

# Cyberbullying, Sexting and Establishment of Risky Contacts by Czech Children within the Internet Environment - Research and Prevention

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**Abstract:** *The paper is focused on the presentation of basic results from the research of a risky behaviour of Czech children's online interactions, which was done in 2013 in the whole Czech Republic. Research included more than 28,000 respondents and was aimed at the areas of cyberbullying, sexting, personal meetings of children with the Internet friends known only from the Internet environment, sharing of personal data, use of social networks and other topics related to risky usage of Internet among children. Besides the basic information about the results, the paper also presents possibilities for preventing children's risky behaviour in the Czech Republic.*

**Keywords:** Cyberbullying, sexting, establishment of risky contacts, safe Internet

## 1. Introduction to the Problem

Cyberbullying, sexting and other forms of risky communication on the Internet are phenomena that are common among the population of Czech children. Extensive research done at the both the national (Danger of Internet communication I-V) and European (EU Kids online) level confirms that Czech children use Internet services in a very active way, such that they often become the targets of cyberattacks.

In the following text we will focus on the results of research of a risky behaviour study of Czech children's online interactions (Danger of Internet communication V), which was done in 2013 in the whole region of the Czech Republic with a sample size of more than 28,000 respondents. We will also focus on preventive activities that the results of this (and previous) research entail.

The research was carried out by the Centre for the Prevention of Risky Virtual Communication's (PRVoK) E-Bezpečí project under the Faculty of Education, Palacký University in Olomouc in cooperation with Seznam.cz and Google Czech Republic. The research was aimed at several topics related to risky behaviour on the Internet - cyberbullying, sexting, cybergrooming, sharing of personal data on the Internet, webcam risks and other related phenomena.

### 1. 1. Research Methodology

Research called "Dangers of Internet communication V" presents the fifth nation-wide research that was realized under project E-Bezpečí (guaranteed by the expert department of Centre for Prevention of Risky Virtual Communication at Faculty of Education of Palacký University in Olomouc) in cooperation with Seznam.cz and Google.

Similar to the previous years (2009-2013) when we performed research of this sort, the basic data pool consists of Internet and mobile phone users in basic and secondary schools across the whole of the Czech Republic. With respect to the researched problem, the age range of the respondents was limited to 11-17. We further divided this age range into two age categories: 11-14 and 15-17. The total number of the respondents was 28,232.

The total research sample consisted of 53.24 % girls and 46.76 % boys. 55.54 % of respondents were between the ages of 11 and 14, and 44.46 % were in the age category of 15 to 17. All 13 regions within the Czech Republic were included, as well as the capital city of Prague.

To increase the representativeness of the research sample we tried to reach proportional numbers of respondents in a way that would correspond to the demographic distribution of particular regions.

We did this by selecting elements from the basic data pool on the basis of controlled selection (proportional stratified selection), where the number of respondents selected to the imaginary subgroups (in our case to the regions) was proportional to the number of respondents within the research pool as a whole.

We used qualitative methods to gather our data. A questionnaire was selected as an initial research method. The research tool itself, whose features (validity, reliability) were verified in the past, contained 71 items (40 yes/no, 24 multiple choice and 7 open-ended questions), which were created on the basis of theoretical knowledge and which were arranged in a way that reflected set goals and problems which had arisen in the past.

The questionnaire was distributed to the respondents electronically (on-line) through the questionnaire system of E-Bezpečí that allows access to e-mail addresses of 8,900

schools, school establishments, institutions, and clubs oriented toward children and youth in the whole Czech Republic. At the same time, the questionnaire was distributed by means of the social networks "Lidé.cz" and "Spolužáci.cz."

Address lists were acquired by members of the E-Bezpečí team during the years 2009 - 2013 from public resources, during the previous research surveys. The anonymous questionnaire, verifying the place from which it was sent (IP address, region, behaviour monitored through Google Analytics etc.), offered the possibility to state the e-mail address of the school that could consequently serve as a contact media for communication between the school representatives and the research team. For example, some schools that took part in the research survey asked the team to isolate its data and its following processing. Part of the data was acquired through the direct field data collection within the framework of E-Bezpečí project's educational event.

Preparation for research started on the September 1, 2013; collection of the data took place between January 1, 2014 and April 31, 2014. Its evaluation was carried out during May 2014.

Measured data was mainly at a nominal and ordinal level and this was reflected in their following processing, using numerical operations and statistics.

Automation of data collection into relevant tables showed the advantage of the electronic version of the research tool (questionnaire). The data were consequently sorted, processed and evaluated.

We were looking for answers to the descriptive problems through the basic variables of descriptive statistics (calculation of the position characteristics - measures of central tendency, standard deviation calculation, percentage calculation and others). The graphic representation of the results is also included.

To verify the hypotheses we used inductive statistics, namely the chi-square test for independence for a 2 x 2 contingency table. As stated above, with respect to the extent of the paper we do not state the details.

Within the next sections we will focus on results in three key research areas: cyberbullying, cybergrooming and sexting.

## 2. Cyberbullying as an all-Society Phenomenon

The definition of cyberbullying is based on existing definitions of so-called "traditional bullying," where cyberbullying is understood as aggressive, intentional, repeated action or behaviour carried out against an individual or group that cannot defend itself easily (Whitney&Smith, 1993; Olweus, 2006) [18]. Other authors understand bullying as a form of harassment that is based on power imbalance and systematic abuse of power (Smith&Sharp, 1994; further Rigby, 1997) [17] [15]. The term "cyberbullying" is then

logically linked to this definition and it is extended by other particularities (mainly in connection with ICT).

A detailed definition of cyberbullying is stated by Hinduja and Patchin (2008) [5] [7] and Dehue, Bolman, Völlink, Pouwelse (2008) [4]. The former authors define cyberbullying as an intentional, repeated and harmful action using a computer, a mobile phone or other electronic devices. The latter authors describe cyberbullying as hazing, threats, humiliation, embarrassment and other attacks among young persons through the Internet, interactive and digital technology, or mobile phones.

For the purposes of our research we defined cyberbullying as a *form of aggression, which is performed repeatedly against an individual or group using information and communication technologies* (Belsey 2004, further Smith 2010) [2] [16], *carried out both by original aggressor or so-called secondary attackers*. Kowalski, Limber and others (2007–2008) [8] add that cyberbullying is additionally carried out through e-mails, ICQ, mobile phones (text messages, MMS, phone calls), chat rooms, websites and other ICT.

Cyberbullying research has been taking place with increasing frequency in many countries all over the world during recent years. For example, Brown, Demaray, Secord (2014) [1] warn of the fact that in the case of cyberbullying, sex differences are not important in the USA (girls are not victims more often than boys). Riebel, Jäger and Fisher (2009) [14] also confirm appearance of cyberbullying among German children. Although the measured prevalence of cyberbullying is only 5 % of the population, in practice this is more than 600,000 children. Kopecký, Sztokowski, Krejčí (2014) [11] warn of the increase of serious cases of cyberbullying in the form of blackmail and threats against children, where the intimate materials illegally gained from the child are being used for the attack. Kováčová (2012), Čechová (2009) [3] [12] and others warn of increases in the number of cyberbullying victims in Slovakia (up to 38.7 % of children). A well-arranged comparison of cyberbullying research in Europe is also offered by Hollá (2013) [6], who compares cyberbullying research done in Germany, Spain, Great Britain, Ireland and the Slovak Republic.

Cyberbullying is often connected to the classic physical and psychological forms of school bullying; as a matter of fact in many cases it presents as its enlargement and continuation.

In practice, we can imagine cyberbullying as a combination of three basic components (Krejčí, Kopecký, 2012) [10]:

- 1) Psychological bullying (e.g. defamation, slander, provocation, threats, intimidation, blackmail, etc.)
- 2) Form of bullying (e.g. text, audio recording, video recording, graphic recording etc.)

Tools used to spread cyberbullying (social networks, discussion forums, instant messengers, cloud storage devices, LMS, mobile phones, etc.) [cloud storage devices - data storage located outside the computer within the Internet or Intranet environment that allows access to the files from a random location and LMS – Learning Management Systems]

A Particular cyberbullying incident results from the combination of these three factors: for example *humiliation of the child through use of a photo within the environment of social networks, blackmailing of the child within the environment of chat rooms through use of his/her intimate photographs* etc.

Within the scope of our previous research (cycle 2011-2013) we have been monitoring 9 basic forms of attack that are experienced most commonly by children in the Czech Republic.

They are the following (Krejčí, Kopecký, Szotkowski, 2012) [10]:

- a) verbal attacks in cyberspace - harm through humiliation, offending, ridiculing, embarrassing the child,
- b) threats and intimidation of the child,
- c) blackmailing the child,
- d) identity theft,
- e) account hacking,
- f) harassment through missed calls,
- g) humiliation, ridiculing through distribution of photography,
- h) humiliation, ridiculing through distribution of audio recording,
- i) humiliation, ridiculing through distribution of video recording.

According to the results of the current research the most frequent and widespread cyberbullying forms are **verbal attacks**, which is corroborated by 34.33 % of children. The other top place is occupied by **account hacking** (34.8 %) where the unknown attacker is successful in breaching the account of the child (email account, social network account, online game account). Additionally, 13.7 % of children suffered **humiliation and ridiculing through distribution of photography**, and more than 11 % of children also confirmed that they became the victims of **identity theft** (the unknown attacker under the identity of the particular child attacked other users, discredited the child, etc.). A very dangerous cyberbullying form is represented by **blackmailing**, which was confirmed by 7.91 % of questioned children.

The most frequent environment where attacks against the children take place is represented by social networks. Attacks in the environment of social networks (most often Facebook and ASK.FM) were confirmed by more than 44 % of victims. Other significant attacks occurred through text messages (mostly anonymously), and the instant messengers and VoIP (Skype). When we summarize the results, we come to the conclusion that in 2013 more than **45 %** of Czech children became the victims of one of the above mentioned cyberbullying forms.

### 3. Cybergrooming and establishment of risky contacts

Research of risky behaviour of the Czech children also monitored willingness of the children to communicate with unknown people with in the Internet environment, and their

reaction to being invited for a personal meeting with the unknown person. This sphere of interest served us as a foundation for the phenomenon called cybergrooming, which is distinguished by the following process - the attacker chooses a victim on the Internet and tries to make contact, the victim is then manipulated and forced into a personal meeting.

Cybergrooming (child grooming) is nowadays one of the most dangerous phenomena. It represents behaviour of Internet users, which is calculated to **increase the victim's trust and make the victim willing to come to the personal meeting**. In other words we could say that it is a psychological manipulation by means of the Internet, mobile phones or other related technologies and its target is always a personal meeting with a victim (elaborated in detail for example by Kopecký, Szotkowski, Krejčí, 2012-2014). The most frequent result of the personal meeting with the attacker is a sexual abuse of the victim or repeated sexual abuse; the victim can be further physically attacked or tortured, forced into child prostitution or into production of child pornography (Berson 2002, further Kopecký 2011 and others) [9].

It is necessary to mention that not every communication with a stranger on the Internet is dangerous for a child or has to lead to sexual abuse. Unfortunately there are also cases related to cybergrooming and sexual abuse of the children located in the Czech Republic (e.g. case of scout leaders "Piškot/Meluzin", who sexually abused 39 children).

Czech children report that they commonly communicate on the Internet with people whom they do not know from the real world (more than 54.3% of children aged 11-17). More than 26 % of children were subsequently asked by the unknown Internet users to keep their conversation in secret. At the same time, children admit that if they were asked by their Internet friend to go to a personal meeting in the real world, **more than 40 % of them would go**.

More than 43 % of the questioned children from all the regions of the Czech Republic also confirmed that they were invited to such a meeting in real. **More than 54 % of the questioned children went to the meeting** (24 % of all the children). It is interesting that 58 % of the children consider the communication and personal meetings with the people they know only from the Internet to be risky and dangerous. Nonetheless, they are still willing to come to the meeting. However, 42 % of the Czech children say that they would tell their parents about the arranged meeting. Children most frequently inform their friends - schoolmates, siblings etc.

### 4. Sexting as a Specific form of the Communication Between Teenagers

Creation and electronic distribution of the text messages, own photos or video recordings with a sexually explicit content - or sexting - represents quite new (the first registered cases date back to the period of 2005) and quickly spreading phenomenon (Kopecký 2011) [9].

According to our research, **7.81 % of Czech children** (47 % boys and 53 % girls) **have placed personal “sexy” photography or video recordings**, where they are partially or completely naked, **on the Internet. 12.14 % of respondents** (here 60 % boys and 40 % girls) **have send this material to someone through use** of the Internet or mobile phone.

There are many reasons why the children sext and an indispensable influence is surely represented by the media. Based on the answers of the respondents we found the following statements most frequently:

- “I am not ashamed of me.”
- “I wanted to take a fancy to...”
- “He sent me the photo too”
- “To make her send me the photo too.”
- “It was for a friend...”
- “It was meant for my girlfriend, she did not put it anywhere...”
- “He is my boyfriend, so why not?”
- “I wanted to show it to her...”
- “I was horny...”
- „He was a very good friend of mine, until I found out that he was hiding behind the fake name!”

**77.50 % of the respondents consider** this behaviour to be **risky. 9.86 %** of the children experienced a situation when their “sexy” photos or videos (material, where they are partially or completely naked) were put on the Internet by an Internet friend or acquaintance.

Sexting is considered to be dangerous by many reasons - naked materials are being misused by sexual attackers for blackmail, the victim is also often manipulated, exposed to cyberbullying etc. Sexting under the age of 18 can be classified as production, possession and distribution of child pornography, which is a criminal offence.

## 5. Preventive Programmes Focused on the Risky Behaviour within the Czech Cyberspace

Prevention of dangerous phenomena connected with the environment of Internet and mobile phones has been discussed in Czech society for many years, but it still has not been passed into law. Moreover, risky behaviour is often underestimated since it is difficult to catch and measure the preventive effect on the given negative risky phenomenon - “for example longitudinal experimental comparisons of the results of the institutions where the prevention takes place with the institutions where the preventive programme have not been done yet.” (Sztokowski, Kopecký, Krejčí 2012) [10]

At the national level, the prevention of risky Internet behaviour comes under the sphere of crime prevention, which is coordinated by Ministry of the Interior of the Czech Republic, and under the sphere of prevention of risky behaviour that is coordinated by the Ministry of Education, Youth and Sports of the Czech Republic. Furthermore, there are various preventive programmes aimed at these problems, or more precisely at its parts, for example cyberbullying

programmes are carried out by both private individuals and state institutions.

Numbers of large companies are aware of the importance of preventive programmes focused on users of the Internet services and therefore they invest their funds in the creation of interesting activities aimed at the goal of safe Internet behaviour. Out of all the programmes we can name project Seznam se bezpečně! (Seznam.cz), mainly aimed at the Internet dating and its risks, furthermore project Webrangers (Google.cz) is aimed at topics related to cyberbullying and cybergrooming, project E-Bezpečí together with Vodafone (Vodafone foundation / Vodafone) and many more.

Complex primary preventive programming in the area of dangerous communication practices (focused on the cyberbullying, cybergrooming, cyberstalking, social engineering etc.) within the environment of information and communication technologies is also run under the name E-bezpečí by the Centre for the Prevention of Risky Virtual Communication under the Faculty of Education at Palacký University in Olomouc, within the scope of the whole Czech Republic. Its priority is in the first place a direct education of the endangered target group, it means children and adolescents, and people who work with this group, namely parents, teachers, police officers, representatives of low-threshold centres etc. A further priority is to create a media campaign aimed at the spread of awareness about the problems and also intervention in the form of an advisory centre including psychological, social-pathological, pedagogical and legal consultancy.

An integral part of the activities of the PRVoK Centre is also represented by the creation of the national and regional research programmes aimed mainly at the students of basic and secondary schools, which are based on large representative samples of respondents from all 13 regions of the Czech Republic.

## 6. Advice for the Practice

Cyberbullying (and other related phenomena) is unfortunately widespread in the environment of basic and secondary schools. To decrease the number of the incidents related to cyberbullying, we must influence children particularly in the form of effective prevention. In many cases, schools start prevention in the area of ICT when cyberbullying or bullying takes place in the environment of the particular school. Children use cyberbullying to test the boundaries of their own behaviour and they often do not realize that cyberbullying can have serious consequences (in extreme cases the cyberbullying can end with a victim’s suicide).

Work with the concrete casuistries presents the ideal way of preventing cyberbullying in this area - its analysis and explanation, what happened in the individual incidents and how the children could defend and protect themselves. Valuable experience from solving a concrete case remains in a child’s mind and it is retrieved in a moment of danger.



There are a number of preventive programmes in the Czech Republic, which work with a child in this way (see the chapter above). Furthermore, potential of a police department, which contains the workers of a preventive-informational department and preventive-informational groups, can be also used.

It is also very important to involve parents to the process of prevention - parents are in many cases informed about the risks connected to the usage of the Internet far less than their own children.

## 7. Acknowledgments

The authors declare that they have no conflict of interest.

## References

[1] Brown, Ch. F., Demaray, M. K., & Secord, S.M. (2014). Cyber victimization in middle school and relations to social emotional outcomes. *Computers in Human Behavior*, 35, 12-21. <http://dx.doi.org/10.1016/j.chb.2014.02.014>

[2] Belsey, B. (2004). *Always on, always aware*. Bullying.org Canada Incorporated. Retrieved from [http://www.cyberbullying.ca/pdf/Cyberbullying\\_Information.pdf](http://www.cyberbullying.ca/pdf/Cyberbullying_Information.pdf)

[3] Čechová, D., & Hlistová, E. (2009). Šikanovanie cez internet. *Prevenca*, 58/10, 18-19.

[4] Dehue, F., Bolman, C., Völlink, T., & Pouwelse, M. (2008). Pesten op het werk: de relatie met gezondheid en verzuim en de rol van coping. *Gedrag & Organisatie*, 20/2, 97-117.

[5] Hinduja, S., & Patchin, J. W. (2008). Cyberbullying: An exploratory analysis of factors related to offending and victimization. *Deviant Behavior*, 29, 129-56.

[6] Hollá, K (2013). Cyber bullying - Inappropriate Adolescent Behaviour in the 21th Century. *Ad Alta: Journal of Interdisciplinary Research*. 03/01.

[7] Hinduja, S., & Patchin, J. W. (2009). *Bullying Beyond the Schoolyard: Preventing and Responding to Cyberbullying*. Thousand Oaks California: Corwin Press.

[8] Kowalski, R., Limber, S., & Agatston, P. (2007). *Cyber Bullying: Bullying in the Digital Age* (1st ed.). Malden: Blackwell Publishers.

[9] Kopecký, K. (2011). České děti o sextingu. E-Bezpečí. Retrieved from: <http://www.e-bezpeci.cz/index.php/temata/sexting/237-eske-dti-o-sextingu>

[10] Kopecký, K., Szotkowski, R., & Krejčí, V. (2012). Nebezpečí elektronické komunikace III. Olomouc, Czech Republic: Palacký University Olomouc.

Retrieved from [http://www.e-bezpeci.cz/index.php/ke-stazeni/cat\\_view/27-vyzkumne-zpravy](http://www.e-bezpeci.cz/index.php/ke-stazeni/cat_view/27-vyzkumne-zpravy)

[11] Kopecký, K., Szotkowski, R., & Krejčí, V. (2014). Risks of Internet Communication IV. Olomouc, Czech Republic: Palacký University Olomouc. Retrieved from [http://e-bezpeci.cz/index.php/ke-stazeni/doc\\_download/60-risks-of-internet-communication-iv](http://e-bezpeci.cz/index.php/ke-stazeni/doc_download/60-risks-of-internet-communication-iv)

[12] Kováčová, A. (2012) *Kyberšikanovanie jako novodobý fenomén u žiakov stredných škôl – jeho výskyt a prevencia*. Banská Bystrica, Slovakia: PDF UMB.

[13] Olweus, D. (2006). An analysis of the Revised Olweus Bully: Victim Questionnaire using the Rasch measurement model. *British Journal of Educational Psychology*, 76, 781-801.

[14] Riebel, J., Jäger, R. S., Fischer, U. C. (2009) Cyberbullying in Germany - an exploration of prevalence, overlapping with real life bullying and coping strategies. *Psychology Science Quarterly*. 51, 298-314

[15] Rigby, K. (1997). *Bullying in schools, and what to do about it* (1st ed.). London: Jessica Kingsley.

[16] Smith, P. K., Mahdavi, J., & Carvalho, M. (2010 ). Cyberbullying: It's nature and impact in secondary school pupils. *The Journal of Child Psychology and Psychiatry*, 49, 376-385.

[17] Smith, P. K., & Sharp, S. (1994). *School Bullying: Insights and Perspectives* (1st ed.). London: Routledge.

[18] Whitney, I., Smith, P. K. (1993). A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Research*, 35, 3-25.

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**Attachment 1: Table 1:** Development of cyberbullying within the population of the Czech children

	2013	2012	2011
Verbal attacks	34.33%	33.44%	31.60%
Harassment through missed calls	26.36%	24.08%	23.43%
Threats and intimidation	17.84%	17.38%	15.88%
Identity theft	11.82%	10.09%	8.51%
Blackmailing	7.91%	7.33%	6.82%

Humiliation, ridiculing through distribution of photography	13.70%	10.85%	12.32%
Humiliation, ridiculing through distribution of video recording	6.54%	5.58%	6.36%
Humiliation, ridiculing through distribution of audio recording	3.89%	3.69%	4.45%
Breach of the account security	34.80%	32.58%	31.68%
	<i>n&gt;28000</i>	<i>n&gt;21000</i>	<i>n&gt;12000</i>

Source: Palacký University in Olomouc, Centre for prevention of risky virtual communication  
(Researches Danger of Internet communication III-V, 2011-2014)