140

INFO-2225

Primljeno/Received:2020-09-18

UDK: 364.271:004.738.5:34 Original Scientific Paper /Izvorni znanstveni rad

https://doi.org/ 10.32914/i.53.3-4.2

# CYBERBULLYING AND CYBER-MOBBING: ISSUES IN LEGAL PRACTICE OF DEVELOPING COUNTRIES

## CYBERBULLING I CYBER-MOBBING: PRAVNA PITANJA U PRAKSI ZEMALJA U RAZVOJU

### Alexander Vasyaev<sup>1</sup>, Viktor Shestak<sup>2</sup>

Department of Advocacy, Kutafin Moscow State Law University (MSAL), Moscow, Russian Federation<sup>1</sup>; Department of Criminal Law, Criminal Procedure and Criminology, MGIMO – University of the MFA of Russia, Moscow, Russian Federation<sup>2</sup>

Odjel za pravo, Moskovsko državno sveučilište Kutafin (MSAL), Moskva, Ruska Federacija<sup>1</sup>; Odjel za kazneno pravo, kazneni postupak i kriminologiju, MGIMO - Sveučilište MFA Rusije, Moskva, Ruska Federacija<sup>2</sup>

#### Abstract

The article subject is cyberbullying and cybermobbing. The emphasis is placed on the legal practice of combating cyberbullying and cybermobbing issues in developing countries, since these phenomena are still insufficiently studied. The developing countries legislation is compared with doctrinal and practical developments in the fight against the studied problem in developed countries of the West and former USSR. Experiment was conducted to determine the methods effectiveness to combat cyberbullying using the social networks built-in extensions. 40 random accounts were taken in equal parts related to "male" and "female" representatives, from 18 to 30 years old. The article indicates cyber-mobbing and cyberbullying concepts and their varieties, existing in modern world. The study examines statistical data, programs and measures of different states in fight against cyberbullying and cyber-mobbing. Experiments results showed that Instagram users are aware of the built-in extensions availability of the social network to protect against cyberbullying and use them relatively frequently. With that, female segment of Instagram users is more concerned about comments content under their photos than the male one. Measures have been developed to prevent and counteract cyberbullying and cybermobbing, introduction of which into the states

#### Sažetak

Tema članka je cyber maltretiranje i cyber mobing. Naglasak je stavljen na pravnu praksu borbe protiv cyber bullyinga i cyber mobinga u zemljama u razvoju, budući da su ti fenomeni još uvijek nedovoljno proučeni. Zakonodavstvo zemalja u razvoju uspoređuje se s doktrinarnim i praktičnim dostignućima u borbi proučavanog problema u razvijenim zemljama Zapada i bivšeg SSSR-a. Eksperiment je proveden kako bi se utvrdila učinkovitost metoda za borbu protiv internetskog nasilja pomoću ugrađenih proširenja društvenih mreža. Uzeto je 40 slučajnih računa u jednakim dijelovima koji se odnose na "muške" i "ženske" predstavnike, stare od 18 do 30 godina. Članak ukazuje na koncepte cyber-mobinga i cyber bullyinga i njihove sorte koji postoje u modernom svijetu. Studija istražuje statističke podatke, programe i mjere različitih država u borbi protiv cyber bullyinga i cyber mobinga. Rezultati eksperimenata pokazali su da su korisnici Instagrama svjesni ugrađenih proširenja dostupnih na društvenoj mreži kako bi se zaštitili od internetskog zlostavljanja i koriste ih relativno često. Uz to, ženski segment Instagrama više brine komentara ispod njihovih fotografija nego muški. Razvijene su mjere za sprečavanje i suzbijanje cyber maltretiranja i cyber mobinga, čije

policies might help in the fight against these uvođenje u polisocial phenomena. uvođenje u polisocial phenomena.

uvođenje u politike država može pomoći u borbi protiv ovih društvenih pojava.

141

#### 1. Introduction

The development of modern information and communication technologies has expanded the capabilities of cybercriminals /1/, /2/, /3/, /4/. According to the research of the University of Bedfordshire /5/, cyberbullying has become more common in recent years than physical harassment. In scientific works, cyber-mobbing and cyberbullying are most often identified as the use of modern information and communication technologies to harass individuals or groups of people. Namely, systematic, psychological violence applied to the victim of persecution: humiliation of his/her honor and dignity due to the dissemination in the virtual space of knowingly false information, rumors, gossip and incriminating materials containing: - ridicule; - provocation; - direct insults; - intimidation; - threats; - violence. All the mentioned is a continuous repetitive activity of cyber-persecutor /6/, /7/, /8/. For children and young people of the E-generation, cyber-mobbing is not only a tool for finding information or a means of entertainment, but also an increasingly important, and sometimes the main and autonomous social environment for functioning /9/. As follows from the results of a survey conducted in European countries by the London School of Economics and Political Science, within the framework of the EU Kids Online project, the use of the Internet today is an integral part of the daily life of children. 50% of children aged 6-7 years old know what the Internet is and regularly use it. This percentage is higher in older age groups and in the age category of 12 to 13 years states 94%. On average, 92% of young internet users in Europe use the Internet at least once a week, and 57% - daily or almost daily. In Poland, these figures are even slightly higher - 96% of young people use the Internet at least once a week, and 72% – daily /10/. In developing countries, the problem of cyber-mobbing is not so acute due to the low level of development of information technology and the lack of global Internet access. In the countries of Central Asia, the high cost of the Internet is observed, and not everyone can afford it /11/. According to 2016

data, in Tajikistan the ratio of the cost of a subscription to access 1 Mb/s to GDP (gross domestic product) per capita was 48%, in Kyrgyzstan -11%, in Uzbekistan -10%, in Kazakhstan -1%. For comparison: in the Russian Federation this indicator, characterizing the availability of Internet services, was at the level of 0.09%, and in the USA – at the level of 0.02% /12/. Currently, only a quarter of the population of Afghanistan (25.7%) have access to a worldwide network. The main problems of users in this country boil down to the high cost of the Internet and its poor quality /13/. Thus, with the existence of problems with access to the Internet, the problem of cyberbullying can affect only those segments of the population that can afford to use it. However, cyber-mobbing is a universal problem that has affected cultures and countries around the world. All information societies have encountered this phenomenon /14/. According to "Cyberbullying and Online Teens" polls, conducted by Pew Internet & American Life Projects 2007, one in three American teenagers (32%) claims to have been or is a victim of cyber-mobbing /15/. However, the latest statistics have a tangible error. This is due, in particular, to the lack of a common understanding of cyberbullying and different methodological approaches to conducting surveys. Most studies estimate that between 6% and 30% of adolescents experience some form of cyber-mobbing, while the number of people who admit cyberbullying others at least once ranges from 4% to 20% /16/. With regard to statistics in developing countries, there is a very small amount of relevant data on bullying, since international organizations conduct little research in these countries, and there is no internal statistics in these countries as well. UNICEF study has found that in Kazakhstan, nearly 2% of children are victims of cyberbullying, and often only 0.4% are harassed on the Internet. Only 0.9% of respondents have admitted that they have used the Internet or a mobile phone to send SMS or pictures to intimidate or disgrace another child, and only 0.1% of respondents have admitted that they do this often /17/. It can be understood

that these data do not cover the entire diversity of child bullying on the Internet, and there are probably more cases of cyberbullying. The danger of such a phenomenon as cyberbullying is that even though the persecution itself takes place on the Internet, its consequences can be very different, including tragic, since insults received in the virtual world have consequences in the real world /18/. Children usually do not realize how offensive online activities can be, and cyber-mobbing victims, being alone with the problem, often experience loneliness, threat, doom and exclusion /19/. Cyberbullying can be carried out on different grounds. According to UNESCO, the most common topics are: appearance, gender or sexual orientation, as well as ethnic and national characteristics /20/. Similar to other forms of violence, the victim of cybermobbing needs help and emotional support from adults. However, unlike physical violence, cyber-mobbing does not leave marks on the body and thus cannot be easily detected. It is often difficult for parents and teachers to notice the situation when a child is exposed to bullying through electronic media, especially when they do not have sufficient knowledge and experience in using media /21/. Thus, the purpose of this study is to determine the legally relevant characteristics of cyberbullying, which have been conceptualized recently on a global scale, and have spread to developing countries. The article considers cases of cyberbullying in each specific country. The purpose of the study can be achieved by solving the following tasks: - analyzing the legislation of developing countries and legislative measures of developed countries in the fight against cyberbullying; - identifying the main trends of this social phenomenon in order to find the most effective ways and means of dealing with it; - finding methods to prevent the growth of cyberbullying in developing countries. The novelty of the research is reflected in the analysis and identification of patterns, forming understanding about the relation of legal and non-legal measures to combat cyberbullying and cyber-mobbing used in developing, developed countries and the countries of the former Soviet Union, and how this relationship affects the practice to combat these phenomena. The scientific relevance of the

study is primarily expressed in the determination of the degree of importance given to the issues of cyberbullying and cyber-mobbing counteraction in developing, developed countries and the former USSR states as well as defining the legal approaches to counteract such phenomena. This study is intended to contribute to the proper understanding of the need to counter cyberbullying and cyber-mobbing as the phenomena that violate fundamental human rights.

#### 2. Material and Methods

#### 2.1. Research Design

The methodological foundations of studying the legal practice of different countries regarding the fight against cyberbullying are statistics, advanced trends in legislation, as well as a comparative analysis of legal doctrine in different countries. In order to obtain additional data regarding the effectiveness of built-in extensions of social networks (based on Instagram example) to combat cyberbullying, the study involves an experiment. The problem in this study is that even the most relevant statistical surveys cannot give an exact result regarding the prevalence of cyber-mobbing. This is partly due to conflicting definitions as well as the diversity of methodological approaches. For example, even in this article, "cyberbullying" and "cyber-mobbing" are used as a definition of the same phenomenon in order to widely study this problem and its distribution in different sectors of society. At the same time, not all scientists agree on this. Both phenomena are a way of manifesting aggression on the Internet, however, the concept of cyberbullying is used in relation to this phenomenon among children and adolescents, while cyber-mobbing is also common among adults /22/. For the correct understanding of cyberbullying and cyber-mobbing as antisocial phenomena, it is convenient to study ordinary bullying, the concept of which is already disclosed in the legislation and research of developed countries /23/, /24/. Although most research in the field of cyber-harassment is devoted to this phenomenon among young people, the factors that contribute to this as well as countermeasures are not very different in

other age groups. In this study, the following factors are taken into account: the similarity in the behaviour of cyberbullies and the factors that influence their upbringing, as well as the issue of cyber victimization and the behaviour of a cyberbullying victim. In addition, since the emphasis of the study is on developing countries, the authors also take into account cultural values, traditions, ways and methods of raising children, attitude to religion, and level of education.

#### 2.2. Sample

For this purpose, 40 random accounts were taken in equal parts related to "male" and "female" representatives, presumably from 18 to 30 years old, with the number of subscribers from 500 containing photos with offensive comments.

#### 2.3. Data Analysis

Research data show that the traditional roleplaying structure of bullying is undergoing significant changes due to the mediation of bullying by information and communication technologies that transform social interaction. The role structure in the conditions of the Internet space becomes more flexible and dynamic than offline, allows inversions and combination of several roles, and gives more opportunities for impact.

#### 2.4. Research Limitation

This study examines countries in Asia, Europe, and North America. Based on the results of the previous studies (i.e. Pew Research Center, Ipsos Global Advisor studies), this paper considers mainly the age group of 18-29 years. Complexity and overhead analysis of the issue are determined by the difficulties in obtaining comprehensive statistics, due to the fact that the fear of ridicule or persecution by other people can prevent victims from telling about the problem or trying to solve it. The study suggests that cyberbullying issues in many of the countries examined (including Russia, Kazakhstan, Uzbekistan) are not considered to be among the priorities in the formation of legal policy in the field of human rights protection /25/.

The experiment conducted in this paper is limited to evaluating the use by social network profile owners of the technical capabilities of social network extensions to counter cyberbullying. Other forms of experimenting on cyberbullying without prior notice should take into account the ethical context and level the value of the experimental data. In the frame of this work, the experiment has an auxiliary role and is not the main goal of the study.

#### 2.5. Experiment

The experimental component of the current study covered the use of artificial intelligence (AI) as a tool to prevent cyberbullying. It has been planned to determine whether the built-in extensions of social networks (using Instagram as an example) are applied to protect social network users from cyberbullying. Given the existence of the "Hide Offensive Comments" function in Instagram extensions, the study has attempted to determine whether Instagram users apply this function to prevent negative comments. This experiment was supposed to reveal the fact of awareness of Instagram users on issues of combating cyberbullying with the help of artificial intelligence.

The complexity of the experiment consists in estimating the age of the account owner and the reliability of the person behind the account due to the novelty of the approach in this kind of research. The result revealed a comparative awareness of social network users in the fight against cyberbullying using AI.

#### 2.6. Ethical Issues

From an ethical point of view, the experiment does not pose any public threat and does not include the processing of personal data. By making his/her profile public, the owner implies the ability to comment on its content. In practical terms, the experiment is not expressed in any consequences for account owners.

#### 3. Results and Discussion

The first definition of cyberbullying was given by Bill Belsay, treating this phenomenon as an electronic form of traditional bullying, which is accompanied by the features of virtual communication: anonymity, lack of empathy, uncontrollability and long-term storage of traumatic

information /26/. For cyberbullying and cybermobbing the following means are used:- mobile communications;- instant messengers;- email;- forums and chats;- social networks;webcams;- video hosting services;- gaming sites and virtual worlds /27/. The main types of cyberbullying are the following: Cyber-mobbing - psychological violence in the form of bullying a person with the use of electronic communication to insult, threaten and humiliate. Cyber-mobbing on the Internet is usually initiated by a group of people, harassing one of the members of their group or a random user /28/. Cyberbullying – one of the forms of harassment, intimidation, psychological harassment of adolescents, less often young children, using information and communication technologies - the Internet, mobile phones and other digital devices. Sometimes for this purpose whole websites are created that contain incriminating materials on the person being persecuted. There are also online slam-books - virtual notebooks where pupils and students publish ratings and comments about their peers, both positive and sharply negative, offensive /29/. Cyberstalking - the use of the Internet for the systematic deliberate persecution of an individual, group of people or organization. Most often, cyberstalkers use obsessive monitoring of the victim, they monitor the victim's activities in the virtual space, collect confidential information and steal the victim's identity in order to intimidate, blackmail and make claims. The longest recorded cyberstalking duration is 20 years /30/. Cyber harassment is a psychological cyberattack that is repeated and aimed at an interlocutor on the Internet, manifested by stubborn insults, harassment, claims, and virtual aggression. It is usually expressed in the form of numerous messages, intrusive round-the-clock calls and conversations of a humiliating and offensive nature /31/. Cyber-grooming (sexting) – in accordance with the Council of Europe Convention on the Protection of Children against Sexual Exploitation and Sexual Abuse, concerns

sexual abuse against children, commercial sexual exploitation, etc.1 These are unlawful acts of an adult aimed at establishing, by communicating via the Internet, a trusting relationship with a minor in order to induce him/her to have sexual intercourse /32/. Trolling - one of the forms of social aggression in cyberspace, which is manifested in severe social provocation, the creation of conflict situations, the involvement of virtual interlocutors in a polemic in order to foment a scandal in network communication. Trolling can exist exclusively in virtual communities, it has specific development mechanisms, and it is expressed in avalanche-like aggression, which instantly spreads to all participants in the conflict. One of its types - RIP-trolling - publication of mocking content on memorial pages of people who have died, in order to evoke negative emotions in their relatives /33/. Griefing in-game hooliganism – intentional infliction of moral and material damage on the participants of computer games. The griefers subject the individual players to harassment, damaging their characters, blocking the game's functions and creating unbearable conditions for the network team as a whole. The griefers set other team members against that individual player to eliminate this player from the game /34/. Assisted Cyber Suicide - one of the forms of psychological abuse of a person by another person who brings the victim to suicide as a result of psychological manipulations or psychological pressure (for example, in "death groups"), and which controls his/her actions via the Internet /35/, /36/, /37/. People who engage in cyberbullying and its varieties have gone very far in their methods of bullying in cyberspace. Most methods are characterized by their sophistication, cruelty and cynicism. In terms of youth, relationships between teenagers and parents directly affect cyberbullying among adolescents. Teenagers' attachment to their parents to some extent prevents behavior associated with cyber regression /38/. In Asian countries, teens who are less attached to their parents are more prone

https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168046e1da

<sup>&</sup>lt;sup>1</sup> Council of Europe Convention on the Protection of Children against Sexual Exploitation and Sexual Abuse. Lanzarote, 25 Oct 2007. Available at

Informatol. 53, 2020., 3-4

to cyberbullying /39/. In addition, cases of parental violence and abuse are directly related to cyberbullying /40/. A 2018 Ipsos Global Advisor study, carried out in 28 countries, has found that global awareness of cyberbullying is increasing, up to 9 percentage points from 2011. Although global awareness of cyberbullying is high (75%), a quarter of adults have never heard of it. The awareness level is highest in Sweden and Italy (91% each) and in South Africa (88%) and the lowest in Saudi Arabia (37%) /41/. According to the Pew Research Center, 40% of

adult American Internet users have experienced some form of cyberbullying (online harassment). It is said that the main risk group is people aged 18 to 29: 65% of users in this group have been victims of Internet invectives /42/. Based on the Ipsos Global Advisor study 2018, the Figure 1 shows the percentage of respondents who are aware of cyberbullying, the number of countries with anti-bullying laws, and respondents who believe that current laws are enough to handle cyberbullying cases /43/.

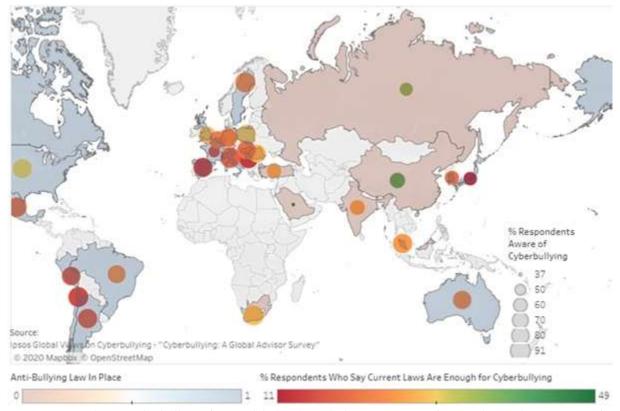


Figure 1. Insight into cyberbullying from a global scale, including percentage of respondents who are aware of cyberbullying, number of countries with specific anti-bullying laws, respondents who believe current laws are enough to handle cyberbullying cases. Source /44/

The problems of legal regulation of cyberbullying and cyber-mobbing in developing countries are connected, first of all, with the fact that these concepts are not legally defined in all countries, and, therefore, the prosecution procedure and compensation of damage remain most often outside the legal field /45/. The authors consider the situation in the developing countries of the Central Asian region. For example, in the legislation of Kazakhstan, there is no legal definition of cyberbullying, cyber-mobbing and bullying.

However, such cyberbullies can be put to justice by qualifying their actions as slander (one of the varieties of cyberbullying) – for this, criminal liability is provided for in accordance with Article 130 of the Criminal Code of the Republic of

Kazakhstan.<sup>2</sup> At the same time, one can defend his/her rights by filing a lawsuit to refute information that discredits person's honor, dignity or business reputation in accordance with Article 143 of the Civil Code of the Republic of Kazakhstan. A citizen in respect of whom information is distributed defaming his/her honor, dignity or business reputation, is entitled, along with the refutation of such information, to demand compensation for losses and non-pecuniary damage caused by such a dissemination.3 In addition, article 131 of the Criminal Code of the Republic of Kazakhstan provides for punishment for insulting, humiliating the honor and dignity of another person.4 Thus, it is possible to resist cyberbullying and cyber-mobbing (namely their individual forms), but this is not the effective method of dealing with these phenomena.

While investigating this problem in Uzbekistan, it was not possible to find any statistics on bullying and cyberbullying, cyber-mobbing. According to article 10 of the law "On guaranteeing the rights of the child",5 every child has the right to protection from infringement of his/her honor and dignity. However, effective mechanisms for such protection, especially with regard to bullying and cyberbullying are not provided for. Punishment for slander that is provided for in article 40 of the Code of the Republic of Uzbekistan on administrative responsibility can be considered as a punishment for one of the mentioned earlier types of cyberbullying - misinformation. Thus, slander is the dissemination of deliberately false fabrications, dishonoring another person.6 As regards the protection of one's honor and business reputation in civil proceedings, the legislation of Uzbekistan does not differ from Kazakhstan in this.

Criminal liability for slander, including through information and telecommunication technologies, is provided for in article 132 of the Criminal Code of Turkmenistan.<sup>7</sup> However, as in mentioned countries, there is no notice of the concepts of "bullying", "mobbing", and, accordingly, mechanisms to prevent these phenomena.

Russian legislation also does not contain the concepts of "bullying", "cyberbullying", and "cyber-mobbing". This is despite the fact that information and legislative technology in the Russian Federation is developing much faster than in Central Asia. The introduction of responsibility for bullying in schools and its varieties is only at the stage of initiatives of various public organizations /46/.

Among the countries of the former USSR, Ukraine has advanced a little in the fight against bullying. The Code of Administrative Offenses divides the entities that are liable for cases of bullying. Thus, responsibility comes for bullying, that is, actions of participants in the educational process, which consist in psychological, physical, sexual violence, including the use of electronic communications. These actions are committed against a minor, or by such a minor in relation to other participants in the educational process. As a result of such actions, the mental or physical health of the victim could or could have been inflicted. The offender him/herself bears responsibility in case of reaching 16 years of age. If bullying is committed by a minor under 16 years of age - the offender's parents will bear responsibility. In addition, administrative responsibility is provided for the head of the educational institution if he/she fails to report to the authorized unit of the National Police of Ukraine about cases of

<sup>&</sup>lt;sup>2</sup> The Criminal Code of the Republic of Kazakhstan as of 3 Jul 2014 No. 226-V. Available from https://online.za-kon.kz/Document/?doc\_id=31575252

<sup>&</sup>lt;sup>3</sup> The Civil Code of the Republic of Kazakhstan as of 27 Dec 1994 No. 269-XII. Available at https://online.zakon.kz/document/?doc\_id=1006061#pos=1877;-54

<sup>&</sup>lt;sup>4</sup> The Criminal Code of the Republic of Kazakhstan as of 3 Jul 2014 No. 226-V. Available at https://online.za-kon.kz/Document/?doc\_id=31575252

<sup>&</sup>lt;sup>5</sup> The law of the Republic of Uzbekistan "On guaranteeing the rights of the child" as of 23 Nov 2007. Available at http://www.lex.uz/docs/1297318

<sup>&</sup>lt;sup>6</sup> The Code of the Republic of Uzbekistan on administrative responsibility (Approved by the Law of the Republic of Uzbekistan as of 22 Sep 1994, No. 2015-XII. Entered into force on 01 Apr 1995). Available at http://www.lex.uz/acts/97661

<sup>7</sup> The Criminal Code of Turkmenistan as of 10 May 2010, No. 104-IV. Available at http://minjust.gov.tm/ru/mmerkezi/doc\_view.php?doc\_id=8091

bullying of a participant in the educational process.<sup>8</sup> Thus, the Ukrainian legislator competently approached the problem of bullying and cyberbullying, providing for a liability.

It should be noted that the responsibility for bullying (cyberbullying) should be borne by children, parents as well as teachers of educational institutions and the administration. After all, it is their negligence that often causes the child to become an online bully. Since in the legislation of developing countries a single concept of cyberbullying has not yet been formed, it is necessary to develop a state program to combat this antisocial phenomenon.

In 2013, a survey of teachers was conducted on methods to combat cyber-mobbing. Answering open questions, the teachers could indicate an arbitrary number of prevention proposals, which were divided into four groups. The results of this analysis are shown in Table 1.

Table 1. Methods of counteracting cyber-mobbing

Methods of counteracting cyber-mobbing	Quantity	Quantity, in %
Parental control of sites	58	43.28
Campaigns for children, parents and teachers regarding the dan-	32	23.88
gers of the phenomenon and raising awareness		
Control or block some websites	26	19.40
Reporting cases of cyber-mobbing to the police and other authori-	18	16.44
ties		

Source: Bochnyarts and Grabovich /47/

Overwhelming majority of teachers recognize that the most effective method of counteracting cyber-mobbing is the monitoring of websites by parents (58 mentions). Meanwhile, according to surveys conducted by "EU Kids Online" in 2010 among 9-16 years old children and their parents, parents often do not realize the problems of cyber-mobbing. 90% of Polish parents and 56% of parents in Europe believe that their children have never received any malevolent, abusive messages from peers via the Internet. While, at the same time, children have stated that they have received such messages /48/.

According to the surveyed teachers, various actions and public initiatives also play an important role among the methods of countering cyber-mobbing. The main purpose of such actions and initiatives is to raise the awareness of the main stakeholders, that is, children, parents and teachers (32 mentions). In such actions, attention should be paid to etiquette, i.e. good manners in the virtual world. It is important to talk with all subjects about how to behave in the Internet community, what is possible and what

is prohibited. Children must learn that the resentment experienced in the virtual world can be just as painful as the resentment inflicted in the real world. Although the Internet creates the illusion of anonymity, one must be responsible for his/her behavior. In addition, special attention should be paid to raising the level of awareness of parents and teachers in the field of cyber-mobbing. Parents and teachers should be provided with educational tools to familiarize themselves with the negative experiences of children on the Internet and more accurately assess such experience and methods of dealing with it. Countering cyber-mobbing is not an easy task and requires familiarization with technological innovations and places of children's activity on the Internet.

Highly developed countries have long recognized cyberbullying as a problem and are actively fighting it. For example, cyberbullying is recognized as one of the most pressing public health problems in the United States /49/ and is widely defined as a digital version of peer aggression. Thus, schools are encouraged to take

<sup>&</sup>lt;sup>8</sup> The Code of Ukraine on Administrative Offenses as of 07 Dec 1984 № 8073-X. Available at <a href="https://za-kon.rada.gov.ua/laws/show/80731-10">https://za-kon.rada.gov.ua/laws/show/80731-10</a>

measures to reduce both cyberbullying and bullying inside and outside the school. However, schools that are suing students suspected of cyberbullying may face difficult lawsuits /50/. In Canada, cyberbullying can be considered under civil or criminal law, depending on the situation. For example, such type of cyberbullying as slander (when a bully damages someone's reputation by spreading false information about this person) can be resisted by filing a claim for damages. Schools are required to provide a safe environment for their students and staff. Therefore, a school may punish a student for his/her online behavior, which makes it difficult for other students to learn in a safe environment. In Ontario, the Safe Schools Act has been amended and now it includes online behavior as well: students can now be suspended or expelled for cyberbullying, even if it happens outside of school /51/.

At the same time, cyberbullies can be prosecuted under criminal law. For example, responsibility for persecution is provided - this is when something that a person says or does makes someone afraid for his/her safety or the safety of others. Even if the perpetrator did not intend to scare anyone, he or she can be charged with prosecution if the target feels threatened. Criminal prosecution shall be punishable by deprivation of liberty for a term of up to 10 years. The publication of intimate images without consent was added as an offense in 2015. This includes both the intentional distribution of the image "in which a person is naked, exposes his or her genitals, or engages in explicit sexual activity", and "imprudence as to whether this person has given his/her consent to such behavior" /52/.

In the UK, Internet aggression can be prosecuted, under which cyber-mobbing and cyber-bullying can be considered. For example, online hate crimes have recently attracted media attention. Sources indicate that the Crown Prosecution Service (the UK) will begin to apply stricter penalties for abuses committed on the Internet through social networks Twitter and Facebook. The Director of Public Prosecutions has said the UK criminal justice system should start considering hate crimes online as seriously as real-life crimes /53/. In the UK, traditional and online

bullying often overlap, so it is important that schools include cyberbullying in their anti-bullying policies. Thus, the current legislation of the United Kingdom states that anti-bullying policies should be clearly defined in all schools /54/. In addition, the Education and Inspections Act (2006) gives teachers the power to regulate student behavior at school, including the ability to confiscate personal information and communication tools /55/.

In France, over the past few years, many actions have been taken to combat cyberbullying. In 2014, a law was passed with penalties for bullying in schools. Besides, cyberbullying is considered an aggravating circumstance (art. 41222-33-2-2 of the Penal Code, law n°2014-873, 4/08/2014) /56/.

An active fight against cyberbullying is being waged in Europe. The Threat Assessment of Bullying Behavior in Youth (TABBY) /57/ – an Internet program that was originally developed in 2010 and implemented in 2011-2013 in Italy and four other EU countries (Bulgaria, Greece, Cyprus and Hungary). Then, it was conducted in three EU countries (Spain, France and Poland) with new opportunities. The program was developed based on what the scientific community knew about reducing cyberbullying and raising awareness about cyber risks.

In Italian law, cyberbullying has a legal definition: "any use of the Internet for an insult, threat, abuse, blackmail, slander and identity theft of minors". The law also provides some useful tips to prevent and reduce the spread of cyberbullying among young people and introduces some important innovations, such as criminalizing the misuse of the Internet to insult, defame, threaten, or steal a minor's identity. In fact, minors (over 14 years old) who cyberbullied another minor could be warned by the police commissioner. The warning procedure is to provide the minor and his/her parents (or another person carrying out parental responsibility) with a subpoena from the police commissioner. In addition, the law allows cyber-victims and/or their parents to request website hosts and social media platforms to remove and block offensive content within 48 hours /58/.

Regarding the central role of schools and teachers in preventing and reducing cyberbullying among students, the law clearly points out the need for:

- training school personnel;
- identifying and appointing a teacher to deal with cyberbullying initiatives and encourage students to take an active role in preventing cyberbullying /59/.

In order to build a well-thought-out concept for combating cyberbullying, cyber-mobbing and their varieties, one needs to take into account their features, methods of commission and the speed with which technologies are developing. Hence, in doctrinal developments and government programs, the following features of cyber-persecution are reflected:

- round-the-clock interference with the victim's privacy through the use of hardware and software;
- the use of spyware and hacker programs to crack accounts and mailboxes, theft of passwords for access to accounts and personal information of the victim stored on his/her devices;
- tracking the victim's IP address in order to monitor his/her network activity and obtain geolocation data about his/her whereabouts and movement /60/;
- no temporal or geographical restrictions of cyberbullying;
- the anonymity and impunity of a cyberbully;
- unlimited quantity of bullying observers;
- the lack of control on the Internet for the placement by a cyberbully of photos, videos, audio and text materials that insult, humiliate and intimidate the victim, and the inability to neutralize or exclude these materials from the Internet /61/;
- the complexity of filtering messages containing aggressive and offensive meaning;
- cyberspace information dissemination pace /62/;
- the use of digital technologies and special programs for processing visual (photo and video editing) and audio (audio editing) information in order to create content that offends the victim (for example, collages or videos) /63/;
- involvement of a victim in illegal and unlawful activities via the Internet through deception, intimidation and blackmail;

- identity theft by a stalker with the aim of insulting and harming a third party, allegedly on behalf of the victim;
- creating clones and fake accounts to enhance the psychological cyberattack on the victim;
- making purchases of an intimate nature (for example, sex toys), issuing subscriptions to pornographic magazines and ordering intimate services in the name of the victim with the delivery of orders to the place of his/her work or study /64/.

# 3.1. Obstacles and Prospects for Countering Cyberbullying and Cyber-Mobbing

The fight against cyberbullying and cyber-mobbing cannot give instant results, since children, adolescents and many adults are prone to aggression, as well as self-assertion at the expense of others. An important aspect in this context is the need to study the procedural side of cyberbullying in its dynamics and development what changes happen to the participants in the cyberbullying situation, how the duration and means used for bullying are changed, how the ideas and ways of responding to all participants in the cyberbullying situation with the accumulation of experience change. Taking into account the opportunities provided by the Internet and specific features of cyberbullying, there is a need to study the role structure of cyberbullying. Special attention is to be paid not only to the "aggressor" and "victim", but also to "witnesses of aggression", "observers" and possible transformations of the roles and options for their combination. Among users aged from 18 to 24, about 65% at least once in their lives were humiliated online, while about 60% of the victims did not take any retaliatory steps to somehow stop the offender. Perhaps, following this trend, adolescents consider humiliation and bullying on the Internet a common occurrence, and it is difficult for them to identify themselves as victims of cyberbullying or offenders /65/.

Bullying differs from situational aggression by its frequency, intention of humiliation and the offender's desire to dominate in order to strengthen his/her position in the group. As in other forms of violence, the victim is powerless to resist and has poor control over the situation. These features are inherent in all types (physical, social and verbal) and forms (face to face, in

the virtual space) of bullying. It should be emphasized that the destructive consequences of adolescent bullying for personality development are inherent not only to victims, but also to offenders and bullying witnesses.

However, cyberbullying has a number of significant differences. Thus, in a situation of cyberbullying, the offender remains relatively anonymous, and a wider audience that has access to the posted information becomes witnesses of violence. The victim's anxiety intensifies because he/she cannot determine where and who attacks him/her. In addition, anonymity can cause the phenomenon of offenders' permissiveness with the absence of a threat of punishment. In the case of cyberbullying, violence is not limited in time and space and can occur at any time. The lack of direct contact between the offender and the victim can lead to a distortion of feedback, and the participants in communication may not be aware of this /66/.

In the era of artificial intelligence, social network developers recognize the importance of fighting cyberbullying and use technology to combat this phenomenon. For this purpose, in particular, the architecture of social networks implements algorithms for determining the corresponding elements in the user comments.

If the application detects suspicious features in the comments of a person, it will prompt the user to correct its text. For example, Instagram tests showed that some users in such a situation abandoned their intention to insult or otherwise offend the "interlocutor".

There was an experiment related to the identification of Instagram users' awareness of the use of artificial intelligence to combat cyberbullying and spread of offensive comments. It was found that out of 40 profiles, 5 "male" and 10 "female" profiles used built-in extensions. Extensions block new comment below the photo if it contains offensive expressions. At the same time, when trying to leave a comment of neutral content, the extension functions are not involved. It has been experimentally confirmed that such an effect can only be created by personal participation when setting up the "Hide Offensive Comments" function (Figure 2).

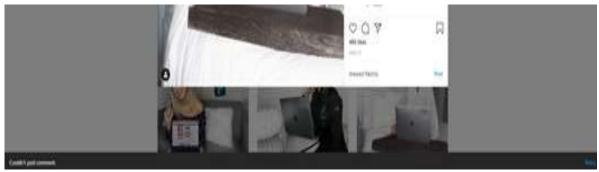


Figure 2. Illustration of commenting photo ban

In addition, it has been found that in some cases, the built-in Instagram algorithms can independently block messages as potentially dangerous (Figure 3). Thus, in 5 cases, the AI has

reported that post goes against the community guidelines (Figure 4).



Figure 3. Illustration of commenting photo ban.

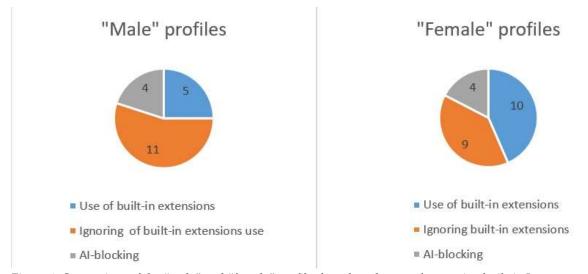


Figure 4. Comparison of the "male" and "female" profiles based on the use of protecting built-in Instagram extensions

When trying to repeat the same actions, an identical result was achieved. The experiment gives reasons to conclude that Instagram users are aware of the availability of built-in extensions of the social network to protect against cyberbullying and use them relatively frequently. At the same time, it can be assumed that the female segment of Instagram users is

more concerned about the content of the comments under their photos than the male one. Considering the above-stated, the authors cannot exclude the fact that soon the fight against cyberbullying will be available through the means of the artificial intelligence based on synthetic data /67/, /68/. Even now users of some social networks can turn on a setting that uses

artificial intelligence, which automatically filters and hides mocking comments aimed at insulting or offending people. Moreover, software developers can offer special anti-cyberbullying applications such as Qustodio Parental Control, Kaspersky Safe Kids, etc /69/.

It can be assumed that the algorithms used in the Kinect family of devices (associated with video processing), which have a neural network as their component, as well as multimedia event detection (MED) technologies, can be used in the future to counter cyberbullying /70/.

Among recent developments in the field of electronic counteraction against cyberbullying, there already exists a neural network trained to recognize toxic comments, and chatbots that can warn and block users (for example, PyTidor bot). Bots can be added to the dialogue and automatically recognize aggression, insults and even respond to them. The main idea of the technology -independent detection and prevention of cyberbullying /71/. Deep learning approaches, such as convolutional neural networks (CNNs), can serve as a necessary tool for promising developments in this direction /72/, /73/.

Developed as well as developing countries are currently taking measures to prevent and combat cyber aggression. Such measures can be quite effective if they are introduced gradually, methodically, taking into account specifics of cyberspace and each specific country (its culture, customs, social environment). It is impossible to limit the Internet neither for children nor for adults, as it is a storehouse of knowledge and an endless resource that helps to learn and develop, gain new knowledge regardless of person's location. It is hardly possible to completely eradicate cyberbullying and cyber-mobbing, however, it is possible to find measures, and first of all legislative ones, to influence these phenomena.

#### 4. Conclusions

While studying the problem of cyberbullying and cyber-mobbing in developing countries, it is necessary to recognize that with all the advantages of the Internet, there is as well a problem of cyberbullying. Unfortunately, the situation in developing countries with the legislative

regulation of the fight against cyberbullying is not as pleasant as in Western states, but this phenomenon in developing countries is not so widespread either. To prevent cyberbullying and cyber-mobbing, first of all, a normative definition of these concepts should be established. Thus, it is important to adopt laws on combating cyberbullying in the school environment, which would introduce, among other things, responsibility for children, parents, and, in some cases, teachers. It is also important to develop a government strategy to combat and prevent cyberbullying. It is necessary to create competent bodies that would keep statistics of cyberbullying and cyber-mobbing cases, study the most common ways of their manifestation, interact with Internet providers, and thereby eradicate this problem in a cooperative manner. In addition to creating competent authorities, it is necessary to introduce responsibility for cyberbullying and cyber-mobbing. While including the concept of "bullying" in the legislation, it should be interpreted in such a way so that it can apply to cyberbullying as well. It might be advisable to introduce administrative responsibility for:

- students, who have reached the age of administrative responsibility;
- parents (in case a cyberbully has not reached the age of administrative responsibility);
- administration of the school and teachers (when bullying occurs within the walls of the school, and the negligence of administration and/or teachers has directly led to bullying among students).

In addition to the above actions, the following should be implemented at the level of education legislation:

- 1) Raising public awareness:
- A) The dissemination of information about the safety of using the Internet. Raising people's awareness of cyberbullying, as well as the negative consequences for both bullies and victims. B) Facilitating the exchange of information, ex-
- perience and best practices between stakeholders at the national level and between states.
- 2) Enhancing the role of teachers and school staff in preventing cyberbullying:

- A) To educate teachers about cyberbullying, prevention, management and resolution of conflicts. Teacher training could be the first step in effective reduction and prevention of this phe-
- B) Trained teachers can use their experience to make students think about their risky behavior on the Internet. Supporting students to discuss and share their online habits can be a good ploy to make them think about the risks and pitfalls they face in cyberspace.
- 3) Improving the school climate:

nomenon.

- A) Each school should adopt clear rules regarding the use of the Internet and mobile phones. Regarding computer use, virtual learning environments and Internet access, schools need to use filtering and tracking software on all computers.
- B) Each school should have clear and understandable rules for combating cyberbullying. Rules against bullying should be read and discussed with students and their parents. All students should be aware that not a single cyberbullying incident will be ignored: victims will be supported, and bullies will deal with the consequences of their actions.
- C) Increasing the willingness of students to report cyberbullying to teachers and school leaders. Students should be aware that each complaint will be carefully reviewed by trained teachers.

The state is obliged to intervene in this problem by allocating funds for the creation of experimental programs to combat cyberbullying. When it comes to the health of the younger generation, states should not spare the budget for activities to combat cyberbullying and cybermobbing. Adding amendments to the administrative, criminal legislation, legislation on the education and protection of the rights of the child should positively affect the problem of the spread of cyberbullying and cyber-mobbing.

#### Notes

/1/ R. Sabillon, J. Cano, V. Cavaller Reyes and J. Serra Ruiz. (2016). Cybercrime and cybercriminals: a comprehensive study. *International Journal of Computer Networks and Communications Security*, 4(6), 165-76. <a href="https://hdl.handle.net/10609/78507">https://hdl.handle.net/10609/78507</a>

- /2/ R. Veresha. (2018). Preventive measures against computer related crimes: Approaching an individual. *Informatologia*, 51(3-4), 189-99. https://doi.org/10.32914/i.51.3-4.7
- /3/ Y. Zheng, M. Hatakka, S. Sahay, A. Andersson. (2018). Conceptualizing development in information and communication technology for development (ICT4D). *Information Technology for Development*, 24(1), 1-14. https://doi.org/10.1080/02681102.2017.1396020
- /4/ A. Shukan, A. Abdizhami, G. Ospanova, D. Abdakimova. (2019). Crime control in the sphere of information technologies in the Republic of Turkey. *Digital Investigation*, 30, 94-100. https://doi.org/10.1016/j.diin.2019.07.005
- /5/ University of Bedfordshire. (2019). Uni working to help cyberbullying victims. Available at: https://www.beds.ac.uk/news/2012/june/uniworking-to-help-cyberbullying-victims/. Accessed 28 May 2020.
- /6/ J.W. Patchin, S. Hinduja. (2011). Traditional and nontraditional bullying among youth: A test of general strain theory. Youth & Society, 43(2), 727-51. https://doi.org/10.1177/0044118X10366951
- /7/ R.M. Kowalski, S.P. Limber, S. Limber, P.W. Agatston. (2012). *Cyberbullying: Bullying in the digital age* (2nd ed.). Wiley, Chichester.
- /8/ C.E. Notar, S. Padgett, J. Roden. (2013). Cyberbullying: resources for intervention and prevention. *Universal Journal of Educational Research*, 1(3), 133-45. https://doi.org/10.13189/ujer.2013.010301
- /9/ L. Kirwil. (2010). *Polish children on the Internet.*Threats and security against EU data. Szkoła Wyższa psychologii Społecznej, Warszawa.
- /10/ E. Olszewska. (2005). Internetomania of young people fun or illness. In *Dziecko i media elektroniczne nowy wymiar dzieciństwa. Komputer i Internet w życiu dziecka i obraz jego dzieciństwa,* ed. J. Izdebska, T. Sosnowski. Trans Humana, Białystok, pp. 121–124.
- /11/ T. Kelly, A. Liaplina, S.W. Tan. H. Winkler. (2017). Reaping digital dividends: Leveraging the internet for development in Europe and Central Asia. The World Bank, Washington.
- /12/ PREVNet. (2016). Legal Consequences of Cyberbullying. Available at: https://www.prevnet.ca/bullying/cyber-bullying/legal-consequences. Accessed 28 May 2020.
- /13/ N. Ali, S. Samsuri, M.A. Seman, I. Brohi, A. Shah. (2018). Cybercrime an emerging challenge for internet users: An overview. *Sindh University Research Journal (Science Series)*, 50(3D), 55-8. https://sujo2.usindh.edu.pk/index.php/SURJ/article/view/44
- /14/ G.W. Giumetti, R.M. Kowalski. (2016). Cyberbullying matters: Examining the incremental impact

- of cyberbullying on outcomes over and above traditional bullying in North America. In *Cyberbullying across the globe,* ed. R. Navarro, S. Yubero, & E. Larrañaga. Springer, Cham, pp. 117–130. https://doi.org/10.1007/978-3-319-25552-1\_6
- /15/ M. Szpunar. (2010). Cyberbullying: new technologies as tools for applying psychological violence. In *Nie tylko Internet. Nowe media, przyroda i "technologie społeczne" a praktyki kulturowe,* ed. J. Mucha. Zakład Wydawniczy "NOMOS", Kraków.
- /16/ J.W. Patchin, S. Hinduja. (2012). *Preventing and responding to cyberbullying: Expert perspectives*. Routledge, Thousand Oaks.
- /17/ R. Haarr. (2013). Assessment of Violence against Children in Schools in Kazakhstan. UNICEF Kazakhstan and the Office of the Commissioner for Human Rights in the Republic of Kazakhstan, Astana.
- /18/ I.K. Peter, F. Petermann. (2018). Cyberbullying: A concept analysis of defining attributes and additional influencing factors. *Computers in Human Behavio*, 86, 350-66. https://doi.org/10.1016/j.chb.2018.05.013
- /19/ M. Walrawe, W. Heirman. (2009). Effects of cyberbullying – accusation or defense of technology? Child abused. *Theory, Research, Practic*, 1, 27-46.
- /20/ C. El Haber. (2016). Ending the torment: Tackling bullying from the schoolyard to cyberspace. Special Representative of the Secretary-General on Violence against Children, United Nations.
- /21/ S. Livingstone, J. Carr, J. Byrne. (2016). One in three: Internet governance and children's rights. Global commission of internet governance, London
- /22/ V. Dodd. (2017). CPS to crack down on social media hate crime, says Alison Saunders. The Guardian. Available at: https://www.theguardian.com/society/2017/aug/21/cps-to-crack-down-on-social-media-hate-says-alison-saunders. Accessed 28 May 2020.
- /24/ C.E. Notar, op. cit 8.
- /25/ C. Blaya, M. Fartoukh. (2015). Digital uses, victimization and online aggression: A comparative study between primary school and lower secondary school students in France. European Journal on Criminal Policy and Research, 22(2), 285-300. https://doi.org/10.1007/s10610-015-9293-7
- /26/ UNICEF. (2020). Cyberbullying: What is it and how to stop it. Available at: <a href="https://www.unicef.org/end-violence/how-to-stop-cyberbullying">https://www.unicef.org/end-violence/how-to-stop-cyberbullying</a>. Accessed 28 May 2020.
- /27/ P.K.Smith, J. Mahdavi, M. Carvalho, S. Fisher, S. Russell, N. Tippett. (2008). Cyberbullying: Its

- nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry*, 49(4), 376-85. https://doi.org/10.1111/j.1469-7610.2007.01846.x.
- /28/ V. Dodd, op. cit. 22.
- /29/ E. Menesini, A. Nocentini, B.E. Palladino, A. Frisén, S. Berne, R. Ortega-Ruiz, J. Calmaestra, H. Scheithauer, A. Schultze-Krumbholz, P.L. Karin, K. Naruskov, C. Blaya, J. Berthaud and P.K. Smith. (2012). Cyberbullying definition among adolescents: A comparison across six European countries. *Cyberpsychology, Behavior, and Social Networking*, 15(9), 455-463. https://doi.org/10.1089/cyber.2012.0040
- /30/ K.L. Modecki, J. Minchin, A.G. Harbaugh, N.G. Guerra, K.C. Runions. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health*, 55(5), 602-611. https://doi.org/10.1016/j.jadohealth.2014.06.007
- /31/ K. Parti. (2016). Regulation of bullying in Hungary and abroad. *Medias Res* 1: 114-146 (in Hungarian). Available at: <a href="https://real.mtak.hu/108403/1/media-tudomany-a-megfelemlites-bullying-szabalyozasa-magyarorszagon-es-kulfoldon-cikk-115.pdf">https://real.mtak.hu/108403/1/media-tudomany-a-megfelemlites-bullying-szabalyozasa-magyarorszagon-es-kulfoldon-cikk-115.pdf</a>. Accessed 28 May 2020.
- /32/ D.L. Espelage, S. Low, M.J. Van Ryzin, J.R. Polanin. (2015). Clinical trial of second step middle school program: Impact on bullying, cyberbullying, homophobic teasing, and sexual harassment perpetration. *School Psychology Review*, 44(4), 464-79. https://doi.org/10.17105/spr-15-0052.1
- /33/ C.E. Notar, op, cit. 8.
- /34/ R.A. Vnebrachnykh. (2012). Trolling as a form of social aggression in the virtual community. *Vestnik Udmurdskogo universiteta. Filosofiya. Sotsiologiya. Psikhologiya. Pedagogika,* 1, 48-51.
- /35/ R. Slonje, P.K. Smith, A. Frisén. (2013). The nature of cyberbullying, and strategies for prevention. *Computers in Human Behavior*, 29(1), 26-32. https://doi.org/10.1016/j.chb.2012.05.024
- /36/ S. Hinduja, J.W. Patchin. (2010). Bullying, cyberbullying, and suicide. *Archives of Suicide Research*, 14(3), 206-21.
  - https://doi.org/10.1080/13811118.2010.494133
- /37/ M. Van Geel, P. Vedder, J. Tanilon. (2014). Relationship between peer victimization, cyberbullying, and suicide in children and adolescents: A meta-analysis. *JAMA Pediatrics*, 168(5), 435-42. https://doi.org/10.1001/jamapediatrics.2013.4143
- /38/ S. Rawat, S. Rajkumari, P.C. Joshi, M.A. Khan, K.N. Saraswathy. (2019). Who dies and who survives? Investigating the difference between

- suicide decedents and suicide attempters. *Egyptian Journal of Forensic Sciences*, 9(1), 10. https://doi.org/10.1186/s41935-019-0115-9
- /39/ N. Al Mutawa, J. Bryce, V.N. Franqueira, A. Marrington, J.C. Read. (2019). Behavioural digital forensics model: Embedding behavioural evidence analysis into the investigation of digital crimes. *Digital Investigation*, 28, 70-82. https://doi.org/10.1016/j.diin.2018.12.003
- /40/ D.K. Sung, D.H. Kim, Y.S. Lee, S.W. Lim. (2006). A study on the cyber-violence induction factors of teenagers: focused on individual inclination, cyber violence damage experience, and moral consciousness. Korea Journal of Cyber Communication, 19, 79-129.
- /41/ K.-E. Kim, H.-M. Yoon. (2012). Influences of ecosystemic factors related to adolescents' cyber violence. *Journal of Adolescent Welfare*, 14(1), 213-238.
- /42/ M. Harris. (2018). Global Views on Cyberbullying. Ipsos. Available at: <a href="https://www.ipsos.com/en-za/global-">https://www.ipsos.com/en-za/global-</a> views-cyberbullying. Accessed 28 May 2020.
- /43/ M. Duggan. (2014). Experiencing Online Harassment. Pew Research Center. Available at: https://www.pewresearch.org/internet/2014/10/22/part-1-experiencing-online-harassment/. Accessed 28 May 2020.
- /44/ Cook. (2020). Cyberbullying facts and statistics for 2020. Comparitech. <a href="https://www.comparitech.com/internet-providers/cyberbullying-statistics/">https://www.comparitech.com/internet-providers/cyberbullying-statistics/</a>. Available at: Accessed 28 May 2020.
- /45/ S. Cook, op. cit 42.
- /46/ L. Hui. (2019). Exploration and analysis of the current situation of school bullying and the way of legal regulation in the new period. In 2019 International Conference on Management, Finance and Social Sciences Research (MFSSR 2019), ed. D. Ross Whitehouse. Francis Academic Press, London, pp. 21–25.
- /47/ M. Tishchenko. (2018). Cyberbullying is illegal: in Russia they propose introducing responsibility for bullying in social networks. TV News. Available at: https://russian.rt.com/russia/article/489396-shtraf-rossiya-kiberbulling. Accessed 28 May 2020.
- /48/ A. Bochnyarts, A. Grabovich. (2013). Cyber-mobbing a challenge for modern education. *Bulletin of Taras Shevchenko National University of Luhansk*, 13(272), 6-16.
- /49/ L. Kirwil, op. cit 9.
- /50/ Centres for Disease Control and Prevention. (2009). Bullying surveillance among youths: Uniform definitions for public health and recommended data elements, Version 1.0. National Center for Injury Prevention and Control, Atlanta.

- /51/ S. Hinduja, J.W. Patchin. (2011). Cyberbullying: A review of the legal issues facing educators. *Preventing School Failure: Alternative Education for Children and Youth*, 55(2), 71-8. https://doi.org/10.1080/1045988X.2011.539433
- /52/ PREVNet, op. cit 12.
- /53/ PREVNet, op. cit 12.
- /54/ V. Dodd, op. cit 22.
- /55/ M. Marczak, I. Coyne. (2010). Cyberbullying at school: Good practice and legal aspects in the United Kingdom. *Australian Journal of Guidance & Counselling*, 20(2), 182-93. https://doi.org/10.1375/ajgc.20.2.182
- /56/ A. El Asam, M. Samara. (2016). Cyberbullying and the law: A review of psychological and legal challenges. *Computers in Human Behavior*, 65, 127-41. https://doi.org/10.1016/j.chb.2016.08.012
- /57/ C.M. Blaya, M. Fartoukh, op. cit 24.
- /58/ The Threat Assessment of Bullying Behaviours among Youngsters. (2020). Official web site. Available at: www.tabby.eu Accessed 28 May 2020.
- /59/ A.C. Baldry, D.P. Farrington, A. Sorrentino. (2015). "Am I at risk of cyberbullying"? A narrative review and conceptual framework for research on risk of cyberbullying and cybervictimization: The risk and needs assessment approach. Aggression and Violent Behavior, 23, 36-51. https://doi.org/10.1016/j.avb.2015.05.014
- /60/ A.L. Palermiti, R. Servidio, M.G. Bartolo, A. Costabile. (2017). Cyberbullying and self-esteem: An Italian study. Computers in Human Behavior, 69, 136-41. https://doi.org/10.1016/j.chb.2016.12.026
- /61/ C. Topcu, O. Erdur-Baker. (2012). Affective and cognitive empathy as mediators of gender differences in cyber and traditional bullying. *School Psychology International*, 33(5), 550-61. https://doi.org/10.1177/0143034312446882
- /62/ M. Walrawe, W. Heirman, op. cit 19.
- /63/ K. Parti, op. cit 30.
- /64/ E. Olszewska, op. cit 10.
- /65/ M. Van Geel, op. cit. 36.
- /66/ E. Volkova, I. Volkova. (2017). Cyberbulling as a method of social addressing teenagers on the bulling situation. Bulletin of the University of Minin, 3, 1-11. https://doi.org/10.26795/2307-1281-2017-3-17
- /67/ E. Volkova, I. Volkova, op. cit. 64.
- /68/ F. Nie, X. Chang, Y. Yang. (2017). Beyond Trace Ratio: Weighted Harmonic Mean of Trace Ratios for Multiclass Discriminant Analysis. *IEEE Transactions on Knowledge and Data Engineering*, 29(10), 2100-2110. https://doi.org/10.1109/TKDE.2017.2728531

- /69/ X. Chang, Y. Yang. (2017). Semisupervised Feature Analysis by Mining Correlations Among Multiple Tasks. IEEE Transactions on Neural Networks and Learning Systems, 28(10), 2294-305. https://doi.org/10.1109/TNNLS.2016.2582746
- /70/ C. Stobing. (2019). The Best Parental Control Software and Apps of 2020. Comparitech. Available at: <a href="https://www.comparitech.com/parental-control/">https://www.comparitech.com/parental-control/</a>. Accessed 28 May 2020.
- /71/ X. Chang, Z. Ma, M. Lin, Y. Yang, A.G. Hauptmann. (2017). Feature Interaction Augmented Sparse Learning for Fast Kinect Motion Detection. IEEE Transactions on Image Processing, 26(8), 3911-20. https://doi.org/10.1109/TIP.2017.270850
- /72/ N. Chernova. (2019). Digital Literacy of Teenagers and Cyberbulling. The experience of an educational organization in the field of digital skills formation [Conference presentation]. All-Russian Scientific and Methodological Conference with International Participation. Cheboksary, Chuvashia, Russian Federation.
- /73/ X. Chang, Z. Ma, Y. Yang, Z. Zeng, A.G. Hauptmann. (2017). Bi-Level Semantic Representation Analysis for Multimedia Event Detection. *IEEE Transactions on Cybernetics*, 47(5), 1180-97. https://doi.org/10.1109/TCYB.2016.2539546
- /74/ X. Chang, Y.-L. Yu, Y. Yang, E.P. Xing. (2017). Semantic Pooling for Complex Event Analysis in Untrimmed Videos. IEEE Transactions on Pattern Analysis and Machine Intelligence, 39(8), 1617-32

https://doi.org/10.1109/TPAMI.2016.260890