Awareness of Safe and Responsible Use of ICT among Higher Education Students in a Malaysian University

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Introduction

• The exponential growth of ICT has led to social and ethical issues on online safety and security, misuse of information to health and mental hazards. (UNESCO Bangkok, 2015).

• In Malaysia, 3.5 million Internet users today and digital natives form the bulk of these users.

• There is a necessity for researches to analyse how digital natives think” and whether this should have an impact on the way digital natives are taught.

• The UNESCO SRU-ICT Report points out the need for comparative research on children’s use of digital technology in developing and emerging countries.
Literature Review


• Relevant Govt Ministries on cyber and ICT matters: Communications and Multimedia Ministry, Ministry of Science, Technology and Innovation (MOSTI).

• Supporting agencies: Communications and Multimedia Commission, Cyber Security Malaysia, National Information Technology Council of Malaysia (NITC Msia)

• National Cyber Security Policy in 2013

• 2 cyber-safety programmes: Click Wisely, CyberSAFE / DigiCyberSAFE in Schools programme
Research Report by DIGI in 2013

- Survey among 9,651 primary and secondary students (students aged 7 to 18) across Malaysia.
- Survey was levels of awareness and understanding of cyber-safety issues, appropriate online behaviour, ability to safeguard themselves against risks and the impact of the awareness workshops.
Literature Review

Research Report by DIGI in 2014

Survey among 14,000 schoolchildren nationwide.

- 26% schoolchildren reported they had been bullied online
- Online harassment high at above 70%, especially on: calling mean names, posting improper messages and inappropriate photos.
- 64% felt that sending improper SMSes, posting inappropriate photos & pretending to be someone else is NOT cyber-bullying.
- 40% did not know how to protect themselves online;
- 83% were vulnerable to online risks due to minimal protective actions taken
• 2/3 of the schoolchildren, below 13 years old, took very low protective steps towards online safety.
• 52% still believed that they were safe online.
• An average 70% of schoolchildren were not concerned with the invasion of their privacy or the anonymity of the person they interact with.
• 50% were unsupervised when online, with 40% claiming they were not bound by any rules on safety.
• 61% tended to turn to their family members when encountering negative online experiences.
• Although there were 10 reporting-channel options, 6% of the schoolchildren chose to remain silent.
Research Methodology

• **Objective:** Investigate the awareness of safe and responsible use of ICT among higher education students in Malaysia. **Four (4) dimensions:**

1) Students’ awareness and practices related to online safety and protection and indicators of online safety trends whenever the students go online;

2) Students’ negative experiences, especially Cyber-bullying;

3) Support networks for students facing risk or harm;

4) Students’ personal concerns about internet use
1) To what extent are students aware of online safety and protection?
2) What are the indicators of online safety trends whenever the students go online?
3) To what extent are students aware of what constitutes cyber-bullying?
4) To what extent do students utilise support networks?
5) What are the main personal concerns of students about internet use?
Methodology

- 103 students of a local private university in Malaysia, aged from 19 to 24.
- Qualitative and quantitative research methods
- Survey questionnaire: To find out the awareness and understanding of cyber-safety issues and the ability to safeguard against risks.
- Adopts the instrument employed by the 2014 DiGi Survey Report
- Focus group interview: To examine students’ perceptions and experiences of risky online activities.
Results and Discussion

Demographics:

<table>
<thead>
<tr>
<th>State</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perlis</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Kedah</td>
<td>4</td>
<td>3.9%</td>
</tr>
<tr>
<td>Pulau Pinang</td>
<td>9</td>
<td>8.7%</td>
</tr>
<tr>
<td>Perak</td>
<td>13</td>
<td>12.6%</td>
</tr>
<tr>
<td>Selangor</td>
<td>33</td>
<td>32%</td>
</tr>
<tr>
<td>Wilayah Persekutuan Kuala Lumpur</td>
<td>16</td>
<td>15.5%</td>
</tr>
<tr>
<td>Wilayah Persekutuan Putrajaya</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Negeri Sembilan</td>
<td>8</td>
<td>7.8%</td>
</tr>
<tr>
<td>Melaka</td>
<td>3</td>
<td>2.9%</td>
</tr>
<tr>
<td>Johor</td>
<td>7</td>
<td>6.8%</td>
</tr>
<tr>
<td>Pahang</td>
<td>2</td>
<td>1.9%</td>
</tr>
<tr>
<td>Terengganu</td>
<td>2</td>
<td>1.9%</td>
</tr>
<tr>
<td>Kelantan</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Sabah</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Sarawak</td>
<td>4</td>
<td>3.9%</td>
</tr>
<tr>
<td>Wilayah Persekutuan Labuan</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

- Selangor (32%)
- KL (15.5%)
- Perak (12.6%)

Courses:

- Science/Engineering/IT/Mathematics: 27 (26%)
- Arts/Social Science: 23 (22.1%)
- Business/Management/Accounting: 44 (42.3%)
- Medical/Nursing/Physiotherapy: 10 (9.6%)
- Other: 0 (0%)

Female: 67.3%
Male: 32.7%
Results and Discussion

Demographics:

- With my parent(s): 26 (25.2%)
- With my sibling(s) (brother or sister)/relative(s): 2 (1.9%)
- With my friend(s): 6 (5.8%)
- With housemate(s) in a rented accommodation: 68 (66%)
- Other: 1 (1%)

With whom students stayed

- Less than 4 hours: 2 (1.9%)
- 4-8 hours: 7 (6.8%)
- 8-15 hours: 40 (38.8%)
- 15-22 hours: 31 (30.1%)
- 22-28 hours: 11 (10.7%)
- 28 hours and above: 12 (11.7%)

Hours spent online
Respondents largely feel safe when they are on the internet.
• Important for them to learn about internet safety.
• They know how to protect themselves while using the internet.
Actions to protect themselves on the internet

- Set their privacy settings 94.2%
- Not share too much information about themselves 93.2%
- Not revealing personal information 91.3%
- Not adding strangers as friends on their social networks 88.3%
- Using “strong passwords” 87.4%
- Log out from account after use 84.5%
- Not open emails from strangers 83.5%
- Scan all files that they download 73.8%
- Log out every time they use public computer 72.8%
- Practice good internet etiquette/manners 57.3%
- Only using public computer for general surfing 57.3%
- Have not done anything 1%
Students’ awareness and practice related to online safety and protection

### Whether they have ever shared any of their password with anyone

- 56.3% Shared with no one
- 15.5% Shared with family member
- 13.6% Shared with parents
- 6.8% Shared with boyfriend/girlfriend
- 3.9% Shared with close friend
- 26.2% Shared with roomate/housemate
- 0.0% Shared with lecturers
- 0.0% Shared with spouse
- 0.0% Shared with others

Most respondents shared with no one else.
Those who shared their passwords - close family members.
No sharing with lecturers, spouse, others.

### How many different passwords they use for all their online accounts

- 60.2% 2-3 passwords
- 35.1% Unique/different for some accounts, common/shared passwords for others
- 4.9% Different passwords for all accounts
- 0% Same passwords for all accounts
- 0% No online account requiring password

Respondents usually use 2-3 passwords
No respondent use the same password for all accounts.
Students’ awareness and practice related to online safety and protection

**Frequency of changing passwords**

- **60.2%** Change only when have forgotten passwords
- **23.3%** Always use same password
- **4.9%** Change every year
- **11.7%** Change every year
- **4.9%** Change every few months

**Strength of passwords that students currently use**

- **90.3%** At least 8-characters long
- **85.4%** Include one or more numbers
- **80.6%** Have a mix of “upper” and “lower” case letters
- **64.1%** Depend on the online account requirement
- **3.9%** Just one type

- Majority of the respondents change password only when they have forgotten the original password.
- Respondents mostly use at least 8-characters long, and/or have a mix of numbers, “upper” and “lower” case letters.
- Generally, students know requirements for creating strong passwords.
Students’ awareness and practice related to online safety and protection

Further findings on the respondents:
• Largely felt that the privacy setting on their social networking account is set to keep them protected from strangers.
• Largely confident about the security of the devices (e.g. phone, tablet) that they use.
• Made it a habit to turn off their Bluetooth or WIFI when the device is not in use.
• Majority of their computers at their place of residence do not have any “parental controls” which filter, restrict or limit the type of websites that they can visit.
• Generally no rules for using internet at their place of residence.
• Few parents/adults have ever talked to the m about how to use the internet safely.
What students think cyber-bullying is

• Have heard of cyberbullying 89.3%; Have not heard 10.7%
• When someone bullies another person on the internet 92.2%
• When someone threatens another person on the internet 88.3%
• When someone posts mean/nasty or untruthful things about others online 85.4%
• When someone sends a mean SMS or pictures to another person 77.7%
• Doing something online as a joke to someone else but funny to the intended person 71.8%
• When someone looks at another person’s SMS or information either secretly or without that person’s permission 62.1%
• When someone pretends to be another person online, intentionally or for fun 52.4%
• Just a big or fancy word 8.7%
• Only happens online and not in the real world 2.9%
Whether they have been bullied on internet before

- Once: 29.1%
- Not sure: 25.2%
- Never: 24.3%
- A few times: 20.4%

Cyberbullying instances

- Happen less often or almost never happened

Whether currently being cyber-bullied

- No: 94.2%
- Not sure: 5.8%

Number of persons of whom the respondents have heard being bullied online

<table>
<thead>
<tr>
<th>Number of People</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 people</td>
<td>45.6%</td>
</tr>
<tr>
<td>1 person</td>
<td>17.5%</td>
</tr>
<tr>
<td>Have not heard of anyone being cyberbullied</td>
<td>14.6%</td>
</tr>
<tr>
<td>Do not know of anyone being cyberbullied before</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Frequency of cyber-bullying happening to students

- Happens sometimes: 73.8%
- It happens all the time: 10.7%
- Don’t know whether happens or not: 9.7%
- Hardly ever happens: 5.8%
### Support Networks for students facing risk/harm

<table>
<thead>
<tr>
<th>Network</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents/siblings/relatives</td>
<td>88.3%</td>
</tr>
<tr>
<td>Other family members</td>
<td></td>
</tr>
<tr>
<td>Friends or coursemates</td>
<td>45.6%</td>
</tr>
<tr>
<td>Lodge police report</td>
<td>44.7%</td>
</tr>
<tr>
<td>University authorities</td>
<td>26.2%</td>
</tr>
<tr>
<td>Lecturers</td>
<td>16.5%</td>
</tr>
<tr>
<td>ICT/computer technician</td>
<td>10.7%</td>
</tr>
<tr>
<td>Campus counsellor</td>
<td>5.8%</td>
</tr>
<tr>
<td>Government organisation</td>
<td>5.8%</td>
</tr>
<tr>
<td>Public hotline number</td>
<td>4.9%</td>
</tr>
<tr>
<td>Tell no one or say nothing</td>
<td>19.4%</td>
</tr>
</tbody>
</table>

### Students’ personal concerns abt internet use

<table>
<thead>
<tr>
<th>Concern</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Becoming addicted or hooked to the internet</td>
<td>92.2%</td>
</tr>
<tr>
<td>Invasion of their privacy</td>
<td>85.4%</td>
</tr>
<tr>
<td>Work not being done bcos spending too much time</td>
<td>85.4%</td>
</tr>
<tr>
<td>on the internet</td>
<td></td>
</tr>
<tr>
<td>Anonymity, i.e. not knowing who is on the other end</td>
<td>81.6%</td>
</tr>
<tr>
<td>Bullying on the internet</td>
<td>76.7%</td>
</tr>
<tr>
<td>Not interacting or mixing with people face to face</td>
<td>58.3%</td>
</tr>
<tr>
<td>Not living in the real world</td>
<td>35%</td>
</tr>
<tr>
<td>Others</td>
<td>35.9%</td>
</tr>
<tr>
<td>No worries or concerns at all</td>
<td>1%</td>
</tr>
</tbody>
</table>
Qualitative Analysis

• Generally, have a good understanding of what constitutes risky online activities.
• Able to mention that they should safeguard personal information whenever going online.
• They never share their passwords with anyone.
• They feel safe when they are on the internet.
• Generally, did not experience any instances of cyber-bullying. In fact, most of the alleged “bullying cases” found in a particular facebook page are not true.
• They are aware of the steps needed to protect themselves on internet. But never change passwords.
• Have same/common passwords for emails/social media
• Have same password for the different banking accounts.
Conclusion

- Students felt somewhat safe when they are on internet.
- Have a good understanding of what constitutes risky online activities and cyber-bullying
- Are aware of the steps needed to protect themselves while using the internet.
- Still recognise the importance of learning about internet safety
- Only a small % of students reported about being cyber-bullied at least once
- Family members or relatives are the first support network that students turn to.
- Students are concerned with invasion of privacy and the anonymity of the internet.
The authors thank the organisers, UNESCO Bangkok and South China Normal University for the opportunity to learn and to collaborate with other RDTCs.

Questions & Feedbacks are welcomed

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