

An Investigation into privacy and Security in Online Social Networking Sites among IIUM Students

Husein Osman Abdullahi, Abdirizaq said

Department Of Information System
Faculty of Information Communication Technology,
IIUM
Jalan Gombak, 53100, Kuala Lumpur, Malaysia

Jamaludin Bin Ibrahim

Department Of Information System
Faculty of Information Communication Technology,
IIUM
Jalan Gombak, 53100, Kuala Lumpur, Malaysia

Abstract—the issues of privacy and security in online social networking sites have been the dual themes of utmost concern amongst many communities and IIUM community in particular. This article highlights the importance of online social networking sites such as: Face book, Google+, and Twitter and the issues of privacy and security in online interactions. The authors also argue that the online social networks have played a significant role on daily digital interaction for more than half billion users around the world today are bedeviling with the issues of privacy and security. This study employs a quantitative data analysis, a survey and a random sampling of (n=160) IIUM students from different Kulliyah were conducted. The result shows that the percentage responses of IIUM who seems to be actively involved in online social network pages are not aware of their privacy and security in online environment.

Keywords- Social network; Privacy Security.

I. INTRODUCTION

There is no doubt that social networks have become very popular in recent years because of the increasing proliferation and affordability of internet enabled devices such as personal computers, mobile devices and other more recent hardware innovations such as internet tablets[16]. Meanwhile, Online social networks have a significant role on daily digital interaction for more than half billion users around the world, in addition, Social networking sites (SNS) are a type of online communities that have grown tremendously in popularity over the past years[1]. Online social networks (OSNs) such as Facebook, Google+ and Twitter enable people to stay in touch with their contacts, reconnect with old acquaintances, and create new relationships with other people based on shared features such as communities, hobbies, interests, and overlaps in friendship circles. Recent years have seen unprecedented growth in the application of OSNs, with about 300 OSN systems collecting information on more than half a billion registered users [2].

The issues of social networks have played an important role in social life and people connect online in many ways. Social networking sites, e-mail, instant messaging, video- and photo-sharing sites, and comment posting are all tools that help people communicate and socialize with each other. Each

connection is a piece of the larger arena of online social networking.

It is believed that Social networks have challenges for mankind as well as its opportunities has a special dynamic attribute to human social development. To provide more evidence for this point, online social networks have both positive and negative sides, definitely, it is cheaper to use online social networking for both personal and business use because most of the services are free, and at the same time, users can easily develop their social life. However, for the negative side, sometimes users have to be extra-careful in using online social networks. This is because; there are many reporting cases of hacking of one's identity. Besides, this negative consequence, social networking sites (SNS) are online environments in which people create self-descriptive profiles and then make links with other people they know on the site [1].

Furthermore, a quite number of people use different social network sites to interact with each other in today's world. The issue of, particularly, in International Islamic University Malaysia (IIUM), there are tremendous number of students who use social Network sites and they use it for different purposes but, the main problem that they face are privacy and security concerns of their profiles in social network sites, and some of them, they could not protect information from unauthorized people or third party because

of awareness of privacy and security concern of their profiles. We examined how Social network Sites affect privacy, and found serious flaws in the system. Privacy and security on Facebook, for example is undermined by three principal factors:

Users disclose too much, Facebook does not take adequate steps to protect user privacy, and third parties are actively seeking out end-user information using Facebook. So, mainly students that are not aware of their privacy and security, sometimes play games and do quizzes which always come from third parties to take obtain the users information without the users' permission. Therefore, this study aims at finding the privacy and security in online social network sites perception among IIUM students.

II. PRIVACY

Privacy is the right or opportunity to decide who has access to your personal information and how that information should be used. The issue of privacy within social networking sites is often not expected or is undefined [3]. Information Privacy is "an individual's claim to control the terms under which personal information—information identifiable to the individual—is acquired, disclosed or used. More than a few studies have attempted to determine implications of privacy concerns and awareness of privacy to users' online practices and behavior [4][3][5][6].

The actual privacy risks are believed to occur when users disclose identifiable information about themselves online to people who they do not know or normally (that is, offline) would not trust. This is assumed to stem from the users' lack of privacy concerns [6]. In addition, we are paying attention in whether the awareness (or lack of it) influences users' privacy behavior [1].

III. SECURITY

Another issue of concerns to social network providers is the security issue of user's data. Users share personal data on social networks without being fully aware of the consequences. An individual's context in the social network can be used to extract sensitive information. Using the context to extract information can be achieved through social phishing. From the security perspective, a social network can be treated as a graph and it is manipulated in some ways to hide the information [15].

Until the societal norms regarding this new use of computers become well-established, for example Face book could clearly state that they could provide no guarantee regarding the security of their data, and that if users make their profiles known to the public, all information contained therein may be viewed by job interviewers and college administrators. In order to protect our information from unauthorized people or third party, we have to understand the unique challenges of security and privacy with usability and sociability. More so, we first assess the standard principles of information security including confidentiality, integrity and availability.

IV. LITRERATURE REVIEW

Information technology (IT) is usually first adopted by university students [7]. Privacy has been examined by different authors from different perspectives especially when it concerns online transactions. Recent work has also dealt with social networking issues. In a research about online users, it is found that attachment to online access is unprecedented as "58% of online consumers begin the day with email, followed by checking a search engine or portal site (20%) and Facebook (11%) [8]. In recent years, one of the most popular applications among students and other groups of internet users is online social network and online groups. Popular social networking sites include Face book, Google+, and Twitter. Face book, especially, claims around 500 million active users, 50% of whom log in daily spending over 700 billion minutes per month on Face book and having an average of 130 friends (Face book (2010).

It is noticeable that now most successful social networking sites are experiencing unparallel growth with participation expanding at rates topping 20% a month [6]. These applications unlike other previous means of communication, such as email "allow individuals to present themselves, articulate their social networks, and establish or maintain connections with others" [9].

Furthermore, several risks to users of online social networks and groups have been highlighted [10]. These risks include embarrassment, blackmailing, stalking, and even identify theft. However, another very important concern is the attitude of users to undervalue or presuppose the sites privacy policy, thereby ignoring to read the policy by assuming that it should be adequate. Though, it has been found that straightforward privacy policy gives more trust to online consumer rather than a long, legalistic policy [11]. While the assurance that there exists a privacy policy has been found to build users trust, it is not a guarantee that users usually would read policies closely. They usually believe that online policies are similar [11]. This is very interesting when one looks at the face book privacy policy which is said to be more voluminous compare to the US constitution [12]. The higher institution of learning is one of the earliest adopters of information technology [13] and as such a critical look at the usage of these tools of communication and socializing has become imperative. Previous studies have not paid specific focus to the case of higher institution environments. Most of the previous works have giving more attentions to commercial usage and implications of social networks [14]. This case study work is aimed at filling this gap by examine the Privacy and Security in online Social Networks among the university students.

V. RESEARCH METHODOLOGY

This study applied quantitative method in order to analyze data and get important information such as: demographic information of the respondents. This study employed a random sample technique for its respondents whereby students who studies different Kulliyah were involved. A questionnaire describes the usual activities in an online social network sites were distributed for the purpose of data collection for the

study. However, this study used a simple percentage in its data analyses.

VI. FINDINGS AND ANALYSIS

A. *Social networking sites under study (face book, Google+, Twitter)*

This study aims at finding the privacy and security in online social network sites perception among IIUM students. A sample of 170 students was selected randomly from different Kulliyahs of the International Islamic University Malaysia. A net of 160 questionnaires were filled correctly and returned. Nearly 57% of the respondents were males, while nearly 40% of them were females. Around 4% of the respondents did not mention their gender.

On the other hand, approximately 67% of respondents were in the age group 21-25 years old. In addition, the number of respondents in the age groups "below 20" and 31+ were similar and almost got 8%. Regarding the Kulliyah of the respondents, most of them (43%) come from Kulliyah of ICT, while the Kulliyahs of IRKHS and KENMS were only 22.5% and 25.9% respectively. Equally, the data reveals that majority, 66%, of respondents were undergraduate students while just 31.9% of respondents were postgraduate students.

B. *User Behaviour on Social Network sites*

Table 1 describes that the number of social network sites that students' use usually. The highest number of students (91.9%) use face book, while, 7.5% of respondents did not. Meanwhile, there were a quite number of students who use Google+ site and they are around 40.6%. The rest (58%) of respondents do not use Google+. In addition and interestingly, the number of respondents (28.8%) who use Twitter site were lower than those who did not (70%).

Table 2 illustrates that the percentage of respondents who use social networking sites in various purposes. Initially, Almost 63.75 of respondents said that they use the social networking sites for Educational purpose while, 36.25% of respondents claimed that they did not use the SNS as educational purpose. Likewise, 88.1% of respondents intended to use online social network pages for meeting with their friends, while, only (11.9%) of respondents did not use in online social sites for these purpose. About 81.25% of respondents were tend to use social network sites for business purpose while, only 18.75 of respondents were not use in online social networking sites for the business reason.

C. *Information Disclosure*

Table 3 reveals that a high number of respondents share their information in social networking websites (Face book, Google+ and twitter). Furthermore, almost 80% of respondents had added e-mail address on their profiles. Approximately 64% of the respondents mentioned their hometown in their profiles. Besides, almost 60% of the respondents had pictures of themselves and their friends on these sites. Interestingly, 57.5% of the respondents informed that they did not use their real names on Face book profile or Google+ or twitter. Finally, some of the respondents agreed

that they have presented a lot of information in their profiles such as relationship status (25.6%), mobile phones (13.1%) and political views (13.8%).

D. *Privacy and data security concerns in SNS*

Table 4 demonstrates that the percentages of respondents who had read the social networking sites privacy policy and those who did not read before. In addition, the table also shows the number of respondents who used their profile privacy setting. To begin with, the percentage of respondents who had read social network sites privacy policy were about 43.8% and those who did not read were around 49.9%. About 6.9% of the respondents were missing. On the other hand, more than 80% of the respondents have used their profile privacy setting and only, 26% of them have not used their profile privacy setting. About 9.4% of the respondents were missing.

Table 5 shows the awareness of privacy and security issues of OSNS among IIUM students. Initially, about 1.5% of respondents felt that their privacy of personal information is not protected at all, whereas the similar number of respondent s believe the opposite of that idea, which means the privacy of their personal information is not highly protected. Likewise, the percentage of respondents (15.1%) trusted highly that their information will not be used for any other purpose while the percentage of respondents (16.2%) believes that their information will be used for any other purpose. Moreover, nearly 13.1% of respondents did not worry about the information posted by others whereas quarter of all respondents highly worried about the information posted by others. On the other hand, it is interesting to note that, nearly half of respondents agreed that they would continue using social networking sites regardless of its privacy policy but only about 13% of respondents did not agree at all .finally, around 18.5% believe that they will not continue using OSNS without privacy and concern where as the percentage of respondents (33.1) agreed using OSN regardless of Privacy and security concerns.

VII. CONCLUSION AND RECOMENDATION

The importance of online social networks sites to human social development cannot be over emphasized, this is because online social networks sites allowed people to interact to each other freely, conduct businesses and above all serve as a medium of scholarly information seeking and dissemination as well, despite the issues of privacy and security conscious. Therefore, this study found that majority of the IIUM students were not aware of the issues of privacy and security threat that were usually vulnerable to in online social networks environment. In addition to that they continue to use social networking sites regardless their understanding of the sites privacy and security policy, and this usually lead to the compromising their personal identification secrecy. Therefore, this study suggested that, IIUM students should be mindful and take the issue of privacy asnd security in online network sites (OSNS) with utmost level of concern.

TABLE1: SHOWS THE TYPE OF SOCIAL NETWORK SITES THAT STUDENTS USE USUALLY

No	Social Networking Sites	Respondents				Missing	Total
		Yes		No			
		Fr	%	Fr	%		
1	Facebook	147	91.9%	12	7.5%	1	160
2	Google+	65	40.6%	96	58.8	1	160
3	Twitter	46	28.8%	112	70.0%	2	160

TABLE 2: SHOWS THE PURPOSE OF USING SOCIAL NETWORKING

No	Purpose of using online social networking sites	Respondents				Total
		Yes		No		
		Fr	%	Fr	%	
1	Educational Purpose	102	63.75%	58	36.25%	160
2	Meeting with friends	141	88.1%	19	11.9%	160
3	Business Purpose	30	18.75%	130	81.25%	160

TABLE3: PERSONAL INFORMATION ON PROFILE

Questionnaire item	%
Email address	80.0%
Home town or city	63.8%
Photographs of yourself and others	60.6%
Real name	57.5%
Relationship Status	25.6%
Political views	13.8%
Mobile phone	13.1%

TABLE4: SHOWS HOW THE STUDENTS READ & USED PRIVACY SETTINGS OF SSN

Questionnaire item	Yes		No		Missing	Total
	Fre	%	Fre	%		
Have you read the social network sites privacy policy?	70	43.8	79	49.4	11	160
Have you ever used your profile privacy setting?	119	82.1	26	16.2	15	160

TABLE5: THE AWARENESS OF PRIVACY AND SECURITY ISSUES OF OSNS

	Not at all N P		A little N P		Somewhat N P		Highly N P	
I feel that the privacy of my personal information is protected	24	15.0%	34	21.1%	75	45.0%	25	15.6%
I trust it will not use my personal information for any other purpose	26	16.2%	49	30.6%	55	34.4%	24	15.0%
I worry that I will be embarrassed by information others post about me on it	21	13.1%	32	20.0%	59	36.9%	41	25.6%
I would continue to use it regardless of its privacy policy if it helps me meet new people	13	8.1%	36	22.5%	75	46.9%	27	16.9%
I would continue to use it regardless of its privacy policy if it helps me stay in touch with friends	9	5.6%	34	21.2%	68	42.5%	40	25.0%
I would continue to use it regardless of its privacy policy if it is popular	29	18.1%	45	28.1%	53	33.1%	27	16.9%
I would continue to use it regardless of its privacy policy if it is popular	29	18.1%	45	28.1%	53	33.1%	27	16.9%

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