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THE ADOLESCENTS IN THE VIRTUAL SPACE

The 2010 Research Final Report



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CONTENTS

INTRODUCTION	3
DESCRIPTION OF THE SAMPLE AND METHODOLOGIES USED	4
BASIC CHARACTERISTICS IN RELATION TO THE INTERNET	4
Comparison of 2008 and 2010 results	4
Comparison by domicile	5
Comparison by sex	7
PROFILES AND PRESENTATION ON THE INTERNET. FACEBOOK	8
Particularities of communication in social networks	11
ATTRACTIVENESS IN THE VIRTUAL SPACE	11
COMRADE AND ROMANTIC RELATIONSHIPS ON THE INTERNET	13
PERSONAL DATA PROTECTION AND SENSE OF PERCEIVED THREAT IN VIRTUAL SPACE	15
UNPLEASANT EXPERIENCE, AGGRESSIVENESS, CYBERBULLYING	16
SEXUAL HARASSMENT IN THE INTERNET ENVIRONMENT	20
SEARCHING FOR INFORMATION ON SEX AND PORNOGRAPHY ON THE INTERNET	23
CONCLUSION	26
Literature	27

INTRODUCTION

In the recent years the Internet has become natural and inseparable part of life not only for adults but children and youth as well. The virtual world works as new social environment where young people „live“ - they look for information, educate themselves, create their own identity, communicate with others, enter into relations, use possibilities but encounter risks as well. From 2008 the Research Institute for Child Psychology and Pathopsychology (VUDPaP) has sought to observe how the issue of the Internet is reflected in life of children and adolescents, and how the trends in this area are changing. Moreover, we want to know how this area is perceived by children and adolescents, what they encounter, how they reflect such topics, how they perceive the threats in this area. Our research partner is the eSlovensko civic association implementing the Zодpovedne.sk project. The project is part of the European Union programme "Safer Internet Plus". The project is particularly intended to provide education for children and adolescents on the use of the Internet and cell (mobile) phones, the virtual space risks, possibilities of threats, and to provide counselling and assistance.

DESCRIPTION OF THE SAMPLE AND METHODOLOGIES USED

Our sample consisted of 303 pupils (162 girls and 141 boys) of elementary schools across the whole Slovakia. The average age of the respondents was 14.25 years.

In the research we created a questionnaire and administered it through the Internet. The questionnaire included 48 questions where some of the questions were closed with the option of one or several answers, some of them were open. Part of the questionnaire was a scale measuring the self-esteem (Rosenberg Self-esteem Scale).

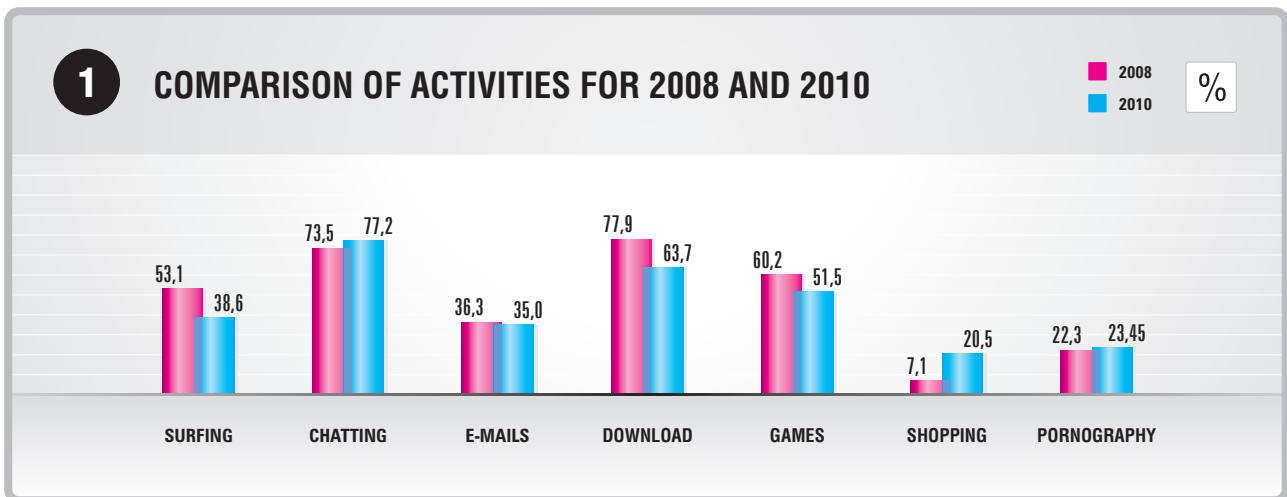
Beside the questionnaire we established focus groups at some schools where we monitored discussions between adolescents on individual topics related to the Internet.

BASIC CHARACTERISTICS IN RELATION TO THE INTERNET

Almost all respondents of our sample (99.7 % of respondents except for 1 boy) connect to the Internet at least occasionally, at least at school. 84.5 % of respondents connect to the Internet at home. Most adolescents connect to the Internet several times a day (63 %). Within one connection they spend on average 1 to 2 hours (31.8 % of respondents) or 2 to 3 hours (24.8% of respondents). In these characteristics there is no difference between girls and boys.

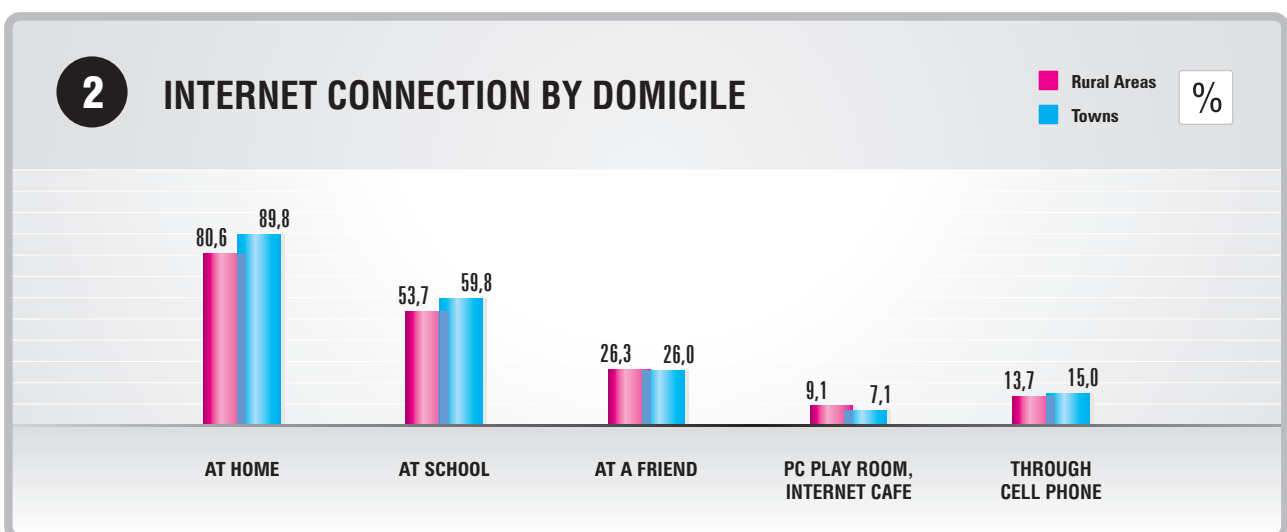
Comparison of 2008 and 2010 results

We compared these results with the results of our research of 2008 (Gregussová, Kováčiková, 2008, 2009). We wanted to know whether the situation has somehow changed for those two years. In order to make comparison we selected a group of pupils of the elementary school eighth grade of the previous research whose age was similar to the age of pupils of our present sample, and we selected items making the comparison possible (since the questionnaires used other questions, too). Already in 2008 the most adolescents connected to the Internet (99.1 %) of which 67.3 % of them connected daily, and 19.5 % weekly. Children from smaller municipalities connected to the Internet at home not so often compared to children from towns which can be said also about our present sample. In such characteristics there has been no shift. Changes can be observed in some activities that the adolescents carry out (**Chart 1**). While the activities such as chatting, e-mails sending, or watching pornography remain relatively stable, the interest in surfing the Internet, playing games, downloading from the Internet has declined, on the other hand, the shopping through the Internet has significantly increased. Within the present research the favourite activities of adolescents often include watching videos on Youtube and activities in social networks such as Facebook. Although we are not able to compare how often such activities appeared in 2008 because we did not ask it, we assume that they appear mainly in the recent time and that they could have contributed to the decline of interest in carrying out other activities. In case of watching videos on the Internet an important role is played by the broadband Internet connection. Facebook was used by young people already in 2008 but its significant extension took place in 2009 which continues in the present time.



Comparison by domicile

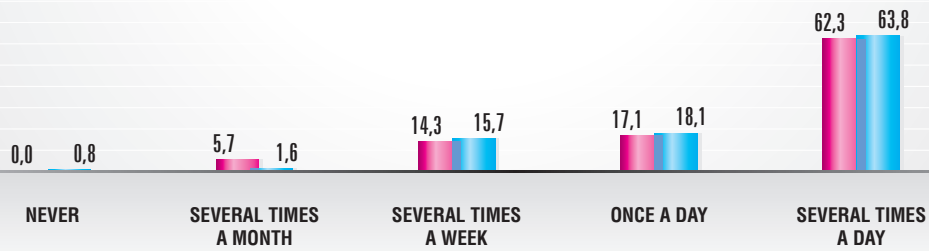
Moreover, we wanted to know to what extent the characteristics related to the Internet were influenced by the fact whether our respondents come from small municipalities (up to 10,000 inhabitants) or from towns. We assumed that the domicile can have impact not only on the Internet availability but as well on the time the adolescents spend carrying out activities on the Internet. Our results have shown that the differences between the rural and urban areas in this area are disappearing. As already mentioned, the statistically significant difference is in the fact whether the adolescents have the Internet connection at home (rural area = 80.7 %; towns = 89.7 %); there is no difference between these two groups of respondents in the time spent on the Internet or the connection frequency (Charts 2, 3, and 4). Moreover, we have identified differences in some activities our respondents are dedicated to. Children from smaller municipalities use e-mail communication more frequently (rural areas = 44.1 %, towns = 28.6 %) and do shopping through the Internet more often (rural areas = 25.6 %, towns = 13.4 %) which may be connected to the availability of goods and services. Differences in other activities have not been proved.



3 INTERNET CONNECTION FREQUENCY BY DOMICILE

Rural Areas
Towns

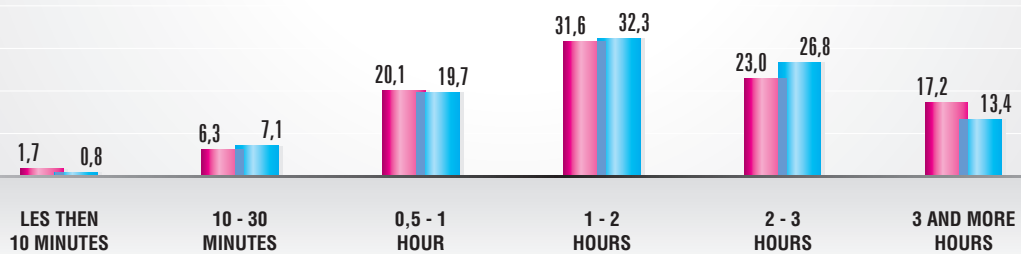
%



4 TIME SPENT PER 1 CONNECTION BY DOMICILE

Rural Areas
Towns

%



Comparison by sex

In total, the most favourite activities of adolescents on the Internet included chatting (77.2 %), watching videos, Youtube (66.3 %), downloading music, movies, and software (63.7 %) followed by activities in Facebook social network (51.8 %) and playing games (51.5 %). When evaluating the selection of activities we have identified differences between girls and boys where such differences are statistically significant (**Chart 5, Table 1**). Their activities and time spent carrying such activities have subsequently impact on what phenomenon they encounter on the Internet and on how they perceive the Internet. The girls' most frequent activity on the Internet is chatting followed by downloading music, movies, and software, watching videos (e.g. on Youtube), and activities in Facebook social network. Boys mostly watch videos, play games, chat, and download music, movies, or software.

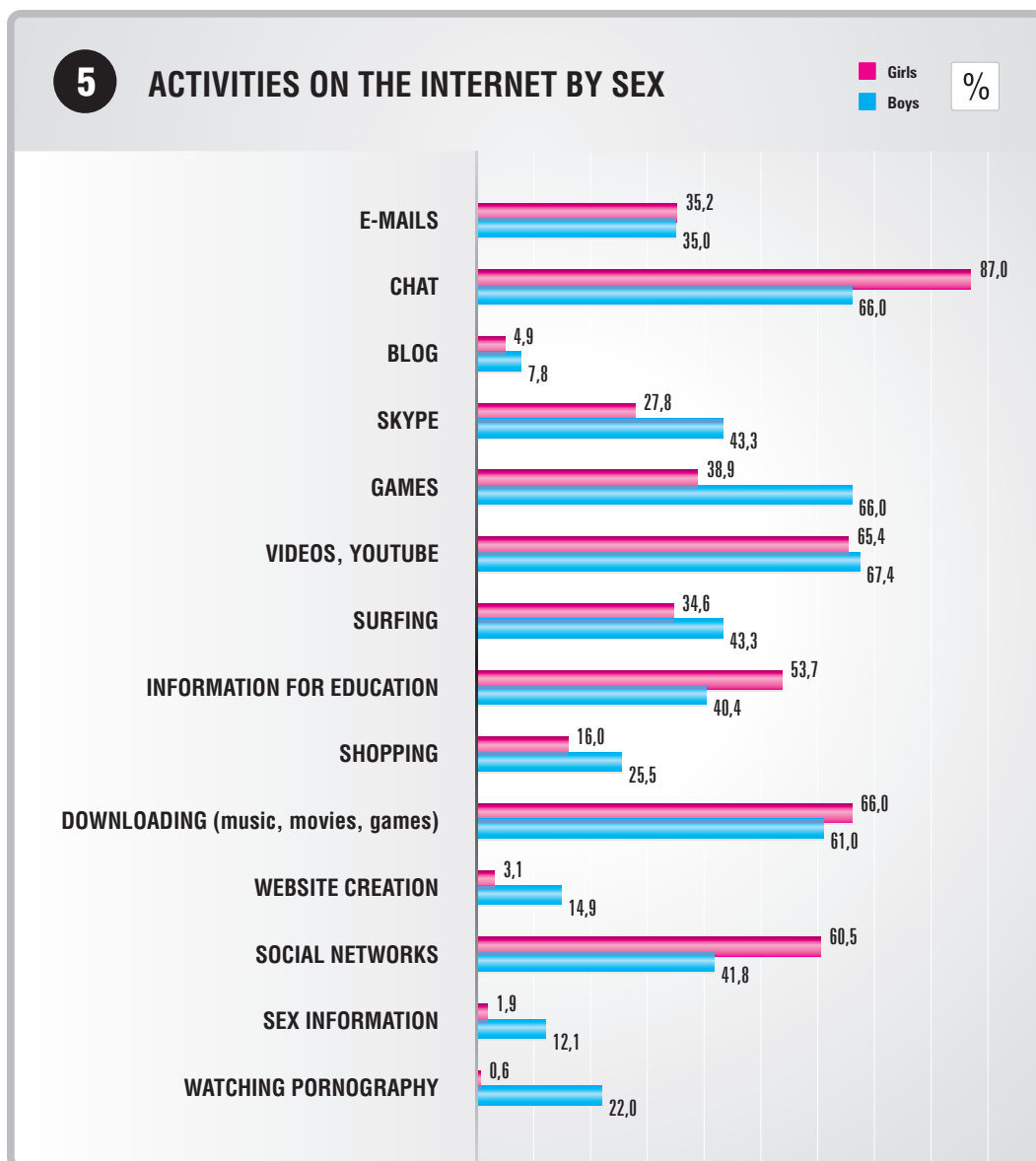


Table 1: The most frequent activities of adolescents on the Internet by sex

Activity	Girls	Boys	Significance (Asymp. Sig. 2-sided)	Chi-Square
Chatting	87,0 %	66,0 %	0,000	19,047
Playing games	38,9 %	66,0 %	0,000	22,114
Watching videos - Youtube	65,4 %	67,4 %		
Downloading music, movies, and software	66,0 %	61,0 %		
Social networks, Facebook	60,5 %	41,8 %	0,001	10,502

Girls and boys differ not only in activities they carry out more often but as well in the time they spend doing such activities, i.e. how many of them select the answer “*more than 1 hour a day*”. In comparison to boys girls spend more time chatting and doing activities in social networks; boys play games more intensively.

Moreover, activities of adolescents on the Internet can influence what threats they may encounter more likely. Boys can be most endangered by the addiction to playing games or watching pornography, they can also encounter more often frauds related to shopping. On the other hand, girls encounter risks related to the contact with other people (whether through chatting or social networks) such as sexual harassment or meeting a sexual aggressor.

PROFILES AND PRESENTATION ON THE INTERNET. FACEBOOK

87 % of girls and 70.7 % of boys have created their profile, personal website or blog on the Internet. We wanted to find out what data the adolescents publish in such profiles and what the related possible threats were (misuse of personal data, being contacted by unknown or strange persons).

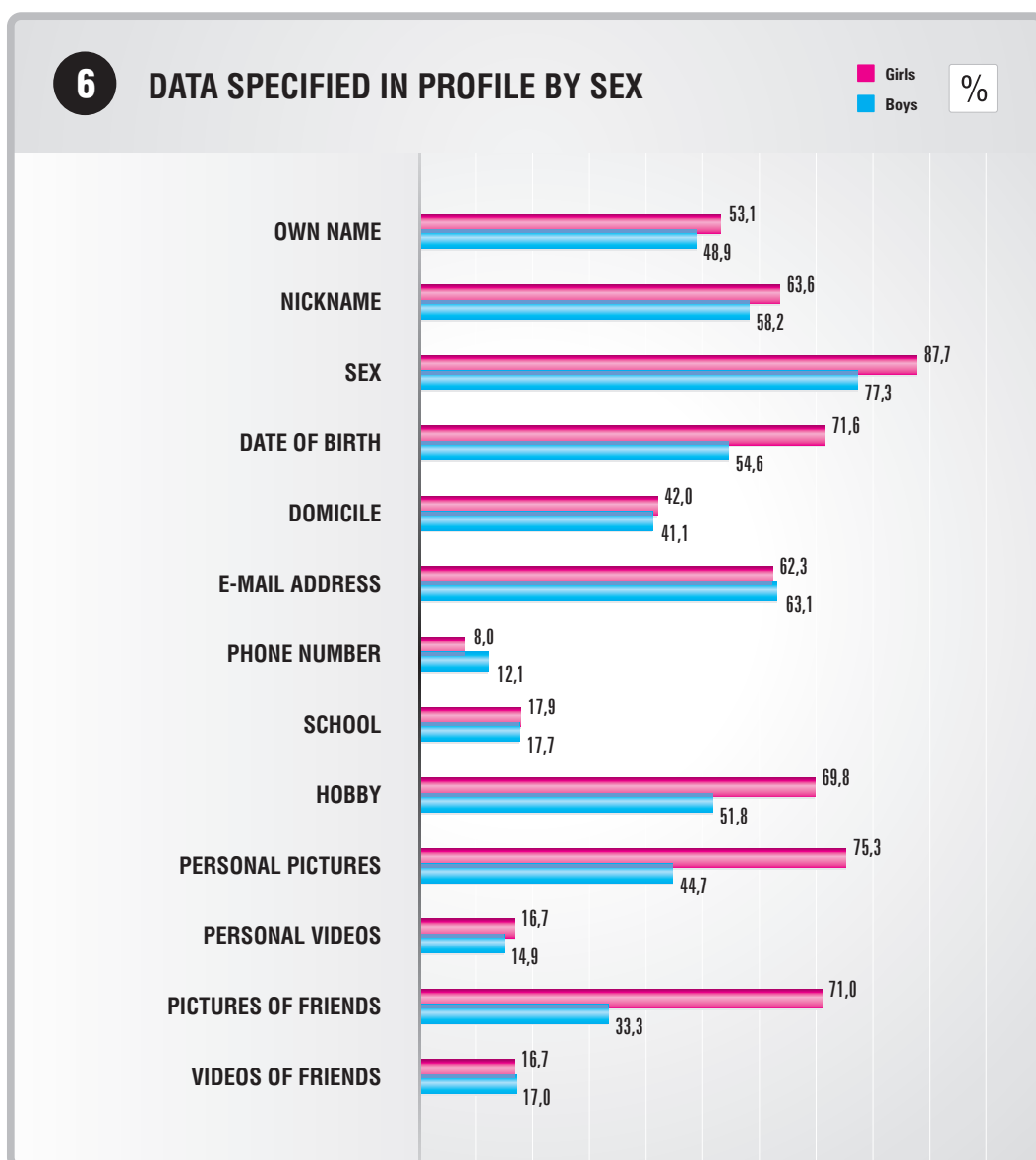
Today when we ask about the profiles, we must not forget that large part of such profiles is included in social networks (in Slovakia mainly on Facebook). 60.50 % of girls and 41.80 % of boys report activities within social networks among the activities that they carry out on the Internet. However, if we ask how often they do such activities, merely 13.8 % of children in our sample answer that they do not use Facebook at all. Moreover, almost one half of all teenager respondents spend more than 1 hour a day on Facebook. When reviewing the differences in the time spent on Facebook, we can see that there are more boys than girls who do not use Facebook at all. Boys are also more moderate with regard to the time they spend doing such an activity. Almost three fourths of girls who responded the questions spent 1 hour and more a day on Facebook whereas in case of boys it is merely 56.2 %. Facebook is not used at all by approximately twice as many boys as girls.

The very profile on Facebook has its particularities - to register it is necessary to specify own e-mail address and some personal data. On the other hand, in some aspects Facebook is safer, the profile is a “half-public space”. Besides the name that is visible for all Facebook users each user shall specify himself/herself how much information shall be visible for how many persons. Most contents are available to “friends” whose membership shall be firstly confirmed by the user himself/herself.

Therefore, the adolescents present in their profile more data on themselves - it is information that they want to show to their friends. Through their profile they communicate with their peers, they

simply present themselves. They want to show themselves, they want to be seen, they want to attract others' interest. In such profiles they want to act on their own behalf, they want to be recognized or identified, and do not want to be concealed - they want the people, who they know, to search and find them upon such identification data. Therefore, generally they specify their real name, sex, date of birth, and their own picture in their profiles.

As we have already mentioned, on Facebook (and also in other social and communication activities, such as chatting) girls are more active than boys. This is reflected also in the way they fill in their profiles. The **Chart 6** shows that in comparison to boys girls fill in their profiles in a more detailed way. From the view of the statistical significance they include more often their date of birth, hobby, publish their pictures and pictures of their friends and relatives.



The adolescents present themselves on Facebook in different ways - they publish pictures and videos, write comments, show to others what they like and what they do not, identify themselves with various groups. In this way young people can show themselves the way they want to be noticed - they create their own positive and desired self-image. The profile is thus a certain measure of popularity. A person who has many friends appears in many pictures; a person who publishes more contents and pictures, receive a positive reaction to them - comments and evaluation (through the function "I like it") - such a person is perceived among adolescents as popular, successful, and interesting.

Admin: *How can one be attractive for the others through the internet?*

G: *Maybe by pictures, too... Maybe in this way it can be seen what we are like... For example, I have a lot of pictures showing myself with friends where it can be seen that I like going out with friends, too... or pictures of our social events ... I don't remember all the events ... and simply some one has just pictures showing him/her at home..*

Admin: *Who do you think is popular on the Internet?*

G: *It can be obvious who has many friends and many pictures in which he/she is marked that he/she is really popular ...*

G: *Well, I don't know, but if I browse through some pictures, I find a lot of comments saying the girl is pretty etc. So such a girl must be popular then.*

It is just the adolescence period when the individual's identity is shaped; the adolescents have a possibility to check also through the Internet what suits them and what is positively accepted. From the whole life-span, particularly adolescence is the period when one's self-esteem depends a lot on the approval from others, mainly peers (Harter, 1999). Such self-acknowledgement (approval) by others can be obtained by young people on Facebook, too.

They expressed the importance of self-approval by others also in the focus groups. They answered the question **"When do you feel well within the Internet environment, i.e. when are you delighted of yourself, when are you satisfied with yourself, proud of yourself?"** in a way confirming the finding that positive reactions to the respective profile enhance the self-esteem and well-being of young people, and on the contrary, negative reactions have opposite impact (Valkenburg et al., 2006).

G: *I am delighted when some evaluates my picture.*

B: *I have received my first comment so I am going to celebrate it.*

G: *Or when you write your status on Facebook and many people say that they like it.*

G: *When they evaluate pictures I publish with a "thumb up".*

B: *When I receive a good comment.*

G: *And then pictures, commenting, that is what I like doing...*

We assume that it is one of the incentives why young people pay so much attention to their profiles. Commenting the profiles of others and checking the evaluations of own profiles is a key activity on Facebook, mainly for girls.

Particularities of communication in social networks:

The need to be part of a group. For a teenager not to have Facebook means to be unlike the majority and to be “outside the information”. Not to join the “Facebookers” at this age thus means a significant rate of inconformity and independence on the group as well as practical consequences in the form of missing information.

Exactness of compliment. Teenagers feel in their behaviour uncertain and need a clear feedback. The markings/labels “I like it” are a clear reference for the individual concerned. Within real communication young people have no chance to get a compliment and acknowledgement in such a simple way and by so many people at the same time.

Profile = my Ideal SELF. Through their profile teenagers can present themselves like they want to be, like they want to be perceived by the environment. They publish in the profile only things they are proud of, the things that the others should see.

Archiving of feedback. Interaction on the “wall” remains public and visible for a long period of time. A teenager can come back to review feedbacks and everybody checking his/her profile can see how much he/she is popular.

Higher feedback intensity. By making a feedback visible for others its effect can be significantly emphasized. The risky fact is that not only positive but also a negative feedback is intensified. Derision in public space means for teenagers a significant impact on their self-image and self-respect.

“When something like that happens at school, let’s say, 30 people know about it; when it is on the Internet and someone has 255 friends and everybody see it, and that is much worse... Since I myself do not know who sees it and if someone looks at me, I do not know whether he/she has seen it or not...” (in the focus group on publication of mocking pictures).

ATTRACTIVENESS IN THE VIRTUAL SPACE

In the previous period there was a dominating assumption within the research that while assessing the attractiveness in the virtual space an important role is not played by physical appearance but by other factors. On the contrary, the Internet has been perceived as space where people who are not attractive have a chance to gain the recognition. However, our research also proves that such an assumption cannot be applied universally. Such an advantage disappears due to the fact, that nowadays, it is very simple to upload pictures in internet. Therefore, physical look plays its role on the Internet - it is just the pictures that are important part of profiles created by adolescents on the Internet. The significance of selection of their profile picture is reflected by adolescents also in the focus groups:

G: *So I won’t put there any awkward picture of myself..*

In the online questionnaire we also asked an opened question: **“What kind of person attracts your interest on the Internet?”** The significance of communication is confirmed among girls: *“a person I can well talk to”, “a person who is talkative”* (34.1 % of girls; 8.5 % of boys). Moreover, compared to boys girls often emphasize the *sincerity or truthfulness* (13.0 % of girls; 1.9 % of boys), as well as the fact that the other one shall be *amusing*, shall have *a sense of humour* (13.8 % of girls; 5.7 % of boys). However, the importance of look is confirmed also in answers to this question: *“he should be good-looking”, “I will have a look at the picture and if he is attractive”, “a cute babe”, “who has a cute picture”*. This was the most frequent boys’ answer and in case of girls it was classified on the 2nd rank (17.4 % of girls; 19.8 % of boys).

Within discussions there has also been a topic on what is not attractive any more but on the contrary considered embarrassing or awkward when it comes to level of sexuality in the pictures. Their own pictures (how I present myself) are perceived by adolescents differently as pictures of others (what I think of the picture's author). In case of pictures of others they sensitively assess the boundary between the attractiveness and awkwardness, respectively between of how much glamorizing is perceived as emphasis of positive aspects and how much is already perceived as deception, impersonation. On one side, a well-made picture with sexual tone can be perceived as attractive; on the other side the "unveiled" pictures are "horrible". On one side, there are pictures in which young people present that they are interesting, what they are capable of doing, that they have a lot of friends, they are popular, on the other side there are pictures evaluated as "ostentation" or "he/she tries to heal his/her wounds".

The boys' pictures are considered by both girls and boys negative (as awkward or ostentatious) when boys try to draw girls' attention by their muscles.

B: *A picture of six "cubes" on the belly...*

G: *It is disgusting when boys give us pictures showing them half-naked. They need to prove something or heal some of their "wounds".*

Similarly, boys and girls assess presentations of girls in pictures. They negatively perceive the erotic stylization or excessive unveiling.

G: *There are again pictures of girls, I don't know, they are so ... little dressed...*

B: *The pictures with those pouted lips and décolleté seem to me so strange - can't they put on a normal expression or what?*

Occasionally there are also cases where both girls and boys appreciate pictures having erotic tone:

G: *Well, I personally like them. I mean pictures professionally made. When there is nothing to see but simply the naked body and everything on it is veiled, I like it very much. However, if something looks so slushy as if the picture were taken of me having a shower, then it seems to me so...*

Moreover, the adolescents are skilful in making pictures and using software to design them. The boundary of how they assess such pictures afterwards is individual; such idealization of reality is perceived by adolescents differently. An adjusted picture can be considered awkward when someone tries to improve his/her look, or interesting if it is artistic adaptation.

B: *I don't like pictures adjusted in Photoshop. Like if a girl is very nasty and has big acne on her neck and then she has the picture adjusted and modified in Photoshop. However, some girls make such special effects, it is nice if it is not too much.*

COMRADE AND ROMANTIC RELATIONSHIPS ON THE INTERNET

The Internet has become not only part of life of adolescents and social environment in which they exist but as well a natural place where social relationships are developed. Such relationships include relations between family members, friends or partners, keeping or development of existing relationships or entering into new ones - all of this takes place not only in the offline world but in the online one, too.

To the question **“What would you miss most if there were no Internet?”** most respondents (33.9 %) answered that it would be *“communication with relatives and friends”*. This was followed by a less frequent answer *“games on the Internet (18.1 %)”*.

When we discussed the topic *“communication and relationships”* in the focus groups, the adolescents emphasized the fact that they most often communicate on the Internet with their friends from the offline world, in particular with school mates, and that they develop already existing relationships.

G: *Well, I don't know, there are mostly persons that I know... I don't chat with persons I do not know.*

G: *Yes, because I do not know what to write to those I do not know, and so we do not chat...*

B: *I have no need to correspond with people I do not know...*

However, if we review the answers of adolescents in the online questionnaire more closely, we will find out that the reality is a little bit different. The development of existing relationships and communication with people that they know from the real world are dominating among adolescents. However, it cannot be stated that they would not enter into communication with people whom they meet merely through the Internet. 80.5 % of girls and 73.4 % of boys have a friend whom they know via the Internet only. 80.6 % of girls and 67.9 % of boys chat with some one whom they know through the Internet only.

Part of such relationships have a comradeship nature - e.g. they communicate with people having similar interests (*“I chat very much with people from all over the world because I like such a music style, and we meet at a chat where DJ's come, and we simply talk to each other and entertain ourselves”*). Moreover, boys talk a lot with their mates from playing teams (*“There are more of boys from the game whom I know only through the Internet. And if I need some help, we talk about it through Skype or in the game.”*).

Such comrade relationships are not so much expected to transfer also in the real world. However, in the background of contacts between girls and boys on the Internet it is possible to enter into a romantic relationship as in the ordinary life. Such relationships also start in a similar way as comrade relationships by non-binding communication. Here the important role is played by the physical attractiveness mentioned earlier - in real relationships it is substantial that other one has a sex appeal to us.

On the Internet the adolescents can check how the others reacted to them, and at the same time, they are able to control the situation better - they themselves watch how far they want to go, whether they want to keep their anonymity or when they terminate the communication. The Internet thus constitutes relatively safe environment for entering into relationships. Like in the reality the entering into relationships begins here by showing interest - by flirting. 42.2% of respondents of our sample have already flirted with

some one *a few times*; 12.7 % of girls and 14.0 % of boys have flirted *many times*. Approximately one third of the respondents (29.7 % of girls and 27.2 % of boys) have *never* flirted through the Internet.

More than one third of all girls (36.6 %) said that they fell in love with someone via the Internet. They say so significantly more often (Asymp. Sig. = 0,04, Chi-square = 4,22) than boys (25.5 %). One of the possible explanations of such gender differences is a difference between in the mental, social, and emotional development of girls and boys - which will become evident in both virtual and real worlds. At that age girls are one step ahead of boys, they long for talks, chatting, closeness, and entering relationships. On the Internet they do not fear to communicate, chat, and be active in social networks.

Approximately one fifth (19.8 %) of all respondents - girls and boys - also started dating someone whom they met on the Internet. This fact confirms the role of the Internet in creating new relationships. When adolescents enter a relationship on the Internet which continues by meeting the respective person in the real environment it usually takes place upon recommendations of comrades, or if they understand that it is a person, whom some of their peers knows, and he/she is thus in some sort "verified":

G: *Well, it was recommended, nevertheless, I would not meet a person who lives somewhere in Banská Bystrica and whom nobody knows. But when I learnt that he is a schoolmate of that comrade, then I had no fear anymore...*

G: *Well, in my case, I had a comrade and that person was a comrade of this my comrade, so I don't know, she told me, well, I did know that he was not such a...*

They express their attitudes to the meetings on the Internet also in the answer to the question: **"What do you think of real meetings with comrades whom you know only through the Internet?"**. Girls answer more often *"I wanted to meet but I was scared"* (10.0 % of girls; 5.1% of boys) and *"I met him/her but I was scared"* (9.4 % of girls; 1.5 % of boys). Fewer girls than boys answer *"it has never attracted me"* (37.5 % of girls; 51.1 % of boys). The differences in such answers are statistically significant (Asymp. Sig. = 0,007, Chi-Square = 14,2).

Upon such answers we can observe that fear and concerns are not the obstacle - girls go to the meeting despite their fear and they go to meetings more often than boys. In the open question **"When you were at such a meeting, how did you feel? Was the reality different from your expectations? In what?"** 44 girls and 21 boys describe such experience. A *good feeling regarding the meeting* in case of these respondents was stated by the approximately same number of girls and boys (68.2 % of girls; 71.4 % of boys). Girls mention more frequently than boys that they were *scared, had strange feeling, were ashamed, or experienced the meeting was not so good as they expected* (27.3 % of girls; 14.3 % of boys). At the same time, the statements of young people show that girls are more careful and need to verify the credibility of the given person before the meeting itself.

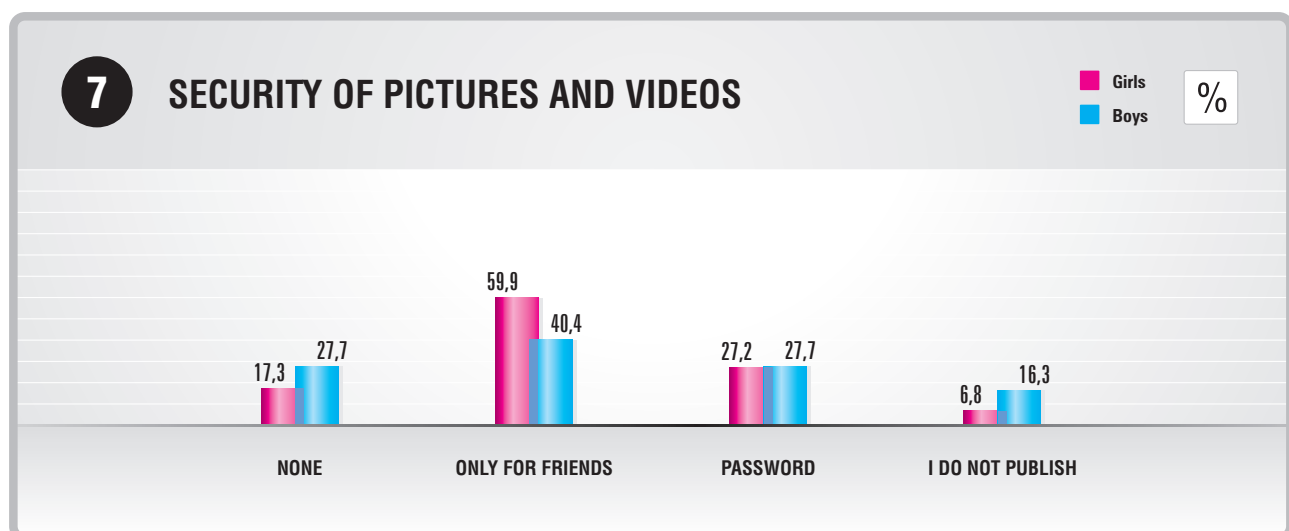
Admin: *And upon what do you know whether you can trust the people and that e.g. you dare go to those meetings?*

D: *Well, first I would have to correspond with such people for a longer period of time, to simply get familiar with them also through the Internet, some phone calls and so on. And then there were also those meetings and they were pretty good...*

PERSONAL DATA PROTECTION AND SENSE OF PERCEIVED THREAT IN VIRTUAL SPACE

As we have already mentioned to have a profile on the Internet is considered nearly a matter of course, most teenagers have it. On the Internet they are active, publish a lot of data on themselves. Publication of data on the Internet includes both positive aspects and risks. We thus wanted to know to what extent adolescents are aware of the risk of misuse of personal data, respectively to what extent they protect their own data.

Adults often think that children and adolescents are naive and vulnerable, they do not realize what can happen to them. However, we have found out such conviction does not completely correspond to the reality. Adolescents have fairly good awareness of the fact that it is necessary to protect own personal data on the Internet, they know the possibilities of how to protect own data, and also use such possibilities. The materials most misused on the Internet include personal pictures. We asked the respondents how they secure their personal pictures (**Chart 7**).



Access only for friends is set by 59.9 % of girls and 40.4 % of boys, the photo albums are protected by password by 27 % of girls and 27 % of boys. Significantly more boys than girls do not publish their pictures on the Internet - 16.3 % of boys compared to 6.8 % of girls. Merely 17.3% of girls and 27.7 % of boys do not protect their pictures at all, i.e. the pictures are free available. This comparison shows the difference between girls and boys. Boys are less aware of the fact that they should protect themselves, or that they could be endangered by something.

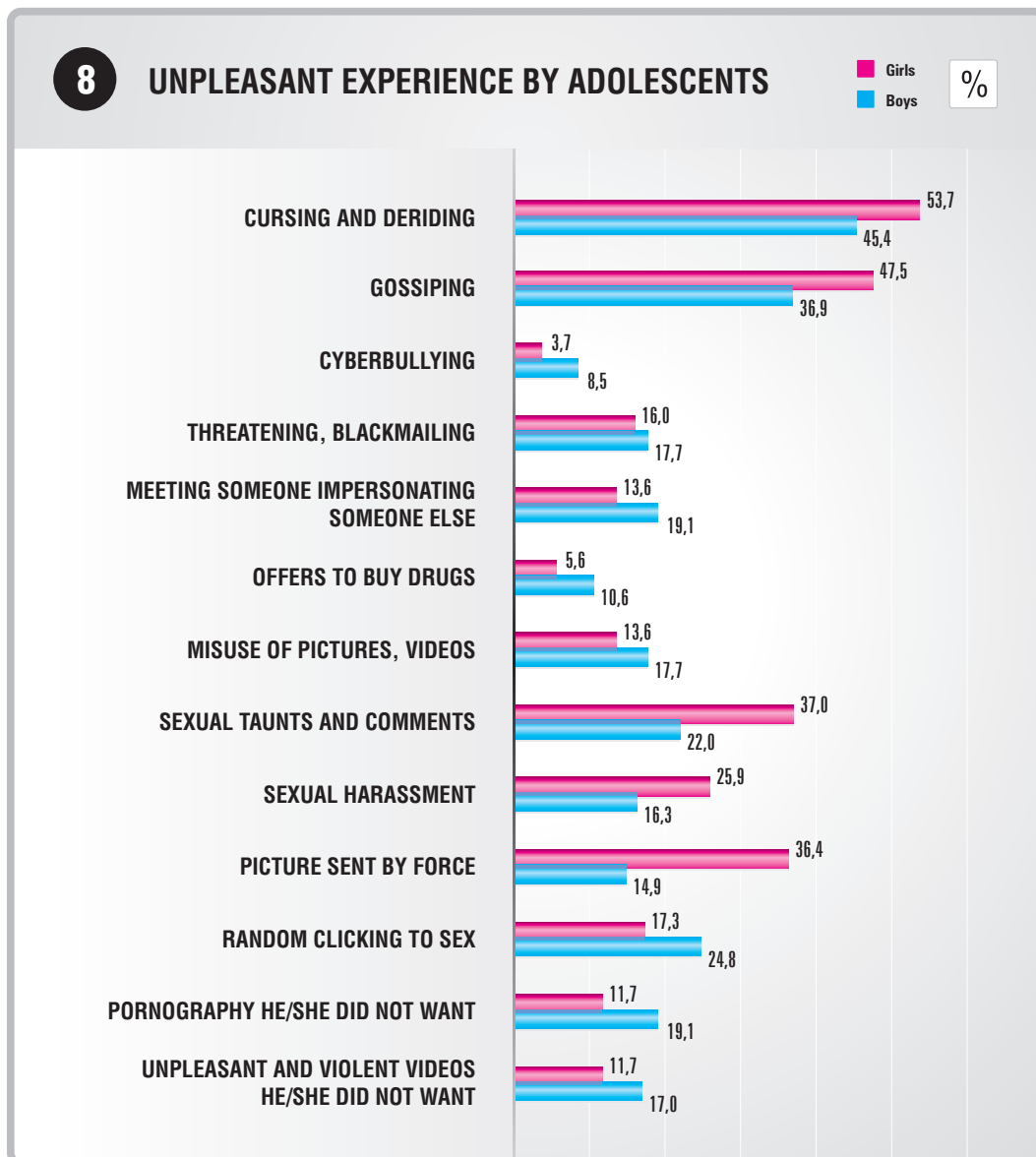
To the question **“What are the worst things that can happen to you on the Internet?”** girls mention significantly more risks. For boys the most frequent perceived risk is a computer virus (20.4 % of boys; 4.8 % of girls). Boys also state that other risks include the profile crashing or identity theft (14.2 % of boys; 14.5 % of girls): *“When some one creates a profile with my pictures and adds a perverse picture and writes to people bad things”*, and misuse of personal data or pictures (14.2 % of boys; 29 % of girls). As shown by such results the misuse of personal data or pictures is afraid of by significantly more girls than boys: *“Some one can publish my pictures. For example, my friends found a program able to strip you naked on the basis of a simple picture! Yah!”* Girls mention significantly more often another risk - their most frequent answer was the fear of perverse persons, misuse, or rape: *“Correspondence from old perverse people about nasty things”*. *“Some liars who lure you to a meeting and then rape you”* (33.8 % of girls; 3.5 % of boys). Moreover, boys answer more often than girls by “nothing” or “I do not know” (15.2 % of girls; 19.5 % of boys).

Moreover, adolescents want to have better possibilities to take control of their pictures and where and under what circumstances they should be published. They themselves ask for approval by others when publishing their pictures in 59.9 % of cases. They are also not happy when some one publishes something without their approval in 61.1 % of cases.

UNPLEASANT EXPERIENCE, AGGRESSIVENESS, CYBERBULLYING

Adults, in particular parents, are often afraid that the Internet brings to adolescents unpleasant experience, too. Our findings confirm the expected assumption that those chatting and facebooking more often or those including more data in the profiles (sex, date of birth, hobby, pictures, e-mail address, phone number) encounter in fact more often threats such as cursing, deriding, gossiping, sexual taunts and comments, sexual harassment, sending pictures by force, cyberbullying, offers to buy drugs.

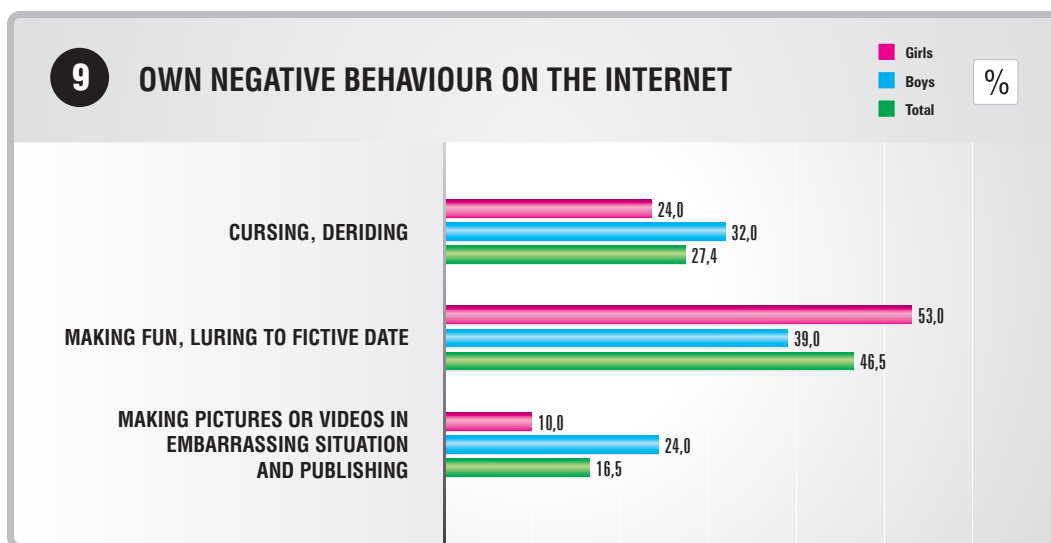
On the Internet young people (almost one half of them - 49.8 %) most frequently encounter cursing and deriding. The second most frequent negative phenomenon they encounter is gossiping, dissemination of false information (42.6 % of respondents), the third rank is occupied by sexual taunts and comments (30 %) - **Chart 8**.



As shown by the chart above more unpleasant experience is mentioned by girls. The differences can be also found between adolescents from rural areas and respondents coming from towns. The respondents from rural areas experience more often cursing and deriding (rural areas - 58.3 %; towns - 38.6 %), meeting someone impersonating someone else (rural areas - 21.1 %; towns - 9.4 %), sexual taunts and comments (rural areas - 40.0 %; towns - 16.5 %), and encountering pornography they did not want (rural areas - 19.4 %; towns - 9.4%). Such differences are statistically significant. We are asking a question what has caused such differences. Are adolescents from rural areas less careful when performing activities on the Internet and is that a reason why they get more often in contact with risks? Or do they assess such risks in a different way? As state by S. Livingstone (2010, 2011) who has dedicated herself to the Internet research for a long time children assess risks in various ways - something considered by some one an irrelevant little thing can be significant unpleasant experience for another one. Moreover, it is not possible to automatically state that

when children encounter a risk, it will have serious consequences for them. It is always necessary to consider this individually from the view of the respective child.

Adolescents are not only recipients and victims of the Internet risk factors but persons involved and authors or creators as well. Young people themselves admit that on the Internet they most often make fun of others (59 % of respondents), deride or curse some one (49.8 % of respondents), and make pictures or videos of others in embarrassing situations and then publish it (16.5 %). Girls make fun of others more often and try to attract them to a fictive date while boys make pictures or videos of some one in an embarrassing situation (for example teachers during classes) and then upload it on the Internet (**Chart 9**).



Such experience is admitted by adolescents also in the focus groups: *“We curse somebody there. When I’m bored or when I need to get rid of stress I find someone there and curse him/her. I also curse my comrades or someone having a strange picture there or anybody. It does not matter whom.”*

Aggressiveness and harming on the Internet may result in cyberbullying (bullying in the virtual space). Various authors often define it as *“intentional and repeated, harmful behaviour conducted through electronic media (Internet, cell phones, and others)”* (Hinduja, Patchin, 2008) or as *“conscious use of the Internet and other communication technologies to humiliate or disturb someone else”* (Cross et al., 2009).

The cyberbullying can have various forms, for example:

- sending of insulting messages and comments to the cell phone, e-mail address, blog, profile;
- threatening, blackmailing, anonymous phone calls;
- creation of a false, derisive profile of the victim, or identity or profile theft;
- sending of malicious messages from such a profile to relatives and comrades of the victim;
- publishing of identifiable personal information on the victim (pictures, videos, personal post);
- making pictures of the victim by the cell phone or recording by the cell phone, and the subsequent dissemination or publication on the Internet for the purpose of mocking the victim.

The online questionnaire results show that 5.9 % of respondents have encountered one of the forms of cyberbullying, more often in case of boys than girls (8.5 % of boys; 3.7 % of girls). However, when evaluating these results we have to be careful since adolescents might not understand these terms and their definition in an equal way, and they might assess such experience subjectively and differently. However, in total our results are in compliance with results of other authors. Riebel et al. mention presence of cyberbullying as a repeated and intentional act in case of 5.4 % of respondents in the population of 6 to 19-year old children in Germany.

Moreover, children and adolescents have become persons involved in cyberbullying. They often do not realize that what they do is cyberbullying, and they consider it a kind of fun, or they do not realize the seriousness of their own conduct.

They admitted such experience also in the focus groups:

- *“Thefts of profiles take place very often. In particular on the Pokec (chatting website). It was possible to find passwords through Google, or there is a program able to find passwords. And then from there I write to his comrades and curse them...”*
- *“We established such a group on Facebook for a teacher. He was new and so strange. Afterwards, the whole school gradually joined this and we were making fun of him.”*
- *“Do you remember those videos regarding that 7th-grade girl? She loved one boy and said she would do anything to get him. So I wrote her that if she sends the video I will arrange it. And she really did send it. We then forwarded it among each other, and now almost everybody at school has it... Well, she probably is not very happy about it...”*

We also wanted to know whether the victims of cyberbullying know who harasses them. It was namely assumed that in the virtual environment it is an anonymous wrongdoer whose identity is not known to the victim. However, our research has proved that merely one third (34.6 %) of bullied respondents of our group do not know who bullies them. Approximately two thirds of the bullying victims (65.4 %) know who the aggressor is. In most cases the aggressor is someone whom they know “live” (either from school or surroundings) or he/she is their friend from the Internet (18.5 %).

When adolescents encounter cyberbullying, in most cases they don't tell anybody about it. When they reveal it to somebody, in most cases it is a friend (21.1 % of cases). Merely 8.9 % of young people said about the incident to an adult - namely 6.9 % of adolescents talked about it to their parents and 2 % to their teacher.

Adolescents who encountered unpleasant experience on the Internet include such young people who despite this do not consider such experience threatening, other perceive such experience very negatively. We can divide them into 3 groups by the way young people feel it and react to it:

those ignoring the incident or not taking it seriously

- "I did not care, she/he may think what he/she wants."

those experiencing some negative emotion (sadness, sense of embarrassment, sense of inferiority, humiliation)

- "I am quite sensitive although I pretend not to be like this, and that is why I was quite sad about it, it has even annoyed me for a longer time."
- "I felt humiliated, I tried to explain the whole situation but it is hard to explain when there are more people spreading false things..."

those reacting by a counterattack (they deride back, do the same, take revenge)

- "I let him had it back! I also cursed him, laughed and humiliated him."

The most vulnerable group include mainly young people who react by strong emotions and suffer for a long time because of such experience. However, it can be stated that despite the fact that part of respondents having unpleasant experience say that they were able to ignore it they have also been affected. In case of respondents who experienced negative forms of behaviour on the Internet (it related to all effects mentioned) we identified a lower self-esteem in comparison to those not having such experience. A significantly lower self-esteem was reported in case of adolescents who experienced or are experiencing cyberbullying ($F = 4,423$, $Sig. = 0,036$), misuse of pictures and videos ($F = 6,431$, $Sig. = 0,012$), cursing, deriding ($F = 3,989$, $Sig. = 0,05$). Respondents stating that so far nobody has harmed them through the Internet had a significantly higher self-esteem than those having encountered any form of negative behaviour at least once ($F = 10,267$, $Sig. = 0,002$).

SEXUAL HARASSMENT IN THE INTERNET ENVIRONMENT

Sexual harassment means sexual taunts and comments (also known as sexting), sending of materials with sexual contents, proposals for sexual activities, requests for "unveiled" pictures, offers of sexual activities for money, etc.

Data we have gathered from the online questionnaire points to the fact that both girls and boys encountered such experience although girls did so significantly more often (**Table 2, Chart 8**).

Table 2: What unpleasant experience have you personally already encountered on the Internet?

Experience	Girls	Boys	Significance (Asymp. Sig. 2-sided)	Chi-Square
Sexual taunts and comments	37,0 %	22,0 %	0,004	8,127
Your picture or video sent by force	36,4 %	14,9 %	0,000	17,977
Sexual harassment	25,9 %	16,3 %	0,042	4,135

Girls mention significantly more often that one of the Internet disadvantages is that they encounter harassment by sexual contents: *“A lot of people, mainly men, propose me perverse things”*; *“There I can meet all sort of perverse people”* (11.1 % of girls; 2.4 % of boys). Within the free question **“What is it on the Internet that you don’t like most?”** girls unlike boys mention also sexual harassment: *“When some one completely unknown writes to me and when he talks about perverse things”* (13.1 % of girls; 0 % of boys), even in relation to the harassment of infant persons: *“When adults correspond with small girls”*. As already mentioned above the fear of perverse persons, misuse, or rape was considered by girls as the worst thing that could happen to them on the Internet.

The topic of sexual harassment emerged also within the focus groups. The things perceived by adolescents as sexual harassment on the Internet can have several levels. On one side, it is part of the **mate (peer)** communication, entering into relationships, experimenting in the field of sexuality, even if this can be perceived by the other party as unpleasant. The second level includes sexual harassment by **adults** and also direct **offers** of various activities of sexual nature for money (e.g. sending of pictures for credit to the cell phone, sex through the webcam for money, personal paid meetings).

Girls consider such experience usual or ordinary in the Internet environment:

G: *“But I know about such cases, in my opinion, every girl has such experience... It is normal.”*

G: *“On Pokec I often receive such IMs saying: Do you want to make some money?”*

G: *“All girls experience it. On Pokec it is fully normal. Offers for cam to cam sex for 50 or send a picture.”*

The girls’ reaction to this phenomenon is that they say that for them it is a matter of course, or something they are immune against, while smaller children are vulnerable:

G: *“I think if a 10-year child registers e.g. on Pokec, and then a paedophile person starts writing messages to him/her, the child just gets caught...”*

We can assume that their statements are based on their experience when they were younger:

G: *“I started browsing the Internet when I was 11 or 12, ... and I started visiting those chats and wrote there a lot of stupid things, now I am ashamed of it but I really corresponded with such men...”*

The fact that they (or small children) are contacted by older men is often mentioned by girls. Although rarely, boys also mention experience of being contacted by an older woman:

B: *“Once a woman wrote me that she was seeking for some one very young.”*

Boys also encounter proposals or offers made by boys or men. Their reactions reflect the fear of the fact that they could be considered homosexuals, respectively the fear of their own homosexuality:

B: *"Well, I received an offer from a boy, too. That was horrible."*

Admin: *How was it for you?*

B: *"Completely 'amazing'."*

Admin: *How did you react then? How did you react when you got such an offer?*

B: *"I started cursing him very nastily. I do not like such people."*

Some adolescents are able to use sexual harassment for their own benefit as profitable moneymaking activity using the anonymity of the Internet environment. This was admitted by boys in one focus group:

B: *"I used it once, I created a girl profile, and when a man wrote me and asked me to send him a video, I downloaded some videos from the Internet, and for that he recharged golden tokens in Travian."*

B: *"Or we had the cell phone credit recharged. We sent some pictures of girls downloaded from the Internet, and then he really recharged the credit."*

Such statements confirm that children and adolescents in the virtual environment are not only victims but persons involved (active players) as well. They can have financial profit from such situations, for them such situations are a source of entertainment, they play with the risk, they make experiments - they test what reactions there will be to their behaviour. In this regard a very attractive aspect is also to examine the "forbidden areas" such as different sexual orientation.

G: *"Well, he wrote me such sexual things... and then, you not? In this way we can practice together ... and such things. Afterwards I and my friend thought about how to make fun of him and so on..."*

B: *"I created a girl profile and then entered that room with lesbians and talked to them."*

B: *"There are various perverse persons and paedophiles there. Where? Such a room called Gentlemen's Club. Full of paedophiles there. Once I corresponded with one of them just for fun. He asked me how big penis I had, so I started making up and said 22 cm and other funs. He also asked whether we could meet. So I wrote him OK. But afterwards he wanted to know where and when but then I did not respond."*

The above statements, such as the last one, show the adolescents' ideas of sexuality including distortions, and biases - in this case the bias "homosexual = paedophile".

Moreover, adolescents differ in to what extent they themselves are actively exposed to the risk while performing similar experiments out of curiosity. While boys sent others' pictures downloaded from the Internet, in the following sentence the girl itself provides her own real phone number:

G: *"I tried such things. Like, come do me something... sexual services. And once I told him to pick me up, I live there and there... and then he kept calling me all the time..."*

Our findings have also confirmed that in case of such risks adolescents themselves contribute to a certain extent to these risks, they are also active players in this respects, and not only passive recipients. On the Internet they provide false personal information, create false profiles. 49.4 % of girls and 42.1 % of boys provided at least once false personal information. Most often adolescents adjust their age (mainly due to access to various websites), lie about their look or pretend to be of opposite sex. For example when they adjust their age and register at a dating website for adults, they are exposed to a risk to be contacted by people who will have sexual proposals, too. As told by a female participant of the focus group: *"Well, the funny thing is when a 10-year child pretends to be a 17-year girl, and then the guy - I do not want to defend him - does not even know that he corresponds with a 10-year child."*

We also assume that in reality these risk activities of adolescents take place more frequently but only part of them dare openly admit everything what he/she does on the Internet. Both boys and girls *chat* on the Internet also with men or women who are by 5 or more years older than them (boys chatting with older women - 54.6 %; girls chatting with older men - 60.5 %). 11.1 % of girls and 7.8 % of boys admit that they had *published on the Internet pictures or videos showing them in sexy postures*; 9.9 % of girls and 22.7 % of boys admit that they had *talked about sex on the chat* (this difference is significant, Asymp. Sig. = 0,002, Chi-Square = 9,291). *Publication of own pictures showing them in underwear or with unveiled parts of body* was admitted by 3.1 % of girls and 6.4 % of boys.

SEARCHING FOR INFORMATION ON SEX AND PORNOGRAPHY ON THE INTERNET

Another topic related to sexuality on the Internet we were interested in was information on sex and pornography. This topic is very sensitive for adolescents and that is why we have not always managed to address it sufficiently. Our findings reflect only part of attitudes and opinions of adolescents - those daring talk about such experience.

In the online questionnaire 12.1 % of boys and 1.9 % of girls say that they search for information on sex on the Internet, 22.0 % of boys and 0.6 % of girls watch pornography. A discrepancy can be seen in how they answer other questions - i.e. how much time they spend performing these activities. Here the numbers are a little bit higher. The question **"How often do you perform such activities on the Internet?"** 89.2 % of girls and 63.7 % of boys answer "never" in case of *searching for information on sex*, and 94.3 % of girls and 58.8 % of boys in case of *watching pornography*. The differences between girls and boys are significant in all of these questions (Asymp. Sig. = 0,000).

Part of adolescents admits that the pornography websites belong to the websites most visited by them. In case of the question *“If you want to learn something about sex, on which particular website do you search for the information?”* most girls and part of boys answer that they do not search for the information. Others admit that they are interested in this topic which is natural regarding to their age and development period although they do not always consider the Internet suitable source information. As answered by one of girls: *“On the Internet I do not search for such information because this will be saved and I am afraid that some one could learn what websites I visit.”* If they use the Internet, one of the sources is free searching through Google (13.1 % of girls; 17.1 % of boys) 19.5 % of boys and even 4 % of girls directly mention pornography websites as the information source. In the answers to these questions we can observe attitudes of adolescents not only to pornography but to sexuality as well which maybe connected to their development stage or values. While part of adolescents consider themselves excellent experts in this area: *“I do not search for it, I know everything about it”* (2.1 % of girls; 8.5 % of boys), part of adolescents present a negative attitude: *“I am not interested in sex”, “I do not want to learn anything about it”* (20.2 % of girls; 3.7 % of boys).

The answer mentioned above (*“I do not search for such information on the Internet because this will be saved and I am afraid that some one could learn what websites I visit”*) can indicate that girls are interested in sexuality, too. However, they are afraid of what the others would think about them if they admitted it, as if interest in sexuality was something that is not in compliance with their identity. The boys’ answers related to this topic include fewer negative terms, barriers, and attitudes pointing out to the influence of parents or religion - expressions that are not usual part of discourse among young people (for example, girls: *“I get to a immoral website”, “They write me unnatural things”*).

In general, our results show that boys are more open as far as the topic of sexuality concerns - when discovering it or admitting it. Even those who are not afraid to talk about such experience have on average (although not significantly) a higher rate of self-esteem. This can be explained by the fact that such behaviour proves freedom, a lower rate of dependency of the external evaluation and exemption from bias which contributes to sound self-esteem.

Part of adolescents present encountering pornography on the Internet as unpleasant experience if it is such pornography that they themselves had not searched for (11.7 % of girls; 19.1 % of boys): *“When there are various perverse websites popping out all of a sudden.”; “I do not like there is pornography and disgusting information there.”; “I do not like the situations when I click on the link and it gets me to a shameless website.”; “For example, when I am going to visit a certain website, at the edge of this website there are such advertisements including pornography, so I do not know, have a look at it, and so on. So, this is so ... strange.”*

In some focus groups we have managed to open the topic pornography on the Internet. Boys say that they all watch pornography: *“Well, it’s clear that every boy watches it. I do not believe some one saying he has never watched pornography.”* One of girls also said she had already watched pornography. Girls feel that this topic is attractive for boys: *“Boys normally discuss the topic of pornography in the class, that is, such websites 18+.”* However, their attitudes to this topic are inconsistent - they look for a balance between their ideas, notions, expectations, and reality they encounter:

G: *"All boys watch it. It is completely normal. I would mind if my friend watched it if I did not know about it, if he did not watch it in from of me..."*

G: *"Well, I probably wouldn't want a boy watching pornography..."*

B: *"So, in that case, you are out of luck, in this way you are never going to have a boyfriend"*

One of boys expressed the following unique attitude to this topic:

B: *"It is a problem of those girls. If she is not able to satisfy him, she can't be surprised that he watches pornography, can she?"*

The question *"Since when have you been watching pornography?"* was answered by one of boys as follows: *"I think since I was ten, when the Internet was becoming more available, otherwise I would have been doing even earlier."*

Upon these answers we can see that boys perceive watching pornography as something natural. Some of them talk about particularities openly, too. Even on the basis of their answers it can be assumed that to a certain extent they are able differentiate between sexuality displayed in pornography and the real life.

G: *"On the Redtube. Online, and we download, too. However, it is sometimes hard to find. And some websites fee-based."*

G: *"Amateur pornography is better since it is more real and less artificial."*

Upon such statements it can be stated that a natural sexual development expressed also in the interest in pornography will find its way everywhere. Equally, in the attitudes to pornography we can also observe the influence of various subcultures. Boys have engrained various attitudes to pornography and have to cope with such attitudes and biases in various ways.

B: *"Well, it is a sin. But you confess it, and then it is OK."*

Admin: *Like immediately afterwards?*

B: *"No, once a month is enough."*

CONCLUSION

Our research has confirmed that for the present generation of teenagers the virtual world is not a separate social environment but natural part of their ordinary world. The Internet enters all areas of their lives, to say it more precisely - everything happening in all areas of their lives will subsequently reflect on the Internet, too. Also in the virtual environment teenagers do everything typical for their age. They are curious and discover new things, they look for their identity, present themselves in front of their peers, sometimes they are ostentatious and try to obtain acceptance and acknowledgement. They seek for the method of how to attract the attention of others, in particular the attention of the opposite sex, they think about what is attractive. And the virtual space becomes also a place where relationships can be entered - from the initial meetings through mutual getting closer to the arrangement of a date in the real world. Moreover, the Internet provides space for the natural part of the sexual development - flirting, playing with various kinds of behaviour, talks about sex, testing own attractiveness and sexuality, discovering pornography.

Adults, in particular parents and teachers are afraid that the Internet is dangerous or spoils children and adolescents. It is true that the Internet has become space where a lot of aggressiveness is ventilated and where also targeted harming the others takes place such as cyberbullying. However, we may not forget that in this case the Internet is only a tool, channel, its anonymity can act as a catalyser but the Internet itself is not the cause. Moreover, the mutual attacks and harming among children and adolescents on the Internet are consequences of negative emotions, experience, and knowledge that they have brought here from their real world.

Accordingly, it cannot be stated that if children and adolescents have a possibility to behave negatively on the Internet, endanger themselves or others, this shall automatically mean that they will use it - i.e. they are only passive victims of the Internet. The research results have shown us that there are adolescents who are more active, opened as well as those who are shier and try to avoid various activities. There are adolescents whose behaviour is very risky and expose themselves to risks, or those who are able to protect themselves in the online environment better than adults. They can protect themselves against some risks, in case of other risks they themselves play an active role or threaten others. The research has proved that adolescents take their own decisions and options in any of these situations. The Internet can be helpful in this case - the spectrum of possibilities and also risks that adolescents encounter is extending. The more experience they have the more diverse methods of reactions they can try which may contribute to their flexibility and improvement of coping strategies.

It seems useless to take a conclusion whether this is good or not as well as it is not possible to clearly state that this is dangerous for children and adolescents. Children and adolescents can encounter negative experience both in the real life and on the Internet. On one side, the Internet provides relatively safe space for searching for information related also to sensitive topics, for creation of own identity, self-image, and testing own behaviour when entering into relationships. On the other side, this is related also to possible threats resulting from the particularities of communication on the Internet. The young people today "live the Internet" and thus the most convenient form of prevention is not to ban the Internet use but to support their responsible behaviour on the Internet - for themselves and towards others, too.

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