

# **Corporate Social Networking: Risks and Opportunities**

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## **Abstract**

Social networks have seen an explosive growth over the last few years, with the most popular online services totaling over half a billion users. These networks have started permeating several aspects of our daily lives: for example by changing the ways we communicate with our friends and family, share media and organize events. Popular social networking websites like Facebook and Twitter now account for over half of the content shared on the web. Norwegian businesses are taking note, and are slowly but surely starting to embrace these platforms. Security professionals are now facing the challenge of finding new ways to deal with this topic. The main goal is to gain from the opportunities of such technologies while minimizing the impact on information security.

This thesis examines what impact Social Networking has on the security policies and culture of corporations, what business models can be successfully facilitated, and how people can be integrated with the least amount of risk. We raise questions regarding current and potential, future business models, security risks and the use and implementation of security policies and acceptable-use guidelines. This thesis also presents case studies and interviews with key personnel where we analyze the successes and failures of different businesses that have started using social networks for business purposes. The final result of this research is concrete recommendations as to how and why Norwegian businesses should start planning in order to properly manage this disruptive technology.

## Preface

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# Contents

Abstract.....	i
Preface.....	ii
List of Figures.....	1
1 Introduction.....	1
1.1 Topic covered by the project.....	1
1.2 Keywords.....	2
1.3 Problem description.....	2
1.4 Justification, motivation and benefits.....	3
1.5 Research questions.....	3
1.6 Hypotheses.....	5
1.6 Boundaries of the thesis.....	7
1.7 Summary of contributions.....	7
1.8 Choice of methods.....	8
1.9 Qualitative vs. Quantitative method.....	8
1.10 Method and perception.....	9
1.11 Research design.....	9
1.12 Research type.....	9
1.13 Source and theory foundation.....	10
1.14 Type and number of research units.....	10
1.15 Different tools.....	11
2 An Introduction to Social Networks.....	15
2.1 What are social networks?.....	15
2.2 General vs. niche social networks:.....	16
2.3 Social network evolution:.....	18
2.4 Social networks vs. Social media.....	18
2.5 Why should businesses care about social networks?.....	19
2.6 Business adoption of social networks.....	20
2.7 Social network security and privacy.....	23
2.8 Social network security – quo vadis?.....	35
2.9 Mitigating risk – Opportunities and challenges:.....	35
3. Case studies.....	37

3.1	Case study – Lille Vinkel Sko:.....	38
3.2	Case study – NSB: .....	45
3.3	Case Study – Tine Litago: .....	57
3.4	Case study – Legal aspects:.....	63
3.5	Focus group – Full digital natives:.....	72
4.	Results of interviews.....	79
4.1	Business models.....	79
4.2	Security risks .....	81
4.3	Use of policies and guidelines.....	83
4.4	Best practices for Norwegian businesses .....	84
5.	Discussion .....	86
5.1	Improved service – Hypothesis 1.....	86
5.2	Platform preferences – Hypothesis 2 .....	87
5.3	Strengthened relationships – Hypothesis 3.....	88
5.4	Security focus – Hypotheses 4 and 5.....	89
5.7	Policy options – Hypotheses 6 and 7 .....	91
6.	Conclusion.....	94
6.1	Criticism and future work .....	96
9	Bibliography.....	99
A	Appendix – Participant Contract .....	104
B	Appendix – Interview Guide.....	105
C	Appendix – NSB’s acceptable-use guideline template .....	107
D	Appendix – Tine’s acceptable-use guidelines .....	108
E	Appendix – Interview Transcripts.....	111
F	Appendix – Focus Group Survey .....	136
G	Appendix – Focus Group Discussion Transcript.....	139

## List of Figures

Figure 1.	General purpose social networks.....	16
Figure 2.	Niche social networks.....	17
Figure 3.	Facebook adoption – Norwegian businesses vs. Fortune 100 companies.....	20
Figure 4.	Twitter adoption – Norwegian businesses vs. Fortune 100 companies.....	21
Figure 5.	Customer’s desired reaction times of businesses on social networks.....	22
Figure 6.	The increase in malicious software targeting social networks.....	25
Figure 7.	Breakdown of malicious software depending on platform.....	25
Figure 8.	What social networks pose the biggest risk to security?.....	28
Figure 9.	Breakdown of increased reporting of security incidents on social networks.....	30
Figure 10.	Infection layout in a social network.....	31
Figure 11.	1999 screenshot of <a href="http://www.lillevinkelsko.no">www.lillevinkelsko.no</a> .....	39
Figure 12.	Excerpt from Lille Vinkel Sko’s newsletter, October 2 <sup>nd</sup> 2009.....	40
Figure 13.	Conversion rate definition.....	41
Figure 14.	Recruitment campaign ad from Lille Vinkel Sko, March 2010.....	41
Figure 15.	Graph from Facebook’s built-in reporting tools.....	42
Figure 16.	Text message from Sverre Klouman to Marte Klouman.....	42
Figure 17.	NSB’s alignment of wants and needs with goals for individual departments.....	47
Figure 18.	NSB’s goals for marketing on social networks.....	48
Figure 19.	NSB’s goals for customer service on social networks.....	49
Figure 20.	NSB’s goals for knowledge and experience sharing on social networks.....	50
Figure 21.	NSB’s goals for public relations on social networks.....	51
Figure 22.	NSB’s social networking channel breakdown.....	52
Figure 23.	Distribution of inquiries to, and answers from NSB via Twitter and Facebook...	53
Figure 24.	Tine Litago’s mascot.....	57
Figure 25.	Screenshot of a GUI used in one of Tine Litago’s social networking campaigns....	59





# 1 Introduction

This chapter provides an introduction to the topics that are covered within this thesis and the problem area we intend to solve. Furthermore, we will examine the motivation of this thesis, define the methods used, and discuss what contributions this examination will give back to the study of information security and social networks.

## 1.1 Topic covered by the project

The purpose of this thesis is to analyze the current state of social network (hereby abbreviated SN) usage in Norwegian businesses. Moreover, we will examine how businesses are now starting to utilize SNs in order to improve existing businesses processes. An example of this is Customer Relationship Management (CRM), and what risks and opportunities arise from this when considering the increased adoption of Generation Y users (the current, younger generation). CRM is defined as a strategy for a given business' interaction with its customers, stakeholders and prospects. Having a CRM strategy implies "using technology to organize, automate, and synchronize business processes – principally sales activities, but also those for marketing, customer service and technical support. The overall goals are to find, attract and win new clients, nurture and retain those the business already has, entice former clients back into the fold, and reduce the cost of marketing and client service" [1]. The general idea is that by incorporating SN's with a CRM strategy, businesses can position themselves closer to their customers by moving traditional CRM functions to where the customers are located (e.g. on Social Networks). In turn, this can lead to less perceived "distance", meaning that instead of having the customer look up information regarding a business' products and/or services on a remote website, the business is instead present on the preferred SN in use by the customer. By removing this virtual barrier customers are expected to interact with the business more easily.

More specifically, by using this and other similar scenarios, we will test different hypotheses regarding business models, security, the use of policies and guidelines, and attempt to find examples of how revenue and conversion stemming from the social network affect the bottom line. Furthermore, we will elaborate on how social networks offer many opportunities such as improving interaction between businesses and customers, and increasing the visibility of brand names and associated products and services. In order to do this, we will

examine different business models to assess risk specifically, and to make the tradeoff between potential and risk. We will also investigate the risks of incorporating social networks into a corporate setting, especially considering the habits of Generation Y. This means exploring the human aspects such as user habits and patterns, investigating current best-practices for policies and controls currently used by different types of corporations to enforce information security, and elaborating on legal and regulatory considerations and requirements.

## **1.2 Keywords**

Social networks, information security, customer relationship management, business management, policies, legal aspects, strategy

## **1.3 Problem description**

Generation Y (the actual younger generation) have shown to display completely new habits with regard to electronic communication and work philosophy. Some of these habits are not compliant with traditional security thinking. History repeats itself: In the early days of the Internet, many businesses tried to prohibit Internet access for employees. However, this only seemed to work for a limited period of time before change was considered unavoidable: The general rule is, that a spirit of the time and a change in a certain direction cannot be stopped by any means. Young people expect and often demand to be connected to the web and Social Networks 24 hours a day, 7 days a week, and 365 days a year. If there is no other connection present they connect via their own unified communication devices (e.g. smart phones, tablet computers, etc.). Therefore, controlling the business traffic is a limited solution to the risk presented by web 2.0 technologies.

Interestingly enough, with the advent of social networking technologies, many businesses are now finding it necessary to use social networks in order to successfully compete for the attention of their customers. Some businesses even encourage their employees to maintain an active presence to increase their exposure. The question arising from this is: What impact does this type of behavior have on the security policy and culture of businesses? Furthermore, how can the use of social networks be integrated with the least amount of risk possible?

## 1.4 Justification, motivation and benefits

For Web 2.0 technologies, and specifically social networks, the people responsible for information security are challenged to find new ways of how to deal with this topic. The main goal is gaining from the opportunities of such technologies by balancing the different types of risk and potential. To reach this goal a well balanced mixture of technical measures, monitoring, well written and implemented policies, and a focus on human aspects such as for example awareness can be necessary.

Several studies have shown that social networks are especially prone to attack due to their open nature, i.e. [2] and [3]. Both technical and non-technical attacks can be employed by attackers in order to divulge sensitive information. Moreover, there is a conflict between what level of awareness the users possess compared to the information they are actually sharing. The information that's published on social networks can be considered a gold mine for people with malicious intent, for example social engineers.

Considering the growth of social network usage over the last few years, it is important to closely examine the lessons learned in the along the way, but also consider how we can address some of current challenges and potential opportunities with regard to not only managing information security risks, but also focusing on how to turn these risks into business opportunities. Social networks have been around for over a decade in various forms, but it is just recently that businesses have truly started tapping their potential. By examining different business models and hypotheses relating to social networks, we can discover what businesses could be doing to improve their performance. Furthermore, as social networks further permeate all aspects of our lives, we owe it to ourselves to examine how we best can accommodate this inevitable change.

## 1.5 Research questions

In this thesis, we will attempt to answer the following research questions:

***What social networking business models are currently being used, what business models can we expect to see in the near future, and what potential and benefits to they have for corporations?***

- **Hypothesis 1:** Customers who use social networks to interact with businesses expect improved service\* compared to traditional channels, such as e-mail, forums, company websites, etc.
  - By improved service, we imply improved customer satisfaction with

regard to response time, customer service, and so forth.

- **Hypothesis 2:** Customers prefer interacting with businesses via social networking rather than traditional channels.
  - We defined several examples of what we consider to be “traditional” channels in H1.
- **Hypothesis 3:** When customers and businesses interact on social networks, the lack of protection between privacy and publicity strengthens their relationship.
  - For example, when a customer wants to ask a question, he or she must first face the community surround the business. By asking a stupid question, the customer loses face. On the other hand, because of the increased transparency, businesses must provide information that can satisfy the community rather than an individual customer.

*What are the most significant security risks facing both customers and corporations on social networks?*

- **Hypothesis 4:** With the time spent, and the value of the content stored, users of social networks increase the level of security required to protect themselves.
  - Considering how one should never keep all eggs in the same basket, the user must also assess whether the value of the content they provide to social networking websites warrant higher, personal security standards.
- **Hypothesis 5:** With the usage of social networks, users recognize that they lack the knowledge necessary to protect themselves.
  - The risk of losing face is a driver to emphasize an increased focus on security.

*How are businesses using policy options to balance the potentials and risks associated with the use of social networks?*

- **Hypothesis 6:** Businesses are not aware of the risks they are facing when using social networking websites for business purposes.
  - We believe that while many businesses are positive with regard to using social networks for business purposes, very few conduct risk assessments to determine what impact such an adoption can potentially have on their organizations.
- **Hypothesis 7:** The majority of businesses (>50%) do not use specific security policies or acceptable-use guidelines for employees using social networks for personal or business purposes.
  - Social networks were not designed with security and privacy in mind. Because of this property, we believe the businesses that have adopted the use of social networks have not made these issues a primary concern. The result of this is that the majority of these businesses have not designed and implemented security policies or acceptable-use guidelines specifically for social networks.

*What are typical examples of security-level policies that can be used as a template for Norwegian businesses?*

This research questions is not followed up with an hypothesis, as it intends to investigate what could be considered “best practice” for security policies for businesses using social networks.

## 1.6 Hypotheses

From the literature review, it might seem as if quantifying the potential of social networks is at best a difficult task. On the other hand, it would seem as if the associated risk might be more apparent. With this in mind, we formulated the before mentioned hypotheses which we will use in the attempt to answer our research questions.

A hypothesis can be defined as a proposed explanation to a phenomenon being observed. Schich and Vaughn [4] draw up the following issues that should be taken into consideration when determining what hypotheses to use:

- Hypotheses need to be testable, meaning that it can be proven to be false through an observation or physical experiment.
- Hypotheses should be simple, meaning that they should be the fewest possible

new assumptions.

- The scope of hypotheses should be applicable to different instances of the observed phenomena.
- Hypotheses should be fruitful, meaning that a successful test can be used to explain other phenomena.
- Hypotheses should be conservative, meaning that they should adhere to existing, proven, knowledge systems.

[4]

### ***The null hypothesis:***

When discussing the potential of social networks, a common topic is what cost reductions or potential profits a business can possibly gain. As previously explained, quantitatively measuring the worth of business social networking presence is difficult at best. The topic of measuring Return on Investment (ROI) – for example – of social networking is divided into two categories;

1. The returns:
  - a. What benefits or hidden potential can be expected from an investment in social networks?
2. The investments:
  - a. What resources, such as money and time, can you expect to spend to obtain the benefits mentioned above?

The null hypothesis deals with what happens when a business considering the pro's and con's of social networks decides to do nothing about it. More specifically, using a null hypothesis is like constructing a hypothesis which assumes that nothing happens, holding other things constant (e.g. *ceteris paribus*). In this thesis, a possible null hypothesis is that if businesses do not engage in social networking, the worst that can happen is that they are just as well off as before they considered the engagement. However, this is not worst potential outcome. Thinking that nothing changes is natural, and the arguments for not investing business resources in social networks normally conform to a perceived truth that social networks don't work for businesses, that establishing a presence is risky, or that the business does not have adequate resources to facilitate such an adoption.

But when we consider the alternative: what are the risks of *not* getting involved on social networks? Considering the amount of users on social networks

such as Facebook, LinkedIn or Twitter, one could argue that it's obvious that the users are there because they find the services are covering some need. We've previously discussed how Social Networks are used to communicate, share content and ideas. Perhaps more interestingly, users often discuss travel destinations, political issues, what products and services they are interested in, businesses they are unhappy with, and so forth. Businesses should be very interested in what is being said about them, so the argument that social networks are uninteresting for businesses is at best flawed. Adopting social networks will involve risk, but refusing to consider can mean that businesses are less visible. Additionally, if customers are talking about businesses products and/or services, not listening to these discussions could possibly result in harmful business decisions being made because valuable input is not being monitored.

By listening, business will not only be able to pick up when their customers are unhappy, but they will not hear the customers that praise them either. A worst case scenario could be when customers or impersonators are damaging a brand in a public forum without the given business being in a position to prevent or limit the damage by addressing the claims. Social networks are an extension of many people's lives, and cannot be manipulated without being present. The boundaries between what people are talking about around the water cooler and what's on Facebook or Twitter is no longer distinct. Therefore, businesses need to be involved on social networks to monitor such conversations, share information, and engage their customers in discussions and conversations.

## **1.6 Boundaries of the thesis**

This thesis aims to answer questions regarding both business models and potential security risks. This implies that we will be covering several academic disciplines – including but not limited to – economics, marketing, computer science and information security. We believe this mix is necessary to properly investigate security risks posed by businesses using social networks, as we believe they influence the performance of business models.

When considering costs and profits associated with businesses using social networks, we'll examine different types of businesses to investigate if their adoption has resulted in increased profits. This will be based on figures reported to us from the surveyed businesses. Furthermore, we will limit the study to businesses operating in Norway.

## **1.7 Summary of contributions**

In this thesis, we have analyzed the use of social networks by corporations and

studied what business models they use. Furthermore, we have examined current and possible future security risk facing both the corporations and their customers. The information supporting this study has been acquired through case studies, in-depth interviews with key personnel involved with social networking strategies for different businesses, focus groups, field observations, and the analyses of supporting literature how social networks are used both by businesses and their customers.

In the end, the unique contribution of this Master's thesis is new information on how social networks can be used to improve business processes, and the legal aspects of business usage of social networks. In addition, we have uncovered that while there are several serious challenges facing Norwegian businesses, the potential opportunities are only just beginning to reveal themselves.

## **1.8 Choice of methods**

In order to properly examine what is both required of and implied business models and security policies for social networks, it is important to properly analyze how the different types of users, services and businesses operate in relation to each other. The choice of methods is important in order to determine whether or not the theories tested will have any practical application, as the overall goal is to deliver answers that reflect reality as much as possible.

In this section, we will establish what research methodologies will be used based on the before mentioned research questions. Additionally, we will also describe possible alternatives to the methods used. First, there will always be a compromise between the ideal method and the practicality of carrying out an experiment or survey. Therefore, we will have to examine what methods are best suited for the proposed project while balancing practical solutions. In the end, this balance will give us a method which is both practical to implement as well as being able to produce valid and reliable results.

## **1.9 Qualitative vs. Quantitative method**

Qualitative research can be defined as a tool to “gather in-depth understanding of human behavior and the reasons that govern such behavior” [5]. On the other hand, a quantitative method focuses on employing mathematical models in order to empirically investigate phenomena, properties and their relationships. Since this thesis will investigate business usage of social networks and corresponding security policies, there will most likely be a need to conduct personal interviews with different types of professionals. Conducting a survey to map the behavior of



Generation Y with regard to social networks is something that should be considered.

### **1.10 Method and perception**

When employing qualitative research methods, opinions, statements and thoughts will differ from pure idealism on one side, to solid, scientifically sound statements on the other. When conducting interviews, there will also be a variation in the answers received from the different sources, even though they might actually share the same basic beliefs. In order to combat personal bias, the project will seek to ask several sources the same questions, in addition to consulting readily available data. We believe this combination will produce a more concise result.

### **1.11 Research design**

Choosing the right research design is a process that often involves compromises in order to be able to develop practical experiments. The overall research question is what should govern the choice of research design. Because of this, the goal is that the method chosen should support the given research question, and not the other way around. In the next paragraphs, we'll further examine different possible research types, source and theory foundation, as well as the number and type of research units.

### **1.12 Research type**

According to Tesch, there are several different research types, but the most important divide is to be found between field studies and experimental studies [6]. By field studies we imply that researchers study their targets in their natural environments. This means that they cannot be controlled, and ideally neither be affected by the research that is being conducted. On the other hand we have experimental studies. These types of studies are structured to mimic the conditions under which one would want a research question answered. This type of research is conducted in a controlled environment with one of the goals being to prevent external influence. When we consider these two very different models, it's plausible to conduct studies both "in the wild" (field) as well as in controlled environments (experimental). For example, in-depth interviews can be seen as a tool to study users in their natural environment.

### **1.13 Source and theory foundation**

To document the current state of businesses using social networks, the project will use a combination of both secondary and primary data. Secondary data can be defined as data collected by someone else than the researcher, and primary data (also known as raw data) is a term for data collected by the researchers specifically for a given study [7]. The available literature and survey data has provided a solid foundation on which to further pursue new security policies. This data has been collected using electronic academic databases and the library at HiG/GUC. For the main project, the primary data will be obtained using a combination of field and experimental studies, in the form of case studies, focus groups and in-depth interviews. Other sources which might present themselves will be further detailed if necessary.

### **1.14 Type and number of research units**

The different types of research units can be roughly divided into individual and group studies. For this project, we will most likely need to consider both as we may interview both average users as well as subject matter experts.

Furthermore, we can assume that the users possess varying knowledge of computer security and privacy topics, and the subject matter experts are – as their collective title states – experts in a given field. If we consider the possible number of respondents if a survey is employed, the number varies from a few hundred to over a thousand depending on the topic and the scope of the questions being asked. Further work is required in order to properly estimate what the goal should be as far as respondents goes.

We can also look at the difference between extensive and intensive research. Extensive research means that a given study has a wide scope and covers various aspects. This type of research is well suited for painting the “big picture”, but will often lack details about the patterns and relationships that exist between the different research objects and/or subjects. The opposite of this is an intensive research structure, which implies an in-depth study of a single research unit (also sometimes referred to as a case study). The advantage of this structure is that it produces detailed knowledge of a given unit. However, it can be difficult to use this research for direct comparison with other units, something which might prohibit a wider perspective when considering the research unit against a larger scope than originally intended. Since this study aims to address the need for new social network security policies by studying how different businesses are operating, it seems logical to use an intensive structure as the topic will connect different areas from technology (computer science) to human

aspects (psychology) to business processes (marketing, economics). In other words, we are looking for the characteristics of a case study, which according to Leedy et al., is “a type of qualitative research in which in-depth data are gathered relative to a single individual, program, or event, for the purpose of learning more about an unknown or poorly understood situation” [8].

### 1.15 Different tools

As of now, the tool that has presented itself as the most appropriate is the in-depth interview. In this segment, we will discuss why this tool is considered to be the one that will produce the best results with regard to our research questions.

#### *In-depth interviews:*

Interviews can uncover significant amounts of important information. According to Silverman [9], an interviewer can direct questions to uncover the following information:

- Facts (e.g., biographical information)
- People’s beliefs and perspectives about the facts
- Feelings
- Motives
- Present and past behaviors
- Standards for behavior (i.e., what people think should be done in certain situations)
- Conscious reasons for actions or feelings (e.g., why people think that engaging in particular behavior is desirable or undesirable)

In-depth interviews are carried out one subject at a time, and can follow both structured (formal) and semi-formal guidelines depending on the topic and research question [10]. While they are both time-consuming and “costly” (considering the time spent typing up transcripts, analyzing, etc.), they are at the same time very efficient and accurate when attempting to extract information about a given topic or research area. The purpose is to allow the respondent to speak freely and open on the given topic. However, Selnes [10] also points out that technical experts and business personalities often prefer a certain structure so that they can prepare properly for the interview setting. Even though the

purpose is to allow the respondent to speak freely, it is important that the interviewer controls the conversation within a given framework, and ensures that the respondent provides more detailed answers where this is deemed necessary (ibid). As this thesis intends to answer several research questions, the questions asked during the interviews will revolve around, and be aligned to these in order to extract the highest amount of relevant information possible, for example:

<b>Research question:</b>	<b>Interview question:</b>
What social networking business models are currently being used, what business models can we expect to see in the near future, and what potential and benefits to they have for corporations?	<ol style="list-style-type: none"> <li>1) For what business processes does your company use social networks?</li> <li>2) In what processes is the use of social networks the most/least beneficial?</li> <li>3) Has the use of social networks impacted your organization? How?</li> <li>4) Do you measure ROI or other, similar financial metrics? If so, how?</li> <li>5) What business processes do you believe can be run more efficiently by using social networks?</li> </ol>

For the full interview guide used in this thesis, please refer to Appendix B.

Note that simply having a well written interview guide won't necessarily result in a productive interview. Selnes [10] believes that a good interviewer should adhere to the following guidelines:

- Act professionally, be precise and confident throughout the interview process
- Respect any requests regarding the time set aside, confidentiality, refusal to allow sound recording devices and so forth
- Properly inform the respondent of the purpose and intended result of the interview
- Explain why the respondent has been selected for the interview

- Learn the questions by heart to ensure smoother communication
- Stay alert and follow up on interesting points throughout the interview
- Have a critical mindset, as some respondents may have biased opinions
- Be polite and thank the respondent for their time and ask how they would like to be followed up after finishing the survey

(ibid)

It's important to be mindful when asking questions about past events, as the interview subject will have to rely on their memory. Unfortunately, the human mind is not an accurate recording device, and memories are subject to distortion. Subjects can recall what should have, or might have happened rather than the actual outcome of an event [8].

In order to conduct productive interviews, Leedy et al. offer the following advice [8]:

- 1) Identify some questions in advance:
  - a. In our case, the questions asked during the interview should be aligned with the overall research questions (as previously illustrated). For single interviews, we will attempt to keep the total number of questions low, and rather encourage the subject to talk in detail about the topic at hand without hinting that they give a particular answer.
- 2) Make sure your interviewees are representative of the group:
  - a. We will be speaking with individuals who are responsible for the planning, implementing and maintaining a corporate presence on social networks. The criteria for selecting them was that they had to have been the driving force behind the given business' decision to establish a presence on social networks.
- 3) Find a suitable location:
  - a. The interviews will be conducted at the respective interviewee's place of work, if possible.
- 4) Get written permission:
  - a. All interviewees have signed and agreed to a participant contract. This contract explains the purpose of the interviews, what ethical scientific guidelines are being followed, and what

their rights are in relation to the research being conducted. The contract is attached, and can be read in its entirety in Appendix B.

- 5) Establish and maintain rapport:
  - a. All interviews will be started after a period of small talk, in order to “break the ice” and make the subject feel comfortable.
- 6) Focus on the actual rather than the abstract or hypothetical:
  - a. We are more likely to get relevant information when asking what a person does or would do in a particular situation. For example, as we will be interviewing business- and marketing professionals, so we might ask questions about business strategy rather than their philosophic input on economic theory.
- 7) Don't put words in people's mouths:
  - a. We have to avoid asking leading questions, as a good interviewer is, above all, a good listener.
- 8) Record responses verbatim:
  - a. Regardless of how an interview is conducted, we must ensure that we capture everything the subject says. In order to do this, all interviews will be taped using audio recording software and hardware. The audio files are to be saved on an encrypted volume. Furthermore, it's a goal to transcribe the interviews as soon as possible after the interview has been conducted. Transcripts will be sent back to the interview subjects, enabling them to make clarifications or corrections if needed.
- 9) Keep your reactions to yourself:
  - a. In order to get the most out of the subject, it is important to try to maintain a “poker face”. We are more likely to get accurate information if we avoid acting surprised or disapproving of what is being said.
- 10) Remember that you are not necessarily getting the facts:
  - a. Even though subjects may act confident, we must remember that what we are getting might not be facts, and we should treat them as perceptions.

## 2 An Introduction to Social Networks

In this chapter we will present a brief history of social networks, and then elaborate on the state of the art (e.g. the highest level of development). Furthermore, we will examine how they function with regard to the topics presented in Chapter 1. The chapter also analyzes relevant literature with the purpose of giving readers the necessary background information about the different areas addressed by the thesis.

### 2.1 What are social networks?

In order to begin to understand the challenges and opportunities facing social networks, we first have to define what the term “social network” actually means. First, a social network isn’t a new phenomenon by any means. According to Wikipedia “a social network is a social structure made up of individuals (or organizations) called ‘nodes’, which are tied (connected) by one or more specific types of interdependency, such as friendship, kinship, common interest, financial exchange, dislike, sexual relationships, or relationships of beliefs, knowledge or prestige” [11].

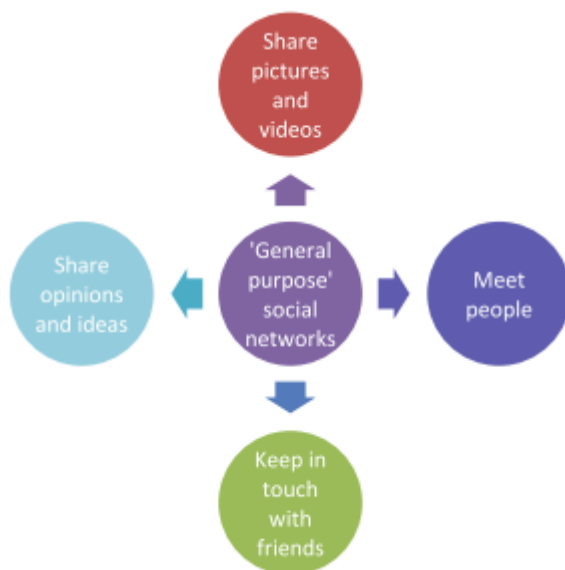
In other words, social networks have been around for as long as humans have formed societies. Compared to traditional media, social networks offer a much higher level of interaction to the user. An example of this is how a person can read a newspaper or watch the evening news on television. In these cases, there is no way for the user to interact with the medium or provide feedback through the same channel that he or she received information. Social networking websites allow their users to provide comments, discuss what is being broadcasted in real time, and share the broadcast and other relevant information with people they share a connection with. Because of these properties, social networks are a highly efficient communication platform accessible to anyone with a supported device and an Internet connection. So in order to clarify: we are going to examine online social networks, which is “an online community that allows people, through a built-up profile, to meet, communicate, keep in touch, share pictures and videos with other community members with whom a connection is shared” [12]. For the sake of clarity, when mentioning a “social network” in this thesis, we are implying a social networking website.

Having a “profile” is a critical component in the social network structure, as it usually contains personal information about the user, a list of friends or connections (e.g. other people’s profiles that can directly be interacted with by posting comments and sending private messages), groups the profile is associated with which can be used for purposes such as, but not limited to, discussion forums, event planning and collaboration. Many of these social networks allow

their users to personalize their profiles using different modules (e.g. widgets). These modules often act as independent applications, allowing the user to select the application needed to expand or tailor specific functionality in order to increase their performance, or improve the user experience. Such applications are made possible via Application Programming Interfaces (API's), which allows developers to build applications they can integrate with the core functionality of the given social network.

## 2.2 General vs. niche social networks:

Not all social networks are alike, and from a functional standpoint they can be grouped into two main categories: 'general purpose' and 'niche' social networks [13]. The 'general purpose' social network is primarily intended for scoped interaction and communication between users and is generally offered as a free service. Two examples of 'general purpose' social networks are Facebook<sup>1</sup> and MySpace<sup>2</sup>. The figure below describes some of the interests associated with the use of a 'general purpose' social network:



**Figure 1.** *Different types of interests spread out from 'general purpose social networks' [12]*

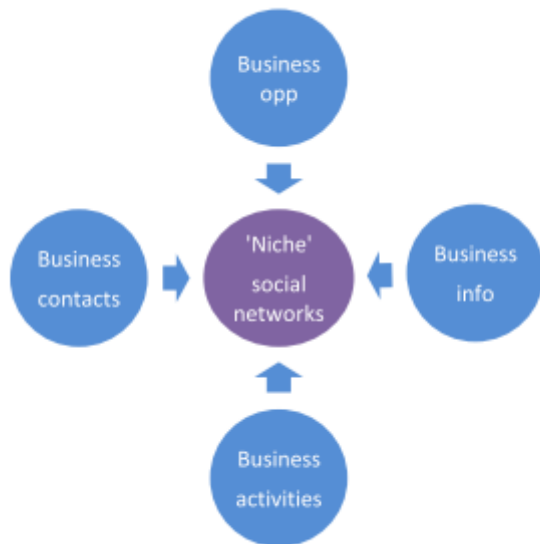
The second type, the 'niche' social networks allow its users to monitor specific

<sup>1</sup> <https://www.facebook.com>

<sup>2</sup> <https://www.myspace.com>



activities. A good example of this is the business-centric social network LinkedIn<sup>3</sup>, which is tailored specifically as a professional networking service, offering extended functionality for paying users. In the figure below we've illustrated how LinkedIn differs from a 'general purpose' social network:



**Figure 2.** A 'niche' social network such as LinkedIn attracts the same sort of interest (i.e. professional/business) [12]

Arguably, there is a third type of category which the paper by Richter & Kock [13] mostly ignores, namely micro blogs. The most popular example of this is a service named Twitter<sup>4</sup>, a micro blogging service that allows its users to post updates that are no longer than 140 characters in length. While the core functionality of micro blogs is considerably less than that one might find on a social network, services like Twitter are used by many as an important tool for staying up to date on current events in their network or areas of interest.

As opposed to the traditional concept of a social network which we discussed in the beginning of this section, the fact that these services are available online implies the speed at which information becomes available and spreads at is far greater than in any other configuration. This is due to the fact that online social networking services are not bound by traditional physical obstacles such as distance, noise or speed. When considering the size of the web and its roughly 2 billion users [14], social networks play a pivotal part. Facebook, for example, had over 500 million active users as of July 2010 [15].

<sup>3</sup> <https://www.linkedin.com>

<sup>4</sup> <https://www.twitter.com>

### 2.3 Social network evolution:

Social networks have existed for a long time. With each step on the evolutionary ladder, new iterations of networking technologies have had a significant impact on businesses both in regard to security and their modus operandi. The table below, developed by David Lacey [16], illustrates the impact of network innovations on businesses:

<b>Innovation</b>	<b>Business Impact</b>	<b>Security Impact</b>
Telegraphy and telephones	Changed the balance of power between head offices and their satellites	Heralded a new era of communications intelligence gathering
Electronic mail (e-mail)	Generated an explosion in person-to-person communications	Caused the collapse of traditional paper filing systems and security classification schemes
Joining up Local Area Networks (LANs)	Enabled enterprise knowledge sharing and rationalization of datacenters	Shattered the traditional security perimeters that protected many application systems
The Internet	Opened up a new world of electronic commerce	Introduced a “wild west” landscape of new security threats to retail systems
Secure remote access	Enabled home working and mobile access	Triggered the erosion of the barrier between personal and business lifestyles
Extranets	Enabled extended-enterprise working	Created new dependencies on the security behavior of third party organizations
Wireless	Enabled high speed business contact from any location	Radiated company information outside the office environment
Social networking	Enables collaborative decision making and networking	Opens up new sources of information leakage and erodes authority of security function

[16]

### 2.4 Social networks vs. Social media

There are a lot of buzz words concerning the Internet such as “Cloud”, “Web 2.0” and so on. But the debate on how to define the topic at hand is still ongoing. For

example, the terms ‘social networks’ and ‘social media’ are used blindly and in conflicting patterns, often with little or no consideration of context. There are no dictionary entries that define the difference in details, but we believe there is a big distinction between the terms. While many use both the terms ‘social networks’ and ‘social media’ interchangeably, they are separable depending on given circumstances.

For example, whereas a social networking service is a tool/method/utility for connecting with others, social media are media for social interaction. A good example of a website which illustrates both is YouTube<sup>5</sup>, which in short is television on the Internet with a vast selection of channels to watch. It provides an easy-to-use distribution channel for video and audio, which adheres to our previous definition of broadcasting. A common factor for both terms is that the technology “involves the creating and dissemination of content [...] using the Internet” [17]. The content (videos and music) is media, while the interaction between users constitutes the network.

## **2.5 Why should businesses care about social networks?**

Social networks provide new communication channels for businesses, and are in many respects comparable to television, radio, newspapers and magazines. In the last few years, businesses have started to explore the opportunities social networks offer by using them as a channel for targeting consumers with information regarding products and services.

Social networks are often free to use for anyone, including businesses. Outside of buying ad space on the actual website, social networks provide a low-cost marketing alternative compared to using traditional media such as newspapers or television. Furthermore, the content is often interactive. This enables businesses to engage in two-way communication with its customers, something traditional media cannot offer. David Lacey [16] argues that the time spent by users on social networks interacting with their friends (talking, posting content, etc) increases the value of the network. In theory, this makes social network more attractive as marketing and communication platforms [16].

Depending on whom you cite, there seems to be several tangible benefits for businesses who embrace social networking as part of their business strategy. A study conducted by ENGAGEMENTdb states that businesses that are active on social networks enjoy increased brand recognition, sales, web traffic, customer satisfaction and revenue [18]. Their study covered the top 100 global brands, based on the Fortune Global 100 rankings. These are undoubtedly confident statements, so we will take them with a grain of salt. However, a more interesting part of the same study claimed that businesses using social networks

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<sup>5</sup> <http://www.youtube.com>

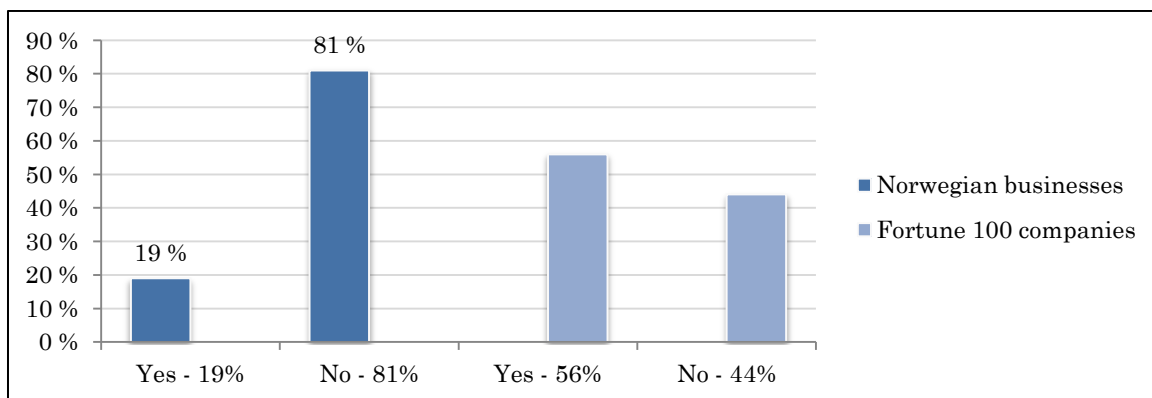
actively were more effective at monitoring their market, customers, and competitors. This increased awareness can potentially enable business to be more proactive. For example, if a business becomes aware that customers are not happy with a new line of products and services, they can make adjustments accordingly. Another report by Rico et. al. sums up the potential benefits as:

*“Given its ease of use and measurement and its ability to reach large populations almost instantly, social media is becoming a powerful force in the way businesses reach, attract and engage their customers, employees and other stakeholders.” [17]*

## 2.6 Business adoption of social networks

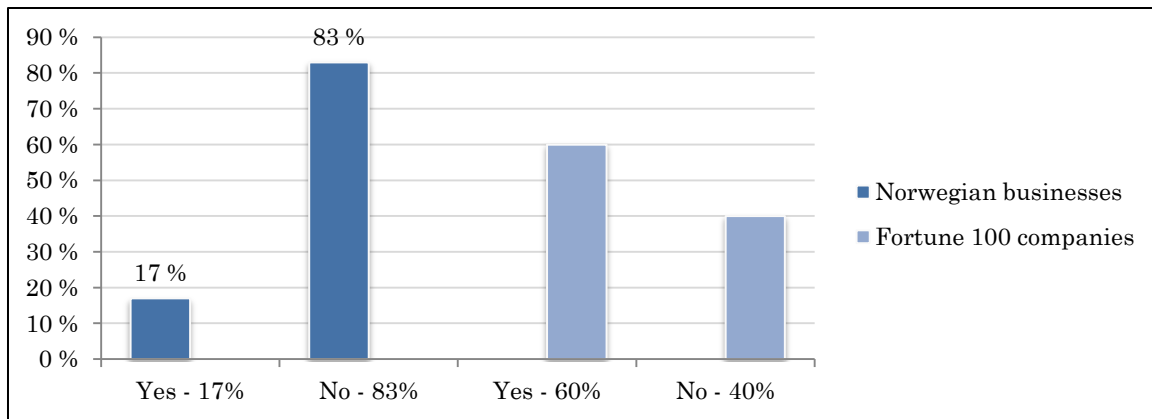
In late January 2011, the Norwegian consulting and analysis firm Metronet published a study of the 500 largest businesses in Norway regarding their usage of Facebook and Twitter from a business perspective. While the two are very different – as previously discussed – the study returned some very interesting information when compared to similar studies conducted in other countries.

First of all, only 19% of the surveyed Norwegian businesses had starting using Facebook for business purposes [19], compared to 56% of Fortune 500 companies:



**Figure 3.** Facebook adoption - Norwegian businesses (left) vs. Fortune 500 companies (right) [20]

Concerning Twitter, merely 17% of the Norwegian businesses were actively using it, even further dwarfed by a 60% adoption rate among Fortune 500 companies (ibid):



**Figure 4.** Twitter adoption - Norwegian businesses (left) vs. Fortune 100 companies (right) (*ibid*)

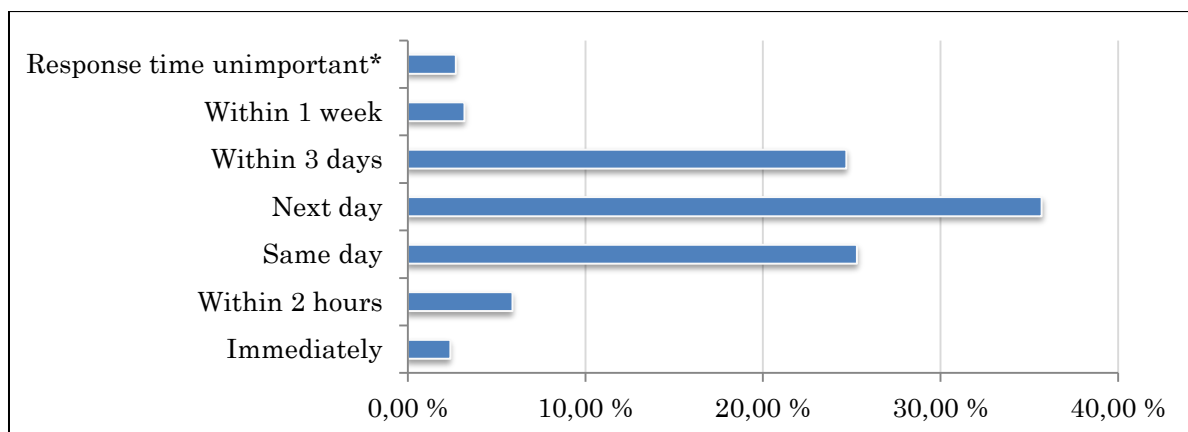
Considering how much attention social networks have been getting recently, these figures do not correspond with the general population when we know that as of May 2010, 49,6% of all Norwegians had a Facebook account, and as many as 61% of these users claim to log in at least once a week [21].

Outside of the fact that comparing Norwegian businesses against Fortune 500 companies is difficult due to the differences in size in terms of revenue and the number of employees, why is there such a big difference between businesses in Norway and in the United States? Ganim Barnes [19] concludes that the reason for the adoption of social networks is a reflection of the businesses' "willingness to interact more transparently via these new technologies with their stakeholders is clear. It will be interesting to watch as they expand their adoption of social media tools and connect with their constituents in dramatically new ways" (*ibid*). When considering the goal of increased transparency and new ways of connecting with constituents (consumers/customers), a common practice among businesses is to use their presence to offer information and deliver customer service. As more and more Norwegians start using social networks, we can assume that the demand for businesses to be available on these channels might increase. With this increase, it's possible the demand for availability also includes a publicly visible information and/or customer service portal. While many users might use such channels for outlandish claims or just to vent their frustration with a given product or service, it is perhaps even more dangerous not to have a presence at all.

Some might argue that existing channels for communicating with customers is sufficient, and that there is not much to be earned from establishing a social networking presence. While there are many opinions supporting both sides of the debate, some suggest that this very presence can be tied directly to the bottom line. For example, a survey conducted by consulting firm Syncapse in June of 2010 attempted to determine exactly what a customer who follows a given business is worth in monetary terms [22].

Their survey focused primarily on business pages on Facebook, where users (customers) can “like” a given product/service/brand by subscribing to their pages and updates, and thus be granted access to exclusive content and features (varying from business to business). According to the study, a customer who follows a given business on Facebook is likely to spend \$71.84 more than the average customer not following the business. Furthermore, the probability of this customer remaining loyal and continuing to purchase a given brand is 28% higher than the average customer, and the same customer is also 41% more likely to recommend this product or service to their peers. The variations between the different businesses are quite large. The figures range from \$0 to \$270.77 added profitability from the “worst” to the “best” customers of different businesses (ibid). When considering that these figures indicate that customers who follow businesses on social networks are more profitable, why aren’t more Norwegian businesses looking at the opportunities? On the other hand, we have to be critical of the reliability of the data collected in this study: users that have strong feelings about certain products and/or services are probably prone to follow the business behind it more closely than the average user.

Another aspect is that customers expect quicker reactions time from the businesses that are present on social networks. Take into consideration the drastic change in how customers communicate with businesses and vice versa. The transition over the last few decades from written mail, to telephone, to e-mail and now live chat or social networks, businesses are faced with increasingly less patient customers. A survey of 955 German users conducted in 2010, focusing on customer service scenarios on Twitter and Facebook, documents how fast customers expect a business to react to a request via a social network:



**Figure 5.** *Desired reaction time from the business given a request via a social network [23]*

\* As long as a response was received.

As we can see, the majority of people surveyed wanted a response within 24 hours, which seems reasonable. The important thing to note here is that

businesses who limit this service strictly to telephone and e-mail might appear less interested in what their customers have to say. If Norwegian businesses wish to position themselves closer to their customers, perhaps more than 19% of them should consider embracing social networks as a part of their business strategy.

## 2.7 Social network security and privacy

### *The user's perspective:*

Even though most of us have been using the Internet for over a decade, there are still numerous challenges with regard to both security and privacy. This is especially true for social networks when you consider that the purpose of these networks is to enable more efficient communication and sharing of information. In many cases, any information that's published to a web server will be available to anyone and everyone, with the only requirement being that they have access to the Internet and know where and what to look for. For social networks, it can often be quite difficult to control this flow of information, as you might only want to share certain things with certain individuals. A possible consequence of posting several seemingly harmless pieces of information is that someone out there is able to tie this information to create a bigger picture that the user might not be comfortable with others knowing. Compared to meeting with a close circle of friends, "the Internet lacks walls. Conversations spread and contexts collapse" [24].

How true is this statement exactly? If we look at a recent study which targeted over 7,000 U.S. college students at 29 different institutions, "nearly 72% were somewhat concerned to very concerned about the privacy of their data" [25]. Their concerns are not unfounded, as a similar study, aptly named the "Generation Y Online Security Survey, conducted by RSA found that "despite being aware of security threats, the risk online behavior of young adults can negatively affect their future career prospects and financial standings, while leaving them vulnerable to identity theft and fraud" [3]. The study presented several interesting findings:

- 95% of all 18-24-year-olds (e.g. Generation Y) claim to spend at least one hour a day on personal online activities
- 79% of those employed full-time say they conduct personal online activities while at work
- 61% communicate personally via e-mail, social networks or geo-location while at work

- 25% have made compromising posts to social networks that they would not want viewed by an employer

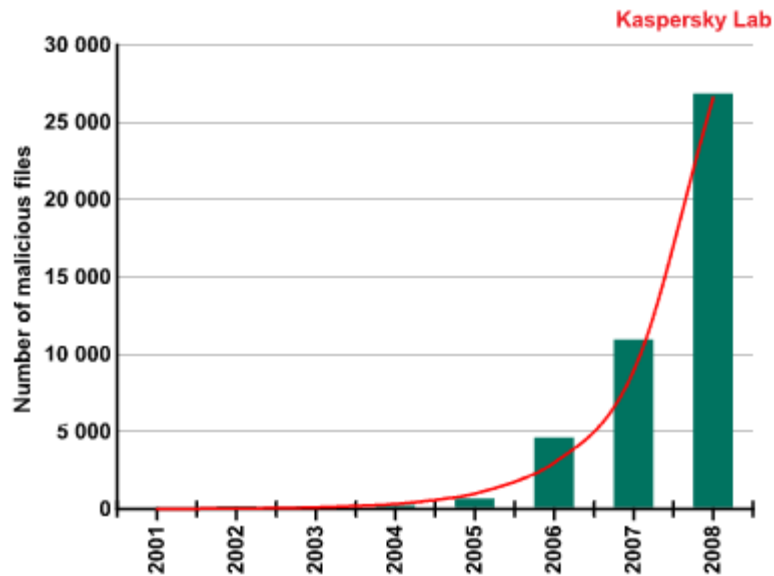
Even though the risks posed by the behavior are well known, young adults are not doing much to protect themselves. A majority of the survey respondents admit that they fail to take necessary steps to prevent the compromise of sensitive information. The respondents also fail to protect themselves properly when conducting payments online, with as many as 39% saying they don't always keep records of online transactions, and 36% saying they usually don't have time to verify a website's security [3]. The reported behavior seems to point out a trend in which the majority of the respondents lack even basic understanding of possible threats they may encounter online. For example, 67% believe it's okay to open attachments or click links just as long as they know the sender, and 58% think that that people who refuse to shop or bank online due to security concerns are old-fashioned (ibid).

So why are these results significant? Namely, they say that even though young adults are concerned about their online privacy, they either don't know how to protect themselves, or simply fail to follow easy-to-understand and readily available guidelines and procedures. Secondly, we can assume that these traits exhibited in the surveys are directly transferable to the work place, as we all know that it's one thing to change how people operate, but it is in fact much harder to change a general attitude. We can expect that as we publish more and more information about ourselves and our activities on social networks (inadvertently or not), the odds of an attacker being able to misuse this information increases. This is partly because the attackers are becoming increasingly lever, and because the increased amount of relevant information about the target expands the attack surface. A dangerous aspect of this development is that "most participants in networked publics live by security through obscurity where they assume that as long as no one cares about them, no one will come knocking" [26]. For businesses, this statement is equally true. Just because a business doesn't think it's a relevant target does not mean that they disappear from the radar.

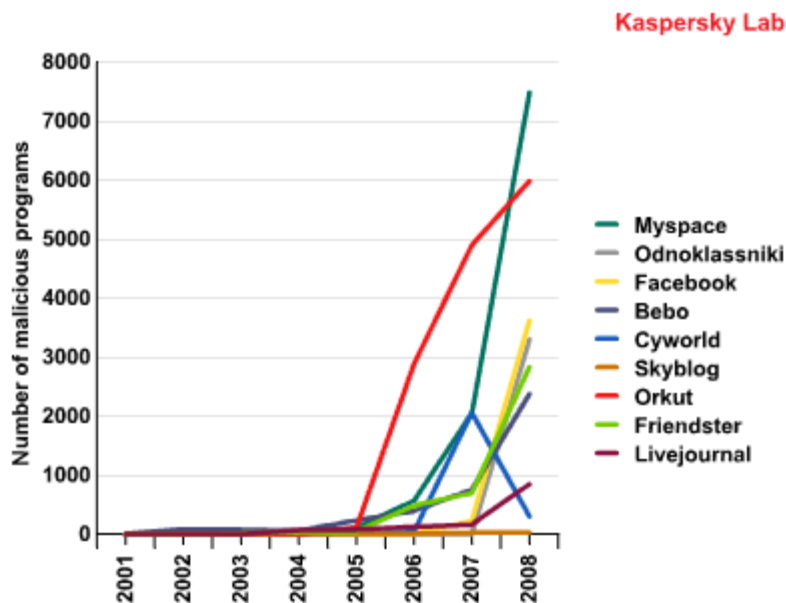
Unfortunately, the increased popularity of social networks has resulted in an explosive growth in the number of attacks targeting such services. A study conducted by Kaspersky [27] in 2009 states that the development has "not gone unnoticed by cybercriminals". Attacks of this nature are expected to become more widespread and sophisticated. What's interesting to note is the economic incentive that drives attackers to prioritize attacks on social networking services. As stated in the study by Gostev et al., "malicious code distributed via social networking sites has approximately a 10% success rate in terms of infection; this exceeds the less than 1% of malware spread via e-mail" [27]. In total, Kaspersky has collected in excess of 43,000 malicious programs related to social networking



services by the end of 2008. The two following models illustrate the development over the last decade:



**Figure 6.** Increase in malicious software targeting social networking websites [27]



**Figure 7.** The number of malicious software samples captured that target popular social networking websites [27]

By now we've established that users can be a threat to themselves, given their behavior and attitudes. Let's have a closer look at what attackers might want.

The motivation that drives an attacker can differ from case to case, but

generally speaking one can break down attacks originating from external parties into certain categories. According to Luo et al. [28], the categories of motivation for specifically attacking social networks can be:

- **Reputation:**

The attacker can be looking to play a joke on a user to improve their own reputation or personal sense of accomplishment. Another variation of this attack is to spread false and/or doctored information to adversely affect the target by damaging their reputation.

- **Access control:**

Attackers gain control of the target computers and can use them to launch separate attacks. This can be done by organizing a number of compromised machines into so-called “botnets”. An infected client is given instructions by a remote command-and-control (C&C) server that – given a large enough number of infected clients to control – is capable of performing (Distributed) Denial of Service attacks (DDoS). Another example is using a compromised system as a gateway to attempt further penetrations into the target network. This is often accomplished by tricking users into downloading malware via links or alerts placed on social networking sites [27].

- **Personal information:**

Sensitive personal information is important to hackers, as passwords, bank and credit card information and social security numbers can help attackers in committing further crimes and engage in identity theft.

- **Company information:**

Certain social networks such as LinkedIn [29] have an overwhelming majority of business customers. Whereas many company websites do not specifically list a given employees technical specialties, job description or department to which they belong, people are often eager to share this information in career-related social networks as it may make them appear more interesting to business partners, headhunters and so forth.

- **Money:**

As previously mentioned, information such as bank and credit card information, social security numbers, and personal account passwords can both be directly useful to achieve a goal, or be sold directly on the black market. Another example is something that is has been adopted from e-mail such as Advance-fee frauds or Nigerian 419 scams. This is an attack where the target is persuaded into transferring money in the hope of receiving a large amount in return. Another variation of this is the distress scam, where a social networking account is hijacked in order for an

attacker to pose as if he/she for example has been mugged while on vacation, and needs money transferred via Western Union or other couriers.

[28]

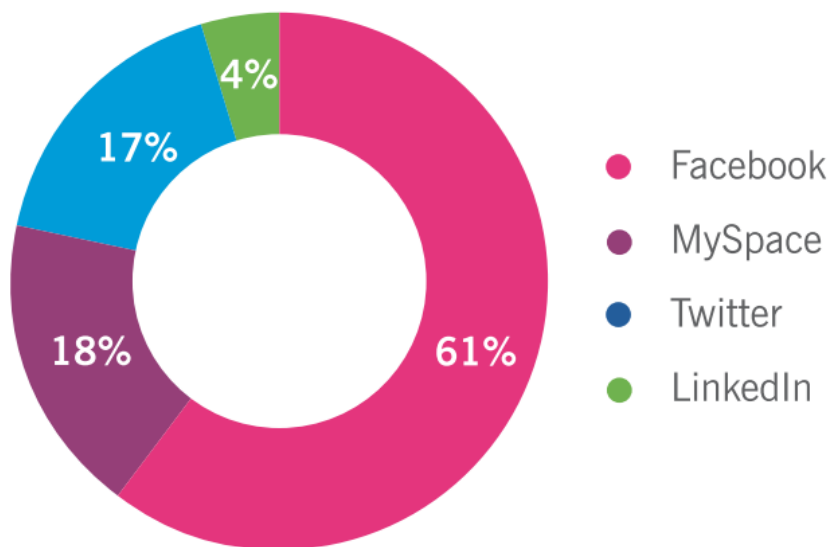
***The business perspective:***

While the technology behind social networks is new, it is not the main challenge with regard to security. It is the fact that business models are changing faster than ever before to adapt to operating in these new environments. The drastic change of communicating directly with your customers – for example in a customer service context such as telephone – instead of two-way communication with a larger group via a social network is perhaps the most interesting challenge. While there are plenty of technical challenges, let's focus on human aspects; you can lock down and secure a network, but not the person using it. On one hand we have technical controls such as for example Data Leakage Protection (DLP), web proxies and URL filters that can help mitigate technical risks, while on the other hand we have regulatory requirements and acceptable-use policies. The combined challenge of the human aspects and deperimeterization requires a holistic approach to security, because the risks associated with the use of social networks in a corporate setting are complex. This statement is supported by a report from the security firm Sophos published in January 2010, which reveals an alarming rise in attacks on social networks such as Facebook, LinkedIn and Twitter [30].

The survey, which covered in excess of 500 organizations, discovered that 72% of the surveyed businesses were worried that actions conducted by their employees on social network could put them (e.g. the business) at risk. This is an increase from 66% from the same study conducted in 2009. In general, the impression is that the use of social networks constitutes a threat to corporate infrastructure, more specifically the confidentiality integrity and availability of the data it hosts.

According to Sophos, one of the biggest and perhaps most significant changes in attitude is that organizations are now worrying less about the time being wasted, and focusing more on the dangers of information leakage (ibid). This change is perhaps triggered by the new potential business uses we've discussed earlier, whereas many businesses are now moving from traditional, self-hosted customer-interaction platforms such as forums or message boards to corporate blogs or "pages" hosted on LinkedIn, Facebook or other, similar social networking sites. While the knowledge of the threats posed by the use of social networks varies from one business to the next, the following figure explains

which of them businesses fear the most:



*Which social network do you think poses the biggest risk to security?*

**Figure 8.** Which of the different social networks are considered to pose the biggest business security risk? [30]

As illustrated in the figure above, Facebook is considered by the surveyed businesses to be the most dangerous social networking website. This might be explained by the fact that it is the largest in size when considering the number of users. At the same time, 49% of the same businesses allow their staff unrestricted access to Facebook, an increase of 13% from 2009 (ibid). It's possible businesses are allowing access because social networking websites have positioned themselves as the de facto method for forging social connections on the web, and is perhaps because of this becoming essential to achieve a healthy work-life balance.

Another interesting observation is that only 4% of the surveyed businesses consider LinkedIn to be the biggest threat. Even though Facebook might have more users, LinkedIn is still a source of valuable information for potential attackers. Considering that LinkedIn is primarily used to share information such as technical skills, education, employers and work responsibilities, users face the risk of sharing potentially sensitive information about the nature of their employment. An example of this is Robert Morgan, a senior employee of Microsoft's Research and Development Division, who included the following statement on his LinkedIn profile in the fall of 2009:

*“Working in high security department for research and development involving strategic planning for medium and longterm projects. Research & Development projects including 128bit architecture compatibility with the Windows 8 kernel and Windows 9 project plan. Forming relationships with major partners: Intel, AMD, HP, and IBM.”*

[...]

*“Robert Morgan is working to get IA-128 working backwards with full binary compatibility on the existing IA-64 instructions in the hardware simulation to work for Windows 8 and definitely Windows 9.”* [31]

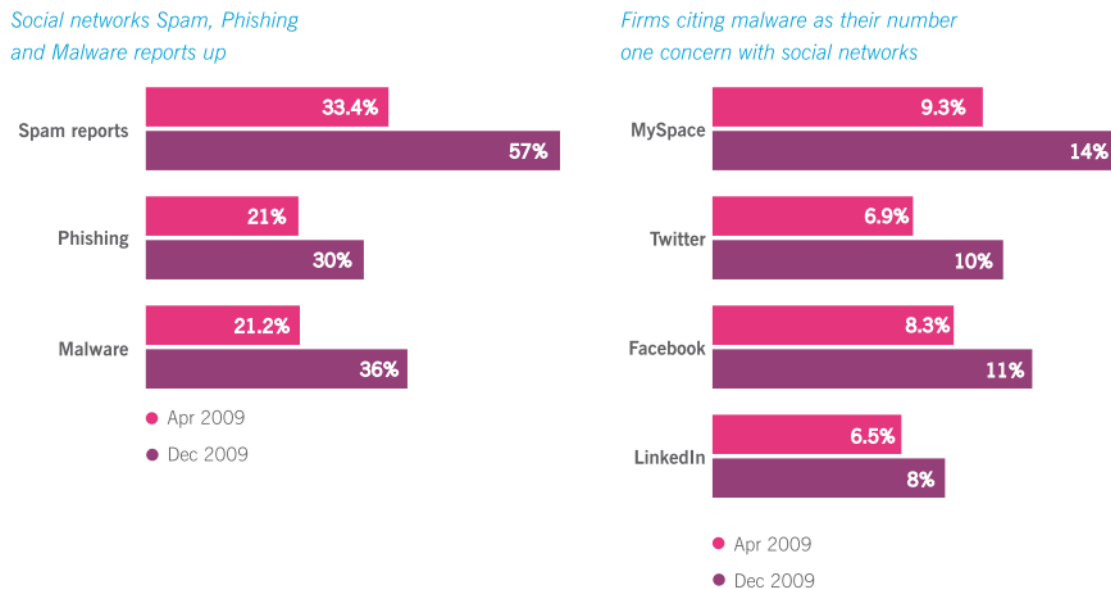
While Mr. Morgan probably wanted to communicate what he was working on to his immediate network, the fact of the matter is that Microsoft did not want the public and its competitors to know about their plans for new versions of the Windows operating system using a 128-bit architecture. When the information was picked up by the news media, the information disappeared from Mr. Morgan’s profile. On another note, it’s important to emphasize that this incident did not happen because of social networks. The information could have been accidentally leaked in a company presentation, e-mail, or via a personal website. However, in this case the social networking website is part of the issue, as many of Mr. Morgan’s connections were likely notified about his updated resume.

More and more often we can read about targeted attacks against businesses. Information like that of the example above can provide attackers with valuable information like organizational structure, what people are working on specific projects or perhaps who has access to certain key systems. Using this type of information, attackers can for example use a technique called *spear-phishing*, a more advanced form of *phishing*. Whereas phishing can be defined as “the use of e-mail to gain personal identifiable or restricted information from a user” [32], spear-phishing is more advanced as it explicitly targets specific employees or senior executives because they are more likely to be in the possession of highly sensitive information.

### ***Different types of attacks on social networking websites:***

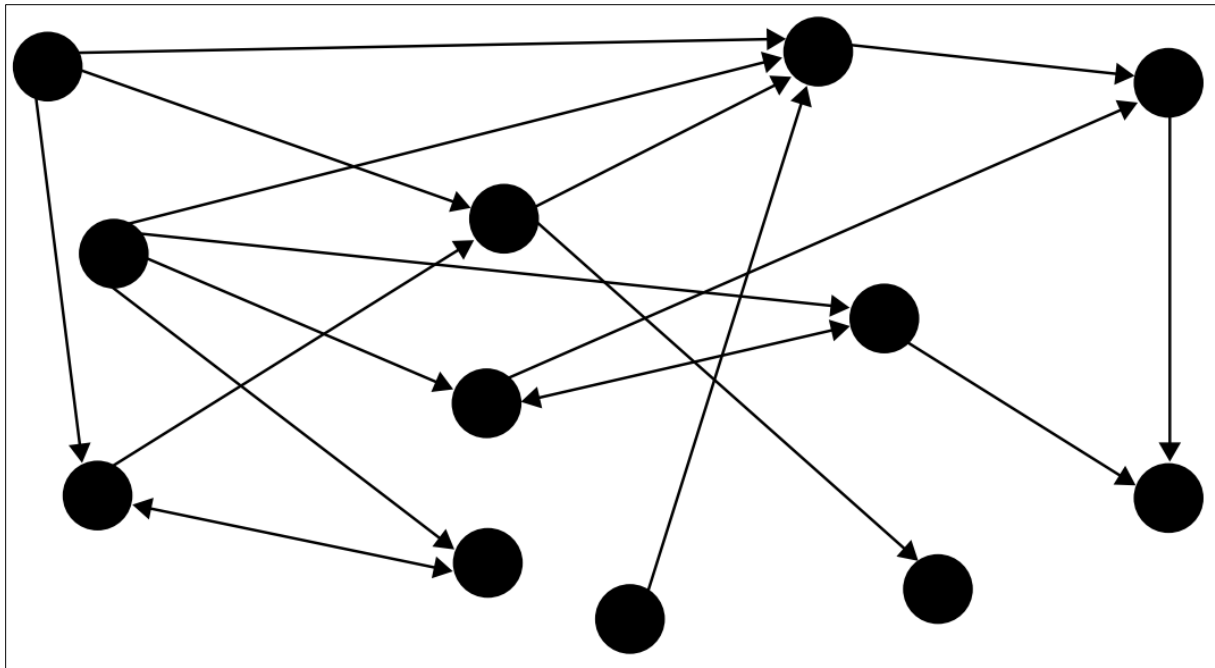
Businesses have every right to be concerned about the threats posed by social networking sites. There are several different possible attack vectors specifically designed for social networking platforms, which can roughly be broken down into three broad categories: spam, phishing and malware. Having already defined phishing, spam is massively distributed, unsolicited and unwanted bulk e-mails, instant messages, wall posts, Twitter tweets, ads and comments. Malware – short for malicious software – is software that has been developed to unlawfully

access and/or harm a computer system without the owner's consent. The term malware covers a variety of different software such as worms, viruses, Trojan horses, rootkits, spyware, and so forth. Sophos' survey [30] tells us that businesses are experiencing more problems related to these three categories with regard to social networking websites:



**Figure 9.** Increase in reported spam, phishing and malware incidents on social networking websites [30]

What can be derived from the figure above is that perhaps as our culture becomes more and more technology-dependent, social networking websites pose an increasingly bigger threat to security and privacy. While the different online social networks differ from the traditional World Wide Web, it appears that the threat models seen in other web application attacks are more or less identical. What's interesting is the pattern in which for example malware spreads in a social network:



**Figure 10.** *Infection layout in a social network* [33]

The users are represented as black nodes, and the arrows show both interrelations and interconnectivity patterns. According to Sood & Enbody (ibid), the models suggests that the potential infection rate is high between users on social networking websites because of the interrelationships. One infected node could potentially infect other nodes that share mutual connections. A fair assumption can be that the increase in reported incidents is directly related to the increased popularity and usage of social networking websites. This assumption is supported by the work of Gostev et al. [27], which states because of the inherent trust in our peers; the infection rate is roughly ten times higher on social networks than via e-mail (ibid). On the topic of incidents, let's examine some of the different techniques that are used to attack social networking websites.

### ***Social engineering:***

As more and more people are spending an increasing amount of time and energy on social networking websites, the value of the network increases exponentially [16]. Because of this intrinsic value, a common attack vector on social networking websites is the use of social engineering (e.g. persuading the target user into revealing sensitive data such as login credentials, or tricking them into visiting malicious websites). According to Sophos [30]:

*“Social network login credentials have become as valuable as e-mail addresses, aiding the dissemination of social spam because these e-mails are more likely to be opened and trusted than standard messages. In many cases, spam and malware distribution are closely intertwined.” [30]*

If we consider the low success rate of traditional e-mail spam or phishing attempts, it's fair to assume that if you know the sender and what they are sending you looks legitimate, you are far more likely to click on a link or follow the instructions. Sood & Enbody hypothesize that “it is not possible for attackers to spread malware directly, but they can play with the psychology of legitimate users to exploit users' ignorance” [33].

### ***Fake profiles:***

One of the key concepts behind social networking websites is that users have the opportunity to create their identity from scratch, often referred to as their *profile*. Once a profile has been set up, a user can interact with other users via their profiles and the information and content they share through them. People share different amounts and types of information, and a common problem is controlling what to share and whom to share it with. According to Sood & Enbody:

*“It is hard to set an appropriate control on user profiles that can secure the identities completely; however, some standard controls have been defined by social networking web sites to prevent users from performing unwanted operations and to secure users by restricting the flow of information. This process is effective to some extent, but an attacker exploits the inherent nature of social networks to tempt users to perform illicit operations on the social network.” [33]*

Even though there are security measures in place, many users find them to be difficult to control. Furthermore, social networking websites often do not enforce strict default rules, as it is in their interest to have their customers share and interconnect as much as possible.

One of the problems currently facing social networking websites is the generation and exploitation of fake profiles, which can be viewed as a subset of social engineering. These profiles can serve several different malicious purposes, and can appear to users to be anything from a total stranger, to a celebrity, to a close friend or family member. According to Sood & Enbody, “once users visit such profiles, embedded malicious codes start infecting users with malicious executables” (ibid). Furthermore, fake profiles have been known to operate as bots that are part of a botnet under the control of a command-and-control (C&C) server. When we consider that the average Facebook user is directly connected to 130 friends [34], the level of exposure is high. First of all, we can assume that only a



small fraction of the total number of users on Facebook properly verify that all their connections are who they claim to be. Secondly, the risk of an account being hijacked using different attacks can exploit an existing trust relationship between the target and a supposedly “verified” connection. Finally, this vulnerability is more or less uncontrollable, as continuous verification is a practically impossible concept within the existing security protocols.

### ***Malware:***

One of the more common types of malware that can be observed on social networks is worms. This form of malware that has the ability to self-replicate and send copies of itself to different nodes on a given network. While worms have traditionally been associated with traditional computer networks, they are increasingly being used as an attack vector on social networking websites. Worms to successfully able to spread in this environment because all of the interconnected nodes (users) implicitly trust each other. We will now briefly examine two different types of worms:

#### The Mikeyy Mooney worms:

In April of 2009, the micro blog website Twitter was attacked by a worm that appeared to originate from a user called “Mikeyy Mooney” [35]. The worm worked by spamming messages containing a link to a malicious website. When clicked, the user became infected and continued to spread the same malicious link he/she just clicked. This was the first in a series of incidents which exploited several vulnerabilities on the Twitter platform – mainly Cross-Site Scripting (XSS) – but the perhaps most notable exploit occurred over a year later. In September of 2010, 17-year old Pearce Delphin of Melbourne, Australia exploited an XSS vulnerability that caused hundreds of thousands of Twitter users, including several high-level government officials in Britain and the United States to inadvertently send out infected messages. This vulnerability did not even require users to click the link to be infected as the vulnerability exploited a weakness in an “onMouseOver” function. When confronted by the news media, Delphin was quoted saying:

*“I discovered a vulnerability, I didn't create a self-replicating worm. As far as I know, that isn't technically illegal... Hopefully I won't get in trouble!”* [36]

### The Koobface worm:

A different example is the Koobface worm, which first appeared in December of 2008 [37]. The name “Koobface” is actually an anagram of “Facebook”, and originally targeted the very same platform. Later versions of the worm attacked other social networking websites such as MySpace, Bebo and Twitter. The worm was capable of registering an account autonomously, including confirming the account activation e-mail sent to a Google Webmail (GMail) address [30]. Once active, the worm would try to connect to random users while joining different interest groups. When the worm successfully became connected with a new user, it would post links to their walls and send messages that often contained malicious links to videos with adult content. These malicious links would infect the target user with malware that searched for login credentials. Once obtained, the malware would send this information back to a server controlled by the operators behind the worm, making this a form of *crimeware* (short for criminal software). According to a study conducted by The Munk School of Global Affairs in cooperation with The SecDevGroup and Infowar Monitor, the Koobface worm earned its operators an estimated \$2.067.682,69 between June 23<sup>rd</sup> 2009 and June 10<sup>th</sup> 2010 [37], making it a highly profitable piece of software.

### ***Application Programming Interfaces (APIs):***

Many social networking websites have recently started offering Application Programming Interfaces (APIs), which can be used by developers to extend or customize functionality. An example of this is that a number of news media websites now offer their readers a chance to “connect” by using their Facebook, MySpace or Twitter accounts in order to comment or discuss news stories on their websites. While this increased functionality has been widely praised and adopted, Sood & Enbody [33] believe it “has completely transformed the realm of malware infections”. These types of attacks work by letting malicious developers offer an application for a social networking website that when installed and used will feed malicious content from that user to their network (e.g. their connections). Because many of these APIs require that you hand over your login credentials, the attack becomes persistent as control is transferred to a possibly malicious third party.

Another example, while technically not an API, is the use of URL shorteners. These types of services work by taking long and unruly URLs and transforming them into a more practical, compressed version. Bit.ly, Goo.gl and Tinyurl.com are some of the larger, free service providers in this field. The dangers of shortened URLs is that the user will not be able to see what he/she is clicking until it’s too late, as attackers can use these types of services to hide

malicious links.

## **2.8 Social network security – quo vadis?**

While the papers, studies and surveys we've studied paint a grim picture for the future state of security and privacy in social networks, they offer little insight or wisdom with regard to how businesses and individuals can best combat these emerging threats.

The little advice that is given can in fact be seen as an insult to some users, as for example Luo et al. [28] conclude that users should refrain from posting “social security number, [...] bank account or credit card numbers” on social networking sites. However, their well-meant advice might actually be a sign of the times, as the previously mentioned studies revealed a significant gap in the fear users have of being exploited compared to the actual security measures they are currently employing.

One could argue that the problem is due to the pace at which social networking services are being developed and adopted by the masses. Pressure to deliver on time and cut costs could lead developers to disregard privacy and security in order to ensure being first to market [38]. In the end however the problem resides with the weakest link in the chain, namely the user who posts sensitive information where it doesn't belong, clicks a suspicious link or downloads a malicious file. As the notable social engineer Kevin Mitnick once said, “Amateurs hack systems, professionals hack people” [39]. We can therefore assume that a purely technological solution will be inadequate. Because of this, we can conclude that there is a need for new security policies, guidelines and training to help combat the threats posed by social networks.

## **2.9 Mitigating risk – Opportunities and challenges:**

While securing the use social networking websites altogether is a daunting challenge, one can only take one step at a time. Some argue that the core of the problem is “fed by the willingness of users to share too much information with too many people” [30]. There is a lot at stake. Not only can both businesses and users become subject to substantial reputational damage, Sood & Enbody also argue that incidents like the ones we've discussed earlier “may also influence the statues of an individual's ‘offline’ social life” [33]. The threats facing users on social networking websites is both complex and rapidly evolving, and managing them is becoming increasingly difficult. This puts businesses in a difficult spot, as “social networking sites are now a vital part of many marketing and sales strategies” [30]. Because of this, simply blocking all access is not a good solution.

However, the risks of using these services must be weighed against the potential business benefits or opportunities. Sophos' belief is that:

*“A unified approach providing sensible, granular access control, secure encryption and data monitoring, and comprehensive malware protection is mandatory for businesses to operate flexibly in the modern socially networked world.”*

[30]

Sophos' approach is somewhat vague. What exactly is implied by “sensible, granular access control”? Either their employees are allowed on Facebook and Twitter, or they're not. Sood & Enbody [33] on the other hand believe that the answer lies in changing user habits. They argue that while there will always be risk, the potential impact can be reduced by:

- Educating users on the dangers associated with social networking websites, and how to spot and avoid different types of attacks by scrutinizing what links they click on, configuring their privacy and security settings for the different services.
- Hardening web browsers to alert users when scripts are launched. For example by using plug-ins such as NoScript<sup>6</sup> for Mozilla<sup>7</sup>, which disables malicious scripts from being rendered in browsers.
- Hardening the client-side computers with proper patch management for both the OS and relevant applications. In addition, enforcing antivirus software with automatic signature updates.

Considering that covering all possible approaches would take a large amount of time, we will focus on the overall security posture and supporting security policies and/or acceptable-use guidelines in the following chapter where we will introduce several different case studies.

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<sup>6</sup> <http://noscript.net/>

<sup>7</sup> <https://www.mozilla.com/>

### 3. Case studies

#### **Introduction:**

We previously described case studies as a method for conducting qualitative research. We have combined this method with the application of in-depth studies of different Norwegian businesses that have started using social networks for business purposes. According to Leedy et al., a “case study may be especially suitable for learning more about a little known or poorly understood situation” [8]. We’ve chosen to look at several different examples in order to ensure their relevance to other situations.

#### **Method:**

In the following case studies, we’ve collected extensive data on the individuals, businesses and situations the research is focused on. This data includes observations, interviews, documents (e.g. internal memos, project documentation, etc.) and audiovisual material (e.g. presentations, video recordings). In addition, we’ve recorded other details about the context of the surrounding cases. This includes information about physical, historical, economic and social factors that can have had an impact on the situation. For the sake of clarity, we have chosen only to directly cite quotes from our interviews. The original transcripts are included in Appendix E. By adding these details to the context of the case studies, it can help us “draw conclusions about the extent to which findings might be relevant to other situations” [8].

#### **Data analysis:**

Creswell [40], defines performing data analysis in case studies as the following steps:

1. *Organization of the details of a case:*
  - The specific “facts” about the case are arranged in a logical (e.g. chronological) order.
2. *Categorization of data:*
  - Categories are identified that can help cluster the data into

meaningful groups.

*3. Interpretation of single instances:*

- Specific documents, occurrences and other bits of data are examined for the specific meanings they might have in relation to the case.

*4. Identification of patterns:*

- The data and their interpretations are scrutinized for underlying themes and other patterns that characterize the case more broadly than a single piece of information can reveal.

*5. Synthesis and generalization:*

- An overall portrait of the case is constructed. Conclusions are drawn that may have implications beyond the specific case that has been studied.

[40]

In our case, we will first provide a brief commentary and analysis for the individual cases, and provide a more detailed analysis to compare findings and similarities in a later chapter where we will also compare the results of the interviews with our hypotheses. The goal is to look for convergence, or triangulation, meaning that individual data elements should point towards the same conclusion.

### **3.1 Case study – Lille Vinkel Sko:**

The first case study focuses on Lille Vinkel Sko (roughly translated to “Little Angle Shoes”). The purpose of this case study is to provide insight into how this small business managed an incident that occurred as a direct result of their decision to use social networks for business purposes. We will describe the events leading up to the incident, how it was managed, and finally elaborate on the lessons learned.

Lille Vinkel is an independent shoe retailer that opened up its first store in Majorstuen, Oslo in 1984. Since their humble beginnings in a small basement, the company has grown to six retail locations, including an outlet store, in addition to a web-based store front at [www.lillevinkelsko.no](http://www.lillevinkelsko.no). Their business strategy is based on the idea that footwear is best sold “fresh”, meaning that they

regularly change out their inventory in order to be able to offer the latest trends and brands. In addition, they aim to offer an alternative to the other large Norwegian retail chains that control over 90% of the footwear market [41]. Uniquely, each store has its own inventory of footwear, which means that customers cannot expect to find the same pair of shoes in two different locations. They rely on close relationships with different manufacturers and designers, and often buy their inventory directly from the factories in order to cut unnecessary costs and middle-men. Their motto, translated to English, is “while we don’t have everything, what we do have is the best” (freely translated from the “About us” section of Lille Vinkel’s website).

What separates Lille Vinkel Sko from most other traditional footwear retail stores is the fact that they launched their first web shop in 1999. This is many years prior to many of their competitors in their market, and has probably given them a competitive advantage with regard to conducting e-commerce.



**Figure 11.** Screenshot from the 1999 version of [www.lillevinkelsko.no](http://www.lillevinkelsko.no)

In 2009, Lille Vinkel Sko made a decision to start using social networks for business purposes. Their Facebook page was launched on September 2<sup>nd</sup> 2009, and was designed and operated by Marte Klouman, whose job responsibility is

digital media and marketing. Lille Vinkel Sko envisioned using social networks for four main purposes:

- Competitions
- Customer service
- Information/news
- Human resources

On October 2<sup>nd</sup>, they promoted their Facebook page in a weekly newsletter to their customers, offering gift cards with values of up to 8.000 NOK to those who follow them as a potential prize. In one day, their site was up to over 150 followers, a number that would continue to grow via additional recruitment campaigns. They used two different approaches for their campaigns:

- 1) Anyone who followed their page was automatically entered into a drawing of a gift card for 1.000 NOK
- 2) The person who recruited the most new followers would receive a gift card of 5.000 NOK



**Figure 12.** Newsletter from October 2<sup>nd</sup> 2009 promoting Lille Vinkel Sko's new social networking channels.



By November 30<sup>th</sup>, they had over 5.600 followers, and on January 31<sup>st</sup> of 2010, the number had increased to 7.669. At this point in time, Lille Vinkel could boast a 2,18% sales conversion rate from Facebook alone. The conversion rate is defined as the ratio of visitors who convert content views on a website into a desired action, such as a sale. The definition of what is implied by a conversion rate is illustrated in the figure below:

$$\text{Conversion rate} = \frac{\text{Number of Goal Achievements}}{\text{Visits}}$$

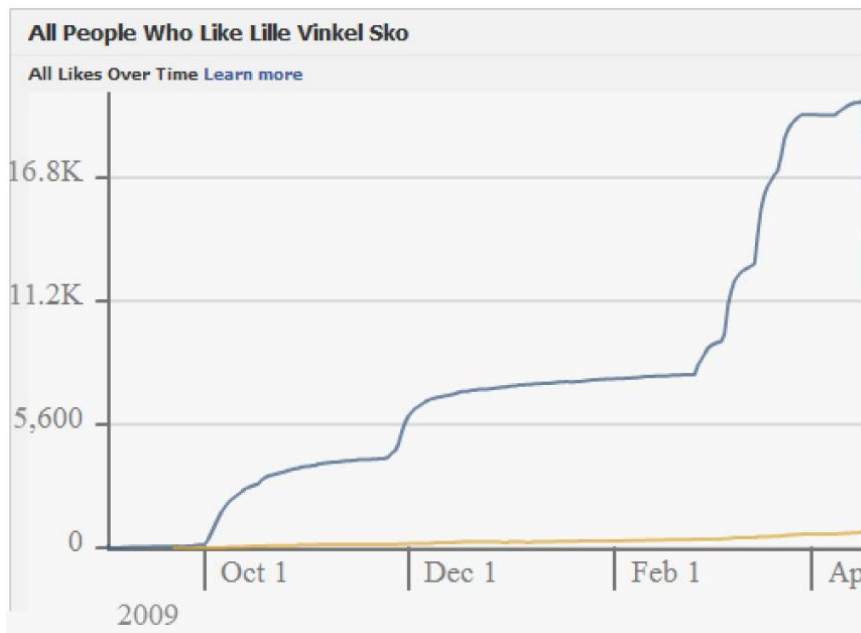
**Figure 13.** Definition of conversion rate [42]

By March, Lille Vinkel had almost 9.000 followers on their Facebook page, and they decided to launch another recruitment drive to further increase this number. Their goal was to exceed 20.000 fans. In order to achieve this, every fan would receive a 200 NOK gift card, while a randomly selected winner would receive a gift card with a value equivalent to the total number of fans.



**Figure 14.** Recruitment campaign ad for March 2010.

This campaign, while being very generous, doubled the amount of followers in less than a month as illustrated in the figure below.



**Figure 15.** Graph from Facebook's own reporting tool showing Lille Vinkel Sko's increasing fan base from Q3 2009 through Q2 2010.

After digging through more statistics, they concluded that the number of unique visitors to their main website and web shop had increased by 21% solely due to referrals from their Facebook page, effectively making Facebook the third largest traffic driver to their web page, beaten only by direct URL lookups and Google search queries.

However, on March 30<sup>th</sup>, the fun ended. Facebook had removed their page without warning:



**Figure 16.** Text message from Sverre Klouman to Marte Klouman on the day Facebook decided to remove their page.

It appeared that their recruitment campaigns, auctions and competitions were in violation of the Facebook Promotion Guidelines, and someone had reported them.

Considering their latest recruiting drive was scheduled to end in only a week, they established a temporary page to try to inform their followers of what was going on. 20000 fans were waiting for their gift cards, and Lille Vinkel now had no way of communicating with had happened to their fan base. Eventually, Marte was able to come into contact with Peter Høie, the Account Manager for Facebook in Norway. Shortly after establishing contact and discussing the incident, the page was restored, and Lille Vinkel was able to resume their operations.

### ***Lessons learned:***

Lille Vinkel Sko, while being somewhat of an internet pioneer, learned the hard way what happens when you don't play by the rules. While their social networking initiatives were innovative compared to many other Norwegian businesses, their execution was flawed as they were in violation of Facebook's own rules, more specifically their 'Promotion Guidelines'<sup>8</sup>. According to Facebook, "these Promotion Guidelines, along with the Statement of Rights and Responsibilities, the Ad Guidelines, the Platform Policies and all other applicable Facebook policies, govern your communication about or administration of any contest, competition, sweepstakes or other similar offering (each, a promotion) using Facebook" [43].

Based on Lille Vinkel's marketing activities, the following actions were in violation of these guidelines:

- Random prize drawings:
  - Defined as "sweepstakes", and is not allowed according to the guidelines. All types of competitions are subject to the Promotion Guidelines, and all participants have to be 18 years of age.
- Auctions on Facebook pages:
  - Defined as selling products directly via Facebook, and is also in violation of the guidelines.
- Competitions hosted directly on Lille Vinkel's Facebook page:
  - Businesses are not allowed to administrate competitions or announce winners directly on Facebook. They have to utilize 3<sup>rd</sup>

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<sup>8</sup> [https://www.facebook.com/promotions\\_guidelines.php](https://www.facebook.com/promotions_guidelines.php)

party applications and external sites.

- Recruitment campaigns with prizes for all participants:
  - The same as the first example, these types of campaigns are also defined as “sweepstakes”.

In this case, Lille Vinkel Sko was not fined or reprimanded. After getting in touch with the right people, their page was re-opened and they kept their fan base intact. However, in the days where they had no control of Facebook’s platform, they had no way of directly contacting their fans in order to inform them of what had happened. They had to rely on other channels such as their blog and Twitter account to spread the message. They also opened up a temporary Facebook page in an attempt to re-establish their presence.

What Lille Vinkel Sko discovered was that the ordinary contact channels provided by Facebook offered little or no assistance. Marte Klouman was only able to get in touch with the right people by using her personal network.

Klouman insists that despite this incident, social networks are their most important marketing channel. They rely on Facebook, Twitter and their blog to spread important information, and they have also adopted a secret, closed Facebook group to serve as their company Intranet. Employees are expected to be online on Facebook during working hours to handle customer inquiries and coordinate efforts between the different store locations.

What’s interesting to note about Lille Vinkel is the fact that they have no formal security policy or acceptable-use guidelines whatsoever. Additionally, their corporate intranet is a closed Facebook group, and all employees are allowed to bring their own, unmanaged devices. It’s understandable that smaller businesses will tend to focus more on core business operations rather than security, but this prioritization effectively makes them an easy target. As the threats grow in both complexity and in numbers, user awareness through the application of sound policies and guidelines can be an affordable investment to help manage business operations while managing these security risks.

In the end, Lille Vinkel’s case serves as an important example. Their openness and honesty about how this incident affected them have provided us with valuable lessons for other businesses following in their footsteps. Businesses have to plan properly when the choice is made to use these services. More specifically, this means thoroughly investigating what rules and regulations apply to the social networks in question, and how they might affect the business operations.

### 3.2 Case study – NSB:

The second case study focuses on Norges Statsbaner AS (NSB), also known as the Norwegian State Railways. The purpose of this case study is to investigate how NSB was able to use of social networks in an attempt to repair their damaged reputation following a long period of service interruptions and negative press coverage.

NSB is state-owned by the Ministry of Transport and Communications, operating the majority of all passenger trains in Norway. The corporation has over 10.000 employees, and is also engaged in various other business operations, such as real estate through Rom Eiendom, bus transport through Nettbuss, and a cargo rail service through CargoNet [44]. NSB was restructured in 1996, when the company was split in half. NSB continued under its original name, focused on operating cargo and passenger trains, while the Norwegian National Rail Administration (Jernbaneverket) took responsibility of the infrastructure (tracks, signals, etc.). This case study will focus on the Passenger Train Division, which operates over 50 million journeys per year (ibid).

NSB has a monopoly on passenger railways in Norway. This implies that they are the only enterprise to offer this particular service. Regardless, NSB has been the subject of harsh criticism due to frequent delays and a perceived deterioration of their service over the course of the last decade. According to the Norwegian newspaper *Verdens Gang* (VG), over the course of the last ten years Ministers of Transportation from different administrations has repeatedly summoned the heads of the state-owned rail service in order to end “unacceptable” delays in train traffic [45]. Following a crisis meeting in June of 2000, the current Minister of Transport, Terje Moe Gustavsen was quoted saying, “NSB has a serious problem” (ibid). In the years following, other Ministers of Transportation have not been milder in their criticism. In 2007, Minister Liv Signe Navarsete was quoted saying, “I have no plans to stop until they’ve taken care of this” (ibid). As late as in 2010, Minister Magnhild Meltveit Kleppa used an even sharper tongue when she said that “the situation is unacceptable. I characterize this as a crisis situation” [46]. Einar Enger, President and CEO of NSB, admits that the political establishment was, and still is right in their characterization. He worries that the customers are running out of patience, “I am seriously concerned about our customers. It’s only natural that people will look around for alternative transport options when they experience not getting where they need to via train” [45].

Customer discontent was further fueled by political action groups such as “Train Chaos” (directly translated from “Togkaos”). These groups used social

networking services such as Facebook and Twitter together with two major Norwegian tabloid newspapers Dagbladet and Verdens Gang to spread information and enable discussion about the poor state of the passenger rail service.

Henriette Høyer, web editor and head of digital media, began pushing for NSB to embrace social networking platforms in 2008 in order to monitor conversations that concerned the company and engage in customer service. After much internal struggle, she was allowed to launch a social networking campaign. In early 2009 NSB had established a presence with a dedicated Twitter account and Facebook page. It was new and unfamiliar territory to many, but they slowly started using these channels to their advantage by tapping into the value of two-way communication and the “instant feedback” [47].

Eventually, it became evident that their presence on social networks had to be professionalized. In order to achieve this, they started working on a strategy.

The background for initiating the strategy process was as follows:

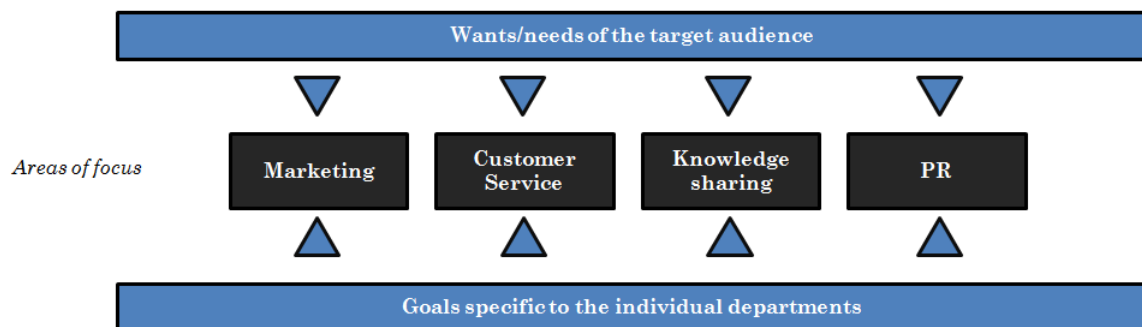
- Their commitment was largely based on the interests and engagement by certain individuals.
- Parts of the organization held the opinion that the current presence on social networks was not properly targeted.
- The overall communication strategy was not adapted to social networking.
- NSB required guidelines for acceptable use of social networks.

What had to be improved?

- The presence on social networks had to be reviewed to see if the intended target audiences were being reached.
- The effect of being present on social networks had to be measured, and the resource requirements compared to other initiatives.
- The presence had to be synchronized with other channels to ensure that NSB’s outward communication and profile was easily recognizable.

They decided to focus on the following business processes:

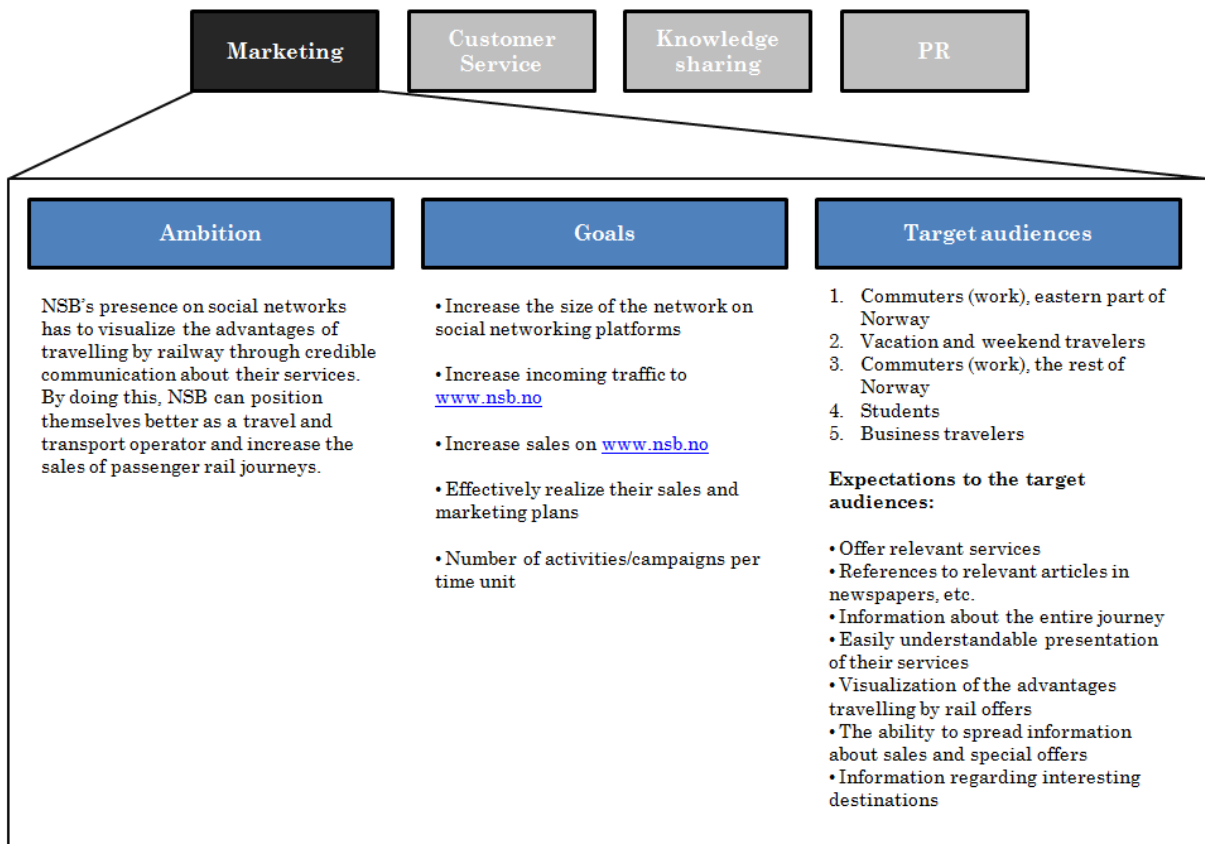
- Marketing
- Customer service
- Sharing knowledge and experience
- Public relations



**Figure 17.** NSB aimed to align the wants and needs of target audience with specific goals for individual departments

The wants and needs of the customers would directly influence the goals of the individual departments. By opening new channels for customers to voice their opinions and ideas, NSB hoped to more precisely tailor their goals to match the customers' expectations.

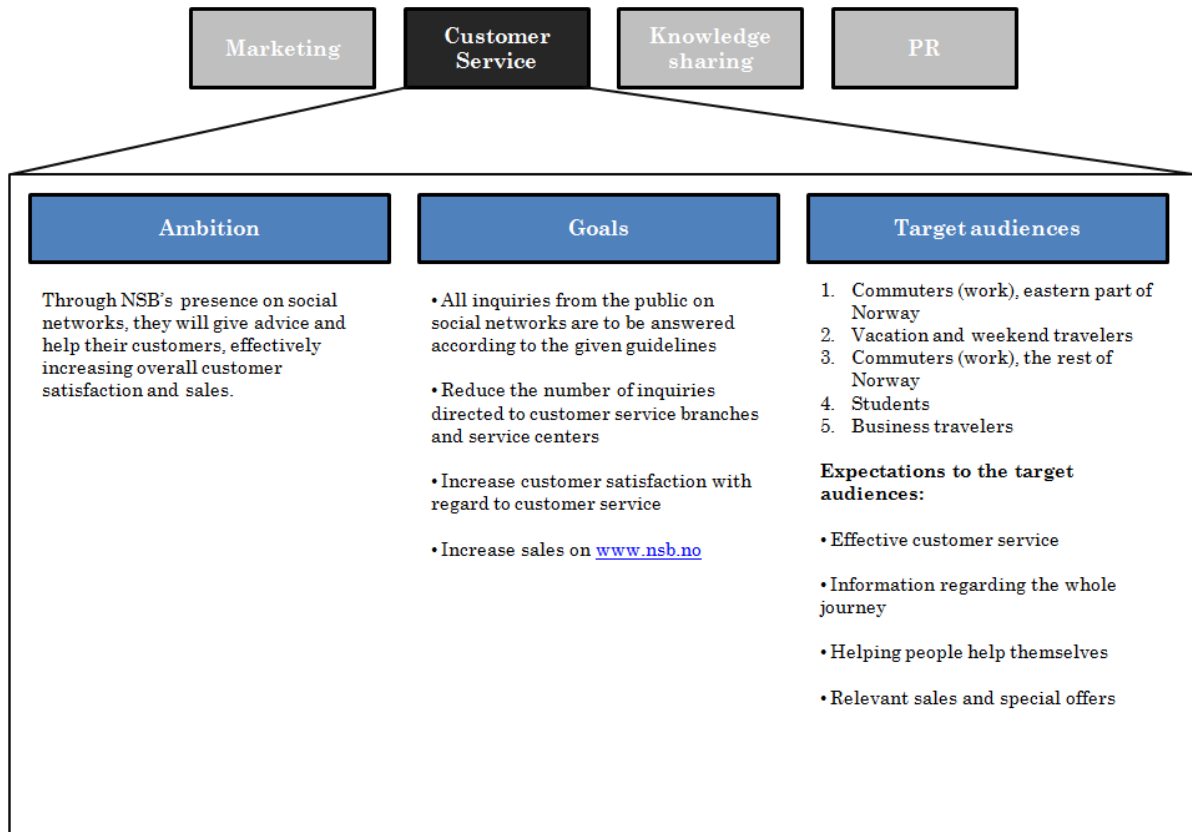
## Goals for marketing on social networks:



The first goal of their strategy addressed marketing on social networks. The overall ambition was to strengthen their position as a travel and transport operator by focusing on the advantages offered when travelling by rail. To reach their ambition, NSB planned to increase their network size, which they believed would increase traffic to, and sales on their main website.

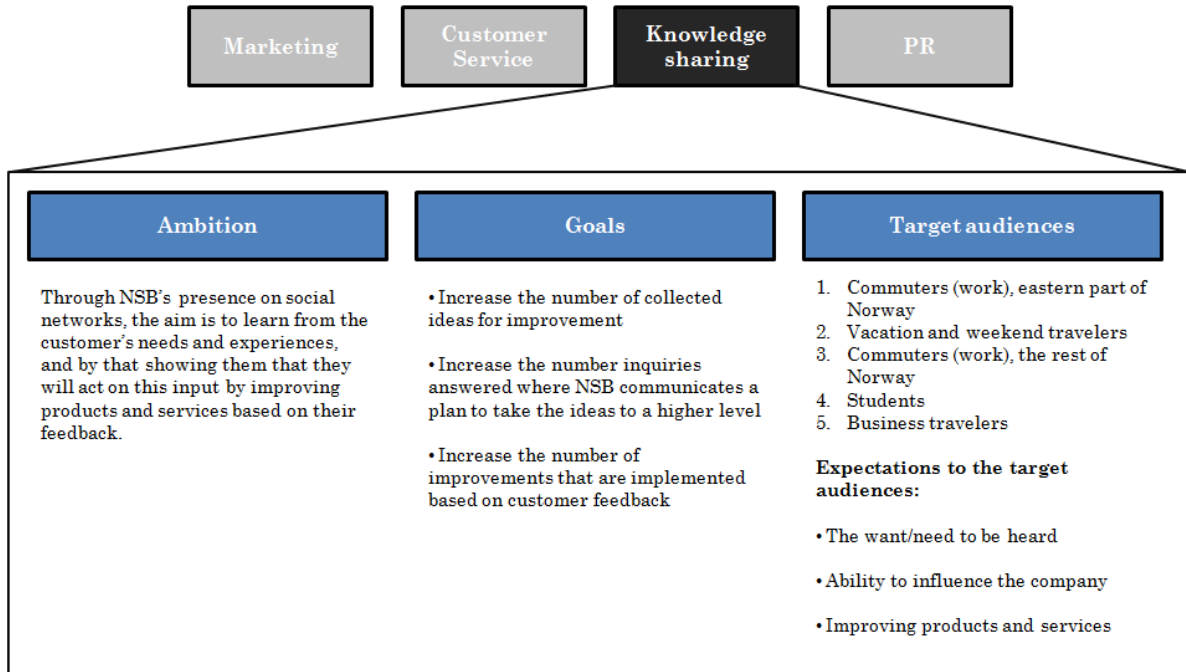


## Goals for customer service on social networks:



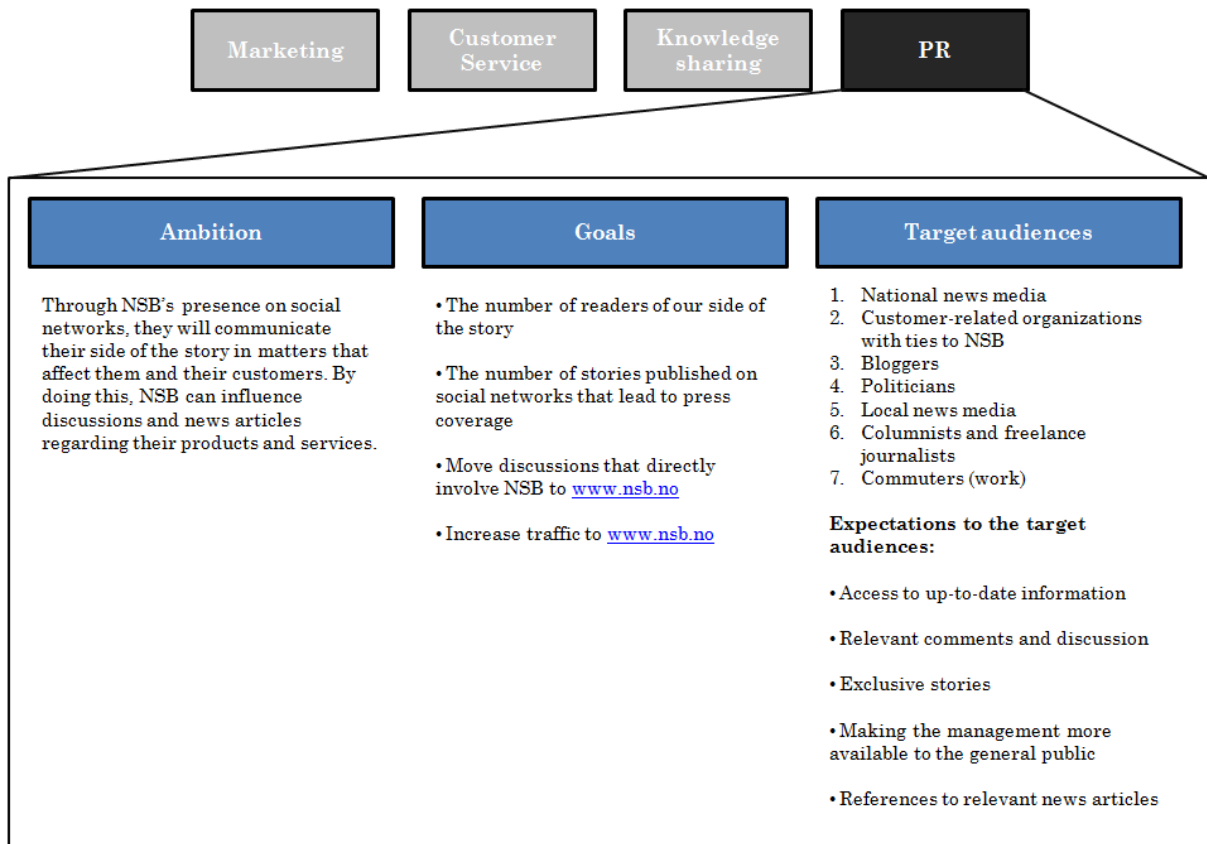
As previously stated, customer service was the main motivation for establishing a social networking presence. By increasing their focus on customer service, NSB hoped to achieve both higher customer satisfaction and sales. It's interesting to note here that one of the goals is that all inquiries are to be answered according to a given policy. Additionally, by using social networks as a platform on which to manage customer service, they aimed to reduce the number of inquiries to other customer service centers.

## Goals for knowledge and experience sharing on social networks:



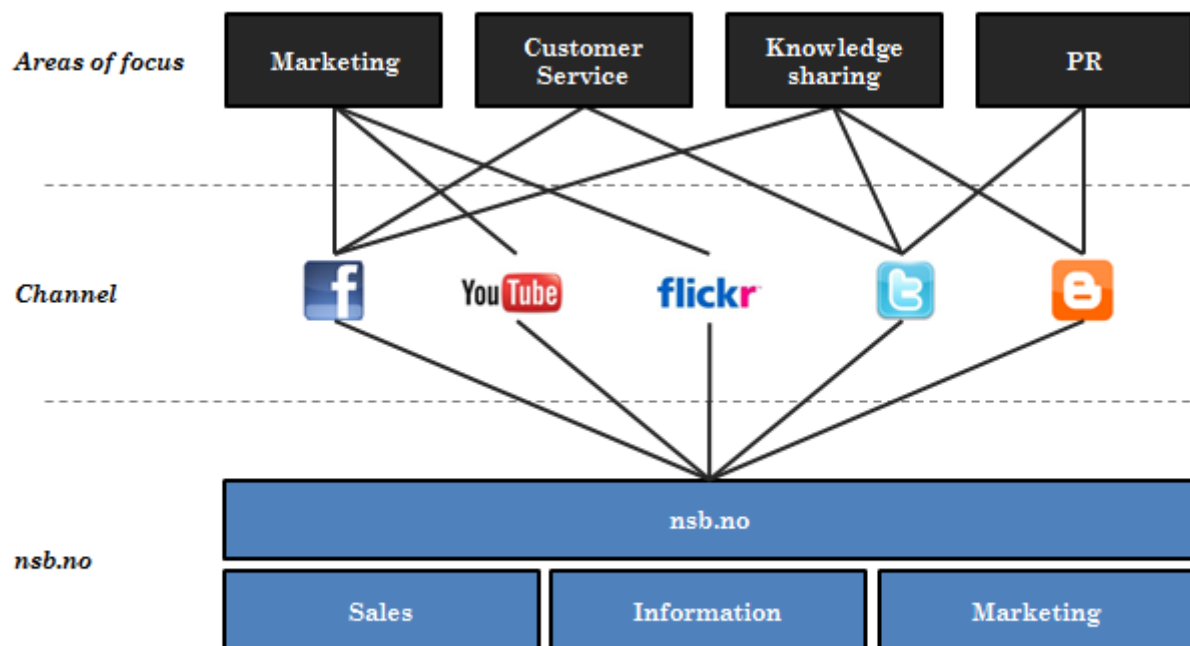
By increasing their focus on the sharing of knowledge and experiences, NSB aimed to improve their products and services based on ideas and opinions offered by their customers through these new channels. The goals focused on increasing the collection and implementation of ideas that originates from their customers. This was mutually beneficial as NSB not only helped their customers but themselves as well.

**Goals for managing public relations on social networks:**



The fourth and final area of focus for NSB's strategy is Public Relations (PR). This focus was drastically different since the target audience shifted from being purely customer-oriented to focus more on stakeholders with more formal influential power, namely the news media, journalists and politicians. NSB intended to use social networking in order to sway public opinion by communicating "their side of the story".

The areas of focus were tied to different channels, with the overall goal being to structure the flow of information, and ultimately drive more traffic to [www.nsb.no](http://www.nsb.no):



NSB believe that certain channels were suitable for some processes, but not necessarily all. Because of this, they mapped the different processes to their appropriate channels. For example, customer service is focused on Facebook and Twitter, while marketing includes Facebook (written content and links), YouTube (videos), and Flickr (press photographs).

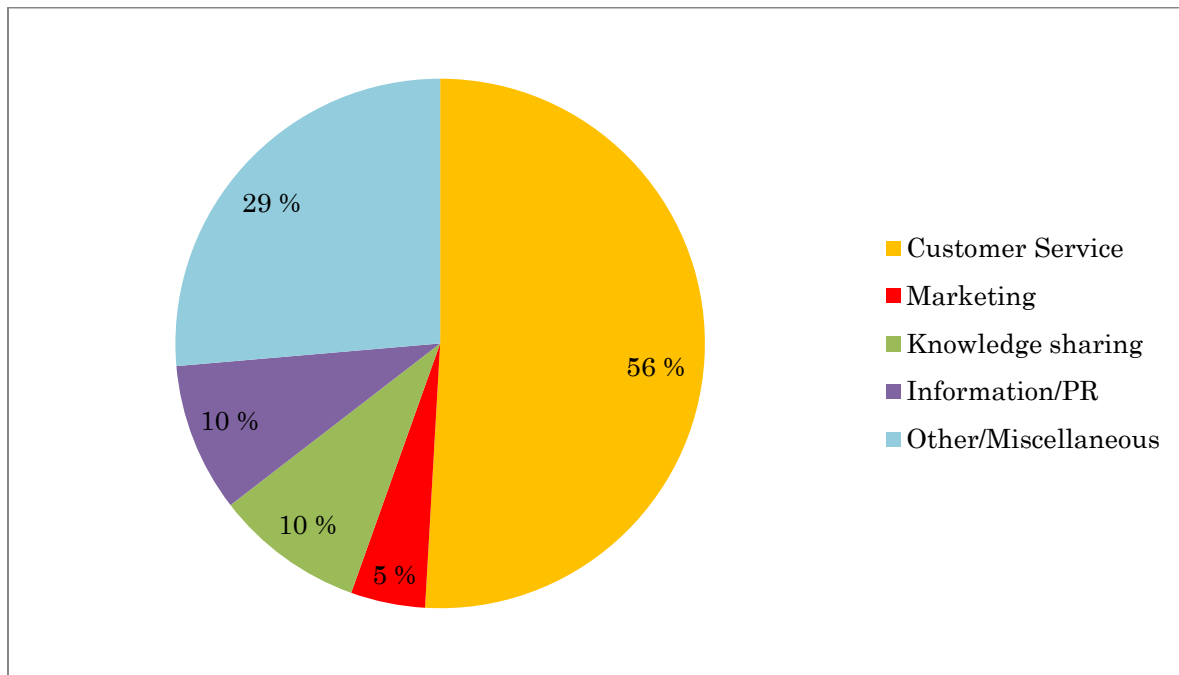
### Lessons learned:

One year later, the strategy had been implemented. Henriette Høyer is no longer solely responsible for maintaining their presence. Because of the additional resources, customers know when or how long it will take to receive feedback from a customer service agent. According to Høyer, they've gotten "feedback that says our customers think it's valuable as they feel like they are being seen and heard" [47].

As an organization, NSB has turned around and now supports the initiatives that they can see benefits the company and its customers. In addition, social networks are now included in the sales and marketing plan for 2011. Overall, awareness among both customers and employees has increased with regard to who NSB is when using social networking services, and what they wish to use them for. With that being said, the biggest focus is on customer service. All

complaints are logged, and the presence is measured using URL shortening services such as Bit.ly to measure click-through rates, and Webtrends tags to follow user activity from the social networking platforms to activities performed on [www.nsb.no](http://www.nsb.no).

So how did the original areas of focus function? In the figure below, we've illustrated how communication to NSB has been grouped into the areas outlined in their strategy process:



**Figure 22.** *The distribution of inquiries to, and answers from NSB via Twitter and Facebook.*

The distribution is linked to the follow key areas of interest:

- Marketing:
  - *Banners, campaigns and graphical profile on social networks*
- Customer service:
  - *Handling and answering customer inquiries on social networks*
- Knowledge sharing\*:
  - *Monitoring and enabling the organization to learn from customer dialogue on social networks*
- Information / PR:

- *Publishing content that is relevant for cases that affect NSB and their customers*
- Other / Miscellaneous:
  - *Comments and feedback that are not relatable to the before mentioned areas*

\*A clarification about this model: Although we mentioned knowledge sharing as a dimension earlier in the case study, NSB has found it difficult to separate this from customer service, and decided to combine these dimensions. This helps explain why it accounts for over half of all inquiries.

Social networks have been thoroughly embraced and are equal and comparable to other traditional channels where NSB interact with their customers. Keeping this in mind, focus has shifted from implementation to that of continuous improvement. Ultimately for NSB, this means that the ideas and opinions of the customers are logged and processed, and they wish to tie social networking even closer to CRM processes. As of now, there is no direct interconnection with the software used for managing the social networking presence with CRM software.

Another issue NSB has to tackle is their separation from the National Rail Administration (Jernbaneverket), which as previously mentioned are responsible for infrastructure maintenance and development. Even though their operations are inherently dependent on each other, there appears to be a level of confusion as to what organization is responsible for what. This is perhaps because they used to be one organization. However, the fact of the matter is that when a train is delayed because of an error or incident that can be attributed to the National Rail Service, NSB often ends up with the blame. Why? Because many people associate them with problems related to passenger rail operations. Considering that the National Rail Administration does not have much of a social networking presence, NSB is perhaps even more exposed. With this being said it's important to point out that it is perhaps better to be present and in a position to control a conversation rather than being in the dark about what your customers might have to say.

NSB's approach to formalizing their presence is largely based on their previously mentioned strategy documents. However, despite completing this process, they do not rely on any specific security policy. They do, however, use a rather peculiar document as a guideline for how employees should act on social networks. This document is the United States Air Force's Web Posting Response Assessment (which can be read in its entirety in Appendix C). This guide is a flowchart of the correct action to take when dealing with a customer inquiry, complaint or other form of communication that concerns NSB on a given social

network. Below is a breakdown the different elements in the guide:

- **Discovery:**  
This section deals with the content has been discovered, and aims to put the content into either a positive or a negative category.
- **Evaluate:**  
This phase elaborates on how the content should be analyzed. Are they dealing with an unsatisfied customer, a person that's merely looking to pick a fight, or a well-balanced, factual statement or positive review? The outcome of the analysis directs the responsible handler to a series of different actions to take. For example, if dealing with a factual statement, no response is given, whereas "trolls" or individuals looking to incite an argument will be monitored and reported internally.
- **Respond:**  
The final action is to issue a correct response. This can for example be to fix the facts, to attempt to rectify the situation and act upon a reasonable solution or perhaps to thank the customer for their much appreciated feedback.
- **Response Considerations:**  
As "sub-category" to the Respond-phase are a series of considerations that the handler should adhere to. For example disclosing their connection to the business, to cite sources by including hyperlinks, taking time to create a good response, choose a tone of voice that's appropriate and attempt to exert positive influence on the customer.

The flowchart form is simple to understand, but still covers plenty of issues that a customer service representative can be exposed to. There are however some potential weaknesses that should be addressed:

For example, the process of labeling certain customers as "trolls" is highly subjective. NSB might run into difficulties using these guidelines too strictly, as they often find themselves in a position where customers complain about their services because of delays and cancellations. Even if they use sound argumentation, this might not be sufficient in certain situations, and they should keep in mind that businesses can easily have their reputation damaged if they are not careful with backing up their reasoning with factual information. Controlling conversations online – be it either professional or "childish" – should perhaps not be evaluated solely on whether or not they are based on facts, but rather by considering what kind of influence the protagonists possess. When we consider this, not offering a response is probably not the best choice. In other words, where a business cannot partake in a subjective or prejudiced discussion because it's considered to be dangerous, the lack of comments from the business

will only give the other statements more attention. For example, where one unreasonable voice is drowned out by a large amount of positive replies from the business' fans and "ambassadors", the business wins even though it does not need to make a statement.

In the end, the important question is whether or not using social networks can help save NSB or other businesses that don't live up to the expectations of their customers. This answer to this question is both yes and no. Social Media Advisor Henriette Hedløv of Halogen believes that on one hand customers might feel more provoked than helped when a business informs them that there's been a delay; the customers might still be stuck on a cold platform somewhere in the middle of the harsh Norwegian winter. On the other hand, the positive aspect is that the technology behind social networks can help mobilize an existing engagement and channel it to be more constructive [48]. In our opinion, NSB has managed to create a strategy that enables them to communicate with their customers with the goal of them reaching their destinations, making unnecessary waiting time bearable and sharing relevant information across several different channels. The result is that NSB has created a community where concerned customers can vent their frustrations and receive answers. We previously mentioned how customers appreciate this gesture, and are now showing increased satisfaction with regard to their customer service. The challenge however is ensuring that the ultimate goal of the strategy – improving their products and services based on the opinions and feedback of their customers – is met. This means that NSB's reputation, as well as the trust of their customers, can only be fully restored once they manage to get their trains running on schedule.



### 3.3 Case Study – Tine Litago:

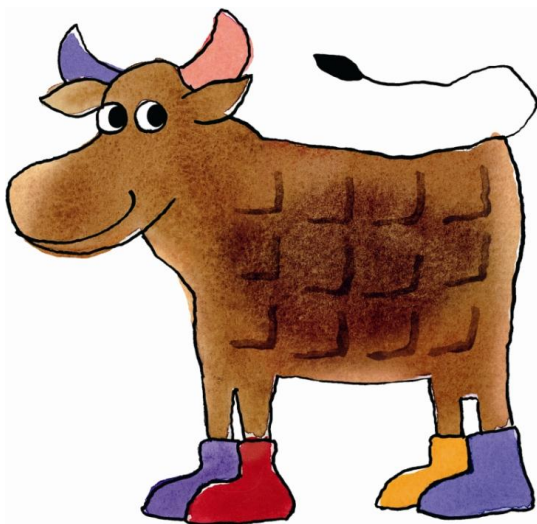
This case study focuses on Litago, a brand produced by Tine, which is Norway's largest producer, distributor and exporter of dairy products. The purpose of this case study is to investigate how a brand with limited resources was able to leverage the viral marketing on social networks in order to increase brand awareness and overall sales.

First introduced in 1994, Litago is a series of milk-based drinks with different flavors. The product has its own manifesto, which translated to English reads:

*“As humans we are constantly aging. This mean that every now and then we need a reminder of the great times we had when we were younger. You should always be allowed to play, even if you’re a 13 year old adult, or a very childish 35 year-old.*

*This is the reason why we have made Litago: That we will never fully grow up. That we will never stop playing”.*

Litago is often referred to as a success story in terms of using social networks for business purposes. The questions we're trying to answer is how a small, animated cow was able to attract tens of thousands fans to its Facebook page, why social networks were chosen as the primary channel for marketing, and what lessons have been learned over 2 years into the campaign.



**Figure 24.** Tine Litago's mascot.

Tine's vision is to produce the healthiest and most natural food experiences for its customers. Flavored milk does not fit well with that goal, and Litago was scheduled to be taken out of production as late as 2008. However, after reviewing its potential, the product was given a second lease on life. The task was given to Brand Manager, Anette Tvenge, who decided that social networks were the way to go.

The brand was re-launched following the decision to continue the product in September of 2008. The launch was focused around four main areas:

1. New design

- The design of the product was changed to focus more on the cow (e.g. the brand mascot) as shown in the previous figure.

2. New products

- Tine decided that they would expand the number of different products; some permanent/long term, while others were only produced in limited editions/quantities.

3. New target audience

- Tine realized that the target audience was not just children and families with small children, but rather the generation that had grown up with the products that were now between 15-25 years old. They discovered this from observing when and where their products were being sold. Deli de Luca, a chain of small convenience stores that are open 24/7/365 sold the most Litago at two very interesting times: namely Friday night and Saturday night. Because of this discovery, Tine knew they had to change their marketing focus.

4. New forms of communication

- In order to entice their customer to get more involved with the brand, Tine decided to move their communication focus to social networks rather than traditional channels. The motivation for doing this was to increase dialogue. What would normally become 1-to-1 communication when using traditional channels turn into mass communication when using social networks, as countless others are able to observe and contribute.

While analyzing their customers at the start of this campaign, they discovered that not only did they have many loyal fans, but many of them had an astonishing level of commitment to the time they spent talking about the brand. This is somewhat puzzling, considering that Litago is flavored milk.

Loyal customers ran everything from interest groups on Facebook, demanding that certain flavors be brought back, to producing independent TV-ads and publishing them on YouTube. The amount of e-mails received about the brand by customer service representatives was also significant, which confirmed Tine's belief that their customers were indeed very devoted.

In order to tap into this potential, Tine decided that since the customers had so much to say, then why not let them decide what their next product should be? Thus, a campaign called "The taste of the semester" was born in the spring of 2009. In this campaign, Tine gave students and youngsters the chance to choose between large numbers of new flavors on their website under [www.litago.no](http://www.litago.no), and combine these in all sorts of combinations. When the customers realized that Tine was actually serious about putting the most popular suggestion into production, the interest skyrocketed. Over 33.000 different customers created their own favorite flavor, the site was shared over 14.000 times via Facebook alone, and Tine ended up with over 400.000 votes, including a foiled hacking attempt which intended to alter the turnout of the votes. The winning flavor was a combination of chocolate, peanuts and caramel, put together by a college student at the Norwegian University of Science and Technology. When the product finally hit the shelves it didn't sell very much. However, the campaign had been noticed: conversations and mentions of the brand on social networks, blogs and so forth had increased with over 500% during the campaign. By giving customers this amount of control, Tine was able to position themselves as "top of mind", which in turn resulted in a significant increase in sales for the original products.

In the summer of 2009, Tine decided to follow up on the previous successful campaign. They launched a new activity on [www.litago.no](http://www.litago.no) that allowed their fans to paint a 3D-model of their cow mascot in any way they wanted:



**Figure 24.** A screenshot of the GUI used to paint the Litago mascot.

This stunt proved to be a success, as over 33.000 cows were designed by over 220.000 unique visitors over the course of the summer. Two new products were launched simultaneously with this campaign. While neither of these sold particularly well, sales of the original products increased significantly.

By the spring of 2010, marketing managers of other brands were starting to notice how Litago was using social networks for cost effective marketing. To put this into perspective, Tine's traditional milk brand had carried out a very costly TV and printed media marketing campaign in the same period. Despite of their limited resources, Litago was able to increase the number of unique visitors to their website, and those who went there on average spent over twice as much time on their site compared to sites belonging to other brands owned and operated by Tine. This is impressive when you consider that their annual marketing budget totaled at only 500.000 NOK.

### ***Lessons learned:***

Social networks cannot be treated like traditional media; planning is essential for a successful adoption. This implies that both time and money has to be invested. For Litago, a small advertising budget gave them limited options with regard to traditional media. Yet, they were able to leverage social networks to work in their advantage by offering relevant information and activities to their target audience. In Tvenge's experience, by anchoring an engaging activity on a social networking website, it will tend to spread itself, leaving the business in a position to work out its next move. The goal for Litago was never to gain as many followers as possible, but rather attract and keep the loyal ones. According to Tvenge, fighting for an ever increasing number of followers will only result in unhappy customers being bombarded with content they do not care for. Loyal followers keep the brand alive with their opinions and ideas, while providing the business with input on how to go forth.

It seems as if we are moving from a traditional push-based, mass marketing approach to that of "pull marketing". The trick is getting customers to commit part of their time to a given product or service. There are several other ways of engaging customers than just competitions and giveaways. The key is for the business to ask itself: what are our customers doing, and why? When they log in to Facebook, they enter a personal sphere where they themselves are the main focus. They are navigating and manipulating their social network that consists of friends, family and interests. They share content and state their opinions. Would businesses want to push their products and services in this setting, or is it perhaps smarter to entice the customer to get involved if the message you are sending is appealing enough? If businesses share content that's of interest to their customers, then their customers will share this with their inner circle by

posting this content and starting a discussion. This will feed their motivation, namely that of being in focus.

While their adoption of social networks has resulted in increased sales and brand popularity, Tine still has to address certain issues. Litago's customers seem to be demanding more and more of the product in terms of activities and competitions. This is challenging, considering that Tvenge – the Brand Manger – is solely responsible for managing their presence and interacting with over 100.000 fans on Facebook and other channels. She admits to “spending her weekends and vacation time monitoring conversations and responding to questions” [49]. By prioritizing this effort, time that could have been spent elsewhere is lost. By elsewhere, we are implying for example overseeing innovation, production, supply and value chain management. It's a fair assumption that understaffing combined with a high work load is not sustainable in the long run. It's our belief that this prioritization compromises the brand in terms of operational security, as it is ultimately the Brand Manager's responsibility to oversee and ensure the qualities and deliveries of several other business processes.

Tine's acceptable-use guidelines for social networking have been included in Appendix D. They have no specific security policy, and the guidelines are structured in the form of a “Q&A” for situations that Tine's employees might find themselves in. Based on the guidelines, the following themes are addressed:

- **Loyalty:**  
Tine employees are allowed to interact with competing businesses on social networks as private individuals, but leave official communications to designated spokespersons.
- **Information leakage:**  
The guidelines mention examples of what you are allowed to share with your friends, and what to consider in terms of confidentiality and information that might only be suitable for internal use.
- **Activism:**  
Tine's employees are allowed to be activists if a certain topic is important to them. The guideline is very clear in pointing out that employees should explicitly state that their opinions do not necessarily reflect those of their employer.
- **Conflicts or disagreements with co-workers/managers:**  
Tine advises it's employees to avoid using social networks as a platform if there's an internal conflict.
- **Product development:**  
Tine encourages new ideas and opinions about their products, but advises

it's employees to use internal channels rather than social networks which are "reserved" for communication with customers.

- **Production issues:**

If there's an issue with production facilities, employees should refrain from talking about this as it might start rumors which can lead to other problems for Tine.

As mentioned earlier, these points are how the guidelines have been interpreted and are only excerpts from the full text. It's interesting that the guidelines are written in a very easy to understand language. The tone is informal, perhaps what one would suspect from a verbal conversation. Furthermore, there are no "absolutes" in the text, meaning that Tine never tells its employees explicitly what is allowed, and what isn't allowed. This is worth noting, as it seems to embrace an appreciation for employees using common sense rather than having them adhere to a strict rule set.

### 3.4 Case study – Legal aspects:

The following case study was carried out on basis of a lecture given by Kristine M. Madsen, a Norwegian Lawyer and Partner at Bull & Co. Law Firm, specializing in legal aspects of Information Technology (IT) and Intellectual Property Rights (IPR). The legal framework described hereinafter is not exhaustive, but aims at covering the most common legal aspects of use of social networks.

On the surface, social networking services might seem carefree. However, businesses often fail to acknowledge the legal and regulatory environment in which they choose to operate. Additionally, businesses also have to consider ethics, morality, corporate social responsibility and last but not least common sense when choosing to adopt these services as part of their business plan. In this case study, we will focus on how businesses that use Facebook are affected by the Norwegian legal system. We believe this is an important contribution as it has become the most popular social networking service for businesses to manage relations with their customers.

When considering the application of the Norwegian judicial system on the Internet, the following legal matters come into play most often:

#### ***Contract law (“Avtalerett”)***

- Most social networks are offered by private parties, in the form of businesses. These businesses operate under civil law (“privatrett”), which in Norway is the part of the legal system that regulates the legal aspects between private individuals or corporations, as opposed to public law (“offentlig rett”). Private implies physical persons (humans) and judicial persons, such as the state, businesses and so on.
- The use of these social networks is based on the free will of the customer, and it’s important for businesses to comprehend and adapt to the rules of the platform they operate on. It’s advised that any partners such as marketing or advertising agencies that a given business works with has to do the same, as this will regulate the agency’s responsibility in case of a breach of terms on the platform.
- The aforementioned implies that social networks themselves to a large extent may decide the governing rules for use of their platform. Hence it is pertinent to be aware of which rules of conduct the different social networks have decided to apply for their platform.
- When considering Facebook, the following rules apply:

- Privacy Policy:  
Statement of rights and responsibilities
  - There's a difference between private and professional usage, meaning that businesses have to play by different rules than individuals.
- Promotion Guidelines:
  - You are not allowed to use Facebook's name or other associated trademarks.
  - Marketing directed at individuals younger than 18 years of age is also forbidden. As is marketing towards countries that are under a US embargo.
  - Cash prizes are prohibited in several jurisdictions, such as Belgium, Sweden, India and Norway.
  - Competitions or games with prizes such as tobacco, weapons, drugs (pharmaceutical or otherwise), gasoline, etc. is also not allowed.
  - Facebook will remove inappropriate content without warning.
- Advertising Guidelines:
  - These guidelines serve as Facebook's overall advertising philosophy, and contain a blacklist of prohibited content.

### ***Intellectual property (“Opphavsrett”)***

- When applying content to the business' Facebook-page, the business has to assess who holds the intellectual property rights to such content.
- The original proprietor maintains the copyright of property that has been created by his or her individual effort.
- Any further use of this content is subject to consent.
- Examples of intellectual property on social networks are the following categories of content, if the content qualify as literary works:
  - Texts of all kinds
  - Verbal presentations



- Music, with or without text/lyrics
- Film
- Photographs
- Paintings, drawings, graphics and other artwork
- Maps
- Drawings, graphics, depictions of a scientific or technical nature
- Neighboring rights apply to photography, databases and catalogues
- When is explicit consent not required?
  - When certain intellectual property is used only for personal usage
  - In connection with news articles to a certain degree
  - Published works that are not considered the “main content” of a larger work
  - Modifications that create new works of the original content
  - Quotes
  - Public documents, laws, and so forth.

### ***Brands, trademarks and design***

- Businesses may have trademark rights to for example logos, other recognizable and associated content, business names and design.
- Use of such marks by other parties requires consent.
- Anything that can be reproduced graphically can be protected by trade mark rights, provided that the mark is distinctive.
- The trademark right can be gained by either registration or by use.
- The trademark right is valid in all countries where the mark is registered or worked in by use.

### ***Marketing law***

- Businesses have to take business-ethical and moral rules of the marketing

act into considerations when deciding how they will promote their products and services on social networks, just as they do when using other channels.

- The core of marketing law is that the message has to appear as marketing. Furthermore, any claims of quality or properties has to be documented, the marketing-message cannot be misleading or too aggressive. There are also special considerations when marketing towards children, alcohol, tobacco and pharmaceutical products.
- When do marketers need consent?
  - When they wish to send their messages to other recipients than existing customers
  - If business secrets are involved
  - If their product resembles a similar product
- What sanctions can be imposed if the rules are broken?
  - Campaigns can be ordered ceased subject to preliminary injunction
  - Illegal products can be confiscated
  - Compensation and/or reimbursement to affected parties
  - Fines

### ***Freedom of speech***

- Social networks are one of our newest arenas for practicing freedom of speech. What characteristics make social networks different from other channels?
  - Vast amounts of user-generated content
  - The illusion of anonymity
  - A large number of non-professional users
  - Increased tempo and contemporaneousness
  - “The whole world” has access
  - The content published is there “forever”
- In Norway, freedom of speech implies that any individual has the right to address others. An expressed opinion can be communicated via text,

speech, music, pictures, film, or more specifically; any expressed opinion with meaningful content.

- The freedom of speech is defined in the Norwegian Constitution (“Grunnloven”) §100, and in the Convention for the Protection of Human Rights and Fundamental Freedoms (“EMK”) Art, 10. Note that the freedom of speech is not without limits.
- How does the freedom of speech apply on social networks? Basically in the same manner as in other channels of communication;
  - Punishable expressed opinions:
    - Insults of honor which can result in damaged reputation or loss of trust.
    - Racist and other discriminatory expressed opinions.
    - Pornography.
    - Threats (e.g. “..I will hunt you down and kill you”)
    - Disturbance of peace (e.g. excessive “poking”)
    - Destructive (e.g. malicious code)
    - Fraud (e.g. computer crime, hacking)
  - The person to hold responsible is the person who expresses the opinion, but there are other responsibilities that have to be considered:
  - Editors:

Businesses that generate news and facilitate public debate have to consider the legal responsibilities, as they are required to have a formal editor for electronic media. This personnel is responsible for all produced content, discussion forums and routines for control and guidelines for employees.

The editor must also pay special attention to the ethical norms of media and Internet publications in Norway, commonly known as “Vær Varsom-plakaten” (“Be cautious poster”). Paragraph 4.17 states that “If the editor chooses not to moderate digital discussions before they are published, this has to be made clear to the users who have access to this content. The editor is solely responsible for removing content that violates the ethical standards of the press as soon as possible” (my translation).

- Owners, publishers, broadcasters:  
The parties mentioned above can be held responsible for pay damages for insults to honor and violation of privacy, as defined in the Act relating to compensation in certain circumstances (“Skadeerstatningsloven”) §3-6.
- Employer:  
An employer can be held responsible for employees who express themselves illegally on behalf of the business, as defined in the Act relating to compensation in certain circumstances (“Skadeerstatningsloven”) §2-1.
- Other parties:  
Technical associates such as Internet Service Providers (ISP’s) are exempted from responsibility through the law of e-commerce (“E-handelsloven”). However, ISP’s must in certain circumstances remove illegal content posted by other parties. It’s their duty to remove or deny access to this kind of content, but they are generally not required to control and monitor this type of activity. However, they must have routines for filtering, acceptable-use policies for their customers and employ a notice-and-take-down procedure.

## *Privacy*

- As defined in Norwegian law, the following aspects related to privacy is guarded:
- Personal information is defined in the Personal Data Act (“Personopplysningsloven”) as any and all information and data that can be tied to a specific person.
  - Personal information is considered to be sensitive if it concerns any of the following:
    - Racial or ethnical background
    - Political, philosophical or religious beliefs
    - Status as a suspect, accused or convicted of a punishable offense
    - Matters of health and sexuality
    - Membership in labor unions

- What's considered a violation of privacy?
  - Not following the rules of the Personal Data Act ("Personopplysningsloven") is a violation of privacy.
  - Criminal violation of the privacy of a private person is defined in the Act relating to criminal registration ("Straffeloven") §390, and is particularly relevant in the publication of private information, assault, gossip and bullying.
  - Publishing pictures depicting an individual without consent is also forbidden, defined in Act relating to copyright in literary, scientific and artistic works, etc. - The Copyright Act ("Åndsverksloven") §43a.
    - Exceptions:
      - When the publication is of interest to the general public.
      - The person depicted is less important than the context and content of the picture.
      - When the person depicted is part of a gathering or crowd.
- Is social networking a threat to one's privacy?
  - The content that businesses publish and administer via their social networking presence is subject to the aforementioned laws and possible consequences.

### ***Labor law***

- When an employee uses social networks, both for private and for business purposes, labor laws come into play. Employees have a duty to remain loyal to their employers at all times. Implementing guidelines for use of social networks will give both the employee and the business better control. This is true even in the case of violations when the employee responsible for the violation has been made aware of the guidelines and what they imply. This works both ways, as employees can use these guidelines to notify the proper authorities if they notice censurable conditions at the undertaking as defined in Act relating to working environment, working hours and employment protection, etc. - Working Environment Act ("Arbeidsmiljøloven") §2-4, if such procedures are

included in the guidelines.

### ***Why should businesses implement acceptable-use/security policies?***

Using these types of guidelines or policies will help increase overall awareness if written and implemented correctly. They will contribute to pushing the business towards a “best practice” adoption of social networks, while at the same time visualizing the duty employees have towards their employer. In turn, this can help reduce the risk of information leakage, flawed communication, and damage to reputation.

In order to cover the applicable legal aspects in Norway, it is recommended that an assessment of what the policy should contain is based on the following elements:

- ***What type of business is this?***
  - Explain the purpose of the business this policy applies to. What core products and services are offered?
- ***What is the purpose?***
  - What is the vision of the business, and how does social networking tie in with what the business is trying to accomplish?
- ***The relationship with other policies/guidelines***
  - How are the security policy/acceptable-use guidelines related to other governing documents in the business? For example, does one outweigh the other under certain circumstances?
- ***Specific rules for the business***
  - This section could be used to elaborate on specific rules that differ from other businesses in other industries.
- ***Rules for social networks***
  - Can be described as a code of conduct.
- ***Tone of voice***
  - How will customers be addressed?
- ***Duty and loyalty***
  - What does the business expect from its employees?

- ***Who represents the business***
  - Who is the editor? Who has the final word before publishing content?
- ***What can the business communicate?***
  - For example, answers to customer inquiries, marketing campaigns and information from the management.
- ***How to act in certain situations***
  - What if a customer publishes illegal content?
- ***Consequences of publishing wrongful or inappropriate information***
  - What happens if the business publishes an ad promoting their products at a lower cost than intended?
- ***Incident response***
  - Roles, responsibilities, plans.

### ***Considerations for employees:***

Employees should encourage their employer to provide these types of policies/guidelines, as they will help improve the transparency for all parties. Furthermore, employees are encouraged to post content under their full name, not to use these channels to vent their anger, frustrations or comment on customer behavior or competitors.

If an employee wishes to express their opinion on any matter that might concern their employer, they have to explicitly state that they are expressing themselves privately and not on behalf of their employer. In these cases, it's important to consider the limits of the freedom of speech as constrained by the duty of loyalty towards one's employer, especially with regard to copyrighted or business confidential information. If an employee wishes to make any kind of statement regarding their employer, they should always post in their full name; always avoid expressing negative opinions and never use e-mail accounts that belong to their employers. Last but not least, when in doubt: ask for consent.

### **3.5 Focus group – Full digital natives:**

We will now take a closer look at Generation Y, more precisely full digital natives. This study was structured as a focus group, which can be defined as “a form of qualitative research in which a group of people are asked about their perceptions, opinions, beliefs and attitudes towards a product [or] service” [50]. The purpose of this focus group was to answer questions ranging from what Generation Y’s habits are with regard to security and privacy on social networks, and how they use them to interact with businesses.

A full digital native can be defined as a person who was born after the general introduction of digital technology and through interacting with this technology from an early age has acquired a greater understanding of its concepts and capabilities. The exact age range of this group is disputed, but as we are focusing on Generation Y (e.g. the current, younger generation), we have decided to target individuals in their teens. We believe that these individuals possess a more natural inclination towards using new technology, as they’ve grown up with near universal Internet access on their personal devices such as laptops, smart phones or tablet computers. In order to find a suitable group, we contacted Oslo’s Department of Education and were eventually put in touch with Anders Teien. Mr. Teien is a teacher and coordinator of Sagene Lower Secondary School (equivalent to Middle School or Jr. High School in the United States). With his help, 7 students between the ages of 13 – 16 were randomly selected to participate in the study. All quotes and excerpts of student statements can be read in their entirety in Appendix G.

The students were only told they were to participate in a study on social networks, and the focus group was carried out in a private room with only the researcher and the students present. The session started with the researcher introducing himself, his background and the subject at hand. The students were then given a 15-minute lecture on the current state of social networks with regard to prevailing security and privacy issues, as well as how businesses are starting to use them to their advantage. Following this lecture, the students were asked to fill out a survey (the original is available in Appendix F) by hand with questions covering the following areas:

#### ***1) The use and adoption of social networks***

- a. How much time do the students spend on social networks?
- b. What do they use them for?



- c. What social networking services are most popular?
- d. Do they use social networks to communicate businesses?
- e. How to they prefer to communicate with businesses?

**2) Security and privacy issues on social networks**

- a. Are their friends concerned with their security on social networks?
- b. What do they do to protect themselves, their devices and their information?
- c. Do their parents have any control over what they use social networks for?
- d. Have they experienced any malicious activity? (e.g. being “hacked”?)
- e. Do they log out when their sessions are over?
- f. Do they access their accounts from public terminals?
- g. Do they know all their connections in person?

**3) Passwords and PIN-codes**

- a. How many characters are their passwords?
- b. How often are they changed?
- c. Do they think changing passwords is important?
- d. Do they use the same passwords on several accounts?
- e. How do they structure their passwords? (e.g. only lowercase letters, or combinations enabling higher entropy)

**4) Sharing pictures, videos and other content**

- a. Do they publish photographs and videos? What’s their motivation for doing so?
- b. Do they ever regret posting content?
- c. What are important things to consider before sharing?

Beginning with the topic of usage and adoption, all but one of the students had a smart phone and a subscription that enabled them to use their device for social networking purposes anywhere, anytime. The average time spent each day was

hard to estimate, with answers ranging from about 2 hours to “constantly”. The primary motivation for using social networks seemed to be to share content and communicate with friends, and Facebook is by far the most popular platform. When asked if they use social networks to communicate with businesses, the majority of the students responded that they actually prefer calling them or sending an e-mail. One of the students stated that she felt “insecure”, and that using social networks for that purpose is too personal even though she claims to have a fairly “locked down profile”. This seems contradictory when considering that this is a generation that has grown up with universal access to the Internet, and their opinion is that they wish to keep businesses at a distance rather than communicate with them on social networks.

When asked about how their friends act with regard to their security and privacy on social networks, the answers reflected that they feel as if their friends are not careful enough. Some spoke of issues with friends posting inappropriate content, while others made a clear difference between their “Facebook friends” and their actual friends. This is interesting when we consider the next question which asked the students what they do in order to protect themselves. None of the students mentioned setting appropriate privacy controls directly, or limiting certain content to a select few friends. The students responded that they take action immediately if someone posts a photograph of them without permission. In addition, they are very selective with regard to whom they choose to give access to their network. Not accepting connection requests from people they don’t know seems to be a universal attitude in the group. We delved further into the roles of their parents, and while none of the students have given their parents their password, many of them are friends on Facebook. One of the students mentioned that she removed her parents from her friends list because their behavior was “becoming annoying” due to their frequent comments and interaction with their profile, while another student says that she was allowed to use Facebook under the condition that she added her parents as friends so that they could see what she was up to. When we inquired if anyone had experienced getting infected by malware, or being “hacked”, the majority of the cases were based on friends hijacking their accounts for fun in case they’d forgotten to log out or lock their laptop. The perpetrators would use this opportunity to post sarcastic or obscene status updates, which serve as messages to the person’s network. This phenomenon is commonly referred to as being “Faceraped”. One of the students told us that he’d gotten his laptop infected by downloading a rouge chat application that started spreading a worm in the form of a link to his friends. While only one of the seven know for sure that they’ve experienced such an incident, it’s possible this number is higher, as it’s fair to assume that one can be infected without noticing. When the students were asked about their habits with regard to logging out, the group was split in half: One half never logged out, while the other half always logged out of their accounts when they finish their

session. When asked about using public terminals, they seemed to be more cautious; many refrained from using them altogether, while others dictated the importance of making sure to sign out when they were done using a public terminal.

In the third section of the questionnaire, the students were asked about their habits regarding passwords. While the students were not asked to give away their password, they were asked to describe the complexity in terms of total length and use of different character types (e.g. lower case, upper case, number and special characters). To our delight, the majority of students had passwords longer than 10 characters, used different types of characters, and did, for the most part, not use the same password for several different services. However, hardly any of the students claimed to change their passwords regularly. Out of the seven students, there was one reasonable answer stating “around 3 times yearly or whenever there’s a reason to change it”. For the remaining six students the answers ranged from “never” to “rarely” (i.e. once a year at most).

For the final part of the questionnaire we asked the students about sharing pictures, video and other content. All the students told us that they share pictures, but we were impressed by their reasoning when asked what they thought was important to consider when publishing content. The students all agreed that once something is uploaded, it’s probably going to stay there in one form or another forever. Furthermore, they thought it was important to consider if what they were sharing was too personal, and if it could be used for malicious purposes.

All in all, we were impressed with the students’ level of maturity. There are, however, several issues that should be addressed: First of all, their technical knowledge of how to secure themselves and their devices is lacking. When asked, the students were under the impression that running some form of anti-virus software would protect them. Furthermore, they were for example oblivious to the differences between HTTP and HTTPS, which still is optional on many sites. So, while their common sense might be better than what we expected, their technical knowledge and awareness represents a challenge.

Following the survey, we presented findings from RSA’s Generation Y Online Security Survey [3] which had asked several of the same types of question to similar groups of people. The answers provided by the students in our group were consistent with those found in RSA’s study. Following a brief talk about the other survey, the group was led into a group discussion which was recorded digitally in order to produce a transcript (included in Appendix G). The following topics were discussed:

- 1) How have social networks changed their lives?
- 2) What are the most positive aspects of using social networks?

- 3) What are the most negative aspects?
- 4) Does anyone in their circle of friends not use social networks?
- 5) What do they think about businesses that use social networks?
- 6) What are they doing right?
- 7) What are they doing wrong?

### ***How have social networks changed their lives?***

The students mainly spoke of two drastic changes they'd noticed. Firstly, they feel as if they are spending much more time online because of social networks. Secondly, they speak of being less physically active, as they now resort to chat with their friends on, for example Facebook, rather than go out to meet each other in person. One could say this might have been the same case with the advent of cellular telephones, but the ability to share content and talk to several people at once enables a much richer dialogue, perhaps something that can truly compete with meeting in person. In order to dig further into this topic, the students were asked if they as if they "lose touch" if they for example are not able to check their Facebook account for an extended period of time. The students agreed that this was the case. As one student put it: "When I came back to Norway after having spent two weeks in Nigeria mostly without Internet access, I found that I'd been completely cut off from what was happening with my friends".

### ***What is the most positive aspect of using social networks?***

For this question, the students agreed that it made it easier for them to stay in touch and communicate. Two of the students had family abroad, and they both spoke of the advantages of communicating with family which up until recently had been very costly to do via telephone. The conclusion of this question was that the students appreciate the communication that is made possible by using social networking services.

### ***What is the most negative aspect of using social networks?***

The students agreed that it takes up a lot of their time. One student went as far as calling it addictive: "You get hooked on it. I am on Facebook constantly"! Another student complained about medical issues, as she's had to see a

chiropractor because of back problems from using her laptop in bed. The last problem is not a product caused directly from using social networks, but rather because the student has been using a device without considering her posture. One student stated that “[It’s] not necessarily negative as you’re keeping up to date on what others around you are doing. However, it’s perhaps not very constructive considering how this time could be spent”. We can assume that the majority of time spent on these social networks is not centered around direct communication, but rather exploring content more passively. Finally, when asked how many of them lied about their age when signing up for Facebook – the age limit is 13 years of age or older – 4 of the 7 students raised their hands.

### ***Do they have any friends that are not present on social networks?***

This topic was introduced to investigate if anyone in their social circle had chosen not to create a social networking profile, and how it affected them. Only one of the students admitted to having one friend who didn’t have an [Facebook] account. When asked what he thought about that decision, the student replied, “He’s not left out or anything. But it’s kind of unusual. I don’t know a lot of people that aren’t on Facebook. It’s kind of irritating because since he’s not on Facebook, my group of friends can’t include him in conversations and chats and so on”. Another student informed me that she’d signed up just the day before the focus group. When asked why, she told us it was partly because she was “missing out on events”. Perhaps being selected to participate in this group triggered the decision to create a profile? A third student told us the story of how teachers are using Facebook to communicate certain activities to the students, and that the students have formed their own private group where they organize social events without the presence of their teachers.

### ***What do they think about businesses that use social networks?***

When discussing this question, the students were very negative with regard to businesses establishing a presence on social networks. While keeping in mind that these students were between the ages of 13 and 16, they still had very clear ideas of how they felt about the issue. As one student stated, “It’s annoying. There are ads everywhere. They’re in my way. I’m not there to look at advertisements”. The conversation circled around how they were annoyed with advertising on social networks in general, so the focus was shifted to the pages run by businesses that serve as customer service centers. Some of the students said they’d used such pages to contact businesses. One of the students had a particularly interesting approach to why she preferred talking to a business

either via telephone or email: “I don’t think I would have written to a business using their Facebook page because everyone can see what I write and comment and critique it. It’s easier to write them an e-mail or make a personal phone call, because there’s no one there to judge you and call you out because you didn’t read the fine text or whatever”. This answer ties directly in with Hypothesis 2 and 3. Hypothesis 2 speculates that customers will prefer interacting with businesses via social networks compared to traditional channels such as e-mail or telephone. This appears not to be the case. Hypothesis 3 states that the increased level of transparency on social networks strengthens their relationship between customers and businesses. One driver was that the students seemed concerned with what businesses were doing with their information. One student stated: “What I don’t like is how businesses are using your information to tailor their marketing”.

## 4. Results of interviews

In this chapter we will examine the results from the interviews and how the responses relate to relevant literature. As previously mentioned, our interview subjects were sent the interview guide (available in Appendix B – audio recordings are available on request) in advance, along with the participant contract. The subjects had also been informed of the topic of the thesis, and were asked to represent their respective businesses in different case studies. The interviews were conducted with the following individuals:

- Lille Vinkel Sko – Marte Klouman (Marketing Executive)
- NSB – Henriette Høyer (Digital Advisor, former web editor)
- Tine – Anette Tvenge (Brand Manager)

While there are certain differences in the follow-up questions asked in each interview, the overall interview guide was not changed. For the sake of clarity, the following analysis focuses on the structure of the guide.

### 4.1 Business models

All of the interview subjects held the belief that their business' decision to embrace social networks is important. We asked about the use of social networks, and what the current situation was in the different businesses. Tine's motivation, for example, is "to build stronger networks with our customers and to be present to allow discussion and two-way communication" [49]. NSB is looking into whether they are using the different channels correctly, as they are "hoping to get more back than just customer feedback" [47]. For Lille Vinkel, social networks are the most important marketing channel despite of their incident mentioned in the case study. All of the businesses use social networks primarily for customer service and marketing. This is consistent with the majority of Norwegian businesses that were studied in the Norwegian Computer Society's annual survey on the use of social media in the business [51].

Out of the three businesses, only Lille Vinkel used social networks to post job openings. In addition, they are also using Facebook as their corporate social network: "Our Intranet is actually a closed, secret Facebook group where all communication between the stores is coordinated. Our employees are expected to be online on Facebook during working hours to stay up to date" [52]. When asked with what they are most satisfied about when using social networks for business

purposes, all interviewees responded by talking about the value of the feedback they get from their customers. Tine sums up the value of this interaction: “If I ask a question about what my customers would like to see from our brand, I get over 100 answers within the first hour” [49]. Apparently, this interaction is not just valuable for the business, as NSB has gotten feedback that says their customers think the interaction is “valuable as they feel like they are being seen and heard” [47]. When asked about where they can identify room for improvement, only Tine started talking about the issues with the platforms they were using, while NSB and Lille Vinkel focused on how they could improve their own presence. Tine is less than content, as Facebook is a difficult platform to rely on due to constant and often unannounced changes. Tvenge stated, “The way they handle this process as of now is not good enough for businesses that rely on the platform. We have to pay constant attention to social networks, because we as a business have no real power to influence the core development” [49].

The interviews went on to discuss how the adoption of social networks had impacted their organizations. For NSB, the most significant impact is that they now have a massive focus group right at their fingertips. In their opinion, their followers are very valuable, as they are still working to regain customer loyalty following a decade of reputational damage as discussed in the case study. For Tine, the decision to employ social network has had a significant impact on sales figures: The Litago brand has increased its sales with over 200% in the last three years. What has changed the most, however, is that they’ve had to shift their approach from “a push-marketing strategy to that of a pull-strategy” [49]. Tvenge further elaborated on how their customers had to “feel enticed to take that step and “like” our product and involve themselves” (ibid). For Lille Vinkel, the impact has largely been publicity because of their decision to be open and honest about their experiences following their incident. In addition, they are using different software such as for Google Analytics to measure sales conversion from Facebook. These tools are apparently quite valuable to small businesses, as they are easily configurable while providing robust metrics which can support business decisions.

Concerning plans for the near future, no concrete ideas were offered besides that all of the interviewees were looking at other potential platforms outside of Facebook and Twitter. When asked to look 3-5 years into the future and elaborate on how they saw their respective businesses use social networks, the answers became more specific. Lille Vinkel wants to professionalize their presence, something which according to Klouman implies spending “more time training our employees on how to use social networks” [52]. NSB believes they will be doing more or less the same as they are today. Høyer states that: “I don’t necessarily think we’ll have a major revolution concerning what we use social networks for. I think we’ll keep doing mostly the same things we do today. But I think people will expect us to be more active and more present” [47]. Perhaps the



way social networks are being used won't be revolutionized, but it's important to consider that the amount of users is steadily increasing. Tine agrees, but adds that a continued focus on social networks is "not going to be free of charge" [49]. Additional resources are needed to maintain this presence, and the organizations have to adapt to deal with this change.

## 4.2 Security risks

The next part of the interview focused on the second research question. More specifically, the risks facing businesses on social networks. The questions ranged from what risks the businesses associated with their use of social networks, security incidents they'd experienced, and what they are doing to protect themselves. NSB's thoughts on what they considered to be a major risk was not being present when they should be. When asked about what this implied, Høyer elaborated, "If there's an accident and someone on the train says: 'Hey! It's dark, the train is on fire, and I am trapped. What do I do?!' Thinking about our reputation, I think that would be a disaster" [47]. This was not the type of response we had expected, but it opened our eyes to a very important realization: Our lives are becoming increasingly intertwined with social networks. If such an incident were to occur, and considering that NSB had an official presence, are they if not legally then perhaps morally responsible for ensuring that these types of incidents are discovered and handled as soon as possible? Tine had a different idea, as Tvenge discussed the risks associated by relying solely on Facebook as their social networking platform. Tine, like other businesses, has no way of migrating their user base to a new platform. If for some reason Facebook were to lose its position as the most popular platform. While this risk is completely different from what NSB had in mind, it's still a real one. This could imply that there's a lot to be lost, because as the old saying goes: it's more costly to gain a new customer than it is to maintain an existing one. It's easy to understand these fears, as Tvenge stated, "We've invested a lot of time and resources in order to build a large fan base which can easily fall apart if another popular social networking service entices them to spend their time elsewhere, or if the terms and conditions make it difficult for us to operate effectively. To me, it's not knowing what's next that's the most significant threat" [49].

When asked about what security incidents they'd experienced as a result of their business being present on social networks, none of the respondents could list any cases without being given examples. The cases that were presented were largely low-severity incidents such as the posting of pornographic images, or spamming by bots or otherwise infected accounts. None of the interviewees could remember any incidents that involved malware, phishing or other more serious attacks. Tine did offer an example that seems to happen every once in a while:

Fans of their primary competitor in the dairy sector in Norway, Q-Meieriene, would join Tine Litago's Facebook page every now and then only to post derogatory remarks. What's interesting is that Tine has rarely had to intervene, as Tvenge said their customers have turned out to be "loyal enough to protect our products by reporting this behavior and informing them that this is not the place for this kind of behavior" [49]. Another example was offered by NSB, where certain employees decided to take matters into their own hands and confront the activist groups on social networks, mentioned in the case study, without official permission. It's understandable that employees can feel the need to stand up for their employer, but this case illustrates how difficult it is to properly control what your employees do on social networks and how it affects the business. In the "real" world, it would be normal for an employee to make a remark or comment if he or she overheard an argument regarding his or her employer. The danger here is that the level of privacy offered by having a discussion in-person is quite different from that on a social network. Perhaps we can attribute this to the ubiquity of social networks combined with a decline in the respect for privacy. We are no longer offered the same level of control with regard to how information spreads. When using social networks, contexts collapse and content can easily spread; as opposed to coming to a stop as if one were having a discussion over a dinner table.

On the question of what would have to happen for the businesses to completely stop using social networks, the answers differed between the interviewees. For Lille Vinkel, the Internet would have to be "out of order" for them to even consider discontinuing its use. For NSB, it could be as simple as a new manager deciding to shut it down. Høyer's concern is that, "if we were to pull out, it would be a lot more noticeable than just keeping up our current initiative. There's the chance of it being killed over time though, by gradually cutting funding and so on. The users would disappear because there's no point in being there anymore" [47]. In Tine's case, social networking would be abandoned if they no longer had any way of tying their time spent engaging their customers on social networks to increased sales figures.

At this point in the interviews, it was becoming clear that the interview subjects had not given the potential risks much thought when they decided to push for the use of social networks. When asked about what the business was doing to protect itself, Lille Vinkel admitted that they had no security routines whatsoever, and that all employees can bring their own devices. In NSB's case, they have a subsidiary called Arrive that's responsible for operations and delivery of IT-services to the corporation. This includes everything from end-point protection mechanisms such as patch management and anti-virus software. However, the people involved with social networks in a customer service role still have administrative privileges on their clients, as they need it to run various applications to manage their presence. Tine would not elaborate on their

protection strategy, but as we remember from the case study, Tvenge is the sole employee managing their presence, making her a potential high-value target if, for example, she uses the same devices to both manage this presence and access to other resources on the Tine's network.

### 4.3 Use of policies and guidelines

In the case studies, we analyzed the contents of the security policies and acceptable-use guidelines the different businesses relied on. When asked questions about why or why not they were being used, the answers shed light on several important points. Lille Vinkel, for example, does not have any form of policy or guidelines their employees must adhere to when using social networks. According to Klouman, “we have a culture of continuous improvement and learning. So, if I see that my boss has formulated himself in a way that I don't think works, I will tell him. We'll discuss the issues, and hopefully we will both learn something from it” [52]. When asked if they have ever considered looking into implementing a security policy, she replied, “It's come up in meetings, but nothing has materialized. However, if we grow, and if we see that the way we're handling ourselves isn't working, we'll have to consider establishing something like that” (ibid). For NSB, their social networking strategy outlines what they wish to accomplish with their use of social networks, and identify specific goals and stakeholders. There is, however, no clear security policy. According to Høyer, whenever someone new is hired, “I present our strategy and tell them why we're on social networks in order for them to understand what our desired end result should look like” [47]. In other words, they are not telling their employees *how* to do their job, but rather to focus *why* they are doing it. Høyer doesn't believe in complicated instructions or policy documents only lawyers can read. She wants her co-workers to, “Answer quickly, be polite and professional” (ibid). In Tine's case, their policy is, as we've previously discussed in the form a collection of questions and answers. Tvenge says the purpose of this guide is to be “a framework that dictates how our employees should behave on Facebook and other social networks, what they are allowed to share and what not [to share]” [49]. Moreover, she stresses the point of vetting information and the importance of fact checking, “If you do something wrong, the chance of it spreading is a big risk factor when you consider how viral things tend to become on social networks. It's important that all content is vetted because it's published. For example when I'm dealing with nutritional questions, customers might ask us why our product is healthy. So if I have to talk about this, I always talk with our nutritional experts to get my facts straight before publishing it” [49].

#### 4.4 Best practices for Norwegian businesses

In the final part of the interview we discussed what the interview subjects considered to be “best practice” in Norway with regard to the use of social networks for businesses purposes. Høyer from NSB thinks it’s “a waste of time to create a strategy before you have any experience” [47]. She encourages businesses to be open and honest in their communication. More specifically, she encourages businesses to get out there and try it. She believes the audience will give a business a fair chance if it is honest in its efforts. This view is supported by Tvenge at Tine, who states that her “number one tip is to get out there, and be open with your audience about what you want to accomplish. Let them decide the content, and then it will be your job to provide it. Nobody can really tell you how that works, because these things change from day to day” [49]. Klouman of Lille Vinkel approaches this question a little bit differently, as she believes the term “best practice” is often misleading, “For example, for Follo Police District, it’s not necessarily [the telecom operator] NetCom that can give them the best advice on how to establish themselves on social networks. They should look at different alternatives, and find a mix that suits what they want out of their efforts” [52]. Several recommendations were collected during the entire interview, and were not limited to the final part. A summary of the recommendations provided by our interviewees is listed below:

- A business should not be motivated to join social networks simply because their customers are present there. A business decision to embrace social networks should be driven by a desire to reach certain goals, for example:
  - Improve their customer service functions.
  - Actively monitor conversations about their business and engage their customers with open and honest communication.
  - Focus on nurturing a culture where customers can supply ideas and opinions which can improve existing or inspire new products and services.
  - Contribute to overall strategic goals, for example increased sales or customer satisfaction.
    - Anchoring these efforts at the executive level is of paramount importance.
- Businesses should shape their tone of voice according to match that of the conversation:
  - Ensure sufficient resources are invested, and that the organization

is involved.

- Enforce clear guidelines, and differentiate the communication depending on the channel.

## 5. Discussion

In this chapter we will evaluate the research that has been performed for this thesis. The research can be summed up as the literature review (where we also provided an introduction to social networks), case studies, a focus group, and several in-depth interviews.

The goal of the literature review is to define what social networks are, why they are important to businesses, contemporary issues regarding security, and what challenges lie ahead. Following the literature review, the research questions and hypotheses were revisited. With the research design in mind, we conducted several case studies to provide insight into different types of businesses, and examine how their adoption of social networks had impacted their organization. We also conducted a focus group with several Norwegian students in their teens to investigate their habits with regard to social networks. Finally, we carried out several structured, in-depth interviews where we spoke with key personnel in the businesses that were the target of the case studies.

### 5.1 Improved service – Hypothesis 1

In our first hypothesis, we speculated that when customers are able to interact with businesses on social networks, they expect improved service. By improved service, we implied that this meant quicker response times, more personalized communication, and increased satisfaction as a result of this. When businesses make the decision to embrace social networks and establish a presence, they are taking an active step to decrease the perceived distance between themselves and their customers. By doing this, they are also communicating that they want their customers to talk to them, something which we think leads to unrealistic expectations with regard to when the businesses are available in terms of providing a response. In the literature review, we analyzed a German survey that concluded that the majority of users expect a reply within 24 hours as the desired reaction time from a business given a request via a social network [23]. In our interview with NSB, we uncovered an issue regarding business hours. For most of their employees, including the customer service representatives that are responsible for managing social networks, their working hours are between 08:00 and 16:00. This is a problem, as the majority of their customers use the passenger rail service as their primary means of transportation to and from their workplace. So, when a train is cancelled at 07:00 in the morning or at 17:30 in the afternoon, NSB's social networking presence is perhaps not fulfilling its goal of increasing customer satisfaction. At the same time, their normal customer service center that handles inquiries via telephone and e-mail stays open until

23:00. One would think that since social networks are a very cost effective platform where businesses easily can distribute information regarding deviations from normal operations, NSB could invest more resources to properly man their social networking presence. According to Høyer, who is pushing for more resources, “So far, our customers understand and accept that we don’t have staffing around the clock, but I don’t think that patience will last forever” [47]. Nearly the same thing can be said about Tine. Although they are not vulnerable in the same ways regarding delays and cancellations, if for some reason their presence is not properly maintained, the customers notice. As Tvenge stated, “I spend my weekends and vacation time monitoring conversations and responding to questions. If I am not there, my fans say ‘Hello, where are you? Have you abandoned the page?’” [49]. Because of these statements, combined with what the literature review uncovered, we can confirm that customers expect increased attention with regard to service and response times when businesses use social networks for these purposes.

## **5.2 Platform preferences – Hypothesis 2**

The second hypothesis we formulated was that customers prefer interacting with businesses via social networks rather than traditional channels such as telephone or e-mail. While we found little evidence that directly supports the idea that customers on average prefer this method of interaction, feedback NSB has received suggests that their customers find it “valuable as they feel like they are being seen and heard” [47]. When conducting our focus group, it became clear that the group preferred their communication with businesses was conducted via telephone or e-mail. We did not expect this type of response, as there are many individuals in their age group that prefers this type of interaction with businesses. For example, our case study of Tine Litago found that they alone have over 115.000 fans on their Facebook page, and we documented that a large percentage of these fans actively participate in their campaigns. Høyer from NSB can show the same kind of pattern, as a large percentage of their 10.000 fans are active participants. Høyer stated, “from Facebook’s statistics, 70-80% of these [followers] are actively using our page” [47]. So while our focus group preferred communicating with businesses via telephone or e-mail, a fair assumption is that this preference varies with age, maturity in terms of their social network usage, and the type of business one wishes to communicate with. Our conclusion is that the hypothesis cannot be confirmed or disproved based on our research, as there is no definite answer to what platform customers prefer when communicating with businesses.

### 5.3 Strengthened relationships – Hypothesis 3

Interaction between customers and businesses are quite different on social networks than other channels. We speculated that when customers and businesses interact on social networks, the lack of protection between privacy and publicity would help strengthen their relationship. Social networks change the dynamics of communication, for example when customers want to present an inquiry they have to face the community on a given social network. This implies increased transparency, as the customers can lose face if they are pointed out for not being truthful or perhaps if they are being unreasonable. On the other hand, businesses have to provide accurate information that can withstand the scrutiny of a large audience rather than a single person as would be the case in one-to-one communication. Our research suggests that this is actually the case. For example, Tine often receives questions regarding the nutritional contents of their products, and in order to ensure that the information that is posted is correct, Tvenge tells the following story:

*“If you do something wrong, the chance of it spreading is a big risk factor when you consider how viral things tend to become on social networks. It’s important that all content is vetted because it’s published. For example when I’m dealing with nutritional questions, customers might ask us why our product is healthy. So if I have to talk about this, I always talk with our nutritional experts to get my facts straight before publishing it” [49].*

Another example from Tine supports our concept where the community has implemented some form of self-justice. When asked about these types of situations, Tvenge elaborated:

*“We do receive some negative attention from fans of our primary competitor, “Q-Melk”. These fans will join our page only to spread degrading information about our products while promoting what they like. However, what’s interesting is that our fans are loyal enough to protect our products by reporting this behavior and informing them that this is not the place for this kind of behavior, for example: ‘If you’re such a fan of this other product, why are you bothering this company?’. I rarely have to intervene if there’s a debate between consumers of different products” [49].*

This story is fascinating, as it illustrates how loyal customers can help “protect” the business. The transparency of social networks seems to forge a tighter bond between businesses and their customers. Whereas customers previously would be more or less anonymous, they can now directly associate the social networking profile with the businesses, products, and services they appreciate or wish to influence. We believe these characteristics help prove that businesses that use social networks strengthen the relationships they have with their customers.



Because of these findings, we can confirm the 3<sup>rd</sup> hypothesis which states that the lack of protection between privacy and publicity strengthens the relationship between customers and businesses on social networks.

#### **5.4 Security focus – Hypotheses 4 and 5**

The 4<sup>th</sup> and 5<sup>th</sup> hypotheses focus on the second research question: What are the most significant security risks facing both customers and corporations on social networks? We speculated that with the time spent, and the value of the content stored, users of social networks increase the level of security requires to protect themselves. For businesses, this implies taking appropriate measures to minimize the risk of a security incident caused by their presence on social networks. Furthermore, we imagined that with the usage of social networks, users recognize that they lack the knowledge necessary to maintain a credible security posture. What we can deduce by this is that the risk of losing face is a drive to emphasize an increased focus on security. Finally, we speculated that businesses are not aware of the risks they face when using social networks for business purposes.

In the beginning of this thesis, we narrowed the scope of the research to focus primarily on the use of security policies and guidelines, which is what we will look for in order to test these hypotheses. What we've discovered is an overall lack of focus on security issues. Both NSB and Tine have thoroughly planned how their use of social networks for business purposes would support strategic goals. However, the focus on managing the potential risks has not been a priority. Neither of the businesses we portrayed in our case studies has a specific security policy that outlines what users are or are not allowed to do. When we consider the figures from the literature review that suggest that social networks are becoming increasingly popular platforms on which to distribute malware and perform other types of attacks, these businesses can easily become targets. However, the businesses we studied did elaborate on how they were working to professionalize their presence, as one of their biggest concerns is how their customers perceive them. These findings support our 4<sup>th</sup> hypothesis, seeing as how both businesses and customers spend more time on social networks, they increase their focus on security in order to protect themselves. In our case, this translates to businesses professionalizing their presence by building better guidelines and learning from their experiences when engaging customers on social networks.

However, the general attitude of Norwegian businesses is that social networks do not represent a security risk. The Norwegian Computer Society's annual survey of business usage of social networks states that out of nearly 400 businesses, only 25% of them considers the use of social networks a security risk

[51]. In contrast, a similar survey from security firm Sophos, which we covered in the literature review, states that 72% of over 500 international organizations are concerned that actions conducted by their employees on social networks could put the business at risk [30]. There are several reasons why these numbers are so different. For example, the respondents could have different backgrounds, experience or biases, or, the questions can be worded differently. Nonetheless, considering that the literature review uncovered that Norwegian businesses were somewhat slow to adopt social networks, this could be explained by the fact that Norwegian businesses in general simply don't have the experience necessary to answer this question correctly. However, the survey by the Norwegian Computer Society states that the number of businesses that consider the use of social networks a security risk has actually decreased from 39% in 2009, to 34% in 2010 to 25% in 2011 [51]. At the same time, the question regarding whether or not businesses have experienced "unfortunate [security] incidents" as a direct result of using social networks, roughly 20% of the surveyed businesses answer yes. This behavior might be explained by the fact that as more and more businesses get experience using these platforms, the fear of an incident decreases proportionately to their increased knowledge. We think this behavior is paradoxical, but it can be explained when we consider the following: social networks can be considered a "new" phenomenon, as they've only been around in their current form for a few years. A couple of years ago, businesses had no experience with them, thus they were perceived as risky and unfamiliar. It's natural for humans to overplay risks in situations where they do not feel as if they are in control. Similarly, we tend to downplay risks when we feel comfortable. This cognitive bias can explain why businesses are less concerned about the risks posed by social networks. Our belief is that it is becoming increasingly dangerous for businesses to use social networks. This statement is based on the findings in our literature review where we documented the increased numbers of security incidents and malware attacks targeting these platforms as they grow in popularity. The same form of bias can also be found in the results of our focus group. While the students' overall awareness with regard to protecting themselves was higher than what we had expected, their lack of technical knowledge shows that they think they are more secure than they in fact are.

In light of our findings and the supporting literature, we can conclude that while many Norwegian businesses and users have experienced security incidents directly caused by their use of social networks, the result so far is that fewer businesses now consider the use of social networks a risk. As businesses get more experienced using social networks, the perceived risk decreases. For businesses, this is exemplified by their efforts to improve their guidelines and professionalize their presence. Because of these findings, we can confirm our 4<sup>th</sup> hypothesis which states that users and businesses increase the level of security with the

time spent and the value of content stored.

For the 5<sup>th</sup> hypothesis, we can confirm that the risk of losing face is a driver to further emphasize on security. The businesses we studied were most concerned with how their customers perceived them. It's our impression that the businesses and users we studied have started realizing that they lack the knowledge necessary to properly protect their interests. An example of this is from Tine, as Tvenge stated, "we did not know what to expect in terms of what we need to look out for and what the threats are because it was so "new" and different. We did end up with a little "learning by doing", so we've had to go back to the drawing board on certain occasions when we've had certain types of situations happen that we didn't plan for" [49]. As far as our focus group is concerned, their lives are very much intertwined with what happens on the social networks where they're present. They are regularly exposed to incidents that either happens to themselves or their friends. Because of this dynamic, they learn – sometimes the hard way – that their security posture perhaps isn't what it should be. When we asked them if they were paying more attention to security when they were now so dependent on social networks, one student elaborated, "I think I've gotten more critical of what I do as I've gotten older. In the beginning, I was only 12 years old when I first got my account on Facebook, but I have gotten better at how I manage my information with age". Because of these statements, we consider the 5<sup>th</sup> hypothesis to be confirmed.

### **5.7 Policy options – Hypotheses 6 and 7**

The 6<sup>th</sup> and 7<sup>th</sup> hypotheses are drawn from our third research question that begs the question of how businesses are using policy options to balance the potentials and risks associated with the use of social networks. When conducting our case studies and interviews, we were left with the impression that the businesses were in general not properly considering the risk associated with the use of social networks. The interviewees seemed more concerned with how different platforms were gaining or losing ground, in what direction they were being developed, and how they were being perceived by their customers. There was an apparent lack of focus on more technical threats such as targeted malware attacks or social engineering as part of the reconnaissance or mapping phase of an attack. In order to get the answers we were looking for, the interview subjects were asked more specific questions on the subject of risk. Høyer from NSB stated,

*"[Concerning risks] there's also been a few [employees] that have used of social networking channels to vent about internal issues. Fortunately, this was only in the beginning and we were able to take care of that rather quickly. But that's a risk, namely that employees don't understand the reach and spread that can occur*

*when they decide to hang out the dirty laundry in these channels” [47].*

In other words, Høyer is concerned about what NSB as an organization communicates. Given their history and damaged reputation, it's easy to understand that controlling corporate communications on social networks is a primary concern. However, when we consider their guidelines, there are no clear lines that define what's considered acceptable behavior. Klouman of Lille Vinkel Sko shares Høyer's concern. When asked what she considers to be the biggest risk for her business with regard to the use of social networks, Klouman states, “the moment we lose the ability to properly care for our customers, then we have a problem on our hands. All other problems can be solved” [52].

We believe that managing the business' presence on social networks requires both measuring and controlling risk. We've identified several risk factors associated with business' usage of social networks, and Høyer's statement serves as an excellent example. This and other types of risks must be controlled, as using social networks is risky and can be compared to the risk of engaging in business in an emerging market. The technology is new, and many businesses have little or no experience to rely on. However, contingency planning can help businesses prepare for potential security incidents. The purpose of such planning is to limit the potential impact of an incident.

Overall, the awareness with regard to the security and privacy issues of using social networks for business purposes was low. In total, two of the three businesses in our case studies had guidelines for how their employees should behave on social networks, but neither of these guidelines specifically state what employees are and are not permitted to do. Based on the evidence from the literature review, case studies, and interviews we can confirm the 6<sup>th</sup> hypothesis which states that businesses are not aware of the risks they face when using social networking websites for business purposes.

Our 7<sup>th</sup> hypothesis promotes that the majority of businesses (>50%) do not use specific security policies or acceptable-use guidelines for employees using social networks. Our three case studies do not provide enough respondents to ensure that validity and reliability is maintained. However, this hypothesis was kept despite the decision to abandon mass-distributed surveys in favor of case studies. Because of this decision we have relied on secondary data provided in the Norwegian Computer Society's annual survey of business' use of social networks [51]. This survey covers many different areas, and we will focus on the security aspect, more specifically the section regarding strategies and guidelines for business use. The survey was conducted by grouping businesses into different categories. The largest group – referred to as the “panel group” – of businesses consists of 263 randomly selected businesses operating in Norway. It's worth noting that the real number is lower, as businesses were disqualified from certain segments of the survey if social networks had not been discussed in the business,

or they'd reached a decision saying they would not use them for business purposes. A total of 392 business representatives have answered the survey, which was focused specifically on 6 social networks: LinkedIn, YouTube, Facebook, Twitter, Google+ and Blogger (ibid). In their panel selection, only an average of 39% of the surveyed businesses in the "panel group" have implemented acceptable-use guidelines:

BRANSJE	Industri/ anlegg	Data- og telekom	Handel og rest.	Transp. reiseliv	Media/ reklame	Tjeneste ytende	Helse /sosial	Forv. og int.org	Under- visning
Antall svar:	54	46	37	20	50	80	44	27	32
Diskutert bruk av / tilstedeværelse av sosiale medier Andel svart ja	57	76	73	85	80	66	66	74	50
Hva var beslutningen:									
Skal bruke sosiale medier	43	72	68	75	74	59	43	63	50
Gjøre videre analyser /utredninger	21	22	11	20	14	24	25	22	22
Har virksomheten en tydelig strategi for bruk av sosiale medier? Svart ja	39	52	54	55	60	42	38	41	38
<b>Innført kjøreregler for «nett- etikette» for ansattes bruk av sosiale medier? Svart ja</b>	<b>28</b>	<b>43</b>	<b>30</b>	<b>40</b>	<b>34</b>	<b>48</b>	<b>61</b>	<b>30</b>	<b>38</b>

**Figure.** The highlighted row displays the percentage of the surveyed businesses that have implemented acceptable-use guidelines for employee usage of social networks. Note that the different numbers correspond to different industries [51].

This survey provides insight into the current state of Norwegian businesses and their attitudes towards using social networks for business purposes. An important finding is that larger businesses seem to have higher awareness with regard to security. On average, they encourage their employees to represent the business but still recognize that the actions of their employees can result in security incidents [51].

Based on our findings, we can confirm our 7<sup>th</sup> hypothesis, namely that the majority of businesses (>50%) do not use specific security policies or acceptable-use guidelines for employees using social networks for personal or business purposes. When considering the potential judicial ramifications we outlined in our case study on legal aspects, we believe this finding is of significant importance. Unless the majority of Norwegian businesses continue this trend, it is only a matter of time before some of them will be struggling to deal with the fall out of an incident that could easily have been avoided

## 6. Conclusion

Social networks are permeating all aspects of our society, and businesses are just beginning to discover what they have to offer. Social networks are so complex, they beg for questions like how are they formed or how they operate. We've elaborated on how both businesses and private individuals use social networks for anything from enabling rich two-way communications, organizing events, and sharing ideas and opinions. Because of this, the motivation for this thesis has been to investigate how businesses can integrate social networks while balancing opportunity and risk. When researching the topic, it became clear that social networks are changing the way customers and businesses interact with one another. Seth Godin argues that social networks have brought back a social unit of the past, better known as the "tribe" [53]. When everyone thought the Internet would connect us all and homogenize us, social networks came along and put us into silos of interests. Not by force, but by our own choice. Previously, we had no way of easily finding or communicating with others that shared an idea or opinion. Because of social networks, we are now finding what we've been searching for. Godin elaborates, "The point is that you can find Ukrainian folk dancers and connect with them, because you want to be connected. That people on the fringes can find each other, connect and go somewhere" (ibid). The same goes with how we as customer interact with businesses. Not long ago we were writing them letters and posting in the local newspaper when we happened to disagree with something, with a faint hope that someone else out there shared our joy or discontent, and for a long time we had no way of getting the feedback we wanted. Suddenly, we are now able to partake in discussions where we can share our thoughts, and the people behind the products and services we as consumers either love or hate are there to listen and offer their feedback. While this new way customers and businesses can interact can help improve products and services, social networks are becoming lucrative targets for organized criminals, social engineers and other individuals with malicious intent. We've elaborated on how malware attacks are increasingly targeting social networking websites, and how the risk of infection is higher than many other attack vectors due to the inherent trust we place in these networks.

However, despite solid evidence of the potential dangers associated with social networks, Norwegian businesses appear to have a lot to learn in terms of minimizing risk. The risk is not only relevant to businesses that are already out there. We believe that businesses should create action plans for social networks, even if they are not present or have no plans to establish a presence. This is necessary because not having a presence on social networks might be just as

dangerous as having one. We say this because if businesses have no way of monitoring their brand and what is being said about their products or services, they might suffer from reputational damage. This damage will only be increased by not offering their side a story or providing facts if what is being said is untrue or otherwise biased. So when considering an action plans, businesses should start by carrying out risk analyses. These analyses should begin by focusing on what information about their business is out there in order to map the environment. Facebook, for example, has a feature where open source information about businesses is used to automatically create directory pages. Businesses should find out what kind of information is being posted and assume ownership of it. Moreover, businesses should monitor what their customers are saying about them. Are their customers positive or negative in their feedback? We believe that businesses can uncover new information by monitoring these types of communications.

If the choice is made to start using social networks for business purposes, there are several things to consider. Perhaps most importantly is to ensure that the project is anchored at the executive level, and that social networks should be used as a multiplier in order to help the business reach other strategic goals. Once a strategy has been drawn up, the business should develop security policies and acceptable-use guidelines in order to communicate what's expected of their employees. Furthermore, these policies and guidelines should be used as a tool for raising security awareness in the organization. Social networks represent a significant change in the way businesses and customers communicate, and this change has to be addressed the correct way. Many things can be said about compliance, but it is probably more relevant to create awareness of why the given rules are in place, and how they can help the business succeed. While more conservative businesses might not even allow the use of social networks, we believe that allowing access to these services can help create a positive focus on security within the business.

Like other technologies, popular social networking platforms tend to come and go. Currently, Facebook is the most popular, but other platforms might outperform it in just a few years time. Because of speed and momentum of development of social networks, the proposed policies and guidelines have to be treated as living documents to ensure that they stay relevant, and should not be detailed to a specific platform. In addition, for a policy to be successful, the ability for the business to monitor and enforce it is critical. As we are moving towards an increasingly transparent society where the use of social networks undoubtedly will play an important role, businesses should think of this change as an opportunity rather than a threat, and turn this change into a strategic business opportunity.

As a summary, if the opportunities outweigh the potential risks, businesses should manage social networks by:

1. Creating a strategy and security policy that aligns with the overall business mission and goals.
2. Incorporating social networks into businesses processes such as customer service, marketing and corporate communications.
3. Monitoring conversations that concern the business on social networking services such as Twitter, LinkedIn and Facebook.
4. Performing stakeholder analyses to better understand how and why social networks are being used.
5. Measuring what impact social networking has on employee productivity and engagement. This has both potential negative and positive aspects. For example, while social networking can be time consuming, the potential benefits of employees being able to connect with and draw upon the knowledge and experience of their network might be valuable.

## **6.1 Criticism and future work**

In this section, we will elaborate on the limitations of the research conducted in this thesis, provide criticism, and present possible future work related to Norwegian business and their use of social networks. When critiquing the research, we will rely on the criteria proposed by Leedy et al. for evaluating qualitative research [8].

We will start by considering the purposefulness of the research. This implies investigating whether the research questions drive the methods used. In this thesis, the research questions and possible methods were defined in the research proposal that was developed and evaluated in the late fall of 2010. While the initial research proposal suggested the use of surveys as a possible method, this was abandoned in favor of conducting case studies as previously described. However, the research questions could have benefited from additional details. We believe this could have further clarified their purpose and intent. Regardless, we believe our research questions drove the methods used to collect and analyze data, and not the other way around.

When considering the explicitness of assumptions and biases, the researcher was in this case biased by the fact the he was interviewing individuals who do not have security as the main focus of their profession. Considering the researcher is employed as an IT-security consultant, we can assume that this has



influenced the interpretation of the collected data. While the researcher might be inclined to focus more on security rather than the business aspects outlined in the thesis, we still believe that the research design, use of methods in the collection, and analyses of data has been rigorous. This implies that the necessary steps have been taken in order to remain objective with regard to the project.

During the course of the research, it became clear that some of the hypotheses were too ambiguous and open to interpretation. Because of this lack of clarity, the researcher had to modify these hypotheses in order to avoid conflicts, as two of the hypotheses were mutually exclusive. This can be attributed to lack of vetting of the hypotheses before proceeding with the research. On the other hand, we believe this willingness also demonstrates a certain degree of open-mindedness.

The fifth criteria for evaluating the research is completeness, more specifically whether or not we have devoted sufficient attention, effort and time to thoroughly study the matter at hand. We believe we have been methodical in explaining the subject matter as we have elaborated on what social networks are, how they function, how businesses use them, and what security risks they pose. However, we could have spent more time discussing the different technologies that enable social networking websites such as Facebook, Twitter and so forth. Additionally, this thesis has focused on both business models and security concerns. The problem with this approach is that we have attempted to cover several academic disciplines. In order to understand the security aspects of business usage of social networks, we had to investigate how they were operated in terms of both management and economics. The result of this is that the focus of the research has not been entirely on information security. We've devoted significant resources in order to explain different aspects that are not directly associated with core curriculum of this Master's program. While we feel this has been a "necessary evil", our conclusion is that the overall focus on information security issues in this thesis could have been improved.

We also believe that the coherence of the research in this thesis can be improved. By coherence, we imply that the data collected has yielded consistent findings. While our findings are consistent with those of other sources and secondary data, we cannot escape the fact that our research has been limited to a few case studies, interviews, a chapter on the legal aspects, and a focus group targeting Generation Y. There are several reasons why we believe the coherence could have been improved. First of all, the researcher does not have significant experience as an interviewer outside of recruiting purposes. Because of this, it's possible that there is room for improvement with regard to how they were conducted and analyzed. Secondly, the literature review was challenging. Because social networks are a fairly new phenomenon, the available literature on the areas in question is limited. Finally, as this is a qualitative study, the

researcher's bias and interpretation of the data can have had an adverse effect on the final analysis and conclusions.

We consider this thesis to be persuasive, meaning that we offer logical arguments, and the weight of the evidence presented suggests that our interpretations exclude other possibilities. Ultimately, it is our belief that the project has yielded a better understanding of problem area.

However, when we consider that the subject of this thesis is still relatively new, there is room for future work and research. We believe the Norwegian government can benefit from assisting organizations who are planning to use social networks for business purposes. The Norwegian Centre for Information Security (NorSIS) is a government institution that primarily targets small and medium sized enterprises in order to raise awareness regarding information security, and to “[compile] and provide guidelines and tutorials concerning information security topics” [54]. We believe NorSIS should facilitate the creation of frameworks for social networking security policies and acceptable-use guidelines. By investing in such a project, NorSIS could strengthen their position as an important ally for small and medium sized Norwegian businesses. The end result is that Norwegian businesses would be better equipped to face several of the security issues outlined in this thesis.

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## A Appendix – Participant Contract

### Master Thesis Project – Participant contract:

#### *Information for participants:*

Dear participant,

Thank you for participating in this research project! The goal of this interview is to draw upon your knowledge and experience in order to address the challenges concerning the use of social networks in business settings. The project is non-commercial, sponsored only by the Master of Science in Information Security program at Høgskolen i Gjøvik/Gjøvik University College. By signing this document, you agree that your contribution can be used for research purposes in the thesis, and your name will be added to a list of references.

Please fill in the following information:

**First name:**

**Last name:**

**Date of birth:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sex (please circle):**

Male

Female

**Date, place:**

**Signature:**

\_\_\_\_\_

\_\_\_\_\_

Disclaimer:

*All supporting data used in this experiment (such as recordings, etc.) is stored on an encrypted volume, and will be securely deleted when the research has concluded, in accordance with guidelines set forth in the Norwegian Data Protection Act and by Personvernombudet for Forskning.*

*Read more about your rights here (Norwegian only):*

<http://www.nsd.uib.no/personvern/forskningsdelt.html>



## B Appendix – Interview Guide

*Interview guide:*

<b>Research question:</b>	<b>Interview question:</b>
<p>What social networking business models are currently being used, what business models can we expect to see in the near future, and what potential and benefits to they have for corporations?</p>	<ul style="list-style-type: none"> <li>6) Concerning the use of social networks, what’s the situation in your business today?</li> <li>7) For what business processes does your company use social networks?</li> <li>8) Do you consider social networks as a “toy”, or as a business enabler?</li> <li>9) By using social networks, what are you the most satisfied about?</li> <li>10)Where do you identify room for improvement?</li> <li>11)How has the use of social networks impacted your organization?</li> <li>12)Do you measure ROI or other, similar financial metrics? If so, how?</li> <li>13)What business processes do you believe can be run more efficiently by using social networks?</li> <li>14)Does your business have any plans that involve the use of social networks in the near future?</li> <li>15) How do you see your business using social networks in the next 3-5 years?</li> </ul>
<p>What are the most significant security risks facing both customers and corporations on social networks?</p>	<ul style="list-style-type: none"> <li>1) What risks do you associate with your business’ use of social networks?</li> </ul>

- 2) What current threats on social networks are you aware of?
- 3) Has your business suffered a security incident as a direct or in-direct result of your presence on social networks?
- 4) What do you consider to be the biggest risk for your business with regard to the use of social networks?
- 5) What are you doing to protect your business when using social networks?
- 6) What would have to happen for your business to stop using social networks?

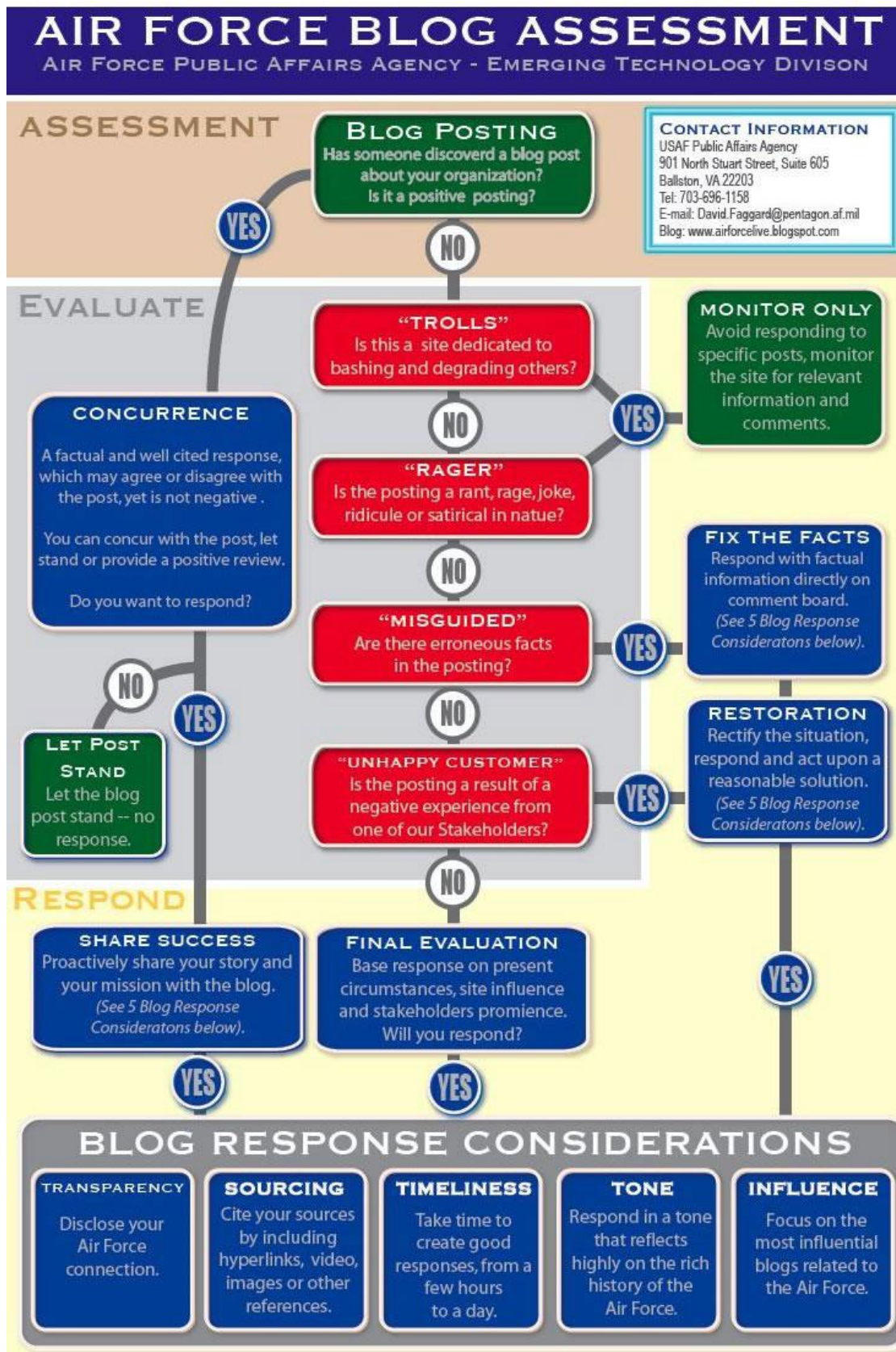
How can businesses use policy options to balance the potentials and risks associated with the use of social networks?

- 1) Do you utilize acceptable use policies or guidelines to manage your business' presence on social networks?
- 2) If yes:
  - How did you design them?
  - Did you use a template or framework?
  - How were they implemented?
  - Are they functioning as you intended?
- 3) If no:
  - Do you have other mechanisms that serve the same purpose?

What are typical examples of security-level policies that can be used as a template for Norwegian businesses?

- 1) What resources are out there for businesses that want to create security-level policies for corporate social networking?
  - 2) What do you consider to be "best practice" when it comes to these types of policies?
-

## C Appendix – NSB’s acceptable-use guideline template



## D Appendix – Tine’s acceptable-use guidelines

### I knipa?

Hva gjør vi når vi er på Facebook og Twitter, eller andre steder på nettet, og de vanskelige situasjonene eller spørsmålene dukker opp? Hva sier vi, og hva sier vi ikke? Hvordan ordlegger vi oss? Nedenfor finner du noen eksempler på problemstillinger som kan dukke opp:

- *Hvordan stiller TINE seg til at jeg melder meg inn i grupper som for eksempel «La G35 leve» på Facebook? Hva med om jeg er fan av konkurrerende merkevarer?*

TINE har ingenting med hvilke grupper du er medlem av på Facebook, men ønsker ikke at du skal uttale deg på vegne av TINE når du engasjerer deg. I saker, som for eksempel G35, har TINE egne talspersoner. Det er også greit å tenke på at man ikke bør henge ut TINE eller kollegaer i slike åpne forum. Vi bør heller bli flinkere til å åpne for debatt i våre egne kanaler, som f.eks. her på TINE-torget.

- *Når venner spør om ting rundt TINE via sosiale medier, hva kan og bør jeg si?*

Det kommer helt an på hva det er snakk om. Vi synes det er positivt at ansatte engasjerer seg på vegne av TINE, men man skal være forsiktig med å begi seg inn på temaer som kan være taushetsbelagt eller av intern karakter.

- *Hvor kan jeg adressere ting som engasjerer meg, som jeg gladelig ville diskutert med folk i selskapssammenheng?*

Er du en matglad person, eller opptatt av helse, dyrevelferd eller lignende, er det ingenting i veien for å engasjere seg i slike temaer i sosiale medier. Det er derimot viktig at du ikke legger skjul på hvor du jobber, og samtidig informerer om at dette er dine meninger, og ikke nødvendigvis TINEs offisielle synspunkter.

- *Jeg er misfornøyd med sjefen på jobben. Hva kan jeg si?*

Er du misfornøyd med sjefen eller en kollega, er ikke de sosiale mediene stedet for klaging eller uthenging. Slike ting tar man internt.

- *Jeg synes vi burde laget et nytt produkt og har noen ideer om dette. Hva er lurt å si om slikt?*

Det er absolutt mulig å bruke sosiale medier til å tipse om produkter eller andre ideer. Vi bør også her være flinkere til å oppmuntre til idégenerering via interne medier. Men gode ideer bør vi ta opp internt, ellers risikerer vi at andre snapper de rett for nesen på oss.

- *I går kjøpte jeg en ost fra en konkurrent, og den var skikkelig vond. Forteller jeg om det?*

Det er en god regel ikke å snakke stygt om konkurrentene fordi det kan oppfattes som «organisert» skittkasting, men det kommer også an på hvilken tone man tar. Nedsettende ord eller banneord for å beskrive hva man mener om for eksempel konkurrerende produkter, er sjelden verken fint eller smart. Da er det bedre for eksempel å si: «Smakte yoghurten fra XXX i dag og synes den er oppskrytt». En slik melding oppfattes nok som mye mer konstruktiv.

- *Jeg synes Q-meierenes sjokolademelk er bedre enn TINEs, og liker Synnøve Findens gulost bedre enn Norvegia. Er det galt å mene det som TINE-ansatt? Hvorfor?*

Som TINE-ansatt kan du mene hva du vil, men det er greit å være bevisst på hvordan budskapet ditt kan bli oppfattet av dem som leser meldingen din. Det er ikke galt å mene at konkurrerende produkter smaker bedre, men i og med at du selv er TINE-ansatt kan det være fornuftig ikke å lage et stort nummer ut av det i de sosiale mediene. Men også her avhenger det av formen og ordene man velger.

«Selv om jeg jobber i TINE synes jeg faktisk at SF-osten smaker bra!» er helt OK å si, mens formuleringen «Jeg synes TINE-osten smaker dritt og kjøper alltid ost fra SF. Billigere er det også» kanskje er å gå over grensen.

- *I går sviktet teknikk og utstyr og vi hadde kjempeproblemer med rengjøring av maskinene. Håper alt ble bra til slutt, men vi er litt usikre. Kan man fortelle om sånt?*

I slike tilfeller er det viktig å gå varsomt fram. Ting som skjer på jobben trenger vi ikke nødvendigvis å dele med hele verden. Det kan fort bli misoppfattet av leserne, og sette i gang unødvendige rykter som igjen kan skape problemer.

- *Lørdag var jeg på fest om kom i krangel om TINE med noen venner. Hva er lurt å gjøre i slike sammenhenger?*

Å være engasjert i arbeidsplassen sin, og havne i diskusjoner i sosiale sammenhenger er ikke galt. Men det kan være lurt å la diskusjonen forbli offline og ikke ta den med ut på Facebook dagen etter. Et lysende eksempel på hva man ikke bør gjøre, er slik informasjonssjefen i en av Norges største banker – også for bønder – gjorde. Han skrev blogginnlegget «J... bønder» en søndagsmorgen etter å ha irritert seg over tilskudd til landbruket. Det ga veldig mye negativ støy for banken – som etterpå måtte beklage det hele offentlig.

- *Jeg synes min faste matbutikk glemmer bort vår juice til fordel for utenlandsk. Da har jeg lyst til å rydde i hyllene. Og noen ganger gjør jeg det.*

Det kan du godt fortsette med ☺

## **E Appendix – Interview Transcripts**

### **Interview transcript – Marte Klouman, Marketing Executive, Lille Vinkel Sko:**

**Date:** 19.10.2011

**Place:** Telephone, Oslo

#### ***Concerning the use of social networks, what's the situation in your business today?***

The situation is that social networks is our most important marketing channel, and we use as little funds as possible on other channels. If we are doing any “traditional” marketing like on paper, it's because we are forced to do so through the different shopping centers we are part of. Social networks are important, and there are several employees at Lille Vinkel that work actively to maintain our presence.

#### ***Aside from marketing, for what business processes do you use social networks?***

We use social networks internally. Our intranet is actually a closed, secret Facebook group where all communication between the stores is coordinated. Our employees are expected to be online on Facebook during working hours to stay up to date.

#### ***What about other functions? Job postings, etc?***

You can say that we rely on social networks in all of our communication with customers. If we're looking for new employees, we primarily use Facebook, Twitter and our blog to spread the message. What else? Hmm. In any event, social networks are always considered when we are going to do something new or different.

#### ***Is it difficult to avoid?***

It feels natural, as it's our normal way of communicating both internally and externally.

#### ***By using social networks, what are you the most satisfied about?***

It's got to be the ability to reach so many at once, and the ability to get direct feedback. For example, just yesterday we posted a competition for our customers. It turns out that someone of us hadn't done a good enough job in advance. It didn't take more than half a minute before one of our customers told us that something wasn't working the way it was supposed to. In that way, social networks are highly practical.

#### ***Where can you identify room for improvement?***

We have room for improvement everywhere. We can improve our content, in our delivery, in updating our customers and so on. We are good at controlling our tone of voice on social networks, but we can still improve. We're not all equally well trained. We

can also spread our presence to other platforms where we should be, but aren't as of now. Unlimited potential for improvement, in other words.

***These are ideas for improving your business on social networks. How can the social networks themselves be improved?***

I could probably come up with a good list, but I haven't reflected on the shortcomings.

***We can perhaps revisit this question if you come up with something?***

I think we'll leave this question for now, as I've focused more on the opportunities that are there rather than what could be improved.

***Lille Vinkel is somewhat of a pioneer. You had your first web shop in 1999, and embraced social networking as a business in 2008, correct?***

No, 2009, actually. So we haven't been there for that long. But considering that a lot of businesses have been slow to adopt it, you can't really say we've been slow, but two years isn't a very long time.

***Outside of moving your corporate intranet to a closed Facebook group, what other impact has social networking had on your business?***

I believe we've been able to hire better people. Considering we've been recruiting through social networks lately, we've gotten new employees we wouldn't otherwise necessarily have reached. Other impacts, well, we've gotten a lot of PR from our social networking efforts. Not just directly from spreading the news that we're out there, but more from being open in talking about our experiences. I don't know if I'm answering your questions correctly?

***No, your're hitting the ball!***

***But considering sales, as you have social networks are your only marketing channel, how do you measure sales conversion from your involvement on Facebook? Do you use any other metrics such as for example ROI?***

It's not the only channel, the most important channel! But yes, we do measure certain metrics. We use simple tools such as Google Analytics, where we measure sales conversion from Facebook. We don't measure Twitter, we don't follow it as closely, but we have the numbers of course. Primarily, we measure sales conversion from our Facebook page and blog, and compare these figures to the average sales conversion figures from our web shop. That's one way we measure these things. We also use Facebooks reporting tools.

***When you talk about sales conversion, are you able to link activity on your Facebook page to corresponding sales on your web shop?***

Yes, we measure how many of the visitors on our site that are sent there from Facebook that end up purchasing a product. We aren't measuring how much more they shop for



than “regular” customers, but that’s something that could be interesting to look at in the future.

***Are there any other business processes that you think could be run on social networks?***

Business processes... How do you define business processes?

***Well, you say that social networks are the most important channel for your marketing processes. Furthermore, you spoke of job postings, which would be considered an HR process. Can you think of any other processes that could function on social networks?***

None that I’ve given much thought. The thing about retail is that so many of the processes are physical.

***Exactly, I’m just wondering if you had any ideas.***

No, but I’d love to hear them if you come up with something!

***Earlier, you spoke of the possibility of looking at other social networking platforms; can you elaborate on these plans?***

Yes. We are not looking at anything in particular, but YouTube is a platform we absolutely could do interesting things with. We have to look at establishing ourselves there. We also have a LinkedIn profile, and it’d be natural to improve it, as it’s not completed as of today. First and foremost this would be suited for recruiting purposes, but also communicating with other businesses and suppliers. We are using social networks to market ourselves to suppliers. In other words, our presence on social networks is a good sales pitch for suppliers to make them think of us as an attractive retailer, especially when negotiating with new brands. We can use our big following to get extra good terms from our suppliers. This is a bi-effect of our success on social networks.

***If you get our your crystal ball, how do you see Lille Vinkel using social networks 3-5 years from now?***

I think we have put our efforts into a better system. As of now, it’s slightly ad-hoc. Some of the follow-up we have with our efforts are a little random. That doesn’t necessarily mean we’re doing a bad job, but there are a few of us that are very interesting in working with it, so we make sure that content is being produced and published. I think we will spend more time training our employees on how to use social networks. We will probably also measure other metrics. I think we might also use it more directly in sales. We might end up selling shoes directly from our Facebook page for example.

***What risks do you associate with your business’ use of social networks?***

I see that those out there that aren’t controlling their presence the right way, they are taking risks by being present. Everything is transparent. So if you aren’t good at caring for your customers, this will be exposed rather quickly. Other risks might be that a

business puts all its effort into a single platform. For us, Facebook is important, but I don't think it's a risk for us at all. Our strong side is that we take care of our customers, which in turn is why we're successful on Facebook. It's one of the few ways we can deliver value. We do it when we talk to them on the phone, or when they visit a store, and on Facebook. So, when the next big thing comes along, we will have made sure that our qualities will entice customers to follow us to that new platform. So for us, I am not worried about it. However, it's very important to handle a business well if they are present on a social network. Those higher up in the business have to be aware and have some sort of control over what's being done with the communication on social networks further down in the organization.

***Outside of not caring for your customers the right way, what other threats on social networks are you aware of?***

When you say it like that, I feel as if I should have remembered some of these threats... I have not really worried about it much to be honest. One thing I have thought about though is that both Facebook and businesses don't carefully think about what social networks are going to look like; we face the risk of businesses invading Facebook looking to push all their products and services towards potential customers. If this happens, I think the platform will be ruined. Too much commercial content on these platforms can mean that they are no longer interesting to users. That's a responsibility for us as business owners, but also that people behind the different platforms. We have to guide this development in the right direction.

***Outside of the Facebook-incident, have you suffered any other security incidents as a direct or in-direct result of your presence on social networks?***

Do you mean in terms of something harming our business?

***Yes.***

[Silence]

***I could perhaps give some examples if you are not sure what incidents this might be?***

Yes please, I am not able to think about anything at the moment.

***For example, there are other large businesses that have had to deal with spammers, racist comments, foul language, pornography, and so on.***

Yes, we've had some of those, but not to the extent that it's been a problem. But yes, we've experienced that. Check!

***What about malicious code such as people posting links to infected websites?***

I can't remember any one of our customers getting exposed to this through our pages. When we find content that isn't relevant to our site, and find links that appear to be heading towards suspicious content, we delete it. I do not remember any customers complaining about such incidents.

***What do you consider to be the biggest risk for your business with regard to the use of social networks?***

I'd have to say that we mess up. That we don't behave professionally and delivery what we promise to our customers. We can do many mistakes, such as we did yesterday when we published a competition that didn't work properly. We can give wrong information. But the moment we lose the ability to properly care for our customers, then we have a problem on our hands. All other problems can be solved. But that doesn't really have anything to do with social networks, but rather how a business should be perceived as a whole. We want to be trustworthy. Outside of this, I cannot think of anything.

***What are you doing to protect their business when using social networks?***

I am not sure what you mean?

***For example, are you using private computers or phones to connect to the services you rely on?***

For the most part, we manage these things on our iPhones. It's a little random. We don't have any security routines around this, really.

***What would have to happen for your business to completely stop using social networks?***

That the internet is out of order.

***That's one possibility, I was thinking more in terms of an event that affects your organization.***

No, that is the only reason. I don't see how you would stop using social networks. So the only think that would stop us would be an internet outage, or for example if everyone of us start communicating telepathically. I feel like social networks are where it's at right now. Sure, it will evolve, but not using it now would be absurd.

***Do you utilize acceptable use policies or guidelines to manage your business' presence on social networks?***

No.

***Not at all?***

No, not at all. But we have a culture of continuous improvement and learning. So, if I see that my boss has formulated himself in a way that I don't think works, I will tell him. We'll discuss the issues, and hopefully we will both learn something from it. If new employees are handling customer questions on Facebook, we'll have a talk with them about what's smart and what's not, my experience tells me so and so. But we have no official guidelines or policies at all.

***Have you considered any such guidelines or policies?***

It's come up in meetings, but nothing has materialized. However, if we grow, and if we see that the way we're handling ourselves isn't working, we'll have to consider establishing something like that. We I have considered, no I mean, we what we have as of today, is a clause in new employee contracts that says they are required to stay up to date on what Lille Vinkel does on social networks. I've considered writing some guidelines like the ones you spoke of, but haven't gotten around to it.

***If you were to give advice to a business which is just now establishing itself on social networks, what would you say?***

Everybody talks about Øyvind Vederhus of NetCom. He's a great example. Outside of him, there's always Google. It's a great resource.

***What do you consider to be an example of "best practice" when it comes to corporate social networking?***

I think one should be careful to apply the label "best practice". For example, Lille Vinkel Sko and NetCom are often referred to as examples of best practices. But I can give countless examples of what we can do better. At the same time, I'd like to think we are good at what we do, but I'd rather be open and encourage them to look at several different approaches. For example, for Follow Police District, it's not necessarily NetCom that can give them the best advice on how to establish themselves on social networks. They should look at different alternatives, and find a mix that suits what they want out of their efforts.

***Considering how you act on social networks, are you or the customers deciding how you act?***

I'd say both. That's the essence of social networking, the two-way communication. We can invite our customers to constructive dialogue because we choose to be open honest. For example, I published a post on our blog last week where I wrote about how we had to postpone a party and opening of a new store where we had invited our customers. I formulated myself in a way where I said that my boss had has trouble sleeping because he was nervous. We strive to be as personal and informal as possible.

***What sort of feedback do your customers give you? Good, bad?***

Good, I'd say.

## **Interview transcript – Henriette Høyer, Digital Advisor, NSB:**

**Date:** 20.10.2011

**Place:** Prinsensgate 5-7, Oslo

### ***Concerning the use of social networks, what's the situation in your business today?***

As of right now, the situation for us is that we're looking at the different channels where our users are to see if we're using them the right way. We focus primarily on customer service, but we're also hoping to get more back than just customer feedback. We're also looking at how we can perhaps use our presence to increase our sales.

### ***Outside of customer service and possibly sales, are you using social networks for any other business processes?***

No, not really. NSB is looking at the possibility of using social networks as a channel to spread corporate information, because people in general are not aware of how large of a corporation we really are. So I am currently working on a corporate information website, where we are moving corporate information away from [www.nsb.no](http://www.nsb.no) to an individual site. We are looking at how we can incorporate social networks into this solution.

### ***Do you consider social networks as a "toy", or as a business enabler?***

Both! I live there after all. It's a thing I do in my spare time. I use everything from Instagram to Twitter. It's fantastic! It's a great resource for staying up to date and relevant information. It's fun to learn, so it is as much a toy as an enabler. For businesses, the word "toy" might not be appropriate, but it's a fun way to test your communication towards your customers. There are huge focus groups out there! Testing your tone of voice; am I credible? Is this something we can stand for as a business? Does the customer believe us when we say this? I think this is great, especially considering the instant feedback you get! In that way, I feel like we can play around with it. We also have the little "Santa Claus". It's a like a sandbox where we can learn how interact with our customers.

### ***By using social networks, what are you the most satisfied about?***

As NSB or as a private person?

### ***As in your role with NSB?***

We are most satisfied about being able to intercept conversations about us that aren't necessarily directed towards us. We can come in and comment if necessary. Like on Twitter, for example: If you talk about us, we'll find out about it, and we will give our feedback if we find it suitable. It's always fun when a customer goes: "What?! Are you following this? Did you actually notice what I said?"

***Do you have any indications on how your customers feel about this interaction? Positive, negative?***

Yes, we've gotten feedback that says our customers think it's valuable as they feel like they are being seen and heard.

***If you think about possible areas where social networking can be improved, do you have any ideas?***

Yes, lots. I work a lot with increasing our competency internally because this is an area we're putting a lot of effort into. This is partially to get the support that we need. On paper, we only man the social media channels until 16:00 every day; because I can't tell my employees that they need to work late into the night. At the same time, our customer service center stays open until 23:00. All of us that work with the social networking channels contribute a lot, as we can't just leave customer questions unanswered. We would very much like to have the resource for a permanent rotation. It's normally after 16:00 people need help as they are going home. So far, our customers understand and accept that we don't have staffing around the clock, but I don't think that patience will last forever.

***A permanent rotation would be a question of resources, but what other things would you improve?***

We can always improve our content. We try to be careful to push too much content out there. We are aware of who we are. I can receive hundreds of e-mails from [the airline] Norwegian even though I rarely have time for that weekend trip to Barcelona. That's okay, I'll accept that. It's not just "noise". But, that weekend trip to Mo I Rana... I don't know if that has the same effect. It's a little bit about finding out who you are, and what the customers want to hear about. I don't think we're good enough there yet. We need to find out what our customers want.

***If I understand you correctly, are you moving from a push to a pull marketing strategy?***

Well, we want to use the channels we have the right way. We're not as good as we should be to tune this message correctly. We're unsure of ourselves, and afraid to publish content. We have a lot of respect for the people that follow us, so we don't want to overload them with information from NSB. So we not are working as much as we should to find the right balance.

***When you consider social networks as a tool, are there any things would you improve?***

Absolutely. We are looking for a good tool to coordinate work flow. So right now we're looking at a product called Coact. Economically speaking, it's probably the product we'll end up choosing. We don't have unlimited resources to implement such things. But it seems like a good choice, because we have employees doing customer service both in Lillehammer and in Oslo. So if we get a tool like this, we can send "tickets" created by our customers between the different agents we will know that every signal is picked up.

As of right now, we use TweetDeck to monitor conversations. It works fine, but you have to switch between different tools when changing contexts to for example Facebook or Flickr. In other words, we need a tool that can handle the platforms we are present on.

***How has this use of social networks impacted NSB?***

We mainly use it as a large focus group. We reply to all questions that are posted and channel them to the right department. Our traditional customer service staff has very robust systems for handling customer inquiries via telephone or e-mail. Social media is just another source. So we send reports throughout the company, and direct e-mails to the appropriate people if that's necessary. We've also use it for testing. When we launched the pilot for a service called "Tog på nett", our Twitter followers were the first that got the opportunity to test it and provide feedback.

***Do you measure your customer satisfaction, or other metrics such as Return on Investment, sales conversion, etc?***

We use report codes from web trends and services like bit.ly to see identify different activity. Considering customer satisfaction, we've added a question to our omnibus that asks if our presence on social networks has impacted them, and how. We still don't have a lot of followers. On Twitter, we have quite a lot of followers, but not so many on Facebook.

***What numbers are we talking about?***

Just above 10000 fans on Facebook. But those we do have are very loyal and active. Having a huge fan base is not our primary concern. We're more interested in people knowing that they can use our page to ask questions, which doesn't require you to be a "fan". So we don't have a very large volume, so customer satisfaction is hard to answer. For now, we're not focusing on how these people perceive our efforts, but rather if our customers know we're there and that they can talk to us.

***Concerning those 10000 fans, how many of these regularly interact with you?***

From Facebook's statistics, 70-80% of these are actively using our page. The question is how Facebook defines "active", what does it really mean? Does it mean they've been exposed to our content? Does it mean they've posted questions? We do however see that the fans we have are very interested. Either it's because they are very, very angry, or it's because they love trains. Either way, that's okay!

***If you think of other business processes, is there anything else you could use social networks for?***

We've tried publishing job postings. For example when we need conductors, we usually need like 200 of them, so it's a nice channel for those kinds of purposes. In our strategy, we've used to split up different initiatives per department, so sales and marketing were separate. But now we have a more coordinated approach. As far as learning from our experiences, that's improved a lot. We get direct feedback. So we aren't Starbucks, but we can get feedback and process it, which in the end is what we want. I think we will use

this more actively to for example inform about the menu in the restaurant cart, to what our customers want when paying extra for comfort.

***You mentioned your work about a corporate information web site; do you have any other plans that involve social networks in the near future?***

No, we're mainly focusing on further developing our existing channels, and allocate enough time to do it right. We have a YouTube channel. We publish press photos on Flickr. So in other words, we still have unlocked potential.

***If you take out your crystal ball, where do you think NSB is on social network 3-5 years from now?***

What I think or what I hope?

***You can answer both cases if you'd like.***

I think we'll be doing a lot of the same we're doing today. For us, this is an amazing customer service channel. We want to be where the customer is, not that the customer has to find us! However, it by some miracle Google+ would completely take off and become popular, we'd move there. We also have a mobile application for customer service, where we primarily push Twitter and Facebook as our preferred channels. We want to give our followers there coupon codes, which I think in the end will give us higher sales. We want to give something back to those that follow us. It doesn't matter if it's a free cup or coffee or whatever, we want to reward them. I don't know, I don't necessarily think we'll have a major revolution concerning what we use social networks for. I think we'll keep doing mostly the same things we do today. But I think people will expect us to be more active and more present. We'll just have to wait and see what other platforms pop up and if we should go there. Facebook is doing a lot of interesting stuff these days, and look all the partners they are attracting...

***You mentioned Google+ as a possibility, are there any other platforms that you are looking at?***

No, I was kind of taken of guard here the other day when someone mentioned something called "Skybyen". I've never heard about it. It's a Norwegian social network. I realize I might be getting old because I am not catching what's new and hot out there. I should follow my nine year old sons to see what they're up to. I think there will be a generational change at some point. Facebook is here to stay, but I am not sure my small children will want to be there because we're there. I think you have to look at your target audience. Who do you want to reach? Will there be a new "Nettby"? That place worked pretty well for a while. But where should you communicate if you want to reach the youngest people on the net? I can't really see anything right now that will change our initiatives.

***What risks do you associate with your business' use of social networks?***

Not being present when you should.



***As in customers talking about you and you not noticing?***

Well that's one thing. But for example if there's an accident and someone on the train says: "Hey! It's dark, the train is on fire, and I am trapped. What do I do?!". Thinking about our reputation, I think that would be a disaster. That's something we're looking at. I am part of the incident response group for passenger trains at NSB, and I think we should be more present. We have to give information through those channels that we monitor. I am lucky enough – knock on wood – that we have not had any major accidents while I've been working here. But I think that in the event of a disastrous accident or case that can seriously damage our reputation, not picking up conversations and leaving things to chance is a critical flaw.

***Do I understand you correctly if social networking is part of your incident response protocols?***

Yes, we do monitor them for that type of activity, but we currently do not have a plan for how we would use these channels to spread important information. We won't necessarily be able to answer every individual person in the case of such an event. That would be difficult, and it's the responsibility of the Police to care for the people at the site of an accident. But being present and having a standard phrase like "Help is on the way!" we could send out immediately would be good. That requires having someone who knows that language. We have to get better at staffing with right persons. I think that's a risk, namely letting someone out there that doesn't get the lingo.

***Are there any other threats you can see when using social networks for business purposes?***

Not following up on customer inquiries and questions. One thing is not keeping up your presence, but it's perhaps more dangerous to use it as a pillow by thinking "Well, now we're here, good work"!

***Do you mean this as in just having a page or account, but not using it?***

No, I am thinking more towards just doing exactly what we're doing today. We have to pay attention. The "language" of how to communicate on these channels is constantly evolving. I also think not having managers that take this seriously is a risk as well.

***Lack of anchoring, or?***

Yes, in general. It might be anchored in the organization that "this is a place we're supposed to be present". But a lot of managers still think about social network as a place where people talk about what they're going to eat for supper. And they think like this because they aren't there themselves, so they don't have any points of reference. Because of this, I think social networks are under-appreciated.

***Have you had any security incidents, such as virus outbreaks, damage to your reputation, giving out the wrong information or something along those lines through social networks?***

Yes, we constantly make mistakes. Fortunately, they're mostly small ones that we learn from. Gary Vaynerchuk, the wine guru, says that making mistakes is great because you get to apologize. And your customers love it when you come clean, so we've tried that a couple of times! So yeah, we have broken several of the rules on Facebook, but fortunately Peter Høie [Facebook Account Manager – Norway] is someone who lets us know when we cross the line. We've also discovered these things on our own, when some of our employees got a little carried away. But I think it's important to make mistakes, preferably small ones. There has to be room to experiment a little bit. Concerning larger problems, we haven't had any of these, yet. We have over 2900 employees or something like that. There's plenty of people that want to step in and help out when we're taking a little more time than we should, but there's also been a few that have used of social networking channels to vent about internal issues. Fortunately, this was only in the beginning and we were able to take care of that rather quickly. But that's a risk, namely that employees don't understand the reach and spread that can occur when they decide to hang out the dirty laundry in these channels.

***Still considering big risks from using social networks, we've already talked about not being present, but is there anything else that worries you?***

I don't think we use it as a pillow. We're a group of people the work with this regularly. A risk though is if we are not allowed to spend our time on this. We're a group of highly motivated colleagues that work together on this, and if we're not allowed to allocate the time, if our managers say something like "this is very important, but you can only spend 20% of your time on it". If that we're the case, we wouldn't be able to follow up even it we wanted to.

***So what's that like right now? Do you feel like you have adequate resources?***

Yes and no. It depends. You can compare it to the customer service over the phone. When the trains are running, the phones are silent. But when they are not running, it's definitely not quiet! We don't need a full work force following social networks 100%, but perhaps have the option to drop what they're doing and man the posts if something starts burning. I feel like there's an understanding about this, but the understanding is not properly anchored. I would like to have more time allocated.

***What measures are you taking to protect your business when using social networks?***

What do you mean by "protect"?

***It can be anything from acceptable-use policies, end-point protection products, only using dedicated, hardened equipment and so on.***

We have a subsidiary [Arrive] that handles everything technical related to IT. They provide the security we think is appropriate. Considering IT-security, it's not very strict. Everyone that uses TweetDeck has administrator rights on our clients; otherwise we wouldn't have gotten anything done. I think they are on top of it. We try to avoid pointing fingers as much as possible when considering how people use social networks.

The more fingers are pointed, the more people avoid using these services. We have had a few interesting discussions concerning some interest groups such as “Togkaos” [Train Chaos]. We’ve had cases where employees have been active and attempted to speak on behalf of NSB.

***What do you mean? Manipulate the groups?***

No! They’ve partaken in discussions to say that they think the critics are wrong, and that we are doing everything we can. That rarely ever helps...

***So they’ve spoken on behalf of NSB, but as private individuals?***

Yes, but in a way saying “I work for NSB”. That’s always been open and honest. But that’s feeding the internet trolls. So we’ve had to address these employees directly and say “thanks, but I think you should stop feeding the trolls”. We’ve also had to approach 2-3 individuals who’ve been very active in answering customers on our behalf, on our channels. Give us 30 seconds, and we will answer this! We never tell people to stop helping us, we encourage it, because there are a lot of our employees that know a lot of useful information such as conductors and so on. There have been a few people that have been too active, so we’ve had to ask them to tone it down a bit. We prefer that the NSB logo does the answering, because people get it. Not everyone can see that you work for NSB.

***What has to happen for NSB to stop using social networks completely?***

If we got a manager that thought this was a waste of time, it would be easy to pull the plug. Things could turn around quickly if we got someone who was too concerned with sales. “Where’s the ROI? I’m pulling the plug”! So we depend on having support. At the same time, I don’t think that’s very likely. I think if we were to pull out, it would be a lot more noticeable than just keeping up our current initiative. There’s the chance of it being killed over time though, by gradually cutting funding and so on. The users would disappear because there’s no point in being there anymore. Another possibility is that some incident will make us quit and run away with our tail between our legs. You never know...

***Do you utilize acceptable use policies or guidelines to manage your business’ presence on social networks?***

The ones of us that man the different channels have guidelines. They’re pretty simple: “just do good”! Answer quickly, be polite and professional.

***So the actual guidelines, are they “lawyer-speak”, or are they in a human readable format?***

We started by adopting the U.S. Air Force’s blog evaluation guide which had been translated to Norwegian by MetroNet. I like it: “don’t feed the trolls”! That’s simple. Take a walk, get some air, and respond when you’re ready. We’ve used this a lot when I’ve trained new employees on how to act. The people we have hired are very

professional. They don't really need much training on how to address our customers, as they just get it.

***But they are still through some training program, and are introduced to these guidelines?***

I present our strategy and tell them why we're on social networks in order for them to understand what our desired end result should look like. When writing mails though, they are usually very formal. It's hard to shake that habit and make them write like they talk. That's something that's been drilled into them when addressing customers. For about 6 months, I handled all e-mail communication to our customers, and was relieved when a new person joined our team that really knew how to handle them. I was used to running to them for help quite often. For example, one Monday here all trains were at a standstill, and this one guy just finished his rotation and simply said "man that was cool today"! What? This guy is a breed of his own. He loved the pressure, and has that tone that can turn the customers and make them happy again.

***You mentioned using the blog evaluation guide from the U.S. Air Force. Did you do this work by yourself, hire consultants, or?***

We did the work on our own. I do have a good tip though: if you want to push some change through your organization, use external people for support. When they reinforce your message, your idea is easier to sell. We've used different consultants from for example MetroNet. I've picked individuals that I think are smart, and not hired companies per say. They've spoken about the importance of being present. We were pretty early movers, as I started pushing this idea in 2008. We had a presence in early 2009, and everything was new to everyone. So, at that point it was important to have some backup in another person who supported what I said. But we've had consultants that helped us develop our strategy, as it is as much of a political document as it is a strategic document. We did this in order to get the right anchoring, which has proved to be important.

***I want to go back to that person who loved working on those difficult days. Your company gets a lot of flack when the trains aren't running. Do you have any difficulties with improper content being posted on your channels such as inappropriate language, racism, spam, pornography and so on?***

No, very little actually. There used to be a lot of people on Twitter that cursed us regularly up until they realized we were there. After that, they language changed. They were still angry, but they started formulating themselves differently. That's interesting. I have a word cloud from over a year ago, which was full of angry words. I also have one from July of 2011, where there weren't any trains running due to maintenance. So last year, the words were mainly "angry", "delayed", "irritated and those kinds of words. It might have something to do with the weather. It's a different situation when it's -20 degrees, you're freezing, and the train is delayed. Compare that to July, and there's not a single mention of any delays. People said things like "I have to ride the bus? Oh well". There was no talk of this construction, it's like the discussion had reached another level. We can clearly see that being present changes how your customers talk about you.

***But it's only natural for people to change their tone when they know you're listening?***

Of course! But it also has something to do with the fact that people now expect us to help when we're there. As long as we see, listen and respond, our customers appreciate it. Considering spam, we really haven't seen a lot. On our "Santa Claus" web site, there are always a few individuals that are trying to sell products: "Merry Christmas, please have a look at my Christmas Cards"! It's pretty harmless though.

***That's interesting. Other businesses I've spoken to have to deal with moderating posts with anything from naked women to ads for other products.***

I stopped by our spam filter yesterday to see what the status was. Sure, every now and then some people publish their credit card information: "Hey! I tried buying a ticket, and here's the reference number and credit card information. Why isn't it working"? Wow! Stop! The good part about these things is even though they get filtered as spam, we can still communicate with them without them knowing they've been filtered from the general public. There are those out there that really expose themselves, unknowingly. We try to protect these people from themselves by filtering them out from everyone else.

***But you don't inform them of this?***

No, they don't notice a thing.

***So they think they are communicating openly, in public?***

Yes, we don't tell them they've been filtered.

***Earlier you mentioned getting external people involved to reinforce your ideas. Do you have any suggestions for guidelines for businesses that want to establish themselves on social networks?***

I am passionate about being credible. I think there's a gap between what a lot of businesses think they are, like the personality of the business. Many firmly believe they are cooler, tougher or smarter than what they really are. You should definitely have some lofty goals of who you're trying to reach and what you are going to become. But at the same time, you have to be careful with how you communicate, because it's painfully obvious when you don't show your true self. Just get out there and try it! I said earlier that I think it's a waste of time to create a strategy before you have any experience. Having a mandate is nice, however. I still believe that sitting down to write the big strategy document is something you do to please your managers. You put that stuff away in some drawer later on anyway. I think experience is necessary. There's a great audience out there, and they will let you try if you are honest about your efforts. You won't find the right content or audience before you give it a shot.

***Do you have any examples of what you consider to be the "best practice" among Norwegian businesses using social networks?***

It changes fairly quickly, but yes, NSB! I think we're great at serving our customers. It depends on what segment you're in, and what target audience you're seeking. You mentioned Lille Vinkel. I love what Lille Vinkel is doing! They can do whatever they want! It's as simple as a few of them looking at each other and asking: "Can we do this"? "Sure"! I have great respect for the guts it takes to experiment like that when you're a small business. But I have even more respect for the large, heavy corporations like the one I work for myself, where I know how slow things are when you want to push an idea. I think SAS is an interesting case. They have one social media guy who flies from country to country to coordinate how they're going to do things. I think Christian does a great job, even though I don't always understand what they do. But best practice... I'm learning a lot from NetCom. I think they are putting themselves out there. They even had a web shop on Facebook at some point, not sure if it's still there. I also think DnBNOR is exciting. It's not very often I think banking is exciting, but they are convincing me with their efforts such as internet-based meetings, blogging and so on. Concerning Twitter, I think there's a big difference in what businesses are doing it right and who's doing it wrong. I think it's a little weird when businesses follow me before I follow them, I feel like that's spamming somehow. Telenor are very good. They follow tons of conversations, and intervene where they can help.

## **Interview transcript – Anette Tvenge, Brand Manager: Tine Litago**

**Date:** 17.10.2011

**Place:** Tine headquarters, Oslo Atrium

### ***Concerning the use of social networks, what's the situation in your business today?***

For Tine, it's a very important move. We're looking at how to position the brand's profile in order to build stronger networks with our customers, and to be present to allow discussion and two-way communication. We're also looking at the individual brands, as I'm working primarily with Litago, where we've slowly but surely over the last couple of years gotten over 115000 fans. This is the only advertising platform for that particular brand, and we think it's a very cost effective channel for marketing purposes, and are now beginning to look at how we can use the knowledge gained from this particular brand and transfer it to other brands owned by Tine.

### ***Out of the 115000 fans, are these primarily located on Facebook, or are you using other platforms such as for example Twitter?***

We use Twitter for certain campaigns, and rely on blogging for special purposes, but Facebook is the primary platform for our social media push.

### ***Aside from marketing, for what business processes does Tine Litago use social networks?***

Our primary focus is marketing, and we do this in order to try to achieve the viral spread that Facebook can provide given the right content directed towards our target audience. We use it as a tool to spread our "message", but we see it as a meeting point where we can listen to what our customers have to say about our products. If they want a new flavor or product design, we listen to them and do our best to give them what they want. In the end, social networks are used for marketing purposes.

### ***Do you consider social networks as a "toy", or as a business enabler?***

It's definitely a business enabler when you consider that the 115000 fans are dedicated and loyal. Our page replaces the traditional "newsletter", as we now can distribute information to a large "database" of customers. If we have a question of what direction we should take our brand, we get instant feedback from a large part of our customer base. Furthermore, we believe this interaction comes more naturally, as the Litago brand is "playful" and easily approachable. Our communication is very verbal and void of what you would normally consider corporate communication towards customers. However, there's a lot of thought that goes into this process, as we use this platform to help shape how to further develop the brand in the future.

### ***By using social networks, what are you the most satisfied about?***

I appreciate that our fans consistently catch what you throw at them, because the most boring example of other businesses are using these tools is where a business does all of the talking and are not open for feedback.

***So, in other words, two-way communication and interaction?***

Definitely. We can see how our fans spread our content to their private networks, and when we have competitions or other campaigns, we can observe that they recruit their friends and drive them to our product. If I ask a question about what my customers would like to see from our brand, I get over 100 answers within the first hour, and this kind of engagement is very valuable feedback to me as a Brand Manager.

***Where do you identify room for improvement?***

Facebook is a difficult platform to rely on because it's constantly changing. We have no information about what's waiting for us around the next corner, and there are not a lot of other brands that do what we do. So, when they release new tools for our, we are forced to re-evaluate what the optimal use of the platform is. So as far as room for improvement, for me it's the lack of information about what Facebook is planning to do next. The way they handle this process as of now is not good enough for businesses that rely on the platform. We have to pay constant attention to social networks, because we as a business have no real power to influence the core development. The users are driving the change, and they are the ones who decide what happens and where it's going to happen. So, if we communicate with our customers the wrong way, for example by just posting ads for our products and services, we are not including our customers, and they will eventually disappear. The lesson learned so far is that you have to play on their strings in order to achieve success.

***When you talk about not knowing what's ahead, are you referring to functionality in terms of the web applications, the terms and conditions, or something else?***

Everything, really. Facebook constantly change or remove functionality that they just released for public use, and they are becoming sterner with what's allowed when considering what you are allowed to do on your page as a business concerning marketing campaigns, competitions and so forth. The rules of the game change constantly. It's a difficult platform to work with, but the rewards are significant if you do your homework and adapt to their rules.

***Considering that your brand started using social networks in 2008, how has this impacted your organization?***

It's had a significant impact on our sales figures, which is very important as it's one of the metrics on which my performance is evaluated. It's a long road from start to finish, as it takes a while to plant and nurture the seed in the minds of our consumers that Litago is a brand they like and want more of. We've had to shift our approach from a push-marketing strategy to that of a pull-strategy. Our customers have to feel enticed to take that step and "like" our product and involve themselves. But the pay-off is when you



see the loyalty you build with these customers by inspiring them to interact and engage in that two-way, open communication. By doing this, we are able to position the Litago brand as “top of mind”. We have had a steady growth in sales since our adoption, and this is very interesting as we have not used any other channel for marketing purposes other than social networks. Because of this, we believe that social networks have a solid potential.

***You said that you are evaluated on sales-metrics. How do you measure sales conversion from your involvement on Facebook? Do you use any other metrics such as for example ROI?***

This isn't easy, but considering I've taken the brand from 5000 to 115000 fans in about three years, this is a figure that speaks for itself. However, we look at how many of those fans are actually interacting with us in each campaign, and in between. Just looking at the number of fans is useless, because it doesn't help to have 115000 fans if they've all blocked our updates and don't really give a damn about what you have to say. That's one way we measure activity, and another way is that we compare sales figures from previous campaigns and years to what we're doing now to compare. I believe it's a relevant comparison to look at the growth of the fan base and the increased sales figures. That's not a coincidence.

***What other business processes do you believe can be run more efficiently by using social networks?***

I think a lot of processes can run well on social networks. The first question I have to ask myself is how much time and resources can we allocate for a given project. It's a new day for marketing executives, as you have to be present every single day in order for it to work. I am constantly online, answering our fans and participating in discussions. If your goal is just to have a page just to be present without any form of interaction, the page will be dead on arrival. If you can't invest the time and energy like I've mentioned earlier, it simply won't work. I think all products have a place on social networks, because it's a very special type of forum where customers can interact with the people behind the product or service. They can ask questions about a product, receive an answer, and then dig further down by asking for facts about nutritional information such as how much sugar there is in each serving. The customers have lots of questions, but they don't have the patience to call a customer hotline and ask. It's an amazing platform that allows them to be honest and express their opinions.

***You mention there there's a threshold or barrier for customers to call you and ask questions, are you deliberately trying to reduce the perceived “distance” between you and your customers by positioning yourselves where your customers are located?***

Yes, very much so. By being a part of Facebook, we become a part of their everyday lives. Most people write about their friends and family, interests, political standpoints, favorite types of music and so on. In your news feed, you have all your friends that contribute the content, and by allowing Litago to pop up and be a part of this private conversation,

you're not advertising per say. If done correctly, you are becoming a part of their lives, and can get "under their skin".

***Looking ahead, does your business have any plans that involve social networks in the near future?***

For Litago, we are constantly using it, and all our campaigns are launched on Facebook. However, there are rules that dictate that you cannot host competitions directly on your Facebook page, so if that's what we're doing we will host that on our own webpage ([www.litago.no](http://www.litago.no)). Facebook is the number one traffic driver to our page. Other times when we've tried other channels, such as banners or ads in newspapers or other sites, the results are not the same. Our traffic relies on Facebook.

***So, Facebook is your largest traffic driver, even exceeding direct lookups and search queries?***

Absolutely. It generates the most traffic and the highest number of registered users on our website.

***By running all competitions on your own websites, do you primarily use your page on Facebook for receiving and answering questions in addition to sending out information?***

We try to use the few tools that allow user interaction. However, Facebook has as I've previously said become more and more strict, so there's not much we can publish outside of what you just mentioned without violating their terms and conditions. These restrictions force us to develop applications that run on our own infrastructure, because we don't know what the future holds. As of right now its working great, but if they were to lock down functionality that will hinder us from achieving our business goals, Facebook would no longer be a viable platform.

***How do you see your business using social networks in the coming 3-5 years?***

I believe we will be a market leader because we have so many successful projects to draw knowledge and experience from. Other brands such as the traditional milk cartons to the nutritional sports supplement "Yt", and we're working towards positioning other large brands that our customers really love like Jarlsberg and Norvegia. I think there's potential there, but it's not going to be free of charge. You need manpower in order to maintain a presence, so we have to adapt our organization to deal with this change. By looking at how we can improve this adoption, we have to prioritize the tasks that marketing employees have as of today. If Tine can do this properly, we can potentially have a huge presence.

***You say this isn't free. Considering you have 115000 fans, how many employees manage your social network presence?***

It's just me. I am the Brand Manager, so I've chosen to focus on social networks because I think it's highly important. Others might disagree with me though. I spend my

weekends and vacation time monitoring conversations and responding to questions. If I am not there, my fans say “Hello, where are you? Have you abandoned the page?”.

***So if I understand you correctly, are you the only one managing this page?***

Yes, but it wouldn't work for every other Brand Manager or marketing executive. If that was the case, you would have to redefine what that type of position actually entails. A marketer is responsible for overseeing anything ranging from innovation, production, supply and value chain management, marketing and every sales aspect to distributors. By doing this, I am sacrificing time that could be spent elsewhere.

***Ideally, would you prefer to have additional staff to help manage your time more effectively?***

Absolutely.

***But what about developing applications for your own site? Does Tine have its own development branch?***

No, we use a PR-agency that I work very closely with. We have a good report, and are able to come up with innovative solutions that help us transition from push to pull marketing as I've mentioned earlier. It's a difficult transition for our kind of organization.

***What risks do you associate with your business' use of social networks?***

The risk I am most concerned about is that we are relying solely on Facebook as our social networking platform. If something were to happen that would change the terms and conditions, or if Facebook would lose popularity to a competing service, that would be dangerous. We also have to manage the risk of our customers leaving us because of how we behave ourselves as a business. It's much harder to gain new customers than it is to maintain existing ones.

***Outside of the changing terms and conditions, what other threats on social networks are you aware of?***

That depends on how you look at it. Some say that spam is a big threat. For example, Saturday evening someone published a photo of a nude woman on our page. People have different intentions, and the threat is that when you have such a large page, you attract the attention of your competitors and fans of other products that will try to undermine you. You are forced to pay attention to your page constantly to make sure that it's relevant and properly maintained. We've invested a lot of time and resources in order to build a large fan base which can easily fall apart if another popular social networking service entices them to spend their time elsewhere, or if the terms and conditions make it difficult for us to operate effectively. To me, it's not knowing what's next that's the most significant threat.

***You speak of competitors with malicious intentions and the distribution of inappropriate content on your page, but have you experienced any other security incidents that have been caused by your social networking presence?***

Not really, but we do receive some negative attention from fans of our primary competitor, “Q-Melk”. These fans will join our page only to spread degrading information about our products while promoting what they like. However, what’s interesting is that our fans are loyal enough to protect our products by reporting this behavior and informing them that this is not the place for this kind of behavior, for example: “If you’re such a fan of this other product, why are you bothering this company?”. I rarely have to intervene if there’s a debate between consumers of different products.

***So, there’s some kind of self-justice that’s more or less maintained by your fans?***

Yes, very much so.

***Have you had to delete inappropriate content?***

Yes, we’ve had some teens that have probably learned some cuss words and phrases that they figured would be cool to post on our page. This is content that we have to remove, of course. However, we encourage fans of other products to come and discuss their preferences, because this creates discussions that our fans get involved in!

***What do you consider to be the biggest risk for your business with regard to the use of social networks?***

The biggest risk for us is if Facebook is replaced by another platform. We can’t just pick up and migrate from one service to another, because we take our users with us. What’s the name of that other service that used to be so popular...?

***MySpace, Nettby?***

Yes, Nettby! It used to be a thriving online community with many, many users, but all of a sudden it stopped being relevant because Facebook completely took over. That’s something that will probably happen again, unless Facebook somehow manages to always stay ahead of the competition.

***What is Tine or Litago doing to protect their business when using social networks?***

We try to be as democratic as possible. We share everything we can with our customers, and try to inspire our customers to get involved. If any of these risks we talked about were to become a reality, we believe we’ve built a loyal enough fan base that we can make the majority of them come with us if we were to move to a new platform. I think the key is to stay relevant, so in case some other service was to take over, we would move there and start over. It’s important to remember that you have to earn your customers and their loyalty.

***Do you have a contingency plan if this were to happen?***

Our plan is to always stay relevant enough for our customers so that they won't leave us.

***What would have to happen for your business to completely stop using social networks?***

If we can't tie our time spent on social networks to increased sales figures, we would have to reevaluate these efforts. We also have to consider the cost of producing content for these services. It's costly to create these campaigns, so we have to evaluate cost-benefit on a case-to-case basis. For our brand with a target audience being what it is, it's where we want to be right now. They might turn on the TV or listen to the radio occasionally, but they are always present on Facebook.

***You say your target audience is always on Facebook, do you have any estimates on what age group this is?***

Our target audience is primarily youngsters and up towards 25-30 year olds. The average Norwegian on Facebook checks their Facebook 5 times daily, and we know our customers are far more active using their mobile devices constantly.

***Do you utilize acceptable use policies or guidelines to manage your business' presence on social networks?***

When this platform started becoming relevant, we spent a lot of time figuring out how we were going to approach it. We have a framework that dictates how our employees should behave on Facebook and other social networks, what they are allowed to share and what not. If you do something wrong, the chance of it spreading is a big risk factor when you consider how viral things tend to become on social networks. It's important that all content is vetted because it's published. For example when I'm dealing with nutritional questions, customers might ask us why our product is healthy. So if I have to talk about this, I always talk with our nutritional experts to get my facts straight before publishing it.

***You mentioned spending a lot of time planning how they would act on social networks when designing their acceptable-use policies, was this before you started working at Tine, or were you part of this development?***

No, they were designed while I worked here. What was difficult when designing this was that we did not know what to expect in terms of what we need to look out for and what the threats are because it was so "new" and different. We did end up with a little "learning by doing", so we've had to go back to the drawing board on certain occasions when we've had certain types of situations happen that we didn't plan for.

***When you designed these guidelines, did you develop them internally, hire consultants, or use a publicly available framework?***

We used a PR-agency, mostly because we were primarily using social networks for marketing purposes. Tine has all the responsibility for their own page since then.

***Looking at these guidelines, are they properly implemented, are your employees following them?***

Yes, we're all employees and understand the responsibilities that come with social networking for business purposes. As a Brand Manager for Litago, I have to use a different language with my customers than managers of other brands. Because of this, I have to re-write the guidelines to fit my position. I constantly leak what new products are in the pipeline. This is because I tell my dear fans that they will always get to know the latest news first, and I am telling them that there's a new flavor on the way. They get really excited because they get this information before anyone else, and they spread this information to all their friends, which is great considering that's my intention to begin with! Other brands such as for example Norvegia will do this differently with big launch campaigns where traditional media channels are the primary focus. The guidelines as a road map, and we choose our own path through it.

***You say that other brands often only rely on traditional media channels for launching their products, what's the difference in cost between your brand and theirs?***

Well, a TV-commercial costs at least 1 million NOK to broadcast and 1 million NOK to produce, regardless of how cheap you want it. These are two very different worlds. We save a lot by being completely digital. Sure, Litago has a different focus and invest more in games and interactive content for iPhones and other smart phones and web applications. This in turn means that our costs go up and our budgets have to be adjusted accordingly. It all depends on how much you want to put into it. For example, if you want an ad on Facebook that targets your average user in terms of age, interests and so on, it will cost you somewhere around 100000 NOK while the content costs maybe 5000 NOK. This means that we don't have to have a large budget to get your message out there.

***So compared to the other brands in Tine, do you spend less money on advertising?***

Yes. Tine is focusing on healthy and good food experiences. While the Litago brand in my opinion is a good food experience, it's not that healthiest. Because of this, we are not a "core" brand. This means we haven't had the attention we could have used, and we've had to fend for ourselves. We started experimenting with Facebook, and had a marketing budget of around 500000 NOK annually to do whatever we wanted with. This forced us to use social networks to see if we could influence our customers to start talking about our products because we simply did not have the resources to use other channels.

***So you are somewhat of a pioneer compared to Norwegian businesses with regard to using social networks. When you think about other businesses that are looking to establish a presence out there, what advice would you give them?***

You have to talk to others that have done it before you. There are plenty of PR- and media agencies and presentation out there that have no clue about how this actually works. However, very few have real experience with what is actually required to

maintain a Facebook page daily. I've seen a good amount of these presentations, and I can tell you that you won't get what you're looking for. My number one tip is to get out there, and be open with your audience about what you want to accomplish. Let them decide the content, and then it will be your job to provide it. Nobody can really tell you how that works, because these things change from day to day. We might think we have the recipe for a great campaign, but all of a sudden there might be these small elements that might not be interesting to your followers. They might say "it would be better if you did it this way!" or "I would drink more Litago if you made it with liquorice flavor!". Okay, then we'll do it that way! This is how it works, and you have to be flexible because your customers provide tons of relevant, qualitative insight that you don't have. Hiring some bureau is necessarily not the right step if you want to know what your customers are looking for.

***It's interesting that you want your consumers to dictate how you act on social networks as much as possible, so they are more or less designing your guidelines for you?***

Yes, and that's why we say that we are Norway's most democratic brand because we allow them to do this. When our customers starting asking us: "What's happening? Are there any more competitions coming up?", we in return ask them what they would want. So, some would answer saying that they want a rodeo, and the next summer we did host a rodeo. It's a nice gimmick, because you can see how happy they are when they feel like their opinion matters. As far as Facebook goes, my profile is my life, and I want to decide the content. I don't want friends there where I don't care if they just had a baby or got married, so I wouldn't want businesses that constantly spam me with ads and what not. It's important to know that your becoming part of people's social lives, and because of this, your interaction has to be based on their premises.

## F Appendix – Focus Group Survey

### Fokusgruppe - Spørreundersøkelse:

#### *1. Bruksområder for Internet og sosiale nettverk/medier:*

- Hvor mye tid bruker du på nettet hver dag? (Leser nyheter, blogger, sosiale nettverk, e-post, osv)
- Hva bruker du sosiale nettverk mest til? (f.eks. spille spill, snakke med venner, dele videoer, bilder, linker, osv)
- Hvilke sosiale medier bruker du, og hvilke bruker du mest? (Ranger de med tall, f.eks. 1 - Twitter, 2 - Facebook, 3 - Skybyen...)
- Bruker du sosiale nettverk for å snakke med bedrifter? (spørsmål om produkter, ris og ros, osv.)
- Foretrekker du å prate med bedrifter på sosiale medier, eller via andre kanaler? (f.eks. telefon, e-post)

#### *2. Sikkerhet og personvern på sosiale medier:*

- Føler du at vennene dine er forsiktige med hva de legger ut på sosiale nettverk? (bilder, film, tekst, linker...)
- Hva gjør du for å beskytte deg og din informasjon på sosiale nettverk?
- Har foreldrene dine innsyn i det du holder på med på sosiale nettverk? (har de f.eks. passordet ditt, er dere ”venner”?)



- Har du opplevd å bli ”hacket”? Hvis ja, fortell! (f.eks. noen som bryter seg inn på e-posten eller Facebook-kontoen din)
- Logger du alltid ut av kontoen din når du er ferdig å bruke den?
- Logger du deg på e-post og sosiale medier fra offentlig tilgjengelig PCer? (f.eks. datamaskiner som deles med andre på Bibliotek eller andre steder)
- Kjenner du alle vennene dine på f.eks. Facebook? Har du møtt de i virkeligheten?

### ***3. Passord og PIN-koder:***

- Hvor langt er passordet ditt (f.eks. ”passord123” = 10 tegn)
- Hvor ofte bytter du passord?
- Er det viktig å bytte passord med jevne mellomrom? Hvorfor? Hvorfor ikke?
- Bruker du samme passord flere steder (f.eks. Facebook og e-post)
- Hva slags passord foretrekker du? De som er enkle å huske, eller vanskelige for andre å gjette? (f.eks. ”passord” vs. ”p4550rD!”)

### ***4. Bilder, video og annen informasjon på sosiale medier:***

- Legger du ut bilder og video på sosiale nettverk? (ikke svar ja/nei: utdyp hvorfor!)
- Hender det at du angrer på ting du legger ut? Hva gjør du i så fall?

- Hva mener du er viktig å tenke på før du legger ut ting på sosiale nettverk eller andre steder på nettet?

## **G Appendix – Focus Group Discussion Transcript**

### ***1. How have social networks changed your everyday lives?***

#### Student 1:

It takes much of my time. I spend a lot of time on it [social networks]. That's not necessarily negative as you're keeping up to date on what others around you are doing. However, it's perhaps not very constructive considering how this time could be spent. On the other hand, Facebook has been very helpful for me when organizing projects at school, in organizations or otherwise. It removes the need for lots of phone calls in order to get any work done, so I'd say it improves communication.

#### Student 2:

I've become more lazy since I started using social networks. Instead of actually going out to meet someone, I just use my PC to talk to them on Facebook, or other applications such as Skype. It removes the need to "get up and out".

#### Student 3:

I am going to bed later. This is because I'll be chatting with someone or reading what others have posted, so I end up bringing my phone or laptop to bed.

#### Student 2:

Yes, it's easy for it to drag late into the night. You spend lots of time there, and you're interested in what's going on there. Because of that there's a need to stay updated at all times.

### ***1a. Does anyone feel as if they "lose touch" if they for example are not able to check their Facebook account for an extended period of time?***

#### Student 4:

Yes! When I came back to Norway after having spent two weeks in Nigeria mostly without Internet access, I found that I'd been completely cut off from what was happening with my friends. I didn't know who was dating who, what was going on in my friends' life, the grandmother of a friend of mine passed away... and I had no clue!

#### Student 1:

I was on vacation for three weeks, and I wasn't able to access the Internet as often as I'm able to do in Norway. I thought it was nice to have a "break" from it, but at the same time it was nice to be able to come back and be able to access it. Even though it's not the same as catching up with someone in person, it still a way to stay in touch.

### ***2. What is the most positive aspect of using social networks?***

#### Student 2:

It's great to keep in touch with people who aren't living in the same country.

Student 5:

It makes it easier to stay updated and to communicate with others.

Student 4:

I've got family all over the world. It's very expensive to call them using my phone, but when we use Facebook we can keep in touch without having to worry about the costs.

Student 1:

I like being able to keep in touch with people that might have moved away, or live so far apart that I can't see them on a regular basis.

### ***3. What is most negative?***

Student 6:

You use so much time on it. You just end up sitting at your computer for extended periods of time.

Student 4:

You get hooked on it. I am on Facebook constantly!

Student 1:

I've had to see a Chiropractor because of back problems caused by me sitting on the bed with my laptop. I have to change my posture often. You often hear about people getting injured playing sports, but from using a computer? That's kind of funny.

### ***4. Do you have any friends that are not present on social networks?***

Student 6:

I have one!

#### ***4a. What's he like? Is he included in your social circle?***

Student 6:

He's not left out or anything. But it's kind of unusual. I don't know a lot of people that aren't on Facebook. It's kind of irritating because since he's not on Facebook, my group of friends can't include him in conversations and chats and so on.

Student 2:

We have one person in my class that doesn't have Facebook. She is very quiet, so you don't really consider it. But it's a problem because some of the teachers have created a school profile they use to send out messages and so on. It's a problem because she doesn't get those messages like the rest of us.

Student 1:

I can't think of anyone that doesn't use Facebook. Sure, some people are more active than others, but everyone has a profile at least. We have a private group for all the students in our class. Our teacher isn't part of it, and we use it to communicate internally. I think everyone in my class has it.

Student 7:

I only signed up on Facebook yesterday. I felt that I'd been left out by not being there. I have MSN Messenger and Skype, but I kept missing out on events, what people in my class were up to and so on.

**4b. Did you feel pressured to get a Facebook account?**

Student 7:

No, there wasn't any pressure. It was more like I was tempted to get one. My sister has one, my brother has one, so I just had to have one. For a long while, I didn't really want to waste my time on it, but it really didn't take much time to set up.

Student 2:

I've had my account since I was thirteen years old. In the beginning I was online all day every day, and that was difficult. If I was just visiting a girl friend, I would ask her to let me borrow her computer so I could check my profile. I was able to get rid of that "addiction" eventually though...

**4c. Did anyone have an account before they were thirteen? Considering that's the minimum legal age...**

[4 out of 7 raise their hands]

**5. What do you think about that businesses are starting to use social networks?**

Student 4:

It's annoying. There are ads everywhere. They're in my way. I'm not there to look at advertisements.

**5a. Since you've been on Facebook for a while, have the ads gotten more or less annoying?**

Student 4:

I think there are more ads. Sometimes though there might be some ads that I actually do click because I like the products.

Student 5:

To me, ads on Facebook is just spam. I don't feel like they appeal to me. I think they're tailored to

look at how old you are and so on before they're posted, but at the same time I don't think they're relevant. They don't know what brands I like, and they're everywhere trying to get my attention. Sometimes you accidentally click a link or an ad, and you're bombarded with pop-ups and content. I don't think they should push it as much, because I don't understand how they can make any money from it.

Student 2:

I don't really mind the ads. Most of them are on that sidebar. I've gotten used to it, and kind of expect it, considering that ads are everywhere on the Internet. I think it's much worse on Dagbladet [a Norwegian Newspaper] for example

***5b. That covers the ads you see on the site. But what about business "fan pages" where you can go in and ask questions or give them a piece of your mind?***

Student 1:

If I am to contact a business, I'll normally use the phone or send them an e-mail because I want feedback as quick as possible. I can't remember asking questions to a business on Facebook, but I have used Facebook to talk to different types of organizations.

Student 4:

I've done it once. There was a customer survey for the Trikk [Trolley car – Oslo Public transportation]. I used their page to give them feedback.

Student 1:

I don't think I would have written to a business using their Facebook page because everyone can see what I write and comment and critique it. It's easier to write them an e-mail or make a personal phone call, because there's no one there to judge you and call you out because you didn't read the fine text or whatever.

***5c. So because other people can read what you've written, you prefer other channels for communicating with businesses?***

Student 1:

Yes.

***5d. But on the other hand, can't this be a positive thing? Doesn't this transparency imply that people will think twice before they post a question or comment?***

Student 4:

Nobody thinks twice on Facebook.

***6. Can you give some examples of what businesses have used social networks for that you liked?***

Student 2:

There are some pretty interesting competitions out there. I think it's smart that you actively have to go in and "Like" a page before you can enter a competition. DnB [a Norwegian Bank] had a competition where they gave away a prize of 1111 kr per hour, every hour for a certain period. The point of the competition was that you had to give them feedback in the form of your opinions and ideas for how they could improve their products and services. Based on the responses they got, they selected one winner every hour.

Student 1:

But isn't it illegal to have competitions on Facebook now?

**6a. No, but there are some considerations for businesses to take. They have to adhere to the the so-called "Promotion Guidelines".**

**7. What do you dislike about businesses that use social networks?**

Student 4:

What I don't like is how businesses are using your information to tailor their marketing.

[The discussion shifted more towards how the students disliked their parents behavior rather than that of businesses.]

**8. Since you've started using social networks, do you pay more attention to security (protecting your information or otherwise)?**

Student 5:

If I share information, I normally always think if this is something I have to share. For example, if there's no red asterisk, I'm not going to give away my phone number. It depends on how public the information is going to be. On Facebook it's a little different, since you can decide who gets to see what to an extent. I always think before I publish.

Student 4:

If I hadn't started using it so early, I think I would have been more prone to making mistakes.

Student 2:

I have become very aware of what I write. A good thing about Facebook is that you can delete things afterwards. A problem though is if someone has taken a screen shot or logged your chat session. That hasn't happened to me, but some friends of mine have had that happen to them. They wrote something in a chat, and then it was copied and sent to lots of other people and she was not able to delete it.

Student 1:

I think it's the other way around. My parents are very concerned with what they do online, and often talk about it like it's a dangerous place. They don't know what it is, so they think it's scary and bad. For me, I've grown up with it so I look at it very differently. I think I've gotten more

critical of what I do as I've gotten older. In the beginning, I was only 12 years old when I first got my account on Facebook, but I have gotten better at how I manage my information with age.