchat so that "happy" emojis are more accessible while "angry" emojis are more difficult to find and use, may be one step in scripting efforts to disincent cyberbullying.

Technological morality, however, is not the same as "moralization of technology" in which morally desired behavior is scripted through design into restricted use of a technology (Verbeek 2009). An example would be Latour´s forced use of a seatbelt to be able to drive his car (Latour 1992). Verbeek describes how attempts at developing "behavior-steering" technology in the Netherlands were met critically with fears of loss of human freedom and spread of technocracy (2009, p. 70). Technological morality is also not the same as technologies having moral agency, or acting as "free agents" of morality. Drawing from ethical theory where intentionality and freedom of action are required to exercise moral agency, Verbeek finds intriguing but ultimately insufficient evidence to attribute free moral agency to technologies themselves (2008).

As mediators of social relations and content experiences, social media engage and inform morality but do not control it. What expectations can we have then of social media? In terms of moral content, social media are subjective mediation actors, inscribed with morality in the design process by their human creators and designers, and reinscribed with morality in use. Children´s actions and interpretations, for example, of what is "acceptable" and "cool", are informed and developed in part by experiences on Snapchat. Social media do not govern behavior, but they certainly influence it. As playgrounds are naturally places for children to experiment, protection of all children on the Snapchat and other social media playgrounds needs to be ensured. Since "only human actors can act responsibly" (van de Poel and Verbeek 2006, p. 226), this responsibility falls ultimately on humans.

The section following concludes the analysis by addressing the final part of the research question "*what does this say about the need for regulation in the digital?*"

5.4 What is the "right" regulation?

"Patience has run out"[13] (Editorial 2018a). This sounds more like a parent scolding a child than it does Norway´s Minister of Children and Equality issuing a warning to advertisers. Perhaps that is because these advertisers are in fact children on various social media playgrounds who are not used to authority and rules. Minister of Children and Equality Linda Hofstad Helleland delivered this warning to social media influencers who have been crossing ethical lines of content by advertising questionable and potentially harmful products such as lip injections and other cosmetic procedures to children through social media content. Citing evidence from a recent Norwegian study of a connection between body image and symptoms of depression, the Ministry of Children and Equality recently delivered a recommendation to forbid advertising of cosmetic procedures and require that retouched photos be marked as such. Both the Consumer Authority and the Norwegian Media Authority have given their support for these new guidelines for advertising towards children (ibid).

Digital advertising practices used by influencers and other advertisers have revealed that self-regulation is insufficient. Even with media education in schools, children may still be vulnerable to the persuasive intent of media advertising and cannot be expected to carry the responsibility of their own self-regulation and protection. Children´s safety, therefore, must be protected by other means.

To consider what means of protection may be appropriate, this analysis takes inspiration from Foucault´s writings on governmentality (2007). Governance of the internet, now in its early stages, can be compared to Foucault´s presentation of government development between the 16th and 18th centuries. The internet has been operating largely with a governance model similar to that of the 16th century, where sovereignties and rulers were supreme and protection of rulers´ positions in their sovereignties was the primary focus (Foucault 2007, p. 92). Social media companies such as Facebook and Snapchat can be viewed as examples of internet sovereignties, competing for and protecting their positioning.

With policies and laws enacted from various countries and regions to address regulation, internet governance is now moving into the 17th century model of government where Foucault describes multiplicities of government which are "caught up, tangled and

[13] Original text: "Talmodigheten er slutt."

intertwined together" (ibid, p. 93). Based on François de La Mothe Le Vayer´s writings from 1653, Foucault describes three levels government emerging in this period: self, family and state (ibid). These levels, based largely on morality and ethical values, can be applied directly and interestingly to the Snapchat playground. Self-governance on the playground translates to children, Snapchat, influencers and other advertisers for their responsibilities to control their own behavior on the playground. Family governance, as related to children, translates to parents, teachers and other direct caretakers of children. State governance is composed of laws and regulatory bodies, such as the Norwegian Consumer Authority and EU agencies without direct contact with children but working for their protection.

While Law cautions that multiplicity is not the same as plurality (Law 2004), Foucault presents governmentality of this period as a time of both multiplicity and plurality (Foucault 2007). A vital ingredient therefore of these three levels of government is the "continuity from one to the other" (ibid, p. 94). Foucault describes both a downward continuity and an upward continuity in which the levels reinforce each other. Continuity among these levels is essential for overall effective governance.

Foucault argues that the use of statistics such as from census surveys was an essential tool to evolve governance from a focus on family to populations in the 18th century. (ibid). Populations embody "aggregate effects" (ibid p. 104) in which families change from "being a model to being an instrument" (ibid p. 105). This suggests the importance of current research and data collection in attempts to establish "populations" across geographic borders for broader governance such as the EU has done with its *EU Kids Online* (Livingstone, Mascheroni and Staksrud 2015).

Foucault´s lectures in 1978 claimed that governance has not evolved since the establishment of populations through statistics and that "We live in the era of a governmentality discovered in the eighteenth century" (2007, p. 109). This statement, however, was made before commercialization of the internet began in the 1990´s and thus before a new clock of governance was started for the internet and its sovereign rulers. We can therefore find humor in the thought that internet governance and regulation of technology are running 300-500 years behind technology development!

For this analysis, we consider Foucault´s three-level governance model to be most relevant and interesting as it reflects the true current levels and challenges of internet responsibility: child (self), parent/school (family) and state. According to Foucault, the most important level of government in this model, "the essential component, the central element", is the family – the point from which governance below and above become easier. (ibid, p. 94). Therefore, parents, teachers and other caretakers are the "essential component". For parents, this becomes a quandary: is social media something to manage themselves, surrender to, or wait for state regulation? A new era of behavior, rules and consequences must be broadly defined and understood.

In a survey of 25,000 children in 25 European countries, Livingstone, Ólafsson and Staksrud found a wide range of parental governing styles for children´s internet use. Their research concluded that the prospect of giving parents primary regulatory responsibility for their children on the internet might be "difficult" for these parents (2013, p. 318). Even with consistent parental rules though, parents cannot be expected to keep pace with the rapid developments of social media and digital advertising to protect children sufficiently. This leaves state governance as the remaining option if protection of children on social media is to be assured.

James Steyer from the organization Common Sense Media asks "Why has this branch [the internet] been exempt from following rules for 15 years? We regulate every other industry. It is incomprehensible"[14] (Pletten 2018, p. 6). Government regulation of digital advertising and social media practices would allow for a "downward direction of continuity" in that state regulation would make it easier for parents to effect family regulation, which in turn would make self-regulation easier and clearer for the child (Foucault 2007). Asdal and Druglitrø argue law as a moral technology, influencing moral positions and acts (2017). "Law is indeed a key technology for the making up of our collective" (ibid, p. 81). Coupled also with better information at the self and family levels, state regulation, or law, has the potential to effect and complete an effective system of governance for social media in the digital.

Considering the experiences of the 10 children informants and the condition that we are all "situated" in our various contexts (Haraway 1988; Mol 2002; Law 2004), how do we arrive

[14] Original text: "Hvorfor har denne bransjen fått slippe helt unna alle regler i 15 år? Vi regulerer alle andre industrier. Det er helt ufattelig."

at unified agreement for regulation of advertising and practices on social media? How do authorities balance protection with stimulation of new digital businesses? Should children be considered at all as relevant targets for advertising? Achieving a singular view on what is needed for regulation will not be easy. John Law assures us though that while there is no singularity, there are many different practices to produce singularity (2004). He cites, for example, authoritative texts such as textbooks which can help "enact a particular method assemblage" (ibid, p. 71). Realities are fluid and changing (ibid). Therefore, it would seem that proposed regulation in itself can be part of the solution to producing the illusion of singularity needed to gain support for regulation. Regulation can therefore function as an end and a means.

Currently, Norwegian authorities are making efforts to regulate advertising on social media, but the decision to allow children´s underage use is still left to individual families (Medietilsynet 2018b). Parents, therefore, and not the state, are the current highest authority in determining their child´s use of the internet and social media while under the age of 13. The effectiveness of parental authority, however, is dependent parental understanding of the risks and benefits of social media for children.

Current efforts in Norway towards better control over advertising transparency and content are a step forward towards broader regulation of general internet services. At the same time, efforts at coordinated regulation in the EU, such with GDPR in 2018 offer progress towards establishing regulatory cooperation across geographic borders. This vital early progress works to set a standard, a "narrative inscription" (Hayles 2005), for future legislation and regulation. The insights from this study point towards a general need for stronger government regulation in the digital.

6 Conclusion

STS theories and tools provide a useful and relevant way to study the human condition as it adapts to a digital world. As we navigate new and unknown spaces, we need ways of understanding them so that we can begin to address and relate to them. With its dual motive of social interaction and commercial gain, Snapchat´s engagement of children in the digital provides a rich area for study. Using STS techniques with qualitative tools and a figurative playground, this study explored **"How does Snapchat appeal to children, how do children react to advertising on Snapchat, and what does this say about the need for regulation in the digital?"**

Findings

After building the playground and filling it with children, advertisements and other material semiotic actors, Chapter 3 explored how Snapchat appeals to children. We saw Snapchat´s scripting of hooks and a system of rewards and punishment which attract and maintain users´ attention over time. Input from interviews with children informants showed how particularly filters, Streaks and Stories are unique and innovative features of Snapchat which appeal to the creative interests of children for self-expression. Filters turn smartphones into playful augmented reality cameras and were the inspiration for many of the informants to try Snapchat in the first place. Streaks are a new transactional actor in the digital which mediate relationships over time and reward daily active use. Skipping even one day punishes the user with the loss of all Streaks. Stories are most often video content posted by friends, influencers and companies where children can subscribe to regular Story "channels" they find interesting. Stories are where most of the advertising including content marketing lies. Snapchat´s features are disruptively innovative even within the new field of social media. Filters, Streaks and Stories are now being copied directly by other social media.

Guided on the playground by children in participant observations, Chapter 4 looked at how children encounter and respond to advertising on Snapchat. Study observations showed that while children were able to detect clearly marked advertisements, they were unable to consistently detect other forms of advertising, especially content marketing. Examples of advertisements encountered by children were provided in four categories: advertisements recognized, advertisements not recognized, content believed incorrectly to be advertising, and

unclear content. Influencers´ advertisements through content marketing were particularly difficult for children to recognize in part from the trust the children place with influencers. The frequent lack of marking of advertisements combined with children´s vulnerability make a compelling case for stronger regulation of advertising transparency. The visual language of the digital was also considered as a possible hindrance to complying with regulatory language which is largely text-based. We also considered how the flow of intermediations on a digital playground can be disrupted such as with the Snapchat update in late 2017 and with a predator, as was the case with Facebook and Cambridge Analytica. Events such as the Snapchat update and the Cambridge Analytica scandal looked at relations of power and influence on the digital Snapchat playground. This chapter concluded with my own autoethnographic observations as a daily Snapchat user with examples of content which could pose risks especially to underage users.

Gathering the playground observations and insights together, Chapter 5 addressed the need for regulation by recognizing the pervasiveness of advertising on Snapchat of which much remains unclear to children. Questions of risk and danger on Snapchat as well as ethical considerations for designers of the Snapchat platform were also considered. Snapchat was not determined to be dangerous in itself; however, largely uncurated Stories from users and influencers in addition to unclear advertising can pose a safety risk especially to underage children. Using a model of governance from Foucault based on three levels of regulation: self, family and state, this study concluded that state regulation is necessary not only to minimize risks but also to assist regulation by parents and schools as well as self-regulation by children. Self-regulation by Snapchat, influencers and other advertisers in their separate contexts and ethical practices is also necessary to minimize risks to children. Comprehensive state (governmental) regulation in Norway is not in place, but efforts are being made by the Consumer Authority in particular to strengthen regulation. Effective regulation at the self, family and state levels would be a valuable step towards building also future coordinated regulation across geographic borders. The EU is pioneering initiatives for regional research and regulation such as with EU Kids Online (Livingstone, Mascheroni and Staksrud 2015) and GDPR.

On a social platform that positions itself largely to young users, regulatory standards for advertising and compliance are not being established and maintained as quickly as new media and applications are developing. Where rules are established, there are not sufficient

procedures in place to monitor broad compliance. In Norway, there have been occasional inspections and warnings from the Consumer Authority to content providers who are out of compliance. The Consumer Authority contends that advertising transparency has improved in recent checks. “Our last inspection shows that the largest profiles in fashion, sports and music have become better at marking advertisements clearly” (Consumer Authority 2018c). This study, however, found a that there remains a significant amount of unmarked advertising, particularly in content marketing on Snapchat. Advertising risks to children, therefore, continue to be a problem. In a society such as Norway where advertising to children has a tradition of being heavily regulated, it is surprising to find that new social media targeting children such as Snapchat have been permitted to develop and operate along such certain unclear boundaries for advertising. In October 2018, however, the Consumer Authority reported a 23% increase to its operating budget for 2019 to be used in part to prevent and stop illegal marketing practices in the digital (Consumer Authority 2018d).

Did this become a normative study after all? Perhaps. Some researchers are calling on STS studies to be less neutral and take more stands (van de Poel and Verbeek 2006). If this study could offer advice to parents, it would be to engage on social media where their children are and pay close attention to the profile ages of their children, and especially underage children. The gap between real age and profile age should be as narrow as possible. Further, parents should ensure that their child´s real and profile ages match as soon as they turn 13. If this study could offer advice to authority figures as they monitor the digital and develop policy, it would be to make real to parents the risks that their children face. Real situations with concrete examples are critical for parents to understand better what their children *will* be exposed to. Abstract warnings with soft words such as “inappropriate content” do not have the same effect as “explicit sexual content”, “sexualizing of women” and “normalization of drug use”. Visual images should be included to illustrate.

This study found evidence that advertising *is* pervasive and confusing, content marketing *is often* deceptive (whether intentional or not), danger *can* hide in abstract descriptions of risk, and stronger regulation at all levels (self, family and state) *is* needed. While physical playgrounds also hold threats for children such as predators and bullies, digital playgrounds are different. The potential for harm can be far greater and lasting. Greater protection can increase positive interactions in the digital. This study hopes to have contributed to the unfolding conversation about social media use as seen, in part, through the eyes of children.

The digital conversation continues

This sociotechnical study of Snapchat identified many issues of concern in the social digital. While systematic solutions are not yet possible, developing understanding to be able to ask relevant questions in new digital spaces may be more important currently than establishing answers to these questions. Answers change over time as do questions, but questions help to set in motion thought and dialog about important issues. I have learned more from figuring out the relevant questions in this study than from trying to formulate answers, and most of the learning came directly from children informants.

What started initially as a question about social media advertising for children is clearly much more than that. In talking about this topic with others, conversations shifted often to a deeper concern for children´s mental and social development being negatively affected by social media use and potential manipulation in the interest of advertising revenue. Others brought up alternative needs for regulation of advertising and media, citing fake news and mistrust of media. Fear of a dystopian future in the digital is real.

This study uncovered other questions related to risk and safety which were outside the scope of the research but would be valuable to study separately. One example is the beauty effect that some Snapchat filters give. Eyes are enlarged and eyelashes thickened. The complexion is lightened and cheeks are made rosy. When asked about the beautifying effect of filters, one informant said, “I like it, because if you have a big pimple or something, then Snapchat hides it”. Do Snapchat filters contribute to body image problems in perhaps making children less satisfied with how they look in real, non-filter pictures? The same informant did not think so, but one can wonder if this feature contributes to the problematic of poor body image.

With Snapchat´s public Our Stories on Snap Map, it would also be interesting to expand on Wærdahl and Haldar´s work with paper media “teddy diaries” (Haldar and Wærdahl 2009) in looking at social bias, cultural norms and embedded cultural conceptions among different countries and cultures in how Snapchat users around the world present glimpses of their lives, cities, friends or homes. What do they show and what do they leave out? This could be a digital extension of document analysis with backstage and frontstage elements as described by Hilgartner (2000).

Final thoughts

I have been inspired by the creativity that the combination of STS techniques with qualitative tools allowed for exploring Snapchat in the emerging digital realm. Use of the playground metaphor has been a stimulating and creative exercise which I will likely use again in other contexts. Combining insights from fields of engineering design and ethics also enriched the analysis. This allowed me not only to delve into the immediate research questions at hand, but also to consider many important nuances and underlying issues surrounding the topic which impacted the findings.

What impact has this study had on me? Snapchat has opened a new space for regular and engaging communication with my children in the digital. I plan to continue daily use of Snapchat after this project is over. At the same time, I have checked my children´s ages against their profile ages on social media to ensure that either no or a minimum age difference exists. I am recommending this practice to other parents as well. I also now view my smartphone as a prosthetic device (Haraway 1988) for its gateway to information, social contact and experiences. We are cyborgs and slaves to technology in one sense, but in another sense, technology enables "us to perform actions and have experiences that were scarcely possible before" (Verbeek 2008, pp. 93-94).

Finally, I wonder if children will stop coming to the Snapchat playground when they are adults. Whether intentional or not, Snapchat´s strategy to appeal to and "hook" the youngest users may help them compete with Facebook over the long term if they can maintain hold of this first generation of users. Is Snapchat a social media app for children, or is it the future in augmented reality social communication which "digital natives" were the first to recognize and embrace? There is loyalty and respect among children for Snapchat which has, with its unique features, managed to disrupt even the new innovative sector of social media. Attempts by other social media to copy Snapchat features are viewed negatively by many of the informants. One informant said, "It´s not fair that Instagram and Facebook should be allowed to copy Snapchat". Another informant commented that stories on other social media are "unauthentic" and asked, "Why not just use Snapchat?" By the end of this study, Facebook had implemented not only filters and stories that disappear after 24 hours, but also streaks on its Messenger app. There is an authenticity to Snapchat though which is seen by its youngest users. Will competition among companies change in the digital where children have more potential for influence?

As for the future of Snapchat and what will happen with the users, perhaps it will be like my daughter who was distressed over feeding her virtual pets but who now thinks that keeping up with Streaks is not worth the stress. She is not a frequent user of Snapchat, she says, because of the stress related to maintaining Streaks. Could strategies to hook users backfire at some point, either through user choice or through regulation? There are always new kids and new toys on the playground to test. It will be interesting to see how Snapchat endures in the long term.

Will Snapchat be a trend that slips away when the next creative social app takes over? I ask my daughter, and she just shrugs her shoulders.

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Appendix

1. Interview guide

2. STS humor

1. Interview guide

Interview guide "Children and social media: a playground for advertising"

PART ONE: semi-structured interview (approx. 10-15 minutes)
date:
interview ID:

Basic profile

Age:
Age on Snapchat profile:
How old were you when you started using Snapchat?:

Usage patterns

What do you do on your phone (or tablet)?
How much time per day are you on the internet?
Why do you use Snapchat, instead of FB or Instagram?

How often do you check Snapchat?
What do you do most on Snapchat?
How many Snapchat points do you have?

How many streaks? Longest streak?
What do you think about streaks?
How would you feel if you lost all your streaks?

Do many kids in your class use Snapchat?

Advertising awareness & impressions

Do you recall seeing ads on Snapchat?
Where?
How do you know they are ads?
How do you feel about the ads?

Content awareness

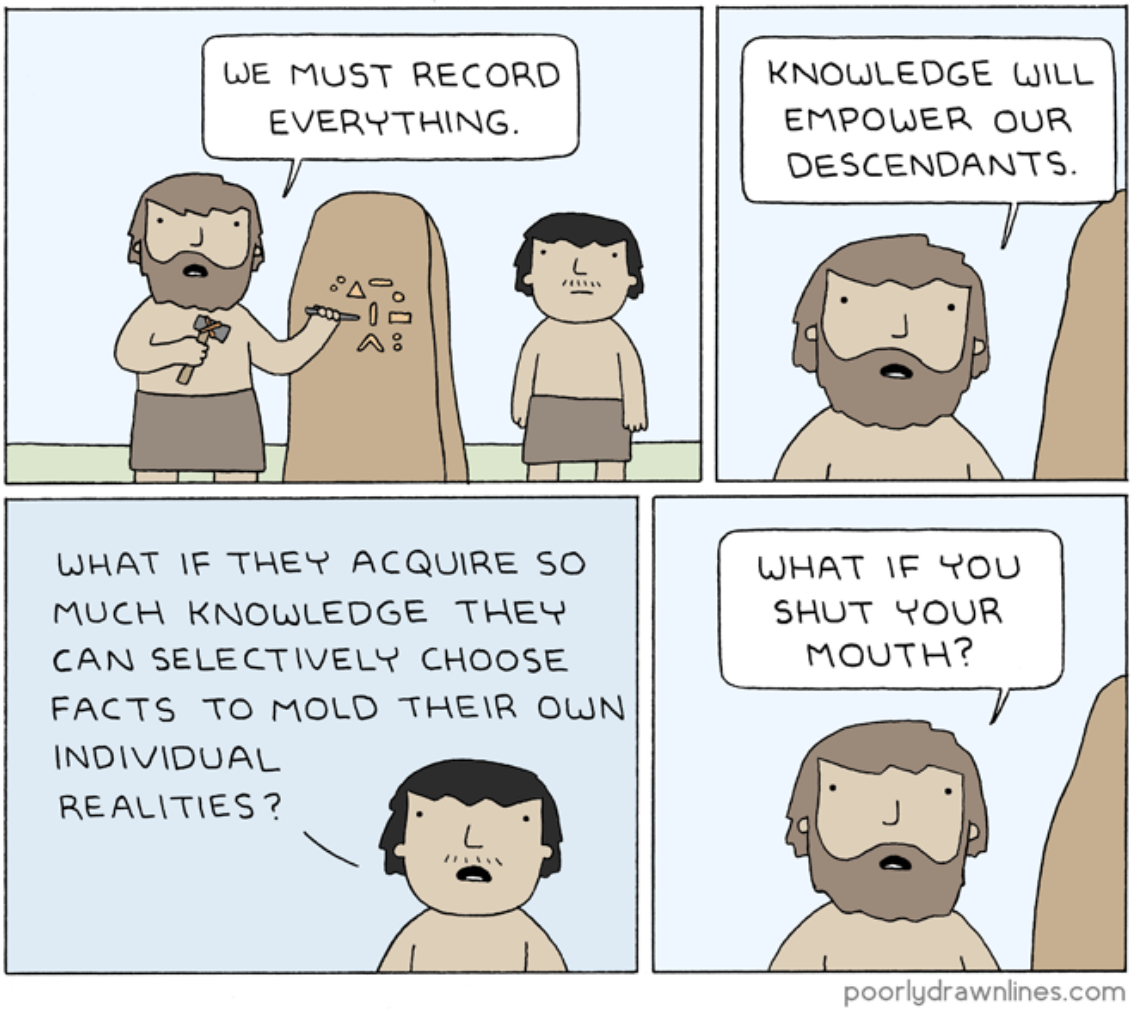
Is there stuff on Snapchat that you think you shouldn´t be seeing?
When you see something you think you shouldn´t, what do you do?
Do kids in class talk about ads or content on Snapchat?
On a scale of 1 to 10, how would you rate the "danger" of using Snapchat?

PART TWO: approx. 30-minute online ethnographic observation

Now, I´d like you to show me what you do when you´re on Snapchat, and if you see something that you think is advertising or might be advertising, take a screen shot. OK?

Observation <start *time* **- finish** *time***> notes:**

2. STS humor


WE MUST RECORD EVERYTHING.
KNOWLEDGE WILL EMPOWER OUR DESCENDANTS.
WHAT IF THEY ACQUIRE SO MUCH KNOWLEDGE THEY CAN SELECTIVELY CHOOSE FACTS TO MOLD THEIR OWN INDIVIDUAL REALITIES?
WHAT IF YOU SHUT YOUR MOUTH?
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