Youth Survey on Social Media Security and Privacy

Sri Lanka CERT|CC
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Abstract

This study aims to investigate the use and perceptions of Sri Lankan youth on the security and privacy aspects of the social media with a focus on identifying youths’ usage of social media, and their awareness and understandings on the security and privacy aspects of social media. Based on the quantitative research approach, a survey instrument was developed and deployed at a public gathering. The target group of population was the youth between the ages of 16-30. The collected data was analyzed using statistical data analysis techniques.

The study findings reveal that Facebook is the most popular social networking site followed by WhatsApp, Viber and Google +. It was further revealed that 50% of youth spend 1-5 hours on social media per day and about 10% spend more than 6 hours. The major reasons for using social networking sites are obtaining information, cultivating friendships, and keeping themselves occupied. The study further reveals that 16% youth have faced negative experiences after making contact with unknown people through social networking sites.

In terms of disclosure of identity and privacy, it was revealed that 47% disclose contact details and 25% disclose their relationships and marital status on social media. In terms of the youths’ awareness of the security features of social media, 24% of youth reported to have not changed their password since the account was created while 26% reported that they changed their password only once a year. However, 33% reported that they change their password every 3 months.

The study also found that 14% of the respondents have been victimized by creation of fake accounts, 11% by hacking of their accounts, 9% by abusive use of photos, 12% by cyber bulling, and 3% by internet frauds. Although a significant number of youth have been victimized, 71% have ignored such incidents and have not reported to the relevant authorities. Lack of awareness on the relevant authorities and fear of disclosing identity have prevented them from reporting these incidents.
1. Introduction

With the rapid advancement of internet based communication channels, younger population is the first group to embrace various new technologies. Social media is becoming the most adopted communication tool of today’s younger generation. The number of user accounts created on social networking sites such as Facebook, Instagram, Pinterest, and Twitter, for example, have dramatically increased over the past several years. A study in US reveals that 88% of the young adults in the age group of 18-29 yrs use Facebook while 59% use Instagram, 36% use Pinterest, 36% use Twitter, and 34% use LinkedIn (PEW Research, 2016). Such a higher rate of social media adoption is due to its ability to bring people together across the world, to cultivate friendships, maintain romantic and social relationships, to provide entertainment with multimedia media content and games.

Social media's ability to connect people across the world has undoubtedly had an immensely positive impact on social interactions. However, this same feature of social media has also led to an increase in incidents of cyber bullying, sexual harassment, privacy violations and defamation. Statistics recorded at the Sri Lanka Computer Emergency Responsive Team – Coordinating Centre (Sri Lanka CERT | CC) show a 26% increase in the number of social media related incidents reported in 2015. Lack of awareness among users on the security and privacy related aspects of social media has contributed to the increase of these social media related incidents. In this context, it is necessary to investigate use and perceptions of Sri Lankan youth on the security and privacy aspects of the social media.

This study, therefore, aims to investigate the use and perceptions of Sri Lankan youth on the security and privacy aspects of social media. The survey was deployed at the INFOTEL public exhibition held from 2\textsuperscript{nd} to 5\textsuperscript{th} November 2017 at the Bandaranaike Memorial International Conference Hall (BMICH). The target population of the survey was the youth between the ages of 16 to 30. Data collected through the survey was analyzed using statistical techniques for fulfilling the objectives of the study. In the following sections of this report, the aims and
objectives of the survey are presented with the framework used to develop the survey instrument, followed by a presentation of the research methodology. Then, the analysis of data is presented followed by a brief summary of the findings.

2. Aim and Objectives of the Survey

The aim of this survey is to investigate the use and perceptions of Sri Lankan youth on the security and privacy aspects of social media.

The objectives of the survey are to investigate,

a. the youth’s usage of social media,

b. the youth’s awareness and understandings of the security and privacy aspects of social media, and

c. the extent and types of online victimization experienced by youth

The study objectives are achieved with the use of the research framework shown in Figure 1. As shown in the Figure, youth’s perceptions of security and privacy aspects of the social media were evaluated with a focus on the type of social media used, purpose of usage, level of usage, the degree to which youth disclose their identity on social media, awareness of the security and privacy related features of social media, and victimization through social media.
3. Research Methodology

This study adopts a quantitative research approach to investigate the use and perceptions of Sri Lankan youth on the security and privacy aspects of the social media. Based on the comprehensive review of the literature, a survey instrument was developed. The developed survey instrument was reviewed and validated with the involvement of domain experts. Survey instrument was developed with the use of Google Analytic Tools, and deployed through electronic format with the use of tablets. Prior to the distribution of the survey, a pilot test was carried for further verifying the survey.

The survey was deployed at the INFOTEL public exhibition held from 2\textsuperscript{nd} to 5\textsuperscript{th} November 2017 at the BMICH. The target population of the survey was the youth between the ages of 16 to 30. Participants to the survey were recruited from the visitors to the Sri Lanka CERT’s stall at the INFOTEL exhibition. Participation in the survey was on voluntary basis. Based on
their language preference, the participants were given a tablet with a preloaded survey questionnaire either in English or Sinhala. Participants were requested to fill the survey questionnaire on the spot, and responses were recorded in the Google database. Since the survey was limited to the youth participants who visited INFOTEL 2017 exhibition, the majority of the respondents were from the Western Province of Sri Lanka.

4. Analysis of Data

4.1. Demographic Profile of Respondents

The total number of responses received for this survey was 548. The collected data was analyzed using Microsoft Excel. Analysis of demographic profile of the survey respondents reveals that 75% were male and the 25% were female. As shown in Figure 2, a majority (22%) of respondents fall into the age group of 25-27 years. Analysis of educational profile of the respondent reveals that the majority (30%) of the respondents had undergraduate qualifications while 27% had studied up to G.C.E Advance Level, and 15% had post graduate qualifications. Figure 3 shows the educational profile of the respondents.
An analysis of the respondents’ work engagement reveals that 42% of the respondents were employed while 7% were self-employed, and 3% were unemployed. Moreover, 48% of the respondents were students (Figure 4).

![Employment profile of the respondents](figure4.png)

### 4.2. Usage of Social Networking Sites and Motivation

This study revealed that Sri Lankan youth use a wide range of social networking sites such as Facebook, WhatsApp, Viber, Google +, Skype, Twitter, Snap Chat, Pinterest, Flicker, Line, Blogger, Imo, YouTube, LinkedIn, and Instagram. Among them Facebook is rated as the most popular social networking site among the Sri Lankan youth. As shown in Figure 5, 89% of the respondents used Facebook, followed by WhatsApp (79%), Viber (75%), Google + (62%), and Skype (48%). Line is the least popular social networking site among respondents.
4.3. Motivation for Using Social Media

The survey data revealed that the primary motivation of Sri Lankan youth for using social media is maintaining relationships or, in other words, keeping in touch with friends and families (68%). 66% of the respondents use social media for finding information and 43% use social media for sharing photos and multi-media content. Moreover, 32% of the respondents use social media for cultivating friendships while 29% use social media to keep themselves occupied. It is also observed that 5% of the respondents use social media due to peer pressure. Figure 6 shows the motivations for using social media.
4.4. Time Spend on Social Media

This study also examined the time spent on the social media by Sri Lankan youth. It was revealed that 50% of the Sri Lankan youth spend 1-5 hours on social media per day while 10% of the respondents spend more than 6 hours per day on social media sites. 40% spend less than one hour per day on social media.

4.5. Awareness of Security and Privacy on Social Media Sites

Disclosure of Identity and Privacy

This study also sought to examine the extent to which Sri Lankan youth disclose their identity through social media. It was found that 92% of the respondents reveal their names, 76% reveal their date of birth, 74% disclose their photos, 65% disclose their email addresses, 47% disclose contact numbers, 18% disclose home address, 24% disclose work address, and 25% disclose their relationships and marital status on social media. Study further reveals...
that 67% of the respondents allowed their profiles to be available on public searches on Internet. Figure 7 shows the level of identity and privacy disclosure through social media.

![Figure 7: Disclosure of identity through social media](image)

### Awareness of Security Features of Social Networking Sites

The level of Sri Lankan youth’s awareness on the security features of social networking sites is relatively high. This survey revealed that 81% of the Sri Lankan youth have secured their social media accounts by changing the default security settings of social networking sites. 55% of youth have enabled two factor authentication on their social media accounts. However, 19% of the respondents were unaware of the said security features. Table 1 tabulates the security features commonly used by respondents to secure their profiles on social networking sites.

**Table 1: The used security settings of the respondents**

<table>
<thead>
<tr>
<th>Security Setting</th>
<th>No of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling two factor authentication</td>
<td>246</td>
<td>55.03%</td>
</tr>
<tr>
<td>Enabling Security Questions</td>
<td>212</td>
<td>47.43%</td>
</tr>
<tr>
<td>Making posts visible to a Limited Audience</td>
<td>167</td>
<td>37.36%</td>
</tr>
<tr>
<td>Enabling tagging notifications</td>
<td>124</td>
<td>27.74%</td>
</tr>
<tr>
<td>Activating recovery email addresses/phone numbers</td>
<td>219</td>
<td>48.99%</td>
</tr>
</tbody>
</table>
4.6. Use of Passwords

Although youth awareness on security features available on social networking sites is high, it was found that 24% of had never changed their password since the creation of their account while another 26% changed their password only once a year. 33%, however, reported to change password every 3 months while another 17% reported to change password every month. Figure 8 shows the frequency of changing password by youths.

![Figure 8: Frequency of changing the password](image)

The study further reveals that a majority of the respondents (87%) have not shared their password with others and 85% believe that their passwords are difficult to break. However, 26% youth use the same password for all social media sites, and 17% allow the browser to save the password automatically.

4.7. Online Victimization

The study found that a significant number of Sri Lankan youth have been subject to online victimization. 14% have experienced creation of fake accounts under their names, 11% experienced hacking of accounts, 9% had their photos used in abusive ways, 8% received threatening messages, 4% have subject to cyber bulling, and 3% had been victims of internet
frauds. Table 2 shows the security/privacy related incidents the respondents have experienced.

**Table 2: Security/privacy related incidents experienced by Sri Lankan youth**

<table>
<thead>
<tr>
<th>Incident</th>
<th>No of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone created a fake account under my name</td>
<td>68</td>
<td>14%</td>
</tr>
<tr>
<td>My account was hacked (Social Media, Email Accounts)</td>
<td>56</td>
<td>11%</td>
</tr>
<tr>
<td>My Photos have been used in an abusive way</td>
<td>44</td>
<td>9%</td>
</tr>
<tr>
<td>I received or have been a victim of Pornographic content</td>
<td>28</td>
<td>6%</td>
</tr>
<tr>
<td>I have been a victim of Cyber Bullying</td>
<td>20</td>
<td>4%</td>
</tr>
<tr>
<td>I received threatening messages</td>
<td>38</td>
<td>8%</td>
</tr>
<tr>
<td>I have been a victim of Internet Fraud (ex: Credit card fraud)</td>
<td>14</td>
<td>3%</td>
</tr>
<tr>
<td>I have received Email spams</td>
<td>160</td>
<td>33%</td>
</tr>
<tr>
<td>I have been a victim of Ransomware</td>
<td>11</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>6%</td>
</tr>
</tbody>
</table>

Furthermore, 57% of the respondents insisted that they do not accept friend requests from unknown people. However, 43% reported to accept friend requests from unknown people. Among them 33% youth have faced negative experiences after accepting friend requests of strangers. 80% of the youth, however, declared that they met their life partner through a social media site.

Although a significant number of youth have been subject to online victimization, 71% have ignored such incidents and have not reported to the relevant authorities. 32%, however, had reported the incident to Sri Lanka CERT and 20% have reported the incident to the Police.

**5. Conclusion**

The primary objective of this survey was to investigate the use and perceptions of Sri Lankan youth on the security and privacy aspects of the social networking sites. The findings of the
survey, deployed at the INFOTEL 2017 exhibition held on the November targeting the youths in the age group of 16-30, are summarized in the Figure 9 below.

![Figure 9: Summary of Survey Findings](image)

This study revealed that Sri Lankan youth’s awareness of the advanced security features of social networking sites is high with 81% being aware of such features. Despite the high level of awareness of the security features, this study further revealed that a significant number of Sri Lankan youth have been subject to different types of online victimization such as creation of fake accounts, hacking of accounts, abusive use of their photos and so forth. This could be due to factors such as disclosure of personal information through social media, and acceptance of strangers as friends on social media by Sri Lankan youth.

It was revealed that, 47% Sri Lankan youth disclose their contact details and 25% disclose their relationships and marital status on social media. Such information can be misused by
hackers for deploying phishing attacks to obtain financial accounts, credit records and other assets.

Cultivating friendships is one of the motivations of youth for using social media networks. This study reveals that 43% youth accept friend requests from unknown people. Among them 33% have faced negative experience after accepting a stranger's friend request. Accepting strangers as friends on social media would grant them access to a wealth of personal information, thus compromising the account security. Personal information on social media can provide the crucial information that identity thieves need to misrepresent themselves as the victims of such thefts. Furthermore, such information could also help a hacker or malicious computer program to predict the passwords or answers to security questions on social media. It is, therefore, advisable for youth to be vigilant of the nature of the content being shared, avoid sharing contact information, and not accept friend requests from strangers.