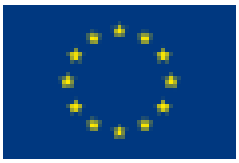


ITC

draugiškas Internetas

Internet Safety Research

Centre of Information Technologies in Education

Report

November 2014

Contents

1. About the research

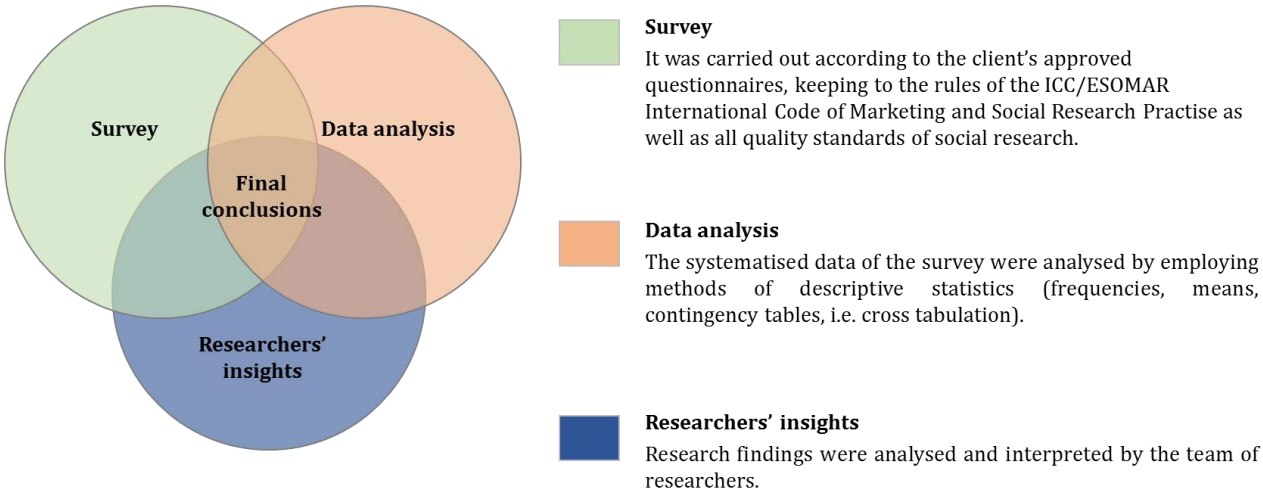
The aims and objectives of the research. "Safer Internet" is a programme of the European Commission (EC) Directorate General for Communications Networks, Content & Technology (DG Connect), which has been implemented since 1999 in all European Union (EU) Member States. The programme aims at promoting safer use of the Internet and its new technologies, particularly by children, and protecting children while combating illegal and harmful Internet content and conduct. The research of the "Safer Internet" programme was carried out in September–October 2014.

Fig. 1. The aims and objectives of the research

Aim of the research	To evaluate the impact of the "Safer Internet" project on public awareness raising
Objectives of the research	▪ To identify cases of respondents' experience of information security violations and damage incurred ▪ To carry out evaluation of online threats to children ▪ To carry out evaluation of the "Safer Internet" project

Research methodology. Seeking to evaluate the impact of the "Safer Internet" project on public awareness raising, a representative survey was carried out with the help of two types of questionnaire coordinated with the client: for adults and for youth. Systematised survey data were processed and analysed by employing methods of descriptive statistics.

Fig. 2. The principle of drawing final conclusions



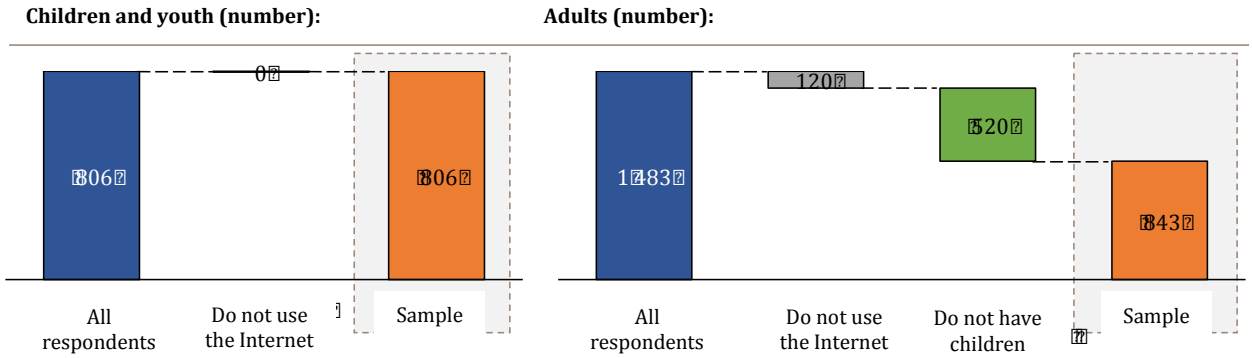
The methods of face-to-face interviewing, computer-assisted telephone interviewing (CATI) and computer-assisted web interviewing (CAWI) were employed in the survey.

57 per cent of adults were surveyed by face-to-face interviewing, 43 per cent – by CATI. Pupils participated in the survey by filling in CAWI forms online. In order to ensure the work quality of interviewers, the checklists of the respondent sample were examined and telephone interviewing of 15 per cent of the respondents was repeated; the quality control was executed with respect to the input of 15 per cent of questionnaire data from initial questionnaires.

Research sample. 2 289 respondents: 806 teenagers and youth representatives (aged 14–18) and 1 483 adults participated in the survey. The analysis did not include persons who indicated that they did not use the Internet. Persons who did not have children aged 5–18 were not included in the adult respondent sample either. All interviewed children indicated that they used the Internet. 120 adults

do not use the Internet, while 520 adults do not have children. The research analysis uses the interview data of 843 adults, 806 teenagers and youth respondents (see Fig. 3).

Fig. 3. Sample



Error. The quantitative research, sampling, processing of the respondents' interview and data do not reject the probability of a statistical error which has to be taken into account when interpreting data. If 10 per cent of the respondents in the sample of 806 people agree with the statement "Children have to be taught how to use the Internet safely", the actual percentage of agreeing persons may vary from 7.9 to 12.1 (see Fig. 4).

Fig. 4. Statistical data error

%	5	10	15	20	25	30	40	50
	95	90	85	80	75	70	60	50
N								
100	4.4	6.0	7.1	8.0	8.7	9.2	9.8	10.0
200	3.1	4.2	5.0	5.7	6.1	6.5	6.9	7.1
300	2.5	3.5	4.1	4.6	5.0	5.3	5.7	5.8
400	2.2	3.0	3.6	4.1	4.3	4.6	4.9	5.0
500	1.9	2.7	3.2	3.6	3.9	4.1	4.4	4.5
650	1.7	2.3	2.7	3.1	3.3	3.5	3.8	3.8
750	1.6	2.2	2.6	2.9	3.2	3.3	3.6	3.7
800	**1.5**	**2.1**	**2.5**	**2.8**	**3.0**	**3.2**	**3.4**	**3.5**
1000	1.4	1.9	2.3	2.5	2.7	2.9	3.1	3.1

Respondents' socio-demographic characteristics. The teenager and youth sample includes persons aged 14–18. The majority of the respondents are persons aged 15 and 16 (32 per cent and 29 per cent respectively). The average age of the respondents is 15.6 years. The age range of the adult sample is wider; therefore, the age breakdown in intervals is used. The majority of the respondents are aged 18–35 and 46+ (37 per cent and 26 per cent respectively) (see Fig. 5).

Fig. 5. Age (%):

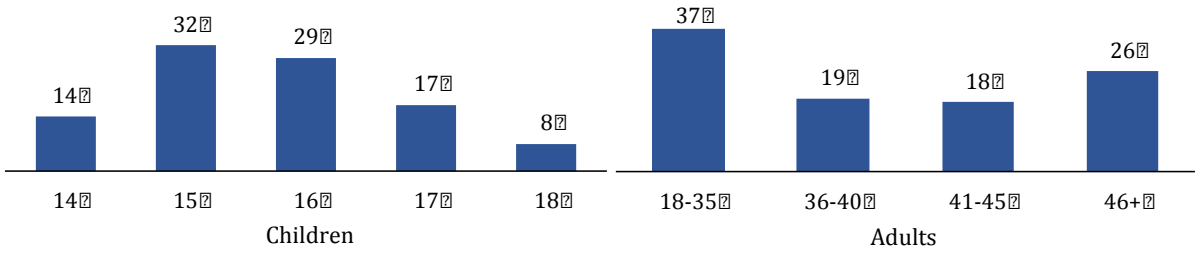
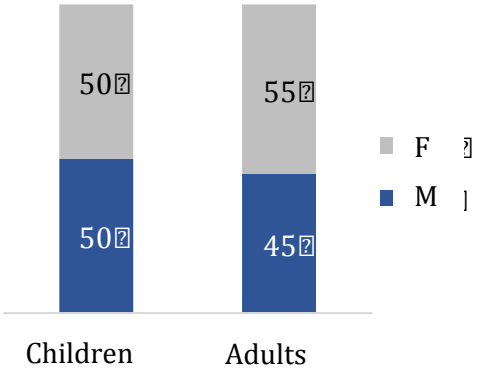


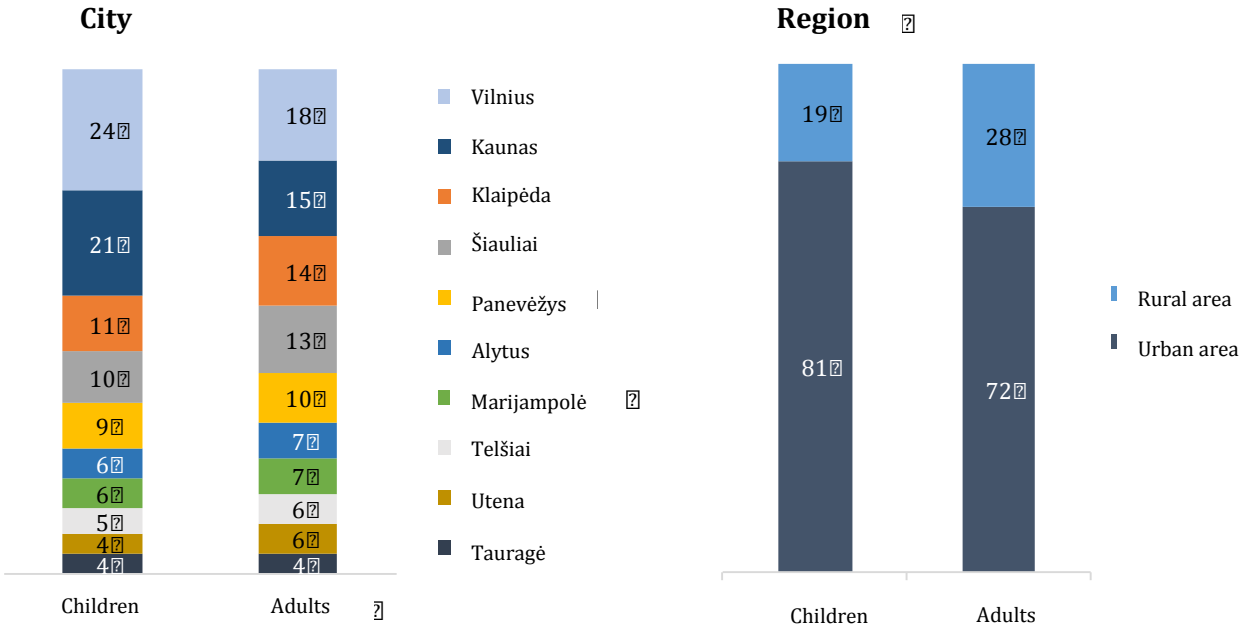
Fig. 6. Age (%):



Gender distribution of the respondents corresponds to the distribution of the overall Lithuanian population (46 per cent of males; 54 per cent of females). The teenager and youth sample consists of equal shares of males and females. The adult sample comprises 45 per cent of males and 55 per cent of females.

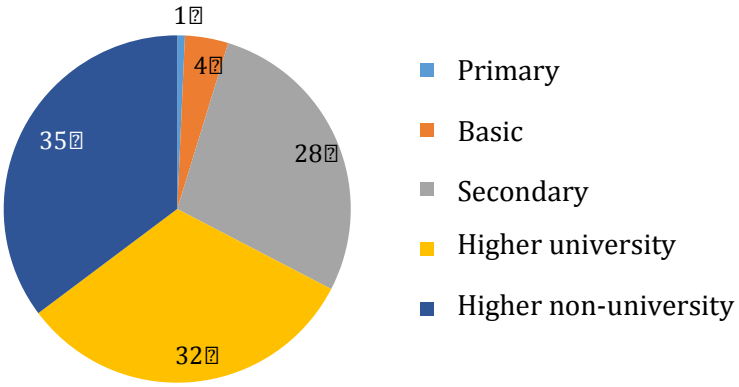
The distribution of the district of residence of teenage/youth and adult respondents is very much alike. More than half of the respondents live in Vilnius, Kaunas or Klaipėda districts (see Fig. 7).

Fig. 7. Place of residence (%):



A bigger difference is observed in the distribution of respondents living in urban and rural areas. 81 per cent of teenagers and youth and 72 per cent of adults indicated that they lived in the city (the difference of 9 per cent).

Fig. 8. Adult education (%):

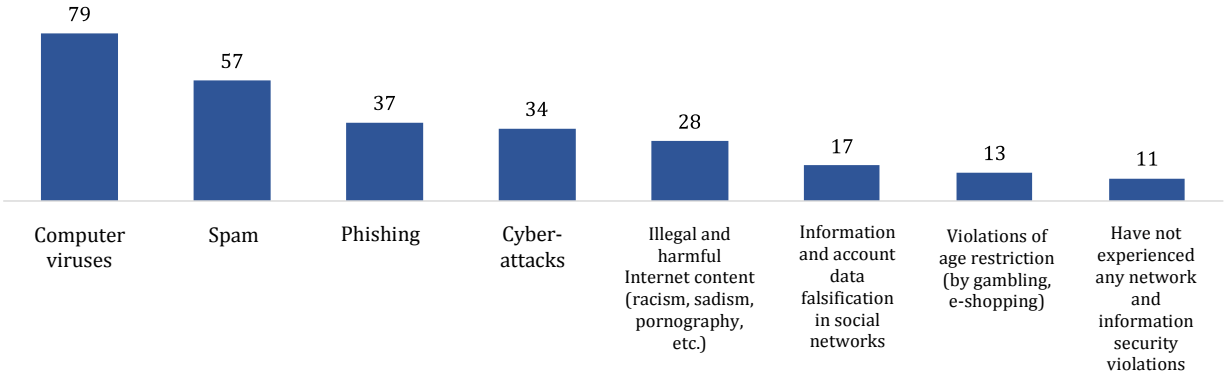


All respondents from the children and youth sample indicated that they attended general education schools. Neither of them attended a vocational or youth school. The majority of adult respondents have a higher education: 32 per cent – university and 35 per cent – non-university (see Fig. 8).

2. Analysis: teenagers and youth

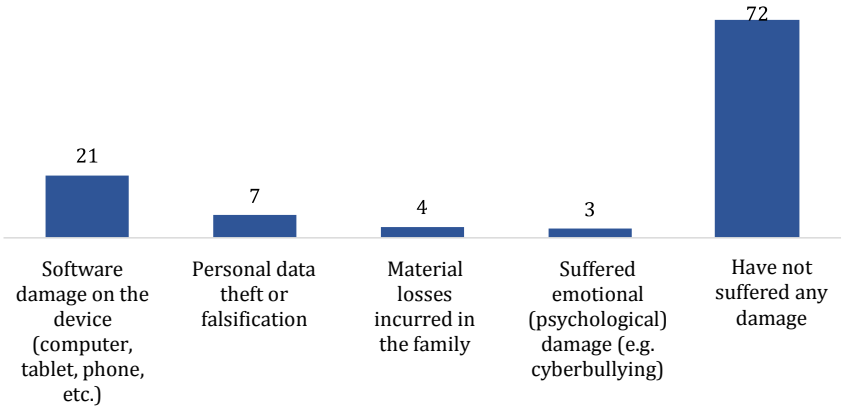
The analysis of the Internet safety problem was carried out on the basis of collected data. Focus was shifted on the most frequent violations, damage incurred, potential threats and means of protection.

Fig. 9. Network and information security violations most frequently experienced by Internet users (%):



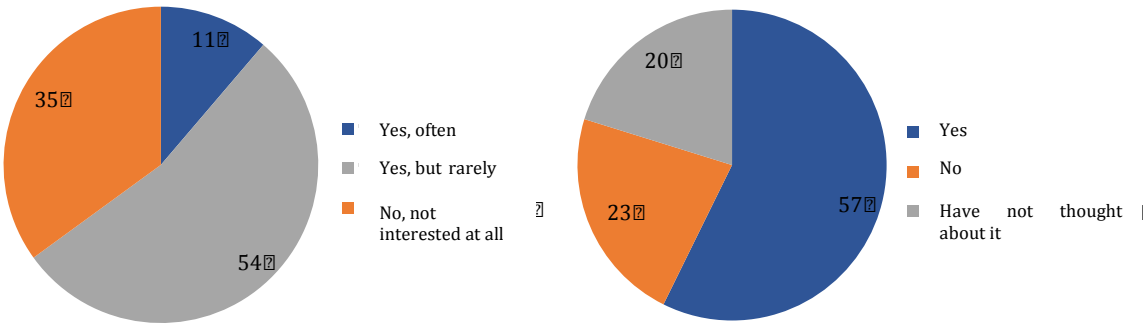
Computer viruses are the most frequent security violation experienced by teenagers and youth. More than half of the respondents have also encountered spam. As little as 11 per cent of the respondents have not experienced any security violations online (see Fig. 9).

Fig. 10. Damage incurred due to network and information security violations (%):



The majority (72 per cent) of the respondents have not suffered any damage caused by network and information security violations (see Fig. 10). The most frequently incurred damage is the damage done to software. 21 per cent of the survey participants have experienced this problem. Among rarer complaints, the respondents mentioned personal data theft (7 per cent), incurred material losses (4 per cent), and emotional damage (3 per cent).

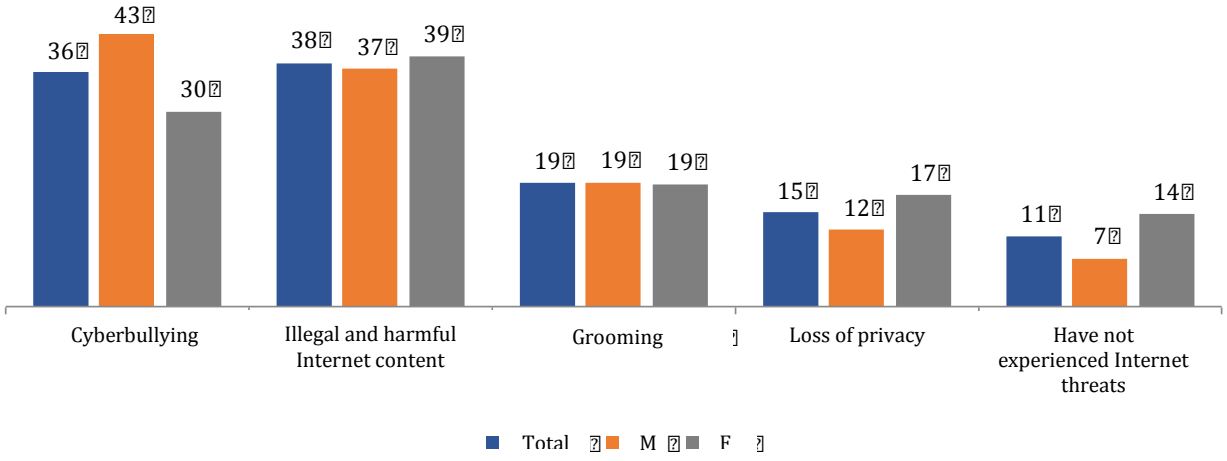
Fig. 11. Are adults (parents, teachers, etc.) interested in what you do online? Do you think that the Internet poses threats and dangers? (%)



65 per cent of the survey participants indicated that adults are interested in what they (children) do while surfing the net. 11 per cent of the respondents claim that adults do it often. The remaining 35 per cent of the respondents state that adults are not interested in children's activity online at all. 57 per cent of teenagers and youth think that the Internet poses dangers, while 23 per cent do not think so. 20 per cent answered that they have not thought about it (see Fig. 11).

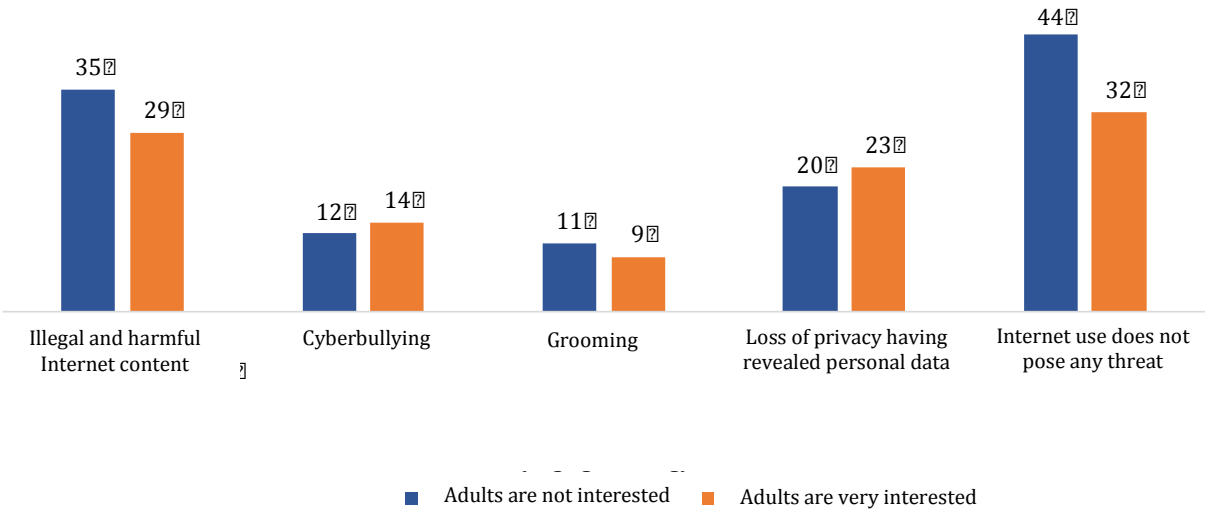
Averagely 36 per cent of the survey participants (both males and females) have experienced cyberbullying on the Internet. 38 per cent have encountered illegal and harmful content. 19 per cent have experienced grooming. 15 per cent have lost their privacy after they revealed their personal data. As little as 11 per cent of the respondents answered that using the Internet does not pose any threat. Teenagers mainly experience cyberbullying and illegal and harmful content on the Internet (see Fig. 12).

Fig. 12. Threats that have been personally experienced (%):



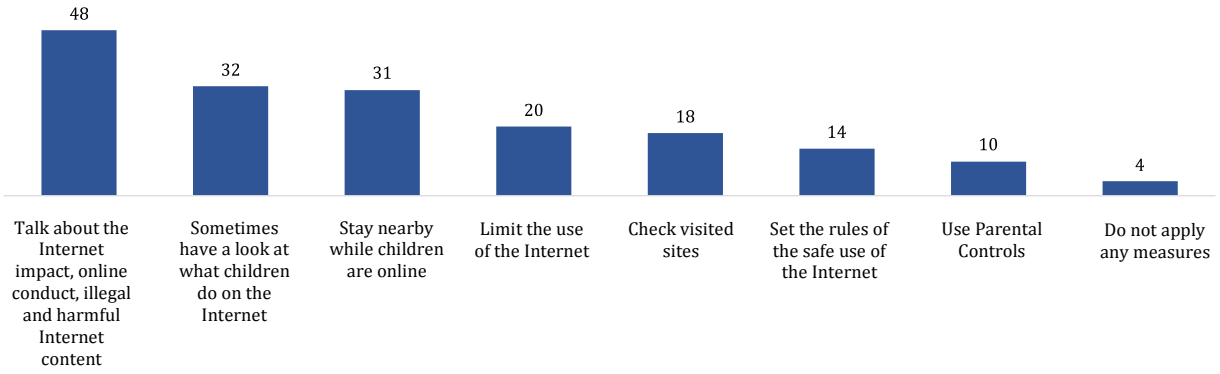
Relevance of threats does not depend on gender. On the other hand, twice as much per cent of female respondents indicated that they had not experienced online threats. One of the possible reasons is different evaluation of threats by male and female teenagers.

Fig. 13. Threats that have been personally experienced by children with regard to the level of adult interest (%):



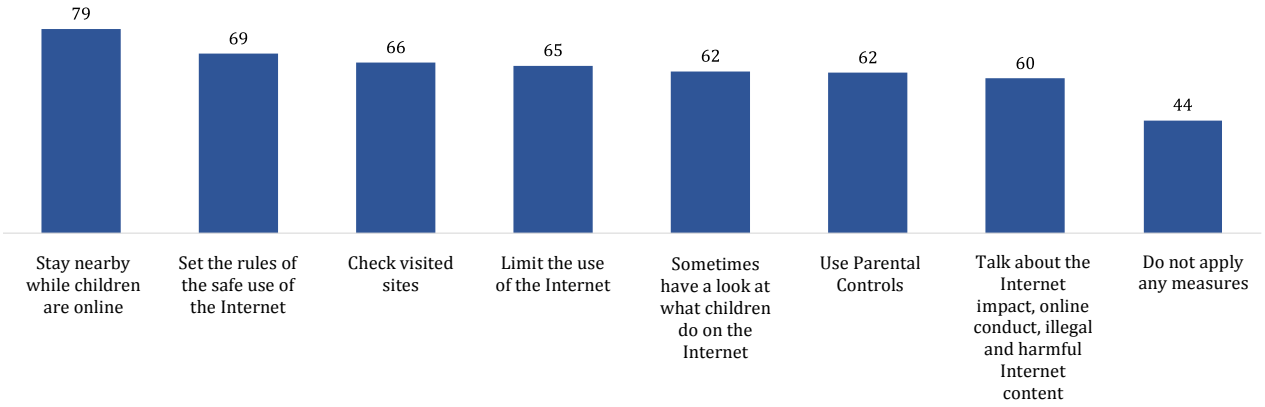
A bigger number of children whose parents are not interested in their activity online state that they have not faced any Internet threats (see Fig. 13). A possible reason is that children whose parents are not interested in their activity find it more difficult to recognise threats. On the other hand, it is likely that children who are *de facto* more cautious while using the Internet need less adult supervision.

Fig. 14. Measures applied by adults (parents, teachers, etc.) in order to ensure safer use of the Internet by children (%):



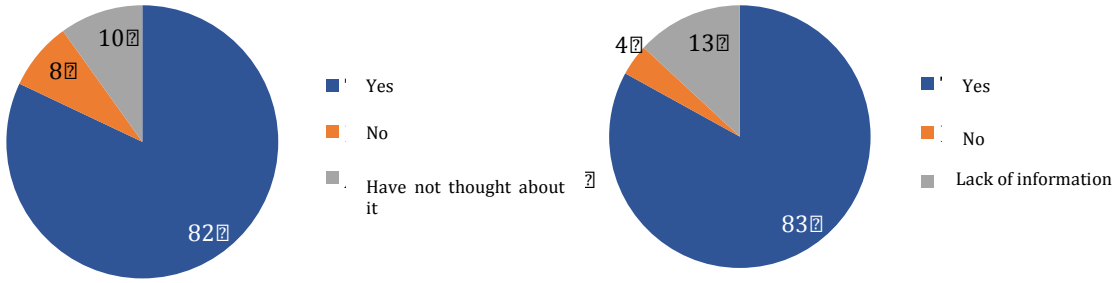
Seeking to ensure safer use of the Internet by children, adults prefer taking "active" measures. The most frequent measure is a conversation about the impact of the Internet, online conduct, illegal and harmful Internet content; this measure is applied by almost half of all adults (see Fig. 14). Slightly more than 30 per cent of adults stay nearby while their children are online and sometimes have a look at what their children do on the Internet. 10 per cent of adults apply "passive" parental controls which automatically block access to unwanted Internet content.

Fig. 15. The share of teenagers and youth who have encountered online threats with regard to measures applied by adults (%):



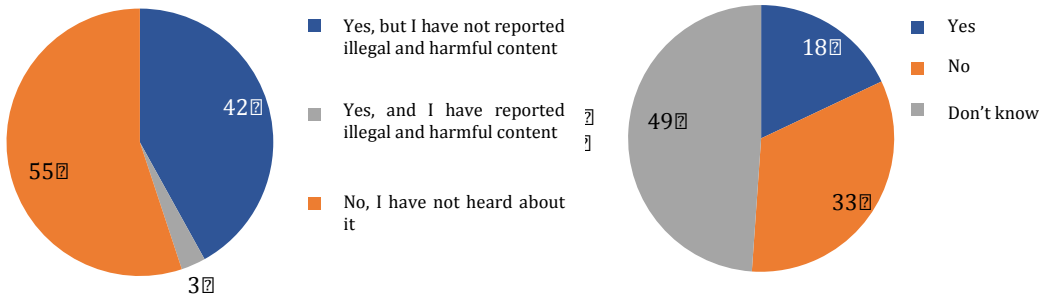
79 per cent of teenagers and youth overlooked by adults while using the Internet have encountered threats. The parents of 44 per cent of the respondents who have encountered at least one Internet threat do not apply any measures in order to ensure their children's safety online (see Fig. 15).

Fig. 16. Do you think that everyone should know how to be safe online? Do you know how to use the Internet safely? (%)



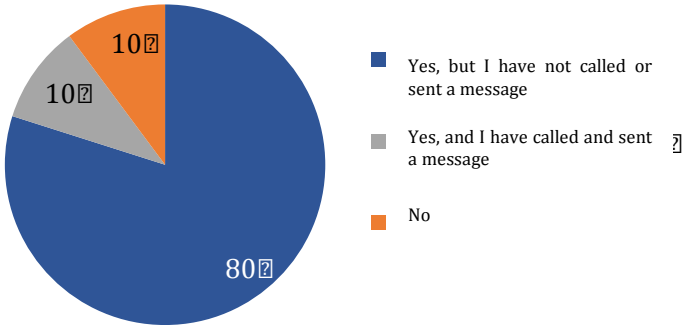
More than 80 per cent of the respondents agree that every user should know how to be safe online and claim that they know how to use the Internet safely. 13 per cent of the respondents indicated lack of information as a barrier to the safe use of the Internet (see Fig. 16).

Fig. 17. Have you heard anything about the hotline? If you faced illegal and harmful Internet content, would you anonymously report it to the hotline? (%)



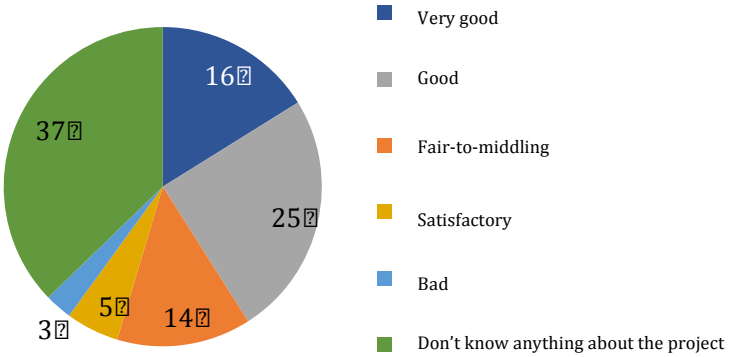
45 per cent of the respondents have heard about the hotline. As little as 3 per cent have reported illegal and harmful Internet content. This share is much smaller than 18 per cent of the respondents who claim that they would report illegal and harmful Internet content to the hotline. Half of the respondents state that they do not now whether they would report illegal content to the hotline if they faced it (see Fig. 17).

Fig. 18. Have you heard anything about the helpline? (%)



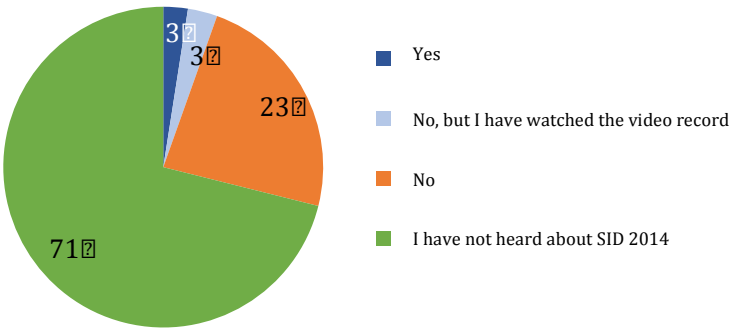
80 per cent of the respondents have heard about the helpline, yet as little as 10 per cent have called or sent a message. 10 per cent of the respondents have not heard about the helpline (see Fig. 18).

Fig. 19. What is your evaluation of the "Safer Internet" project? (%)



41 per cent give a good or very good evaluation of the "Safer Internet" project. The majority of the respondents (almost 37 per cent) have not heard about the project (see Fig. 19).

Fig. 20. Have you watched the live broadcast of the "Safer Internet Day" (SID 2014) online? (%)

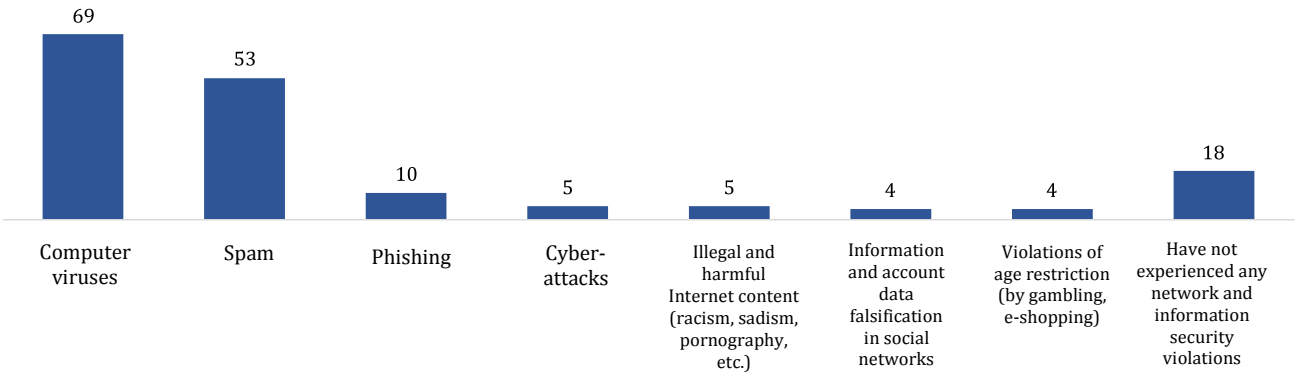


The majority of the respondents (over 70 per cent) have not heard about the broadcast of SID 2014. As little as 6 per cent state that they have watched the broadcast or video record of the SID 2014 event (see Fig. 20).

3. Analysis: adults

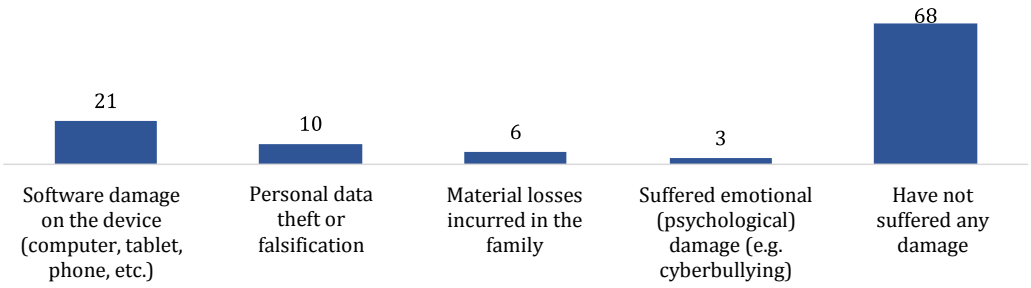
This section presents the analysis of research findings in relation to adult respondents. They were asked the same questions like teenagers and youth: about their problems they experience online, the level of child control, and their attitude towards Internet safety initiatives.

Fig. 21. Network and information security violations most frequently experienced by Internet users (%):



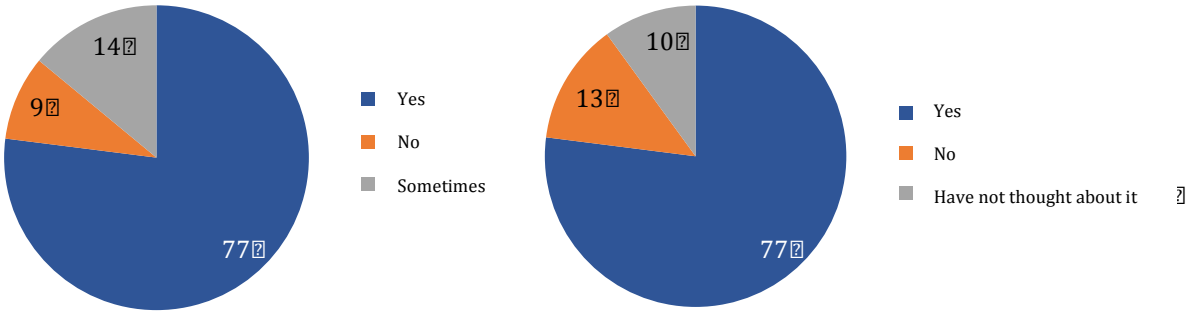
Two main types of security violations experienced by adults are computer viruses and spam (69 per cent and 53 per cent of respectively). The penetration of other security violations is relatively low – not exceeding 10 per cent. 18 per cent of the respondents have not experienced any security violations online (see Fig. 21). The number of cases of security violations online experienced by adults is significantly smaller than the number of those cases experienced by teenagers and youth. For example, children are almost 7 times more likely to suffer from cyber-attacks and almost 6 times more often face illegal and harmful Internet content (see Fig. 9). The smallest difference between children and adults is observed in their experience of spam (4 per cent).

Fig. 22. Damage incurred due to network and information security violations (%):



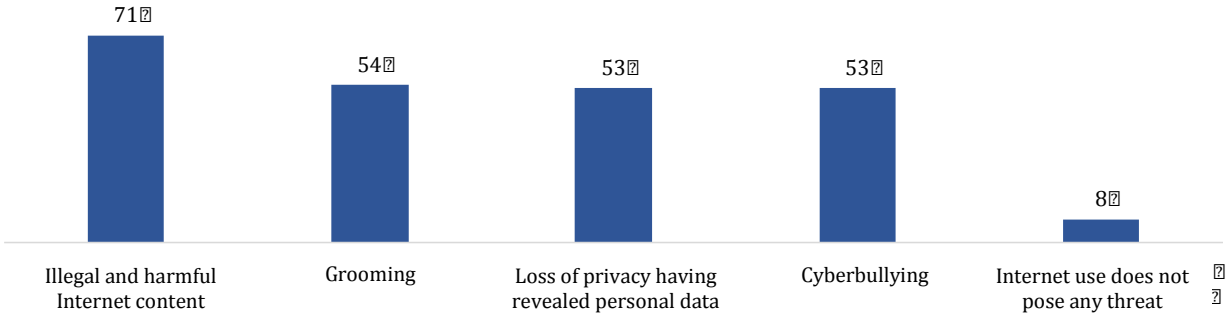
68 per cent of the respondents have not suffered damage due to network and information security violations. Most frequently incurred damage is the damage to software, experienced by 21 per cent of the respondents. The cases of personal data theft or falsification, material losses incurred in the family, and emotional damage are rarer, experienced by 3 to 10 per cent of the respondents (see Fig. 22).

Fig. 23. Are you interested in your child's activity online? Do you think that the Internet poses threats and dangers? (%)



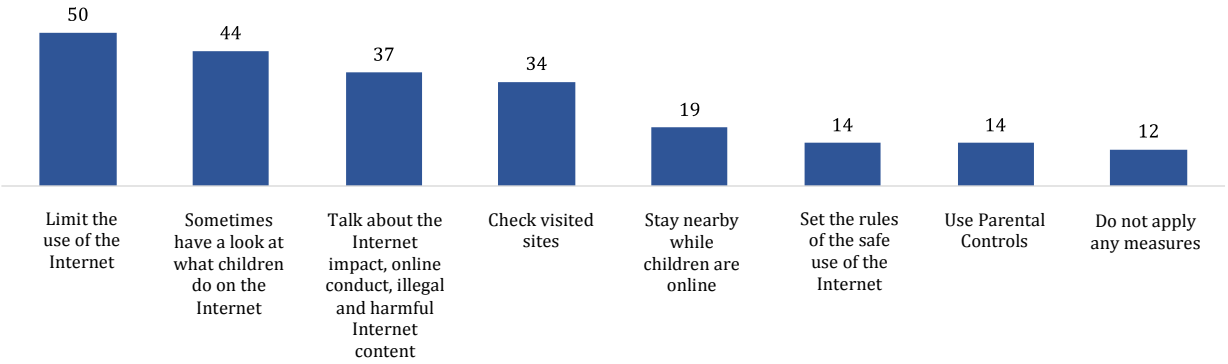
77 per cent of the respondents consider that the Internet poses dangers. The same share of the respondents indicated that they were interested in their children's activity online. As little as 9 per cent of the survey participants are not interested in their children's activity online (see Fig. 23). According to teenagers and youth, 35 per cent of adults are not interested in what they do on the Internet (see Fig. 11).

Fig. 24. Online threats to children (%):



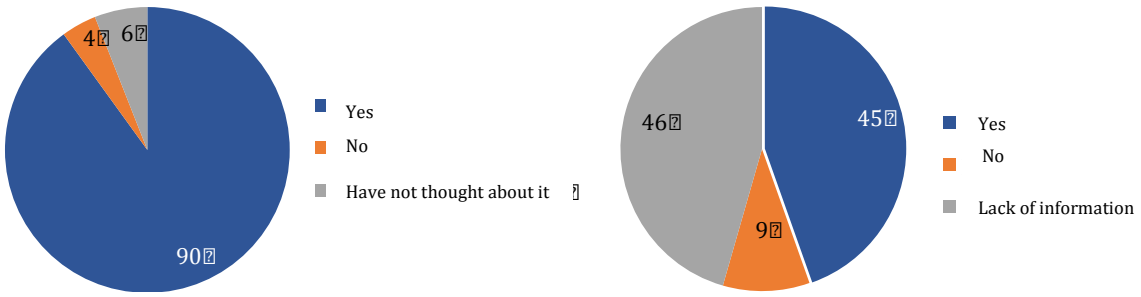
The majority of the respondents think that the Internet poses threats to children. The most frequent threat is illegal and harmful content. It has been indicated by over 70 per cent of the respondents. As little as 8 per cent of the respondents do not think that using the Internet poses threats to children (see Fig. 24).

Fig. 25. Measures applied in order to ensure the safe use of the Internet by children (%):



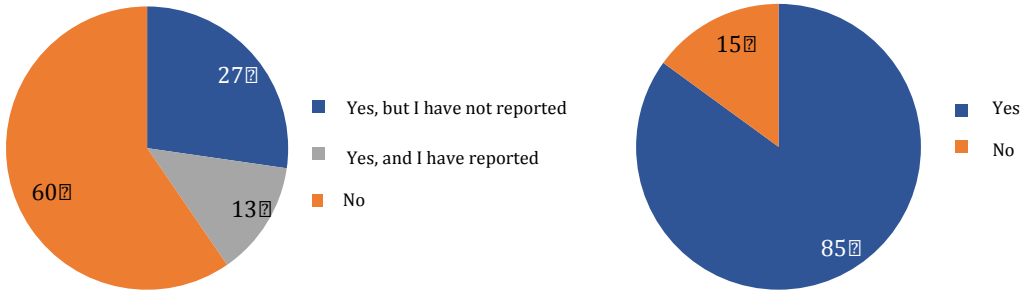
88 per cent of the respondents claim that they apply measures to ensure their children's safety online. The most frequent measure is limiting the use of the Internet. It is applied by half of all respondents (see Fig. 25).

Fig. 26. Do you think that children should be taught how to use the Internet safely? Do you know how to teach children to use the Internet safely? (%)



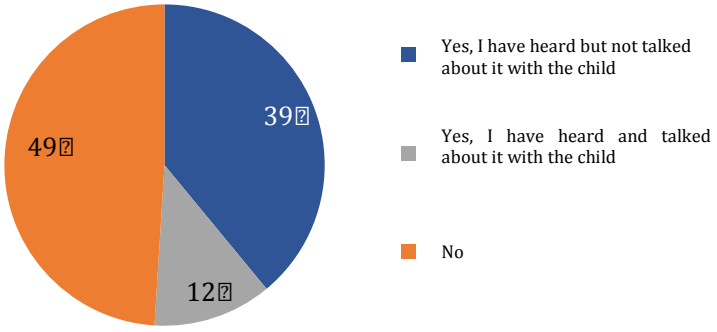
The majority of the respondents (90 per cent) agree that children should be taught how to use the Internet safely, 4 per cent disagree with the statement, 6 per cent have not thought about it. 45 per cent of adults claim that they know how to teach children to use the Internet safely. As much as 46 per cent answered that they lacked information how to teach children to use the Internet safely (see Fig. 26).

Fig. 27. Have you heard about the hotline? If you faced illegal and harmful Internet content, would you report it to the hotline? (%)



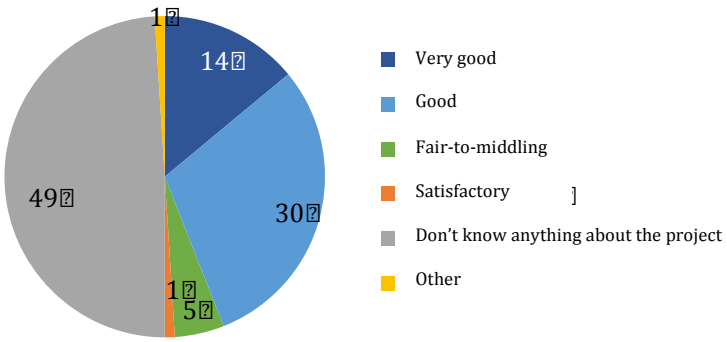
The majority (60 per cent) of the respondents have not heard about the hotline. 40 per cent have heard about the hotline, yet as little as 13 per cent have used it to report illegal content. This is significantly less than 85 per cent of the respondents who claim that they would report to the hotline if they faced illegal and harmful content online (see Fig. 27).

Fig. 28. Have you heard about the helpline? (%)



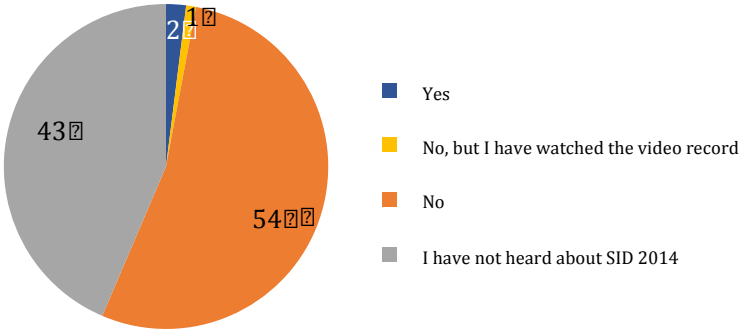
About half of the survey participants have heard about the helpline, yet as little as 12 per cent have talked about it with children (see Fig. 28).

Fig. 29. What is your evaluation of the "Safer Internet" project? (%)



44 per cent of adult respondents give a good or very good evaluation of the "Safer Internet" project. 5 per cent give a fair-to-middling evaluation, whereas 1 per cent – a satisfactory evaluation. It should be noted that almost half of the surveyed adults have not heard about the project (see Fig. 29).

Fig. 30. Have you watched the live broadcast of the "Safer Internet Day" (SID 2014) online? (%)



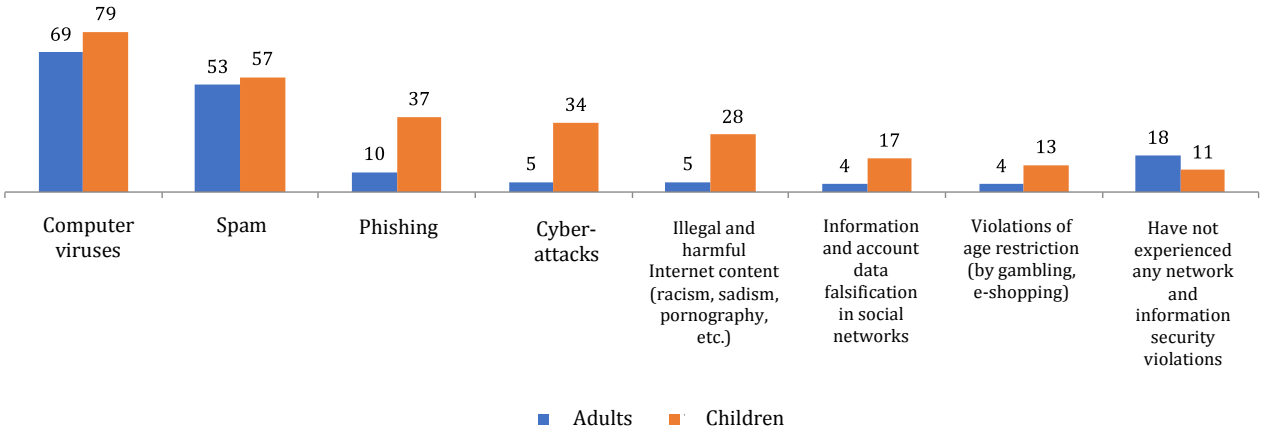
As little as 3 per cent of the respondents have watched the live broadcast or video record of the SID 2014 event. 54 per cent have not watched the event, and the remaining 43 per cent have not heard about it (see Fig. 30).

4. Discussion of research findings

4.1. Respondents' experience of information security violations and damage incurred

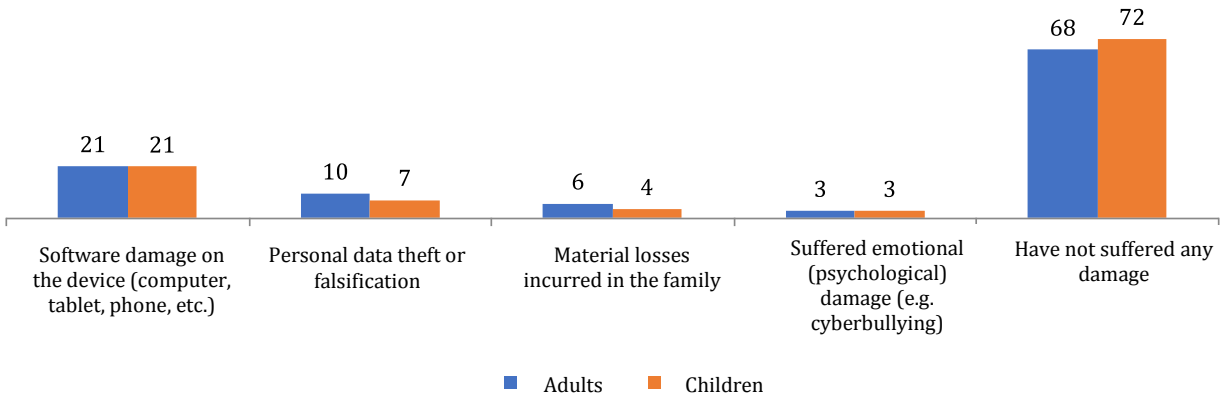
Research findings showed that children encounter security violations online much more often (see Fig. 31).

Fig. 31. Network and information security violations most frequently experienced by Internet users (%):



37 per cent of children and 10 per cent of adults (the difference of 27 per cent) have experienced phishing. 34 per cent of teenagers and youth and as little as 5 per cent of adults (the difference of 29 per cent) have experienced cyber-attacks. 18 per cent of adults and 11 per cent of youth (the difference of 7 per cent) have not experienced any security violations.

Fig. 32. Damage incurred due to network and information security violations (%):

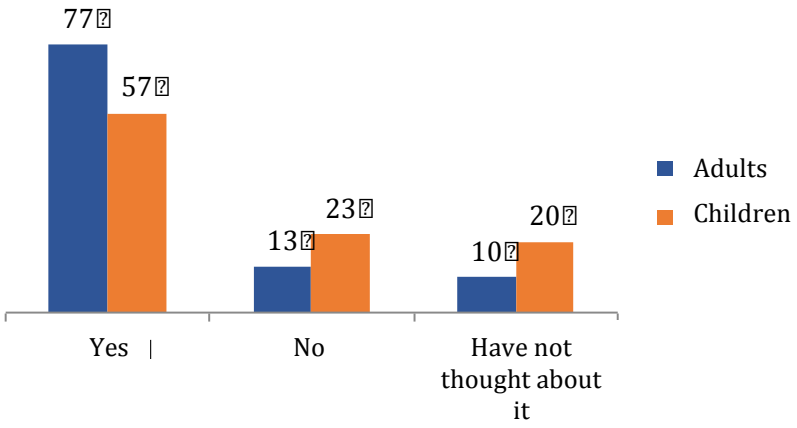


83 per cent of children state that they know how to use the Internet safely (see Fig. 16), yet hardly 11 per cent have not encountered security violations (see Fig. 31). Although young people encounter more violations, they say that they do not incur more damage caused by these violations (see Fig. 32).

4.2. Evaluation of online threats to children

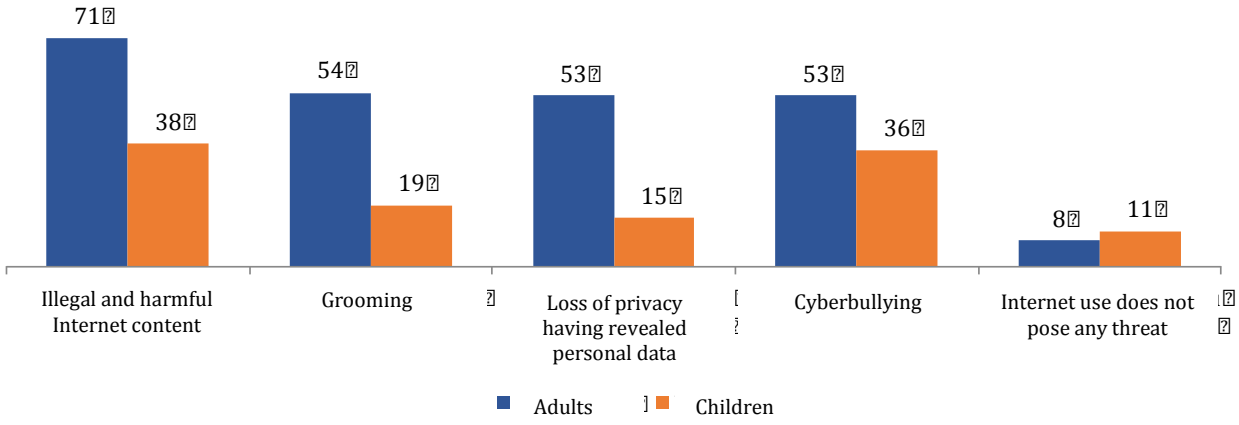
There is an obvious difference between children's and adults' perception of Internet dangers. 20 per cent more adults than children think that the Internet poses threats. Twice as many children as adults have not thought about threats (see Fig. 33).

Fig. 33. Do you think that the Internet poses threats and dangers? (%)



A more detailed analysis of Internet threats reveals that adults are concerned with children's safety. More than half of adult respondents consider that every mentioned Internet threat is frequently faced. A significantly smaller number of children state that they have faced each of the threats. For example, less than 20 per cent of interviewed teenagers and youth, compared to adults, have experienced grooming or loss of privacy (see Fig. 34).

Fig. 34. Evaluation of threats by adults and youth experience of these threats (%):



There is an obvious difference between children's and adults' answers to the question whether adults are interested in their children's activity online. 35 per cent of children state that their parents are not interested in their activity online at all; however, only 14 per cent of adults said that they were not interested in their children's activity online (see Fig. 11).

4.3. Evaluation of the "Safer Internet" project

Adults are not so well informed about the hotline and other initiatives of the "Safer Internet" project, yet they are more likely to use them. For example, only 40 per cent of adults have heard about the hotline. The share of youth who know about the hotline is 45 per cent.

40 per cent of adults know about the hotline, 13 per cent of them have anonymously reported about illegal and harmful Internet content (see Fig. 27). Despite the fact that more children (45 per cent) know about the hotline, as little as 3 per cent of youth have used it (see Fig. 17). 85 per cent of adults and as little as 18 per cent of youth indicated that they would use the hotline if they faced illegal and harmful content.

A similar tendency is observed in the case of the helpline. Although 80 per cent of youth have heard about it, as little as 10 per cent have called to the helpline (see Fig. 18). Although 39 per cent of adults have heard about the helpline, as little as 12 per cent of them have talked about it with their children (see Fig. 28).

5. Conclusions

5.1. Respondents' experience of information security violations

Adults less often than teenagers or youth face security violations online. Children are almost 6 times more likely to suffer from cyber-attacks and almost 5 times more often face illegal and harmful Internet content.

Four-fifths of children state that they know how to use the Internet safely; however, as few as one-tenth of them have not faced violations. On the other hand, although young people face more violations, they claim that they do not suffer more damage than adults.

5.2. Evaluation of online threats to children

Threats and dangers posed by the Internet are more seriously considered by parents than children. More than half of adult respondents consider that every mentioned Internet threat is frequently faced.

A bigger number of children whose parents are not interested in their activity online state that they have not faced any Internet threats. A possible reason is that children whose parents are not interested in their activity find it more difficult to recognise threats. On the other hand, it is likely that children who are *de facto* more cautious while using the Internet need less adult supervision.

5.3. Evaluation of the "Safer Internet" project

Adults are less aware of the hotline and the helpline, operated by Public Institution "Vaikų linija", of the "Safer Internet" project, yet they are more motivated to use them and talk about them with children. Despite greater awareness, children are less likely to report violations.

The majority (97 per cent) of adults have not seen the live broadcast of the "Safer Internet Day" or the video record of the event. This could be explained by insufficient or non-targeted adult awareness raising.