14th Annual Conference of the ESC Prague, 10-13 September 2014 Saturday, 13 September 2014

Panel: P11-8

Childhood & Cybercrime

"Victimisation and insecurity of undergraduate students while using internet"

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Cybercrimes

• "...are illegal acts committed with the assistance of, or by means of, computers, computer networks, the Internet and web-based information and communication technologies (ICTs)" [Jewkes Y., entry: Cybercrime, in Sage

Dictionary of Criminology, Thousand Oaks, New Delhi: Sage Publications, 2006, pp.106-8]



computer crime (crimes committed using outers)



cyber-crimes (if they are committed using the

SCAREM

Newman G.R. and Clarke R.V., Super-highway Robbery: Preventing E-Commerce Crime. Cullompton, Devon, Willan, 2003

- Stealth (cyberspace makes committing stealth-crimes much easier)
- Challenge (a challenge for the hackers to "crack" the system)
- Anonymity (which connects to the possibility of the criminals' escape)
- Reconnaissance (in connection to the military term, where recognition of the target means knowing the target well which allows custom action)
- Escape (similar the anonymity which allows the criminal's escape)
- Multiplicity (multiple action with multiple victims at the same time)

Some basic forms of cybercrime

- Hacking
- Cracking
- Spamming
- Phishing
- Software piracy
- Identity theft-personal information
- Online gambling
- Drug Trafficking
- Cyber terrorism
- Porn handling
- Cyber-bullying

Internet and Victimisation

- Catherine Marcum, George E. Higgins και Melissa L. Ricketts, 2010:
- Frequent youth internet victimization due to a more frequent use of the social media and the provision of their personal information to those social media, which makes them an easier target.
- Absence of effective measures for internet protection, although it has been concluded that defective observation of the young during Internet use, is not sufficient by itself in order to avoid their victimization

- Cyberbullying Research Center, 2014:
- > 20.7% of the sample has been cyber-intimidated once in their lives,
- > 18% has been threatened through messages, libel and tapping of personal information online
- Greek Hotline for illegal Internet content "Safeline.gr":
- > 34% of the reports mention personal information publication
- > 16% financial fraud
- > 12% child pornography
- > 8% of the reports were made due to insulting comments
- > 8% violation of privacy
- > 7% spamming
- > 7% phishing
- > 7% reports against bullying over the internet (cyberbullying)
- > 6% refers to racist events and finally
- > 2% deals with theft of intellectual property

Research profile-Methodology

- This research project was conducted during the academic years 2012-2013 & 2013- 2014
- Scientific Responsible: Professor Christina Zarafonitou
- Coordinator of the student research team: MRs Evangelia Koumentaki
- Research Team:
- Giakouvakis George
- Kalogeraki Aikaterini
- Kanellopoulou Olga
- Mouratidou Anastasia
- Panagiotopoulou Erofili
- Panagopoulou Magdalini
- Sefekou Maria
- Tsali Christina
- Vrontaki Foteini
- Zoitakis Ioannis

The main aim of this project:

- to record and analyse emotions and opinions regarding fear and insecurity during internet users' browsing
- demonstrate the existence and recording of potential victimisation of the Internet users

The scientific tool

 the questionnaire containing a significant number of open ended questions in order to achieve an in depth analysis

The sample

<u>Table 1:</u> University and Department

Number of Students N= 585	100 %	Department
98	16,8	Law School
91	15,6	Sociology
90	15,4	Chemical Engineers
85	14,5	Commerce and Engineering
52	8,9	Public Sector Administration
41	7	Psychology
38	6,5	Agricultural administration
37	6,3	Chemistry
35	6	Pharmacology
6	1	Media Studies
5	0,7	Political Studies
2	0,3	Theology
1	0,2	Philosophy and Education
1	0,2	German Language and Literature
1	0,2	Electrical engineering
1	0,2	Mathematics
1	0,2	Municipality

Features of the sample:

- The ages of the sample are divided between the age groups 18 20 (46.7%) and 21 22 (40.3%)
- The age groups 23 25 and 25 and over are represented by smaller percentages (7.2% and 5.8%).
- The majority of the respondents are women (70.6%)
- The majority of the parents are university graduates

"How many years before have you started using the Internet?"

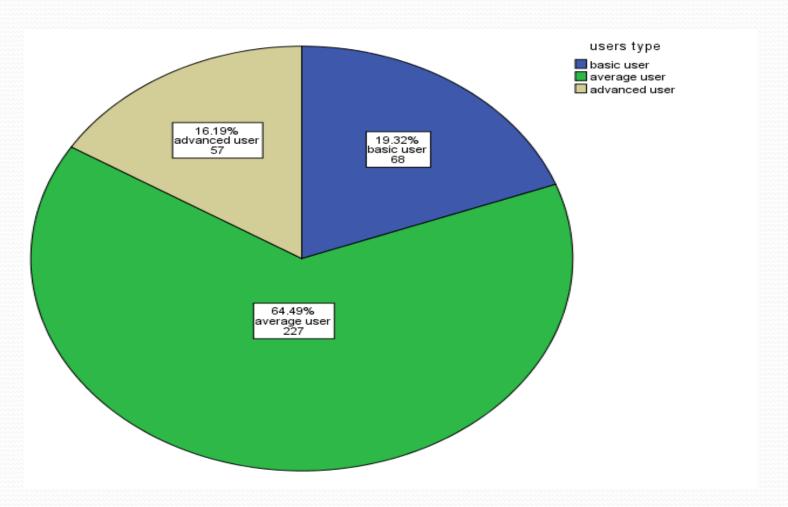
- 2/3 (66%) of the respondents use the internet from 6 10 years
- 10% of the respondents use the internet for over 11 years
- and only 1/4 (24%) use the Internet from 1 5 years

"Did you have lessons regarding the use of the Internet? Did you have lessons regarding the use of the Internet?"

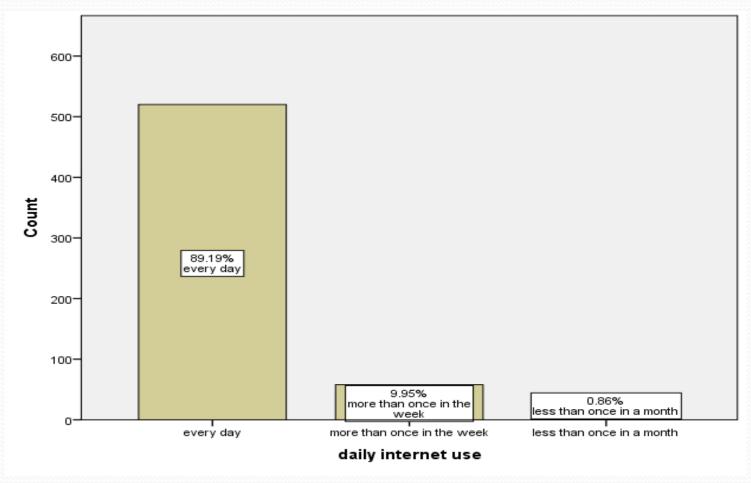
- **48.7**% have received lessons
- > 70% refer to the lessons received at school
- > 18.9% received lessons from a private school
- > The remaining respondents were educated through their friends and family

How would you rate your abilities on computer use?

Basic user: basic knowledge, simple use of the PC; **Average user** (use of ECDL, e-mail, advance navigation); **Advanced user** (installing/removing programmes, programing, use of specialist programmes, understanding of safety programmes)



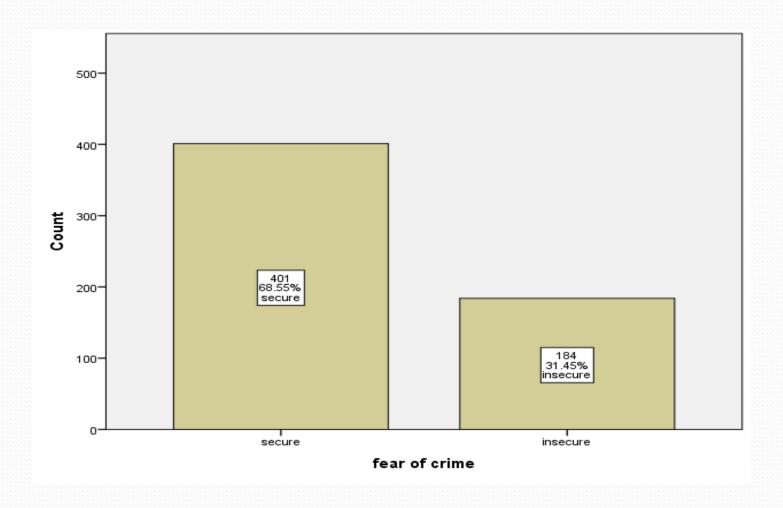
How often do you use the Internet?



The respondents' main uses of the Internet

- Communication between friends (chat rooms, msn, skype)
- Social media websites (Facebook, twitter)
- Music
- Information (academic)
- News
- Movies
- Gaming
- Other

How safe do you feel when using the Internet?



Insecurity and gender

Sex	Safety	Insecurity	Total
Women	64,4%	35,6%	100%
Men	78,5%	21,5%	100%
fisher's exact test	.000		

Experience in using the Internet & insecurity

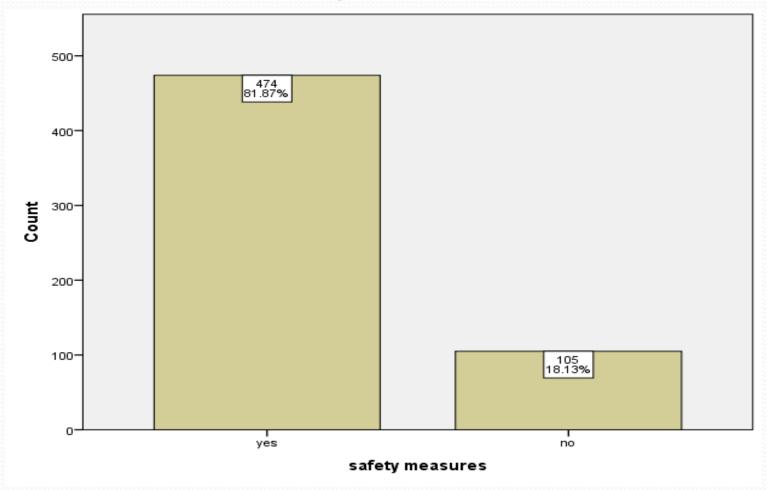
Safety/ Insecurity and years of use

Years of use	Safety	Insecurity	Total
1-5	56,8%	43.2%	100%
6-10	73,6%	26.4%	100%
11+	62,1%	37.9%	100%
Pearson chi- square	.001		

Reasons of insecurity:

- Lack of trust due to anonymity 70%
- Fear of loss of personal data 47%
- Hacking date monitoring 33%
- Misinformation and bullying 21%
- Viruses 17%
- Various

Safety measures



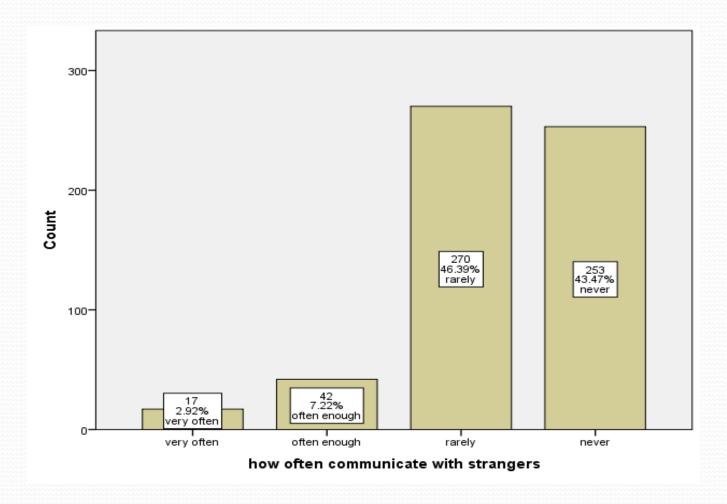
Features of safety

anonymity	89
anonymity and passwords	40
anonymity and security programs	16
passwords	140
passwords and security programs	71
security programs	159
anonymity,passwords and security	49
programs	
passwords and known site	2
trustful owner	2
known site	2
none	3
low visit	1
academic sites	1
security programs and safe sites	1
passwords, security programs and	1
reliability	

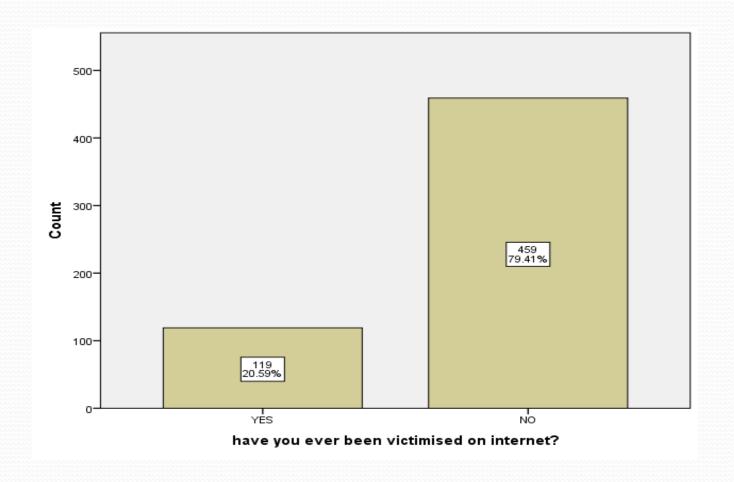
Features of insecurity

privacy violation	205
privacy violation and unlimited data	116
view	
unlimited data view	113
anonymity	69
anonymity, pr.violation and	32
unlimited data view	
anonymity and privacy violation	24
anonymity and unlimited data view	6
anonymity, pr.violation and bugs	1
anonymity,pr.violation and pop-up	1
anonymity, unlimited data view and	1
pop-up	
non-valid information	1
type of site	1
none	1
porn	1
pr.violation, unlimited data view	1
and non-stop advertising	

Anonymity and insecurity



Reported Victimisation



Victims characteristics

- **Sex**: 21% women *vs*. 19.6% men
- Experience: 21.2% amongst the students with 6-10 years, 17.5% among whom with more than 11 years & 20.9% among whom with 1 and 5 years experience
- Education: 16.6% amongst the respondents that do not have special education vs. 24.8% to those who have
- Frequency: 3.6% among them who use the internet more than once a week, 20% those that use the Internet rarely & 22.3% among those who use it on a daily basis

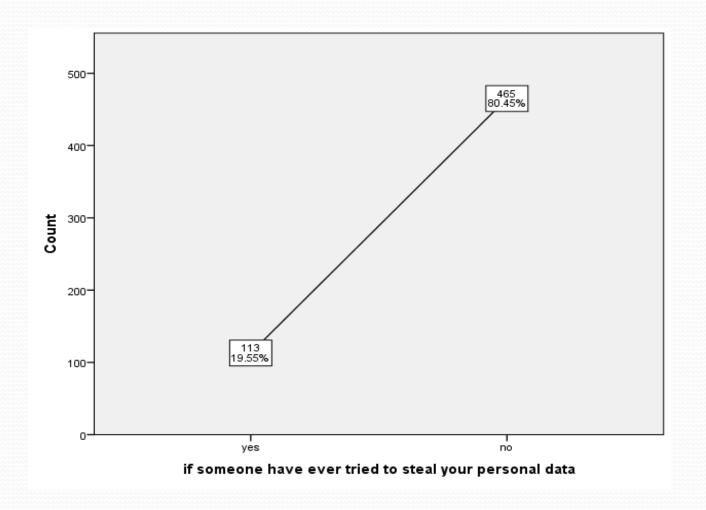
Also:

- A slight majority of the respondents that have been victimised belong to the insecure ones (22.4%) by comparison to the ones that feel safe (19.7%)
- The relationship between victimisation and contact with strangers online is important (*fisher's exact test:* ,000), since the percentage of the respondents that were victimised and had contact with strangers online was double (32.7%) by comparison to the respondents that hadn't (15,9%)

Type of cyber victimisation

fraudulent/misleading	16	13,11%
threat/intimidation	25	20,49%
sexual harassment	23	18,85%
personal data theft	39	31,96%
theft and sexual harassment	6	4,91%
theft and threat/misleading	8	6,55%
sexual harassment and fraudulent/misleading	4	3,27%
all the above	1	0,82%

1.Theft of personal data



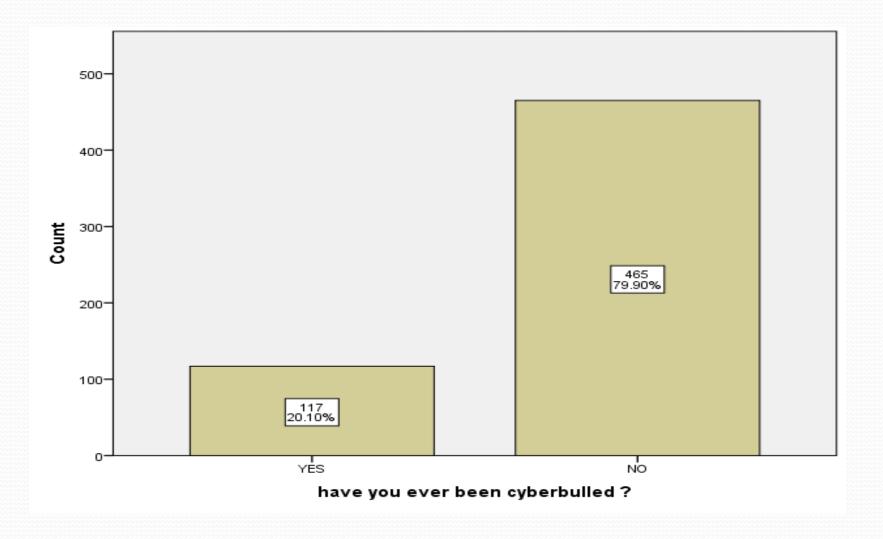
It should also be mentioned that

.....amongst the respondents that stated that somebody attempted to steal their personal information



approximately half (59 respondents) of the students reporting that somebody attempted to steal their personal information/data stated that the thief succeeded and most of them referred to their use of the social media

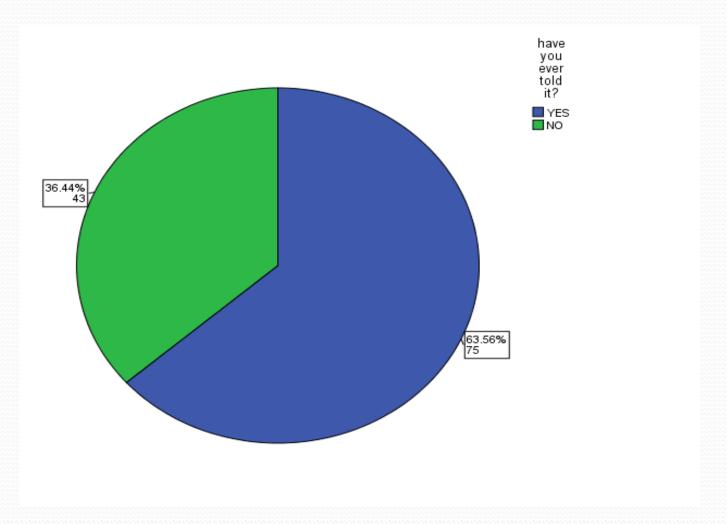
2.Cyberbullying



It should also be mentioned that:

This rate corresponds to a *repeated victimisation* since 43.7% refer to more than 5 cases & 56.3% to less than 5

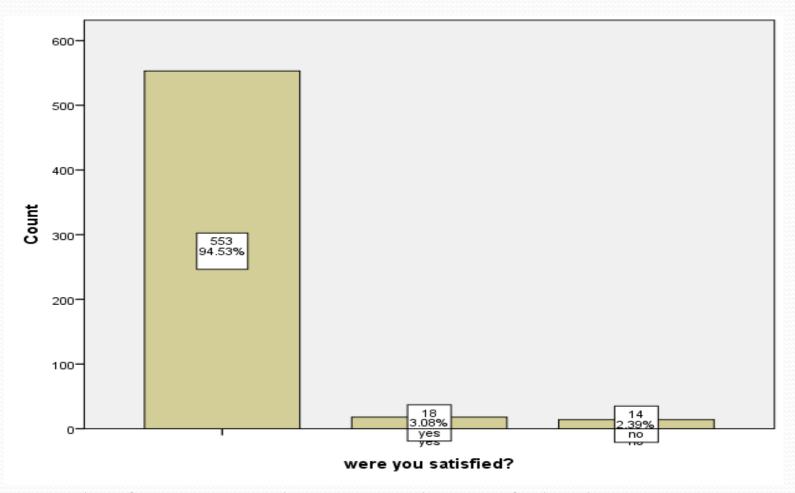
Report of victimisation



Where?

			to whom have you reported it?				Total		
			FAMILY	FRIENDS	POLICE FORCE	electroni c crime police force	OTHER		
	have you ever told it?	YES	34	25	1	11	4	75	
		NO	1	0	0	0	o	1	
	Total		35	25	1	11	4	76	

Satisfaction from the report



Evaluation of the internet

- > Positive elements
- "information"
- "communication"
- "unlimited possibilities"
- Negative elements
- "Cybercrimes"
- "addiction"
- "misinformation"

Suggestions about the amelioration of the security of users

- Adequate education
- Personal safety measures
- Efficient security programs
- State control
- Legislation
- other

Thank you for your attention

