

## SOCIAL NETWORKS – WHO IS ACCESSING AND USING YOUR (PRIVATE) INFORMATION?

Ivana Gjorgievska	Adrijan Bozhinovski	Eva Blazhevaska	Veno Pachovski
University American College Skopje	University American College Skopje	University American College Skopje	University American College Skopje
Skopje, Macedonia	Skopje, Macedonia	Skopje, Macedonia	Skopje, Macedonia

### ABSTRACT

Over the past couple of years, social networks have become a part of the lives of the people that use them. People are indiscriminately creating their profiles on social networks, representing themselves in various manners. Through publishing personal information, the users accept the risk of its influence on them – regardless of whether it is positive or negative. This paper presents the results of an online survey about users revealing personal information over the social networks: what is the level of the people's user safety and privacy awareness, as well as the ease of access to someone else's social network user profile, who does not necessary have to be in the friends list. Observing the results presented through graphs, as well as discussing them, a conclusion is reached about the level of awareness of the users of social networks, about keeping their information private and not letting other users use them in any way without their knowledge.

Keywords: social networks, private information, security

### I. INTRODUCTION

Social network sites are defined as web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system [1]. The web sites of the social media are a type of Internet communication, the popularity of which increased enormously in the past few years. One can witness the appearance on a huge number of social media, that target their users according to the different characteristics, and services they offer. The targeted audience can be analyzed according to some demographic features: age, sex, sexual orientation or according to political views, working industry etc. By

creating a user profile on any social networking site, the users disclose various information about them. Many of them are not conscious about the fact that disclosing personal information can affect their everyday lives. Nowadays, one can easily find and use other people's telephone numbers, photos, favorite things, and other private information, without their knowledge.

In this paper, information and data, collected by surveying 51 people between the ages of 18-45, will be presented. The survey was anonymous, conducted on the Internet, using the free service of the web page [www.freeonlinesurveys.com](http://www.freeonlinesurveys.com). Also in this paper, some questions about disclosing private information on the Internet will be elaborated, like how much information about the users can be acquired through a particular social network, and how such information can be used against them.

### II. SOCIAL NETWORKS AND THE AMOUNT OF DISCLOSED INFORMATION

There are many studies that are trying to reveal why social media users aren't interested and worried about disclosing private information. According to some studies, people are revealing private data on the Internet because they are uninformed about the percentage of users that can freely access their information and the implications from that practice [2]. Nowadays, people have free of charge access to various social networks, with different content and character. According to the survey in this paper, the most popular social network is Facebook. Fig. 1 shows which social networks are the most popular. These results are based on the answers of 51 subjects.

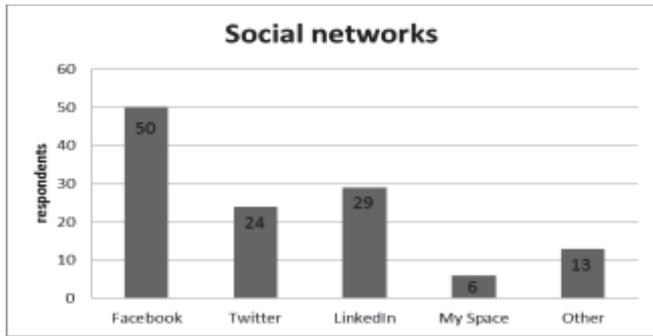


Figure 1. User profiles on social networks

There are many reasons why people are creating profiles on the social networks. For example, LinkedIn is a professional network, where people post details about their professional lives and careers, together with additional contact information, in order to be contacted about matters regarding business opportunities. Apart from LinkedIn, people are posting more private data on Facebook, Twitter and MySpace. According to the results, social networks are mostly used for fun, arranging meetings, contacting friends etc.

The most common element of the social networks is creating a personal profile, through which the users are presenting themselves in a way they would like to be seen by others. They show pictures, their educational and biographical backgrounds, their workplaces, and their relationships, whether with other family members or partners. So, the profile also speaks about the users' interests and friends. But the question is, how much information is needed to be disclosed, and how much do the users actually "agree" to reveal? Some social networks do not provide enough guidance about adjustments of the privacy settings that would help protect them from the unwanted consequences of excessive sharing of their private data. If all the parameters are adjusted, the users can keep their data hidden, and have control over which users can browse their profiles. Or, can they?

The relation between the privacy and the personal profile on the social networks can be discussed from several aspects. There are cases, when the users want some information to be visible only to a small group of close friends, but not to unknown people. In other cases, they choose to reveal information to complete strangers, but not to close people, i.e. people they are familiar with. According to the study of Goettke and Christiana [3], social media can be divided in five security layers due to the safety they offer. But, in the end, the conclusion was that the protection of the information depended on the user itself. Fig. 2 shows that more than half of the subjects were connected to people unknown to them, who could easily access their information.

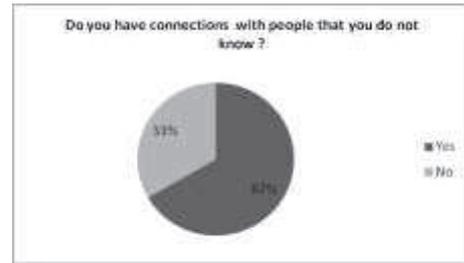


Figure 2. Connections of the subjects with people they didn't know

Fig. 2 shows that a staggering 67% of the subjects were connected to people on the Internet who were unknown to them. This high percentage shows that people weren't concerned and conscious about their privacy. This implies that the users offer their privacy to the world without being concerned about it. There is also a study showing that people are not worried at all about sharing their privacy with strangers. Because of the ease of revealing information via social networks, many things have been lost, many marriages have been destroyed and even criminal cases have been handled. All of this thanks to the information from the social media [4]. Fig. 3 shows a graph showing the kind of information most commonly shared on the Internet.

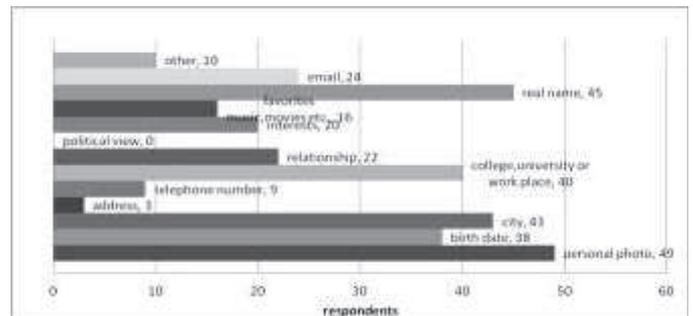


Figure 3. Types of commonly disclosed personal information on social networks

It can be seen from Fig. 3 that 96% of the users of social networks share a photography through which they can be identified, whereas 88% share their real names. From these, as well as from other results from the survey, it can be concluded that it's very easy to find a user on the social networks, as well as additional other information. So, it is obvious that a user can set a photo of a person s/he doesn't even know as a photo for her/his profile, and others can do the same in return. Thus, disclosing personal information can harm the users in more ways than one and makes them more vulnerable.

### III. USE OF THE DISCLOSED INFORMATION

It is obvious that nowadays the social networks are the main source of information, besides other things. Should these percentages be worrying? Are the users protecting themselves enough from strangers and are those strangers helpful or harmful to the users? On Fig. 4 and Fig. 5, it is shown how much the subjects search and browse information about unknown people on the social networks.

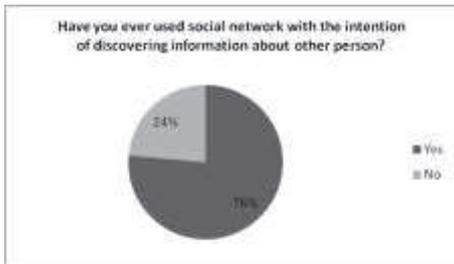


Figure 4. Collecting information about unknown people on the social networks

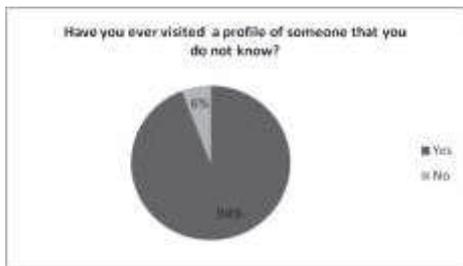


Figure 5. Visiting profiles of unknown users on social networks

But, what are the real reasons for visiting unknown people's profiles? There are many cases of Internet stalking, a lot of them with tragic endings. The main reason for it is that people don't pay attention to protecting themselves. 94% of the subjects had visited profiles of people unknown to them, which means that the chances of some stranger currently watching a profile on some of the social networks are very high. Fig. 6 and Fig. 7 shows the percentage of people that had been contacted by strangers on the social networks, but also to what percentage people were frightened by that act. The results alert that the users are the ones that should protect their personal data better, so that no one would be able to find out valuable information about them with just a few clicks.

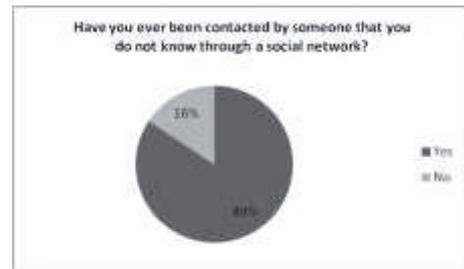


Figure 6. Contact from someone that the subjects didn't know

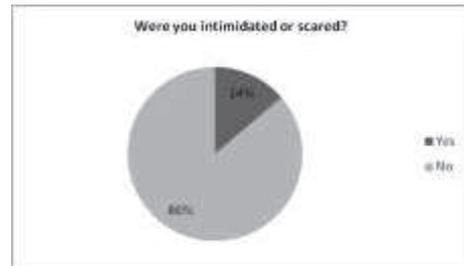


Figure 7. Reaction to such contact

Even though many of the subjects have been contacted by strangers (84%), very few people were concerned about it. Maybe one of the reasons for being not overly concerned is that today people don't have so much time for friends and socialization, so they have to use the social networks to get in touch with new people and for acquiring new friends. In any case, socialization shouldn't be a reason for someone to know a personal e-mail or where one is at the particular moment. In the graph on Fig. 8 it can be seen what is the proportion of the usage of the data collected, and on Fig. 9 information is shown about the percent of subjects that felt frightened because of the disclosure of private information.

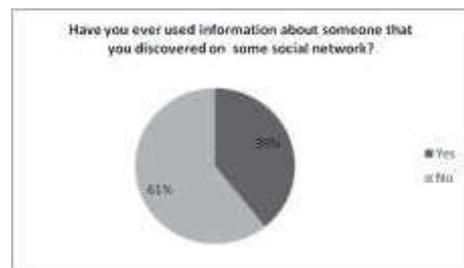


Figure 8. Using information acquired through social networks

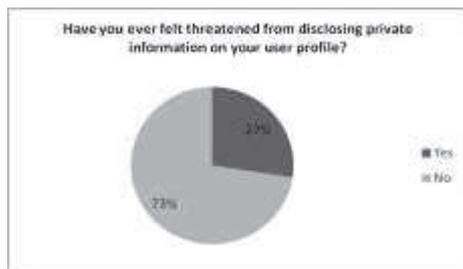


Figure 9. Reaction to disclosing private information on social networks

39% of the users stated that some information about them was often used, and that such information was acquired through the social network, while 27% thought that it was not rare that the information was used against them. That is why one should think twice before sharing some information on the Internet, something that that might cause personal harm later on. Maybe the fact, that the percentage of people that assumed that they shared more information than necessary was greater than the percentage of people who felt frightened because of sharing personal data, states that people are becoming conscious about the danger of sharing personal information. Fig. 10 represents the response to the question: do people consider they disclose more information than necessary.

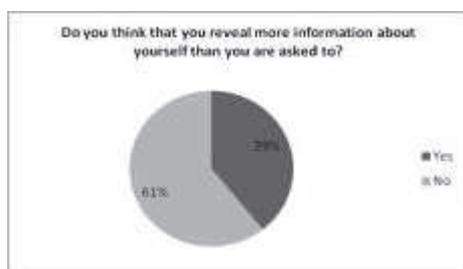


Figure 10. The opinion of the subjects about whether they disclosed more personal information than necessary

This percentage pinpoints the difference in sharing between the early beginnings of the social networks and nowadays, when the people are more conscious about the risk of revealing personal information. As a main reason for this behavior, there are many cases of negative influences of the social networks, which make the people intimidated by the possibility of repeating the experience. To the question, whether the subjects were familiar with the risk that every revealed information brought along with it, the obtained answers were various, most of them saying that they were aware of the risk and that they were trying to disclose as less information as possible, but there were also subjects who were aware of the consequences of over-sharing, but were still disclosing and weren't concerned about their safety.

#### IV. CONCLUSION

Although the information published on the social networks can be useful, when it comes to safety, they can cause great harm in many ways. Through a survey of a randomly selected group of social networks users, it was discovered that they were comfortable with using other users' private information, and also that they were not completely familiar with the consequences from the public display of their own personal information. Maybe it is time for the users of social networks to pay more attention to the privacy settings of their profiles, available from the different social networks. The image that is presented on a social network profile is something that one also needs to take into account, because people cannot always comprehend the things that one would like to be noticed by over the Internet. Through this research, it was discovered that the awareness of people has not yet reached the required level for safe usage of the social networks.

#### REFERENCES

- [1] Danah M. Boyd, Nicole B. Ellison, "Social Network Sites: Definition, History and Scholarship", Available from: <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html> [Accessed 11 December 2012], 2007
- [2] Ralph Gross, Alessandro Acquisti, "Information Revelation and Privacy in Online Social Networks (The Facebook case)", Pre-proceedings version. ACM Workshop on Privacy in the Electronic Society (WPES), Available from: <http://www.heinz.cmu.edu/~acquisti/papers/privacy-facebook-gross-acquisti.pdf> [Accessed 28 January 2013], 2005
- [3] Richard Goettke, Joseph Christiana, "Privacy and Online Social Networking Websites", Computer Science 199r: Special Topics in Computer Science Computation and Society: Privacy and Technology, Available from: <http://www.eecs.harvard.edu/cs199r/fp/RichJoe.pdf> [Accessed 28 January 2013], 2007
- [4] Jessica Staddon, "Vanity or Privacy? Social Media as a Facilitator of Privacy and Trust", Available from: [http://static.googleusercontent.com/external\\_content/untrusted\\_dlcp/research.google.com/en/pubs/archive/37673.pdf](http://static.googleusercontent.com/external_content/untrusted_dlcp/research.google.com/en/pubs/archive/37673.pdf) [Accessed 10 February 2013], 2012