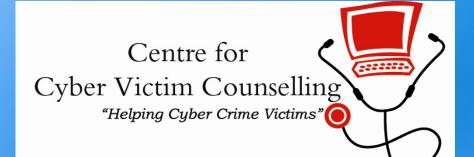
Use and Misuse of Internet by Semi-Urban and Rural Youth in India

A Baseline Survey Report (2013)

Prepared by Debarati Halder and K. Jaishankar



CENTRE FOR CYBER VICTIM COUNSELLING (CCVC)

Centre for Cyber Victim Counselling (CCVC) is a registered (Trust under the Indian Trusts Act, 1882, Reg No: 1097/2009), nongovernmental, not for profit organization committed to work for the victims of cyber crime in India. The Directors of CCVC Debarati Halder PhD is a Lawyer / Expert in cyber laws and K. Jaishankar PhD is a leading cyber criminologist. It works for: Victims of Cyber Harassment/Cyber Hate, Victims of Cyber Stalking/bullying, Victims of Identity theft, Victims of Social Networking Sites (Orkut, Facebook, Myspace etc.) Women Victims, Teen Victims and Schools and Colleges.

The Mission of CCVC is to:

- counsell victims of cyber crime, and to work for the prevention of crime in the cyber space, protect potential victims from cyber crimes
- disseminate the knowledge of Cyber Crime, Laws and to undertake preventive measures, publish journals, newsletters, books, pamphlets, booklets and other periodicals and also develop audio-visual materials on cyber crime and distribute the same to increase and improve the awareness of cyber crime in India.
- hold conferences, seminars, symposia, workshops, and other scientific meetings and dissemination of information on cyber crime and for spreading awareness about cyber crime and preventive measures.
- align, associate, network with law firms/ colleges/ universities/ corporations/ academics/ social workers, who work with a social concern for cyber victims, offer consultation and other expert services for prevention of cyber crime in India and other countries.
- liaise, coordinate, cooperate, network and develop linkages and other suitable mechanisms and protection of cyber victims and spread awareness about cyber crime preventive measures in India and other countries, and start suitable and appropriate measures to control and prevent cyber victimization in India and other countries.



<u>www.cybervictims.org</u> <u>www.debaratihalder.co.nr</u> <u>www.drjaishankar.co.nr</u>

USE AND MISUSE OF INTERNET BY SEMI-URBAN AND RURAL YOUTH IN INDIA: A BASELINE SURVEY REPORT (2013)¹

Debarati Halder and K. Jaishankar

Introduction

In an interview to NDTV in March 21, 2013, the Google Executive Chairman Eric Schmidt stated that there are estimated 600 million mobile users and 130 million internet users in India along with 20 million broadband users (NDTV, 2013a). Facebook in a July, 2012 report to Times of India stated that it has 50 million users in India, and most of them are accessing Internet through mobile phones (NDTV, 2013b). In its 2013 report, Facebook further reported that as of December, 2012, it has 71 million users in India (PTI, 2013b). These reports would tell how much the Indian youth has made internet communication mediums such as Google and Facebook part and parcel of their every day affairs. It must also be noted that India has also shown sufficient growth towards e-governance and e-banking and this has been ensured by National Telecommunication Policy, 2012 (TRAI, 2012). But at the same time, it also needs to be understood that millions of internet users in India are unaware of cyber safety and security essentials (Umarhathab, Rao, & Jaishankar 2009), netiquettes and proper forums for reporting crimes (Halder & Jaishankar, 2010).

Internet and digital communication technology (DCT) has created an enormous opportunity for people of all ages including student community to contribute and accumulate information. People are getting connected to each other through emails, chatrooms, social media platforms like Facebook, Twitter etc, blogs etc. Internet and DCT also make it possible for users to avail online banking, shopping as well as e-library facilities. While in the US and Europe, college students avail the internet and DCT to the maximum to acquire and share information (Rotszein, 2003), in India, the popularity of this medium among the college students has somewhat been restricted to connecting with friends, relatives and searching for higher education institutions. India now boasts of almost highest rate of users of DCT and internet including popular social media (NDTV, 2013a). This has been further motivated by governmental efforts through National

¹ Preferred Citation: Halder, D., & Jaishankar, K. (2013). *Use and Misuse of Internet by Semi-Urban and Rural Youth in India: A Baseline Survey Report (2013)*. Tirunelveli, India: Centre for Cyber Victim Counselling.

Telecommunication Policy, 2012 which has maximised the reach of DCT and internet to people (TRAI, 2012). Similar to the urban population, the rural population are now getting connected to DCT network and they are being encouraged to participate in e-governance through various schemes. Schools, colleges and universities (inclusive of public and privately funded) situated in the semi rural, rural or interior parts are encouraging the use of IT and DCT to their students. Notably, the student population in such schools, colleges and universities may not come from economic and social backgrounds which can afford to have a home computer and an uninterrupted internet connection. But the reduced price for mobile phone devices and service availability has enhanced the chances of generation Y children of these families to get connected to the IT and DCT. "The findings of TCS GenY survey 2012-13 of nearly 17,500 high school students (metros and Tier II Towns) across 14 Indian cities reveals that smart devices and unprecedented levels of online access are making this generation the most connected one and this is changing the way they communicate with each other and transforming both their academic and social lives" (Tata Consultancy Services, 2013).

The findings of TCS GenY survey 2012-13 shows:

- School-2-Social: Nearly three out of four students cited "Research for School" as the main reason to access the Internet followed by social reasons like chatting/connecting with friends (62 percent). Still, Post-Millennials are showing themselves to be even more focused than Millennials, with accessing e-mail growing as a preference (49 percent vs 44.54 percent in 2011-12) at the cost of listening to music (45.47 percent vs 50.27 percent in 2011-12).
- Home is where we connect: About 84 percent of students go online from home compared to just 58 percent (in 2009). Use of Cybercafes as an online access point has dropped dramatically, falling from 46 percent in 2009 to 14 percent cent today. Nearly one in five respondents spend between a whopping 2-3 hours on the Internet daily, while one in four spend between 1-2 hours.
- **Gr8 Networks:** Social networks like Facebook are the primary and clear favourite among Post-Millennials to connect with their peers with 92 percent cent of respondents preferring this social platform. Interestingly, preference for Facebook is equally high among respondents in both metros (92 percent) and mini metros (91 percent). Other social platforms like Orkut have taken a backseat with a 28 percent preference. Tweeting as a medium of communication is now being used by one in three Post Millennials in the TCS survey though only two percent cent listed it as their preferred site.
- Made 4 Mobility: Nearly seven out of every 10 high school students own mobile phones and nearly 20 per cent use mobile phones to access the internet (compared to just 12 percent in 2009). An emerging trend is the use of tablets with almost 19 percent using these new

devices with users in metros (20 percent) outnumbering their peers in mini metros (17 percent). Mobiles (18.17 percent) have emerged as the fastest growing mediums for accessing the Internet among Post-Millennials, at the expense of home (72.03 percent vs 84.29 percent last year), School (14.41 percent vs 22.08 percent) and cyber cafes (13.57 percent vs 20.54 percent).

- Smarter with smart phones: Nearly six out of 10 Post-Millennial respondents own a smart phone, but what is remarkable is the fact that the difference in ownership patterns between metros (58.50 percent) and mini metros (59.36 percent) isn't much, with the smaller cities scoring over the larger ones.
- **Type, don't Call:** The TCS Survey makes it clear that increasingly India's urban Post-Millennial generation is turning to text and chat as alternatives to voice. 74 percent of those surveyed said they use Facebook the most to communicate, while 54 percent used SMS – both significantly higher than the number of students who said they used voice calls (44 percent) for the same purpose. Reflecting poorer connectivity levels, use of email (44 percent) in Minimetros continues to higher than metros (40 percent) but respondents from the latter scored higher in the usage of Facebook and SMS.
- **Tablets no bitter medicine:** Post-Millennials are clearly ahead of the curve preferring tablets, which are fast climbing the charts as the favourite gadget (18.41 percent all India vs 5.83 percent last year) with this generation. Tablet ownership made an entry this year with 38 percent owning a device, with 40 percent metro-based respondents owning one compared with 35 percent in mini metros.

Brand is in: The new generation also is as clued into brands are the Millennials before them, if not more. Top mobile/tablet brands are not too far apart in terms of desirability both for respondents in metros and mini metros. Preferred electronic devices in order of preference are: Samsung (48.28 percent), Nokia (46.46 percent), Apple (39.56 percent) and HTC (36.54 percent).

- Shopping from home: Not only do Post-Millennials know what they want, but they also are clear about how to shop for it. Four out of 10 respondents shop online now while one in four respondents buy clothes and accessories online. Respondents from mini metros shop online more than their peers in metros for movie tickets, books/DVDs/music and airline/train tickets but respondents in metros are more fashion conscious, shopping more for clothes and accessories.
- **Career@IT:** The Post-Millennial generation is far more conscious than their predecessors before. They seem to clear about what they would look for in a future job. IT remains the top career preference amongst youngsters irrespective of geography with Engineering and Medicine following. Media /Entertainment is emerging as a clear urban favourite but the biggest gainer has been banks and financial services.
- Linking in: Early use of career sites like Linked-In are more popular in business centric metros (20.22 percent) compared with mini metros (8.86 percent) where Linked-In is still catching on.

At the same time, internet and DCT have penetrated in such social setups due to enormous obsession for computer science study streams as established by TCS GenY survey 2012-13. Many colleges in semi urban and rural places have started offering this particular study stream both as an Engineering study stream option, as well as regular science and technology option. Given these facts, it can be presumed that majority of the Indian college students of middle and lower socio-economic background is aware of and familiar to DCT and internet, unlike their parents. But the question is; how do these students use the internet and DCT in real life? There is a need to analyse the present status of use and misuse of Internet by youth in India, especially, the Semi-urban and rural youth, when many girls become victims of cyber social networking sites (Halder & Jaishankar, 2009) and boys become victims of abuse of Internet.

Even though some researchers have taken up to review the cyber safety awareness, cyber crime awareness etc in India, most of these researches have targeted urban population who are economically well placed than their semi-urban and rural counterparts, who are better educated and tech-savvy. Tadasad, Maheshwarappa, and Alur (2003) had shown that majority of the respondents use internet for emails (including sending and receiving mails), chatting, seeing online entertainments etc. The study pointed out that many respondents did not recognise the potential of internet as a portal for online learning, e-journals, e-library etc. The study is important mainly because it showed the usage patterns of college students in 2003 when social networking sites were not as popular as now and one of the major ways of getting connected was limited to chat rooms such as yahoo messenger, hotmail etc.

Rotszein (2003) pointed out that the college students are more privileged than the school students when it comes to internet usage as the higher educational institutes may offer emails for the students. The students may also posses advanced knowledge about the usage of the computer and internet. But this may have positive as well as negative effects as college students may face problem internet use, including internet addiction, serious health related problems due to this etc. While on the positive effect, the students may use these services for disseminating knowledge as well as gaining information. The study concentrated on excessive internet use by the college students, related behavioural disorder and the role of locus of control in the issue. This study showed that men stayed online more than women and resultantly they felt more satisfied, missed classes, arrived late in the destination places, and lied about their internet use. The study also showed that men preferred to stay online and avoid family gatherings and parties. The study further showed that women recognised behavioural problems and attempted to stop internet usage than men.

Parihar (2011) had shown the positive usage of the social media by the students as well as the higher educational institutions. The study had taken up the usage of popular social media like Facebook, Twitter, YouTube and Indian websites like BharatStudents.com etc and shown that while students mostly use the platforms for connecting with seniors, classmates, faculty members and get information for opportunities abroad, many higher educational institutes apply social media marketing method to market themselves for prospective students. The study also highlighted that even though various types of cyber crimes are inevitable when using social media, growing number of Indian students are positively using the social media.

Alam, Yeow and Loo (2011), study particularly concentrates on online dating of the students. In this study, the researchers had found Facebook as the most popular online social networking site among Malaysian students. 79.63% (highest) students indicated that they use Facebook for sending and receiving messages and 67.20% indicated that they use it for communicating with their friends. The study further showed that majority of the students use social networking sites for passing time or to fight boredom. The research also showed that among the total respondents, only 12.17% had gone for dating sites for seeking dating partners.

Ghorui (2012) has emphasised mainly upon the news consumption and dissemination by the students in the cyber space by using "uses and gratification theory". This theory was mainly used to find out the motives behind consumption and dissemination of the news in the cyber space. The study showed that even though online consumption of news is lesser than offline consumption of the news, students use dissemination for relaxation and maintaining personal relationships. It is interesting to note that this study also found out that news dissemination is considered as a way for "showing off" one's knowledge, expertise, smartness etc and it is considered as one way of expressing personal opinion about day to day affairs. Manjunatha's (2013) study indicated that popular SNSs like Orkut etc are used mainly for messaging and chatting. However, this study did not include rural population and does not give any demographic division of the population.

The present study concentrates upon reviewing the usage of the cyber space and awareness regarding various traditional cyber crimes among graduate and undergraduate students from non-metro cities, semi urban and rural places. This research is an exploratory research in nature. This is a pilot survey done among 70 respondents in the age group of 18-30 from Tirunelveli, Tuticorin and Kanyakumari districts of Tamil Nadu, India. Efforts were made to analyse the awareness and usage of the respondents of social networking sites, emails, copyrighted materials including study materials, personal pictures, movie clippings; email and ATM password safety measures; online behaviour especially in regard to posting of messages, sharing and circulating materials; awareness about six types cyber victimisation concepts and reporting behaviour and myths relating to reporting of online crimes. This report provides a panoramic analysis the responses. Even though it was aimed to cover more than 100 students, due to shortage of funds, time and reluctance of the respondents, the population of the respondents had to be limited to 70 only. Since this research is done with a small population, no sweeping generalizations are made or inferred.

Survey Design and Procedure

Objectives

- 1. To examine the usage of internet by the college students of semi urban and rural backgrounds.
- 2. To assess the ways of misuse of the internet by the students.
- 3. To analyse the level of awareness of the students about basic cyber crime related issues including hacking, phishing, stalking, email spoofing, copyright violation and identity theft.

Research Questions

- What is the level of positive usage and awareness of the internet and cyber crime related issues among semi-urban and rural youth?
- Whether social-networking habit is popular among semi-urban and rural youth?

Research Tool

The questionnaire was divided into four parts; the first part was used to find out the socio-economic-demographic background of the respondent; the second part surveyed the basic usage, the third part surveyed the misuses and the fourth part surveyed the awareness level of the respondents. The questionnaire provided for single as well multiple choice options basing upon the theme of the issue. Each student was given a questioner and proper care was taken to prevent the student from being influenced by his/her fellow classmate/s while answering the questions. The students were also provided options such as "I don't want to tell", "I don't know any thing" especially to encourage them to express their minds instead of copying from friend's questioner and hiding his/her own ignorance or reluctance. This was specifically done keeping in mind that some sections of undergraduate student population may never have a chance to participate in such surveys regarding their computer usage due to their rural background.

Results and Discussion

Gender	N	(%)	Educational Background	N	(%)	
Male	29	41.4	Science	52	74.3%	
Female	41	58.6	Arts	18	25.7%	
Age	N	(%)	Year of College	Ν	(%)	
18-21	52	74.35	UG 1 st year	1	1.4	
22-25	10	14.3	UG 2 nd year	4	5.7	
26 -30	7	10.0	UG 3 rd year	50	71.4	
Do not want to tell	1	1.4	PG	9	12.9	
Economic Background	N	(%)	PhD	6	8.6	
Rs. 6 lakhs and above	3	4.3	Table 1: Socio- ecc	nomic		
Rs. 1 lakh to 6 lakhs	8	11.4	characteristics of the study participants (n=70)			
Up to Rs. 1 lakh	38	54.3				
Do not want to tell	21	30.0				

I. Socio Economic Characteristics

This survey included 70 respondents in total. Table 1 shows the Socio- economic characteristics of the study participants. This includes gender differences, age, economic background, educational background and the year of the college. Among the total of 70 respondents, 41.4% were male students and 58.6% were female students. 74.35% of the respondents were from the age group of 18-21, 14.3% were from the age group of 22-25 and 10.0% were from the age group of 26-30 years. 1.4% of the respondents did not want

to tell their age. 54.3% of the of the respondents belongs to the annual income group of up to Rs.1 lakh per annum, 11.4% belong to the income group of Rs. 1-6 lakhs per annum and only 4.3% indicated that they belong to the income group of Rs. 6 lakhs and above per annum. 30.0% of the respondents indicated that they do not want to disclose the income limit of their families. It needs to be mentioned here that this was the income of their families including that of the parents' majorly.

The survey has been limited with the under graduate (U.G), post graduate (PG) and PhD student population studying traditional Arts and Science subjects and no students from professional courses such as engineering, medicine, law were included. The science stream included courses like chemistry, physics, biology, computer sciences etc. This was done intentionally so that it can be found how much these students are aware of cyber crime and internet usage related issues. The survey included 74.3% students who are in the science stream and 25.7% students who belong to the Arts stream. Table 1 further shows that among total of 70 respondents, 1.4% are from U.G. 1st year, 5.4% are from UG 2nd year, 71.4% were from U.G. 3rd year, 12.9% were from P.G. courses and 8.6% were doing their Ph.D.

II. Internet Usage

Table 2 shows the internet usage of the respondents. This includes frequency of internet usage, place and device wherein and which is used by the respondents, types of email services used by the respondents, what do they typically do online and their preferred social networking sites which they use. As such, it can be seen that 30.0% of the respondents use the internet once in a week, 38.6% of the respondents use it once in a day and 28.6% of the respondents use it once in ten days. It can be presumed from this table that the frequency of the usage varies with the need of the usage. 28.6% of the respondents use internet in the college, 22.9% access internet in the cyber cafes, 4.3% preferred to access internet in friend's house, 25.7% have mobile phones that have internet facilities and 7.1% indicated that they access internet in relative's devices.

Frequency of Internet Usage	N	(%)	Type of Email services	N	(%)	
Once in a week	21	30.0	College email id	26	37.1	
Once in a day	27	38.6	Gmail/Yahoo etc	40	57.1	
Once in ten days	20	28.6	Don't use email id	2	2.9	
Don't want to tell	2	2.9%	Don't want to tell	2	2.9	
Place and Device wherein and which is used by the respondents	N	(%)	Typically do online	N	(%)	
In the college	20	28.6	Checking mails and information from the college	25	35.7	
Internet parlour	16	22.9	Checking bank balance/online banking/	12	17.1	
Friend's house	3	4.3	Checking mails, catching up with friends and chatting	5	7.1	
Mobile phone	18	25.7	Project work, for gathering information and reading materials	23	32.9	
Relative's devices	5	7.1	Updates about world/national/local news	1	1.4	
Don't want to tell	8	11.4	Online fee payment	2	2.9	
			Online shopping	2	2.9	
Social Networking Sites	N	(%)		•		
Orkut	5	7.1				
Facebook	31	44.3	Table 2: Internet Usage of the			
Google+	5	7.1	respondents (n=70)			
LinkedIn	3	4.3				
Don't use	26	37.1				

In this data, the most interesting observation is about usage of the mobile phones for accessing the internet. As the National Telecommunication Policy (2012) had proposed (TRAI, 2012) it can be seen that mobile phones are becoming popular devices for accessing internet. This may also be the result of availability of cheaper SIM services and cheaper mobile phones. At the same time, it can be seen that cyber cafes still remain popular for accessing the internet in these areas, even though not as much as the mobile phone internet option.

37.1% of the respondents use college email ids, 57.1% use Gmail/Yahoo mails and 2.9% responded that they do not use email ids. 35.7% of the respondents indicated that they access the internet mainly for checking mails and information from the college, 17.1% indicated that they use internet for checking bank balance and online banking, 7.1% responded that they check mails, catch up with friends through mails, chat and social media, 32.9% mentioned that they use internet for project work, for gathering information and reading materials, 1.4% use internet for updates about world/national/local news, 2.9% use online fee payment options and 2.9% does online shopping. It needs to be pointed out here that majority of these students are first generation internet users in their families, and they help their parents in accessing the online banking information. However, online banking has not gained highest popularity among these youths when compared to checking mails and information from the college or accessing or gathering reading materials for the assignments as the purpose of usage of the internet. Also, usage of the internet for accessing world/local news is extremely low among these students 7.1% of the respondents indicated that they use Orkut, 44.3% are in the Facebook, 7.1% use Google+, 4.3% use LinkedIn and 37.1% indicated that they do not use any social media. Notably, Social networking services are not hugely popular with these students. Usage of professional networking services is not rare in this socio-economic demographic region, but the rate of popularity of the same is very low (4.3%) when compared to Facebook.

III. Patterns of the Usage of Email Message Services/Social Networking Services /YouTube

We further asked the students about the patterns of the usage of email message services/social networking services. The question was made specifically to know whether they use the messaging services/updates for expressing anger about friends/peers/acquaintances etc, whether they use YouTube, and if yes, for which purpose and whether they watch sexual clippings in the internet.

Types of messages sent by respondents	Ν	(%)	Watch sexual clippings in the YouTube	N	(%)
Sent angry messages	6	8.6	Yes when they come in between films	9	12.9
Sent angry messages but knows it won't have good effect	10	14.3	Yes because it is available in the YouTube	3	4.3
Write only happy messages	26	37.1	Yes because my friends told me to watch it	3	4.3
I rarely write anything in my profile/email	24	34.3	No because I know such links can carry virus	5	7.2
Don't want to tell	4	5.7	No because my parents /others may come to know of it	28	40.0
Usage of the YouTube and other internet video services	N	(%)	No because I don't want to watch sexual clippings	21	30.0
Don't upload videos	51	72.9	I don't know that such things are available in the internet	1	1.4
Upload anything and everything including film clippings	9	12.9			
Upload special occasions like birthdays, marriages, college picnics, college day functions etc	7	10.0	Table 3: Patterns of the Usage of E Message Services/Social Network Services /YouTube		1
Upload friend's activities when enjoying in a room	1	1.4			
Don't want to tell	2	2.9			

As can be seen from Table 3, this part of the survey is divided into three segments: i) what sorts of messages the respondents generally convey through social networking sites or emails or chats to their friends and peers, ii) usage of YouTube and other internet/digital video services by the respondents and iii) usage of such online video services for watching sexual clippings. The second part was included in this survey to understand how the college students are using digital as well as internet video services. Given the fact that many of these respondents or their family members have mobile phone with camera devices and digital cameras, it can be presumed that these respondents use the uploading of the video option frequently. The questions were set particularly to know which sorts of materials are frequently uploaded by them. The last part was included keeping in mind that these respondents are young adults and they can be possible consumers of pornographic materials which may be introduced to them through voyeur/amateur porn clippings, regional or Bollywood or Hollywood adult movies which majorly contain sexual scenes etc.

It can be seen from the table 3, that 8.6% of the respondents used social media/email for sending angry messages, 14.3% indicated that they sent angry messages but they were aware that it may not have good effects on their relationship with the receiver as well as may create a bad impact on their own images, 37.1% stated that they write only happy messages in their emails/social media profiles and 34.3% indicated that they rarely write any such emotional contents in their mails or profiles; 5.7% did not want to tell. 72.9% of the respondents stated that they don't capture/upload any videos, 12.9% indicated that they upload anything and everything through digital devices and they have also contributed short length film clippings in the YouTube that were captured by them, 10.0% stated that they had captured and saved the videos of special occasions like birthdays, marriages, college picnics, college day functions etc in their devices and has also uploaded such videos in the internet, 1.4% indicated that the video uploaded by them and saved by them in their device contained friend's activities when enjoying in a room, 2.9% did not want to tell anything in this regard. Regarding the behavioural pattern of students in watching sexual clippings in the YouTube or other online videos, 40.0% of the respondents did not watch the sexual clippings as they fear that their parents/others may come to know about it. It needs to be understood that sexual fantasy of youth and children are considered as a taboo in India (Avasthi, Kaur, Prakash, Banerjee, Kumar, & Kulhara, 2008) and this demographic region is no exception. This is shown in this survey as well.

However, 12.9% of the respondents indicated that they watched when clippings of sexual nature when it came in between movies that were either stored in the devices or were being watched online, 4.3% indicated that they watched it because it was available in the YouTube, 4.3% indicated that they watched it because their friends told them to do it and 7.2% indicated that they don't want to watch it because they believe such links can carry virus. 30.0% indicated that they don't watch such clippings because they do not want to watch sexual clippings and 1.4% indicated that they do not know that sexual clippings can be available in the internet. Also, the students were assessed about their behaviour of opening mails from unknown senders. 18.6% of the respondents indicated that they open mails sent by strangers and by this they do not follow the common rule of either marking these mails as spam, or deleting these mails. 12.9% of the respondents indicated that they

open such mails because they are curious to know who the sender is, and 15.7% indicated that they do not open such mails as they know these mails can be that of phishing mails in nature or can carry virus. 52.9% indicated that they do not open mails from unknown senders.

The students were also asked about mails they may have received which may be in the nature of lottery scam/employment fraud and their reaction towards such receipt. 10.0% of the respondents indicated that they received and they had responded also. 2.9% indicated that they had received such mails and they had lost money as well. 60.0% of the respondents stated that they had never received such mails and 24.3% indicated that they don't know about it.

IV. Awareness of Privacy, Intellectual property rights/Copyright, Crimes and reporting behaviour

The data were collected to analyse the awareness of the respondents regarding digital/online privacy, copyright violation, and various types of cyber crimes. The data also included survey regarding their attitude towards reporting the crime to the police. It needs to be remembered that due to tremendous growth in digital card services and online banking services semi-urban and rural population in India are familiar with ATM facilities. The questions were set to know their awareness especially regarding digital and online privacy. Further, the survey also included their awareness regarding intellectual property infringements in regard to still/video images, songs, music albums, films and online reading materials that may be used by UG as well as PG students.

It needs to be understood that many families in this demographic region may use one ATM card for the purpose of the whole family. 32.9% of the respondents share the ATM passwords with their parents, 15.7% share the password with their siblings and 4.3% share it with their friends. However, 47.1% of the respondents indicated that they do not share their bank ATM passwords with anyone. The table 4 further showed that only 4.3% of the respondents change their passwords of ATM cards/emails/ social networking accounts every week, 12.9% of the respondents indicated that they change the passwords every month, 14.3% of the respondents indicated that they change it once in a year. 11.4% of the respondents indicated that they change their passwords only when they encounter some problem in their account and they are advised to change it; 40.0% of the respondents indicated that they never change their password. This finding is interesting especially because it gives a panoramic view of the basic awareness about password safety of these students.

Sharing your ATM password with any one	N	(%)	Circulate and share any still/video images through SMSs/emails and social networking profiles which is not yours	N	(%)
With my parents	23	32.9%	Yes I do and I add my comments on it too	18	25.7
With brother/sister	11	15.7%	Yes I do because my friends ask me to do it	8	11.4
With friends	3	4.3%	No	30	42.9
I don't share my password	33	47.1%	I don't know how to share such pictures	10	14.3
Frequency of changing passwords for ATM cards/mail ids/social media profiles	N	(%)	Watching/downloading movies/music albums from unauthorized sources	N	(%)
Every week	3	4.3	Watch/download movies from the internet	28	40.0
Every month	9	12.9	Don't watch/download movies from the internet	33	47.1
Once in two months	10	14.3	I don't know that we can watch movies in the internet	9	12.9
Once in a year	12	17.1	Usage of contents/reading materials		
Only when I have some problems in the my account and I am told to change it	8	11.4	Yes and I always cite the proper source	16	22.9
I don't change	28	40.0	Yes but I never cite the sources and do not mention the names of the original author	32	45.7
Opened friend's/ known person's mails/accounts	Ν	(%)	No, I don't use online materials	22	31.4
Yes	11	15.7	Table 4: Awareness of Privacy, Copy	righ	•
No	51	72.9%	Crimes and Reporting behaviou	U	•,
Don't want to tell	8	11.4%			

Table 4: Awareness of Privacy, Copyright, Crimes and Reporting behaviour (contd...)

Awareness of the issues	Ν	(%)
Hacking	17	24.3
Phishing	4	5.7
Stalking	2	2.9
Email spoofing	2	2.9
Copyright violation and Plagiarism	6	8.6
Identity theft	7	10.0
Attitude towards reporting crimes	N	(%)
Yes off course when I see such crimes	3	4.3
Yes, but only when I become a victim of cyber crime	24	34.3
No, because I don't feel reporting is necessary in such cases	9	12.8
No, because police is worthless in such cases	2	2.9
No, because my name would come in the media	13	18.6
No, because me and my family would be harassed by the police and also by other people	19	27.1

It can further be seen that 15.7% of the respondents indicated that they had opened the emails /social networking site accounts of their friend's or other known persons to know what he/she is doing in the internet without telling the original owners. 72.9% of the respondents indicated that they do not open the emails/accounts of others. This is another instance as how curiosity gives way to breach of privacy by the youth. This research also emphasised upon image circulation habit of the college students. It can be seen that some people circulate copyrighted or unclaimed pictures through their emails and social networking profiles and such pictures may be viral in the internet due to this image circulation habit of the youth. This may give rise to communal or racial riot(s), this may also destroy reputation of particular personality if such images involve any activity of the said person or anything related to him/her. In this survey it was seen that 25.7% of the respondents indicated that they circulated claimed/unclaimed pictures and they had also added their own comments in it. 11.4% of the respondents did it because they were instructed by their friends and 14.3% of the respondents indicated that they do not know how to share the pictures. 42.9% of the respondents however indicated that they had not shared any pictures as such.

Students were asked about their habit of watching/downloading movies/music albums from unauthorised sources primarily to know their awareness about the concept of intellectual property over these entertainment materials and the infringement of the same. It was seen that that 40.0% of the respondents watch/download movies from the internet. While 47.1% of the respondents indicated that they don't watch or download movies from the internet, 12.9% of the respondents indicated that they do not know that movies/songs etc can be downloaded /watched in the internet. In the table 4, it can be seen that while 45.7% of the respondents had indicated that they use reading materials and contents from the internet but they do not cite the proper sources in their assignments and never mention the names of the original authors. Only 22.9% of the respondents had shown that they cite the proper source of the reading materials and contents and 31.4% of the respondents had shown that they do not use any such contents for their assignments and studies. It needs to be understood that many students from semi-urban, rural schools are encouraged to mug up lessons for their examination purposes. Even though the education pattern in this regard is undergoing a huge transformation for junior students in India now, these respondents belong to that generation who were encouraged to learn, by-heart and 'cut and paste' texts for their examination. As such in the graduate colleges these students may be encouraged to seek references from online reading materials for their assignments or regular examinations, it can be seen that majority of the students did not learn to acknowledge the proper sources of the references. It can be assumed that such students may pick up serious academic crimes like plagiarism due to this very reason.

This research surveyed about the awareness of the basic typologies of cyber crimes such as hacking, phishing etc. The terms that were used for Table 4 were chosen keeping in mind the students' understanding of the issue of 'cyber crime' as a whole. The Table 4 shows, 45.7% of the respondents indicated that they are not aware of any of the terms including hacking, phishing, stalking, email spoofing, copyright violation and plagiarism and identity theft. 24.3% of the respondents indicated that they were aware of the issues regarding

hacking² (Wall, 2007), 5.7% of the respondents are aware of the issues regarding "phishing", ³ 2.9% of the respondents indicated that they are aware of the issues regarding cyber stalking⁴ (Halder & Jaishankar, 2010), 2.9% of the respondents are aware of the issues regarding "email spoofing"⁵ (Google, 2013), 8.6% of the respondents indicated that they are aware of the issue of copyright violation and plagiarism,⁶ (University of Connecticut, 2007) and 10.0% of the respondents indicated that they are aware of the issues of identity theft.⁷ Notably, only 4.3% of the respondents indicated that they are

 $^{^{2}}$ Hacking can be described as "deliberate unauthorized access to cyber spaces over which rights of ownership or access have already been established, committed with the primary aim of breaching the integrated security of the computer system" (Wall, 2007, p. 53).

³ According to Google (2013), "Phishing is a form of fraud in which a message sender attempts to trick the recipient into divulging important personal information like a password or bank account number, transferring money, or installing malicious software. Usually the sender pretends to be a representative of a legitimate organization." This information is available in the Gmail services and it encourages users to mark mails as phishing mails which bear such characteristics.

⁴ Halder and Jaishankar (2010, p. 12) simplifies the definition of stalking by stating that "In one word, when 'following' is added by Mens rea to commit harm and it is successfully digitally carried out, we can say cyber stalking has happened." It needs to be pointed out here that the Criminal Law amendment Act 2013 included the definition of the term stalking women in S.354D(1) and it states: Any man who— (i) follows a woman and contacts, or attempts to contact such woman to foster personal interaction repeatedly despite a clear indication of disinterest by such woman; or (ii) monitors the use by a woman of the internet, email or any other form of electronic communication, commits the offence of stalking: Provided that such conduct shall not amount to stalking if the man who pursued it proves that—(i) it was pursued for the purpose of preventing or detecting crime and the man accused of stalking had been entrusted with the responsibility of prevention and detection of crime by the State; or (ii) it was pursued under any law or to comply with any condition or requirement imposed by any person under any law; or (iii) in the particular circumstances such conduct was reasonable and justified.

⁵ Google (2013) defines the term spoofing by stating "Spoofing means faking the return address on outgoing mail to hide the true origin of the message."

⁶ The terms copyright infringement and plagiarism are often seen as coupled words when it comes to attitude of students towards reproducing the work of other authors. The University of Connecticut (2013) shows a simple explanation of the terms which is as follows: "Copyright infringement is a violation of the exclusive rights of the copyright holder and may carry legal consequences. Copyright infringement can take many forms. Examples of copyright infringement may include borrowing significant portions of another's work in the creation of a new work, making and distributing unauthorized copies of a sound recording or video, or publicly performing another's work without permission from the copyright holder, even if the original work is cited. The law identifies several exceptions and limitations to copyright that do not constitute infringement. Plagiarism involves using another's work without attribution, as if it were one's own original work. It is considered an ethical offense and can be detrimental to one's academic reputation and integrity. It is possible to plagiarize without violating copyright, and it is possible to infringe on another's copyright without plagiarizing. It is also possible to both plagiarize and violate copyright at the same time."

⁷ The Information Technology Act, 2000 (amended in 2008) while prescribing the punishment for identity theft in S.66C explains the term as fraudulently or dishonestly making use of the electronic signature, password or any other unique identification feature of any other person.

willing to report cyber crimes whenever they come across any crimes, 34.3% of the respondents indicated that they will report only when they are victimised, 12.8% of the respondents indicated that they do not feel it necessary to report any cyber crime such as hacking, phishing, stalking, identity theft, copyright violation etc. 2.9% of the respondents believed that reporting of such cases is useless as the police is worthless in such cases, 18.6% of the respondents indicated that they won't report any cyber crime as their names might be flashed out in the media and 27.1% of the respondents feel that they should not report because police and other people would harass them and their families. It must be noted that due to various reasons including fear of social taboo, police apathy and fear of breach of privacy by media reporting, many women victims feel reluctant to report cyber crimes (Halder & Jaishankar, 2011). This survey showed that not only women, but majority of young generation including male and female students feel reluctant to report any sorts of cyber crime for reasons mentioned above.

Conclusion

While the respondents do use internet, positive usage of the internet and awareness about the cyber crime issues is less among these students. Further, the students are neither well aware about privacy issues, including copyright infringement and plagiarism issues with regard to on-line materials. The research also throws light on the behavioural pattern of the students with regard to watching of sexual clippings in the YouTube and suggests that while students may be aware of such sexual clippings, sexual fantasy of the youth is seen as a taboo and majority of the students restrain from watching such clippings due to fear that parents may come to know of it. Further, the research also shows that reporting behaviour of the students is heavily influenced by performance of police in general crime prevention cases. Fear of media exposure and presumption of harassment of the victims themselves are biggest reasons for these students which restrain them from thinking of reporting crimes to the police. It is hoped that with the spreading of awareness and better police-public relationship, the college students of this demographic region may become not only better netizens, they can also become independent volunteers to spread the awareness about the issue.

References

Alam, S. S., Yeow, P. H. P., & Loo, H. S. (2011). An Empirical Study on Online Social Networks Sites Usage: Online Dating Sites Perspective. *International Journal of Business* and Management, 6(6), 155–161.

- Avasthi, A., Kaur, R., Prakash, O., Banerjee, A., Kumar, L., & Kulhara, P. (2008). Sexual Behavior of Married Young Women: A Preliminary Study from North India. *Indian Journal of Community Medicine*, 33(3), 163–167.
- Google. (2013). Someone is sending from my address. Retrieved on 25th August 2013 from https://support.google.com/mail/answer/50200?hl=en.
- Halder D., & Jaishankar, K. (2011). Cyber Gender Harassment and Secondary Victimization: A Comparative Analysis of US, UK and India. *Victims and Offenders*, 6(4), 386-398.
- Halder D., & Jaishankar, K. (2009). Cyber Socialising and Victimisation of Women. *TEMIDA: Journal on Victimisation, Human Rights and Gender*, 12, 5-26 (September 2009).
- Halder, D., & Jaishankar, K. (2010). *Cyber Victimization in India: A Baseline Survey Report.* Tirunelveli, India: Centre for Cyber Victim Counselling.
- Manjunatha, S. (2013). The Usage of Social Networking sites Among the College Students in India. International Research Journal of Social Sciences, 2(5), 15–21, (May, 2013). Retrieved on 25th August 2013 from http://www.isca.in/IJSS/Archive/v2/i5/3.ISCA-IRJSS-2013-065.pdf.
- NDTV (March 21, 2013a). Math favors Indians and I am a mathematician: Google chief. NDTV. Retrieved on 25th May 2013 from http://www.ndtv.com/article/india/math-favours-india-and-i-m-a-mathematician-google-chief-345403.
- NDTV (February 8, 2013b). Facebook has 71 million active users in India, 50 million duplicate accounts worldwide. NDTV. Retrieved on 25th May 2013 from http://gadgets.ndtv.com/social-networking/news/facebook-has-71-million-active-users-in-india-50-million-duplicate-accounts-worldwide-328213.
- Parihar, M. (2011). Use of Social Media as a Tool for Higher Learning. Retrieved on 25th May 2013 from http://ssrn.com/abstract=1983182
- Rotszein, B. (2003). Problem Internet use and locus of control among college students: Preliminary findings. Poster presentation at The 35th Annual Conference of the New England Educational Research Organization, Portsmouth, New Hampshire, April 10, 2003. Retrieved on 25th May 2013 from http://www.brianrotsztein.com/downloads/internetresearch.pdf
- Tadasad, P. G., Maheshwarappa, B. S., & Alur, S. (2003). Use of Internet by Undergraduate Students of PDA College of Engineering, Gulbarga. *Annals of Library and Information Studies*, 50(1), 31-42.
- Tata Consultancy Services. (2013). TCS GenY Survey 2012-13. Retrieved on 25th May 2013 from http://sites.tcs.com/genysurvey/

- Times of India (July 25, 2012). Facebook has 50 million users in India. Times of India. Retrieved on 25th May 2013 from http://articles.timesofindia.indiatimes.com/2012-07-25/social-media/32847960_1_facebook-first-kirthiga-reddy-online-operations-and-head.
- TRAI (2012). National Telecommunication Policy. Retrieved on 25th May 2013 from http://www.trai.gov.in/WriteReadData/userfiles/file/NTP%202012.pdf
- Umarhathab, S., Rao, G. D. R., & Jaishankar, K. (2009). Cyber Crimes in India: A Study of Emerging Patterns of Perpetration and Victimization in Chennai City. *Pakistan Journal of Criminology*, 1(1), 51-66, April 2009.
- University of Connecticut (2007). Plagiarism vs. Copyright Infringement. Retrieved on 25th May 2013 from http://www.lib.uconn.edu/copyright/plagiarismVsCopyright.html).
- Wall, D. S. (2007). *Cybercrimes: The transformation of crime in the information age.* Cambridge: Polity.

Centre for Cyber Victim Counselling *"Helping Cyber Crime Victims"*

Ģ

Centre for Cyber Victim Counselling (CCVC) Tirunelveli 627 011, Tamil Nadu, India Emails: ccvcindia@cybervictims.org, ccvcindia@gmail.com URL: http://www.cybervictims.org