



NTNU – Trondheim
Norwegian University of
Science and Technology

Privacy on Facebook and Interdependency

Esther Bloemendaal
Ida Malene Hassel Øverås

Submission date: October 2013
Responsible professor: Jan Audestad, ITEM
Supervisor: Gergely Biczók, ITEM

Norwegian University of Science and Technology
Department of Telematics

Summary

Acknowledgement

Contents

List of Figures	ix
List of Tables	xi
1 Related Work	3
1.1 Social Network Services	3
1.2 Interdependent Privacy	4
1.3 The History of Facebook	4
1.4 Amazon Mechanical Turk	6
2 Default Privacy Settings	7
2.1 Default Privacy Settings	7
References	13

List of Figures

1.1	The Facebook Icon	4
-----	-----------------------------	---

List of Tables

2.1	Changes in the default privacy settings on Facebook from 2005 until today. [6, 8]	8
-----	---	---

Introduction

Chapter 1

Related Work

1.1 Social Network Services

A social network service (SNS), is a platform used to establish social networks of different people. These people often share a common interest or activity [5].

Online social networks (OSNs) is a large part of the social network services. From online social networks was first introduced until today, the popularity and complexity has grown drastically, with a hundreds of millions active users [4]. OSNs have a peer-to-peer architecture, and therefore makes it easy for members to initiate communication with whom they want, given that they are also connected to the network. OSNs also enables the possibility for people to easily publish and retrieve information about subjects of interest [1].

The internet has caused the creation of several information sharing systems. Among these systems are the Web and OSNs. As mentioned before, the popularity of OSNs has grown drastically, and have become among the most popular sites on the Web. With this change, there has also been a change in what is centralized and in focus. The Web is to a large extent organized around content, while OSNs on the other hand are organized around users. This change has lead to the importance of understanding user behaviour. A user is often represented with a profile on OSNs. To obtain a profile the user, in most cases, must register the site. When a user is given a profile, it is normal for the user to provide information about themselves. This information could for example be date of birth, home town, sex, name (or pseudonym) and maybe a profile picture. The social network is formed when users start connecting with each other. The reason for these connections are numerous; real-life friends, real-life acquaintances, colleagues, share an interest/activity or if you are interested in the information contributed by the other user [7].

Since Facebook was introduced to the public in 2006, it has grown to be the largest online social network (OSN) in the world. The growth of Facebook has made it necessary to introduce new ways to manage privacy and ensure a secure online environment. The privacy embedded in the program/app etc. is not enough to ensure such an environment, due to

the interdependent privacy issues. Your privacy is to a large extent affected by the privacy decision of others. We will elaborate these privacy issues later in our report.

1.2 Interdependent Privacy

1.3 The History of Facebook

When Mark Zuckerberg enrolled at Harvard in 2002, he had decided to major in psychology “I just think people are the most interesting thing—other people,” he said. “What it comes down to, for me, is that people want to do what will make them happy, but in order to understand that they really have to understand their world and what is going on around them” [3]. He showed an interest and passion to connect people together and crate Harvard more open.



Figure 1.1: The Facebook Icon

It all started in October 2003 when the Harvard sophomore Mark Zuckerberg and three of his classmates created the web page facesmash. Zuckerberg hacked into the administrative database to extract the ID photos of all the students of the different houses. The web page presented two and two photos creating a “hot or not” game for his fellow students. The votes were counted and created a top-ten list of the cutest poeple in each house. Within the first hour facesmash had 450 visitors and 22 000 photo-views. After numerous complaints from professors and fellow students, Harvard administration shut down Zuckerbergs Internet connection after a few days. Harvard charged Zuckerberg for violating individual privacy, violating privacy and breach of security for stealing the photos. Zuckerberg agreed to take the web page down and got away with just a warning.

After facesmash Zuckerberg was known around campus as a programming prodigy. Harvard seniors Tyler and Cameron Winklevoss and Divya Narendra had since 2002 been working on a social networking page - HarvardConnection, where students could create a profile, and though that share some personal information and post pictures and share this with large and small communities that one could be part off. They wanted Zuckerbergs help to finalize their project so that the page could be up and running before they graduated. Zuckerberg agreed to help at the same time as presuing his own projects. Harvard offers a class directory to all freshman’s, this directory is also known as the "facebook". This

"facebook" contains a picture of all the students, name, date of birth, home town and high school. This so that the freshman's could get to know each other. Harvard's plan was to eventually get this online. Since Harvard had not gotten to it yet, Zuckerberg decided to do the job himself. He wanted to create a page where people signed up and created their own profiles, and in that way could post some personal information about themselves, and have control over what was posted. After ten days of intensive work Zuckerberg almost finished the site. The site was kept simple and intuitive, and everybody with a Harvard e-mail address could create a profile. The profile consisted of a profile picture, name and some personal information such as taste in books, music, films and favourite quotes. Users could link to their friend's profiles and by using a "poke" button let others know that you have visited their profile. Thefacebook went public February 4, 2004, and to get the word spread they sent it out on the Kirkland house mailing list, that contained over 300 students. It did not take long until the other houses heard and within twenty-four hours close to fifteen hundred people had registered. "I think it's kind of silly that it would take the university a couple of years to get around to it," he said. "I can do it better than they can, and I can do it in a week." [3].

There were already similar pages out there, like Friendster and Myspace.com. Especially on Myspace.com people played roles, giving themselves out to be someone else. Teenage girls pretending to be older and grown men giving themselves out to be young girls. There is nowhere to validate that the person really is who they give themselves out to be. This limits to what extent people post personal information. With Thefacebook.com you have to sign up with a valid Harvard e-mail address, in that way you know that they are actual people, and mostly students. This made it easier to post more personal information like cell-phone number, home address and even sexual orientation. The concern was not about security but more about wasting time, it became an addictive pleasure.

It didn't take long before Mark Zuckerberg began to receive e-mails from other colleges, requesting to get Thefacebook at their schools. The site was easily scalable, the concern rather laid in how to maintain the intimacy and the clubby appeal. When Thefacebook expanded to Colombia, Yale and Stanford, students were only able to search and see people from their respective college. Only with permission from a student from another college could you add the person to your friend list. This is a key factor to Facebook's success. Zuckerberg wanted people to post personal information and create a more open school community.

In June 2004, when the school year was over, Thefacebook had expanded to over forty schools, with a 150 000 users. With the rapid expansion, the need for investors and more capacity.

Zuckerberg moved his base to California and removed the "the" from the name. Thefacebook became just Facebook. Zuckerberg said this in one of his meetings. "I mean, one

way to look at the goal of the site is to increase people's understanding of the world around them, to increase their information supply," he said. "The way you do that best is by having people share as much information as they are comfortable with. The way you make people comfortable is by giving them control over exactly who can see what" [3].

User control became a hot topic in 2006. There had been reported that sex-offenders was using social networks to pick out their victims. MySpace found out that several teenagers had been assaulted by people they meet at the site. Facebook also received some negative mention in the press. Numerous times the campus police had to shut down big parties announced on Facebook. In 2005 a student at a Fisher college was expelled after posting this comment about the school's police officer "needs to be eliminated" [3]. In general the privacy settings and restrictions that Facebook has have protected the users. They can easily change the setting and decide who can see what.

[9]. [3].

1.4 Amazon Mechanical Turk

Chapter 2

Default Privacy Settings

2.1 Default Privacy Settings

In this chapter we are going to look into the history of Facebook's privacy settings, and map the development from 2006 until today.

Facebook has evolved from being a networking site for students attending Harvard to becoming a global phenomenon. Facebook's user interface has gone through several changes over the years, which has brought both joy and frustration to the users. When these changes have been made, there has also been adjustments to the default privacy settings as well [2]. At the beginning, in 2005, when Facebook first was applied outside of Harvard University, the users personal information was only accessible to a users Facebook friends and to people connected to the same network on Facebook [6].

The changes to the default privacy settings are emphasized in Table 2.1.

Table 2.1: Changes in the default privacy settings on Facebook from 2005 until today. [6, 8]

Year	Default Privacy Settings
2005	Personal information (e.g., name and profile picture) is only visible to specific groups specified in your privacy settings.
2006	The only information displayed in your profile is your school and specified local area.
2007	Name, name of school (network) and profile picture (thumbnail) is available to all Facebook users.
November 2009	Name, profile picture and demographics is available and searchable to the entire Internet. In addition to this, list of friends are visible to all Facebook users.
December 2009	Your name, profile picture, list of friends, pages you are fan of, demographics and likes are available for the entire Internet.
April 2010	The entire Internet can see everything, except wall posts that are limited to friends and photos that are limited to your network.
2011	
2012	
2013	

Discussion

Conclusion

References

- [1] Alessandro Acquisti, Stefanos Gritzalis, Costas Lambrinoudakis, and Sabrina De Capitani di Vimercati, editors. *Digital Privacy: Theory, Technologies, and Practices*, chapter Privacy Perceptions among Members of Online Communities, pages 253–266. Auerbach Publications, 2008.
- [2] Michael C. The evolution of privacy on facebook. 2011. <http://www.yalelawtech.org/control-privacy-technology/evolution-of-facebook-privacy>, accessed 30.09.2013.
- [3] John Cassidy. The online life; me media. May 2006. http://www.newyorker.com/archive/2006/05/15/060515fa_fact_cassidy, accessed 04.10.2013.
- [4] Michalis Faloutsos, Thomas Karagiannis, and Sue Moon. Online social networks. <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5578911&tag=1>, accessed 15.10.2013.
- [5] GSMarena.com. Social network service. <http://www.gsmarena.com/glossary.php3?term=sns>, accessed 15.10.2013.
- [6] Matt McKeon. The evolution of privacy on facebook. 2010. <http://www.mattmckeon.com/facebook-privacy>, accessed 26.09.2013.
- [7] Alan Mislove, Massimiliano Marcon, Krishna P. Gummadi, Peter Druschel, and Bobby Bhattacharjee. Measurement and analysis of online social networks. 2007. Published in Proceeding IMC '07 Proceedings of the 7th ACM SIGCOMM conference on Internet measurement. Pages 29-42.
- [8] Kurt Opsahl. Facebook's eroding privacy policy: A timeline. 2010. <https://www.eff.org/deeplinks/2010/04/facebook-timeline>, accessed 02.10.2013.
- [9] Wikipedia. History of facebook, Sept 2013. http://en.wikipedia.org/wiki/History_of_Facebook, accessed 02.10.201.