



**UTILISATION OF DIGITAL TECHNOLOGIES,
RISKS, AND INCIDENCE OF DIGITAL VIOLENCE
AMONG STUDENTS IN SERBIA
SUMMARY**

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BACKGROUND

In the past few years we have witnessed a rapid increase in the number of users of digital technologies and the Internet, especially among children and youth. In addition to the fact that they offer numerous opportunities for learning and development, modern technologies also entail potential risks, including also the risk of digital violence.

The research on violence against children in schools in Serbia, that has been conducted among schools entering the programme “School Without Violence – Towards a Safe and Enabling Environment for Children” since 2006, has indicated the need for more in-depth research on the new forms of violence against and among children that are linked to the usage of modern technologies. The existing data (obtained through these researches) on the prevalence of peer violence via SMS and e-mail messages and involuntary photos taking was not sufficient enough to understand and therefore address the issue of digital risks and violence properly. Therefore more comprehensive research on digital violence was designed.

This research was conducted by the Ministry of Education, Science, and Technological Development of the Republic of Serbia, UNICEF Office in Serbia, and Telenor, with technical support of the Institute of psychology, Faculty of philosophy, University of Belgrade. The research is part of the project “Stop Digital Violence” implemented by these partners, initiated within the programme “School Without Violence – Towards a Safe and Enabling Environment for Children”.

Characteristics of digital communication and risks

Digital communication has a number of specific characteristics that make it so popular. Digital media are primarily characterised by an exceptional ease of receiving and sending messages. A message sent by email or in the form of an SMS is received almost instantaneously regardless of the geographic distance; if the sender wishes, it may be simultaneously available to a huge number of receivers (an attractive video uploaded on YouTube may be viewed by over a million viewers in just one day), and at the same time such communication is practically free.

Generally speaking, communication via the Internet is more controlled than direct communication, because one can choose how and when to communicate and what to reveal about oneself. Communication through a keyboard conceals many identity markers such as sex, age, physical appearance and the like, which the sender does not wish to disclose.

Some experts believe that digital communication leads to superficial, simplified interaction, neglect of direct communication and communication with household

members, and that as a rule it encourages superficiality and a passive/receiving attitude (Terkel, 2010/2011).

Reduced sensory contact between collocutors and greater anonymity lead to less inhibited behaviour than this is the case in face-to-face communication. This “online disinhibition” is evident from more spontaneous communication, easier first contact with strangers, less care of the impression one makes, and easier sharing of personal information. Online disinhibition also leads to greater aggressiveness to others and hate speak, which is not allowed in other forms of communication.

Experts warn that specific characteristics of digital communication also entail risks that may easily be overlooked or underestimated and that affect young people in particular. Greater openness and trust, in combination with the ease of hiding one’s real identity and of making a false one, thus increases the risk of young people’s making contact with malicious individuals and of their becoming victims of deception. In more extreme cases, young people may fall prey to “sexual predators”, become members of cults, be exposed to dangerous ideologies, start gambling or carrying out illegal activities, etc.

A classification of potential risks young people encounter online is shown in the following Table:

Table 1. Types of online risks

	Commercial	Aggressive	Sexual	Values
Content – a child as a receiver	ads, spam, sponsorship	aggressive content, hate speak	pornographic and unsuitable sexual content	racism, wrong data and advice (e.g. on illegal substances)
Contact – a child as a participant	recording and using of personal data	exposure to bullying, stalking, harassment	contacts with strangers, wooing	self-inflicted injuries, harmful persuasion
Action – a child as an actor	gambling, hacking, illegal content download	mistreating and harassment of others	making and uploading of pornographic content	giving advice (e.g. on suicide, promoting anorexia)

Source: EU Kids Online: Hasebrink, Livingstone & Haddon, 2009

Defining digital violence

In the research, digital violence has been defined as using mobile phones, computers, video cameras and similar electronic devices in order to intentionally frighten, insult, humiliate or hurt a person in some other way. Friendly teasing and

unintentional causing of damage and hurt were not considered as digital violence. This definition of digital violence was stated in the instructions provided at the beginning of questionnaires completed by parents, teachers, and senior students. The period we referred to was the past year.

Research focused on the following forms of digital violence:

- Sending SMS with insulting and threatening content (insults, threats, inappropriate jokes, etc)
- Phone harassment (giving false identity, silence, insults, etc)
- Making videos using a mobile phone or camera, and forwarding and uploading such videos online
- Email harassment (insults, threats, inappropriate jokes, etc)
- Harassment on social networks (e.g. Facebook and other networks)
- Harassment on web pages: concealment of identity, taking over someone else's identity, giving false identity, using someone else's accounts, uploading photos and videos of other persons without their consent, posting incorrect and insulting content, sending viruses.

OBJECTIVES

The primary goal of the research was to establish to what extent and for what purposes young people use digital devices and the Internet, if they expose themselves and/or others to digital communication risks, as well as if and to what extent young people are involved in various types of digital violence (as victims, bullies, or witnesses, and how they react if they are victims or witnesses of digital violence.

Likewise, we were interested in the type of links between digital victimisation and digital violence, as well as in the type of links between classic forms of violence and digital violence.

In addition to the above, our goal was also to establish the competencies of adults (parents and teachers) in using digital technologies, their insight into the digital communication of young people and problems of digital violence, as well as their assessment of the role and capacities of the school to prevent and resolve the problems of digital violence.

METHODOLOGY

The research was conducted during the month of November 2012, in 17 primary schools and 17 secondary schools on the territory of Serbia. The sample is random, stratified by region (Belgrade, Sumadija and Western Serbia, Southern and Eastern Serbia, Vojvodina), size of town/village (over 100 000, between 50 000 and 100 000, between 20 000 and 50 000 and below 20 000), and type of school (primary schools, and general and vocational secondary schools). Three age groups of students were covered: students attending the 4th form of primary school (mostly aged 10), students

of the 6th-8th forms of primary school (aged 12-14), and students of the 2nd-4th form of secondary school (aged 16-18). The research was conducted in the form of a poll. There was a total of 3,786 students, 3,078 parents, and 1,379 teachers polled. For 2,897 students we also had the data provided by a parent, and so we were able to compare these students' replies with their parents' replies.

The questions posed within the questionnaires are classified into three thematic sections: the first section refers to the availability and utilisation of digital technologies, the second to risks, while the third section questions focus on digital violence: on the prevalence and characteristics of various forms of digital violence and on the reactions to digital violence. The final versions of the questionnaires for students were created after a trial test and discussions with students.

The questionnaires were anonymous. Students and teachers filled out the questionnaires at school, while some parents completed the questionnaires on school premises and others at home.

RESULTS

The results of this research show that the utilisation of digital devices and the Internet is widespread among students in Serbia, as well as that the availability and frequency of this utilisation increases as students grow older. While in the 4th form of primary school 84% of students have mobile phones, 94% of senior primary school students own mobile phones, and in secondary schools only 1% of students did not have them. Over 90% of students from the sample use computers, whereas 60% of them own computers. Among the students polled, the Internet is not used by 17% of students in the 4th form, 6.5% of senior primary school students, and 3% of secondary school students. There are no significant differences in the Internet use between boys and girls, regardless of their ages. Children of the youngest age from smaller places use the Internet somewhat more rarely than children from larger places, but this difference does not exist among children of older ages. Therefore, one may say that in this case the Internet does not create a "digital gap" between children from smaller and from larger places, but it gradually levels the differences related to the place size as children grow up.

Student activities on the Internet may be classified into three groups: finding information, fun, and communication. Students usually use the Internet to visit social networks (every day or almost every day 69% of senior primary school students and 81% of secondary school students), and then to watch videos, series, and films (every day or almost every day 50% of senior primary school students and 62% of secondary school students), and to surf the Internet (every day or almost every day 35% of senior primary school students and 49% of secondary school students). The majority of students of the 4th form of primary school use the Internet to play video games (95% of students), while watching videos, series, and films is in the second

place (85% of students). The following Internet activities are practiced by the smallest percentage of students: reading and writing blogs, visiting forums, and exchanging emails.

The ranking order of frequency of certain activities, obtained based on replies given by students, highly correlate to the ranking order obtained based on parents' assessments. Teachers' assessments were less accurate and depended on the computer knowledge of individual teachers: those who have better computer skills provided better assessments. As for the frequency of certain types of activities, parents consistently underrated the frequency of all the child's activities on the Internet, whether related to education, fun, or communication, while teachers overrated the relative frequency of playing video games, and underrated the relative frequency of surfing and studying.

When it comes to students' exposure to risks on the Internet, 62% of senior primary school students and 84% of secondary school students were exposed at least once to an Internet risk in the past year. The basic forms of risky behaviour are sharing personal data, communication (through messages or in chat rooms), and meeting strangers in person. The most frequent risky behaviour in both age groups was accepting friendship invitations from strangers on social networks (43% of senior primary school students and 71% of secondary school students). More than one fourth of senior primary school students (28%) and more than half of secondary school students (56%) stated that once or several times in the past year they communicated with strangers in chat rooms, and some of them even accepted to meet in real life persons they met online (6% of senior primary school students and 15% of secondary school students).

Table 2. The number of students exposing themselves to various online risks

	Never	Once or twice	3–5 times	More than 5 times
You provided personal data to someone you didn't know personally or to someone you'd never met in real life	83%	11%	3%	2%
You left personal data on profiles or blogs	65%	22%	5%	8%
You replied to messages of unknown persons wishing to make contact with you	63%	22%	6%	9%
You accepted friendship invitations on social networks from someone you didn't know personally or from someone you'd never met in real life	42%	22%	13%	23%
You chatted with persons you didn't know	58%	19%	8%	15%
You accepted to meet in person someone you'd met online	89%	7%	2%	2%

Among the students polled, the number of those who stated that they had exposed their peers to some form of Internet risk is much smaller (between 10% and 15% - the number of these students is somewhat higher among primary school students than among secondary school students). It was usually a question of hiding the identity when communicating online, opening and using someone else's account or profile on a social network without the consent of its owner, posting photos or videos, and insulting comments.

The exposure to risks is directly linked with the time spent on the Internet. Boys are more often involved in risky communication than girls (they expose themselves and others to risks more frequently). There was a high correlation between risky behaviour and exposure to digital violence ($r=0.40$). Older students and girls are more interested in getting the information on online risks and manners of protection than younger students and boys. Students prone to risky behaviour are also more prone to expose others to risks. Students who are more prone to risky behaviour are also more prone to digital violence.

Just like the frequency of utilisation digital devices and the frequency of risky behaviour increase with age, the frequency of digital violence and the number of students involved in it are also increased in the same way, and online bullying is more and more dominant compared to bullying by mobile phone calls and texting. In the past year, one fifth of students of the 4th form of primary school was exposed at least once to digital violence (19% of them were victims of violence over mobile phones, and 12% of them were victims of online violence). One third of senior primary school students experienced at least once some form of digital violence (32% of them over mobile phones, and 39% online). Among secondary school students, there are even more of those (as much as two thirds of them) who experienced at least once some form of digital violence (42% were harassed by mobile phones, and 56% online).

However, half of the total number of students who experienced digital harassment state that such behaviour did not upset them at all. Students are likely to interpret some forms of behaviour of their peers as rashness, friendly teasing, jokes, and not as malicious infliction of damage or injury. In the majority of cases, students know who bullied them – these are usually their peers, but the number of those attending their school and the number of those who do not is almost the same.

In situations when students are victims of digital violence, they usually ask their peers for help, and then their parents (usually junior students), while they address their teachers very rarely (only 1% of students).

Students are more willing to admit to having been victims of digital harassment than to harassing others. The fact that they have harassed others by means of digital media was admitted by 10% of students of the 4th form, 28% of senior primary school

students, and 33% of secondary school students. Boys and students who are less successful at school were somewhat more likely to digitally harass others.

It has been established that there is a significant link between victimisation and bullying, as well as the involvement in digital violence and the involvement in classic forms of violence. Students who were exposed to digital violence were at the same time more likely to be digitally violent themselves ($r=0.42$ at the youngest age and $r=0.49$ at older ages). Also, there was a strong link between traditional and digital violence. Children who were victims of traditional violence were also victims of digital violence more often ($r=0.22$ at the youngest age and $r=0.31$ at older ages), just like children prone to traditional violence were also digitally violent more frequently ($r=0.36$ at the youngest age and $r=0.33$ at older ages).

Among the students polled, there were also those who were witnesses of digital violence (17% of students of the 4th form of primary school, 23% of senior primary school students, and 30% of secondary school students). In such situations, students behave differently: some show peer solidarity (they teach victims how to protect themselves digitally, they advise them to report cases of violence to their parents, they offer support and understanding), some are passive observers (do not want or do not know how to help), and others oppose attackers and protect victims in an unconstructive way (using threats, physical force, etc).

Almost two thirds of the students polled state that their parents have poor computer and Internet skills compared to their children (children from other European countries assess that their parents' competencies are better), and therefore they do not see them as partners in digital communication. Almost to half of the students polled (more often to girls than to boys) parents impose rules of Internet use (they limit the time they spend online and the types of their online activities) and apply the technical measures of protection, while the other half of the students (at least as far as their parents are concerned) have unlimited online time and do not get any advice on the way they should use the Internet. However, according to the results of this research, harassing of others is linked to the parental monitoring, but this link is weak.

As for adult digital competencies, parental self-assessments usually match their children's assessments. As much as 40% of parents assess themselves as digitally incompetent (14% of them do not use computers or the Internet, 25% of them know only some basic things). Approximately the same number of parents is insufficiently informed about the problem of digital violence. However, 71% of parents wish to be more informed about digital violence by the school.

Compared to the parental ones, teachers' digital competencies are higher (5% of them do not use computers or the Internet, 23% of them have basic skills), but this is not the case when it comes to being informed about digital violence.

Both the parents and the teachers believe that the school does not do enough to prevent digital violence and that one of the measures should be to introduce clearer

rules of Internet and mobile phone use in the school environment (almost two thirds of the teachers supports the prevention of mobile phone use at school). Both the parents and the teachers agree in their assessments of the importance of the role of the school in the prevention and solving of the problem of digital violence, and also in the attitude that the school alone cannot do much regarding this issue, but that it is necessary to coordinate the activities of all the participants in the education process.

RECOMMENDATIONS

Ignoring digital violence, on any level, cannot be deemed as safe behaviour. There is a number of more constructive ways in which peers and adults can and should react in such situations. Above all, this implies the preventive measures that should be taken before digital violence occurs. Regardless of the fact that digital violence is not exclusively linked to the school, but may happen any time any place, the school has an undeniable role in the prevention and solving of the problem of digital violence. Students should be informed about what is considered to be digital violence, and that it shall not be tolerated on school premises, just like any other form of violence. It is necessary to work systematically on the sensitising of students and on developing the awareness of negative consequences of abusing digital media. The information on positive and negative aspects of Internet use, potential risks and manners of safe utilisation of digital media need to be made visible and available to all students (through the mandatory curriculum), to teachers and other school employees, as well as to parents. Taking into consideration the links between digital violence and traditional forms of school violence, taking systematic preventive measures to reduce classic forms of peer violence would also contribute to a decrease in digital violence. Based on the research results, recommendations for preventing and eliminating digital violence intended for all target groups that took part in the research have been created, as well as for education authorities, businesses, and local communities.

Recommendations for students

- Report all cases of digital harassment to adults: inform the parents, teachers, and expert associates about risky behaviour and digital violence, regardless of whether one is directly involved (as victims/bullies) or indirectly (as witnesses)
- Ask for help and protection from more experienced peers (friends, siblings, etc) and adults
- Get information on how to react properly in case of digital violence
- Act safely, do not expose yourself or others to online risks (do not give personal data, do not visit websites with unsuitable contents, do not make contact with strangers); rules of communication applicable in real life, i.e. to face-to-face communication, also apply online
- Do not react to violence with violence, but in other, constructive ways
- Select information, and think critically about information found online

- Become familiar with the technical measures of protection to be applied when using digital devices and the Internet, as well as with services provided by mobile operators

Recommendations for parents

- Improve your computer and Internet skills in order to reduce the so-called “digital generation gap”
- Get as much information as possible on forms of digital violence, and manners and measures of protection
- Get acquainted with symptoms visible on children exposed to digital violence, and with measures that need to be taken in such situations
- Get involved as much as possible in your child’s “online life” and joint online activities – parents should be models of positive behaviour
- Work on the prevention of violence, react before violence occurs; ask your children if any of their peers have been harassed (it is easier for children to talk about other children’s experiences than about their own)
- Get information on how often and in what ways children use digital devices and the Internet, as well as on the level of exposure to risks and digital violence by students from the school your child goes to
- Ask for expert assistance at your child’s school (parental education, etc), cooperate with the school in the process of establishing rules of using mobile devices during lessons
- Apply measures of technical online protection, but not as the basic measure – first of all, you need to talk to your children and educate them about safe utilisation of the Internet
- More intensive monitoring (the computer is placed in the living room so that parents could monitor what children do online, what websites they visit, and how much time they spend online) is not an adequate measure of protection, among other things also because most children may also go online using their mobile phones
- Punishing children by forbidding them to use digital devices may have opposite effects, because denying them the use of such devices may be a harsh punishment for children, and in order to avoid it children may resort to hiding digital violence from their parents and other adults

Recommendations for schools/teachers

- Inform students, teachers and parents about what is considered to be digital violence
- Point out in no uncertain terms that cases of digital violence will be treated in the same way as other forms of school violence
- Raise teachers’ awareness of the role of the school in the prevention and solving of the problem of digital violence (although digital violence is not exclusively linked to the school environment)

- Organise training sessions for students, teachers and parents related to digital violence and its forms, as well as manners of protection
- Digital violence should be inserted as a training unit into the mandatory curriculum (e.g. within the following subjects: computer science, psychology, civic education, sociology, philosophy, etc)
- Information on the positive and negative aspects of using the Internet, and potential risks and manners of safe Internet usage should be made visible and available to all students, teachers and other employees
- Inform students about “good websites” and contents suitable for their developmental and psychological needs; encourage children to use the Internet to a greater extent for acquiring knowledge, doing homework, and studying
- Work systematically on sensitising students and raising their awareness of the negative consequences of digital violence
- Work on the change of norms and students’ beliefs, i.e. raise the awareness of the gravity of the effects of digital violence, as well as of the fact that no form of digital violence is legitimate or acceptable.
- Inform students about the legal framework (rights and responsibilities of users of social networks)
- Inform students about the mechanisms and manners of reporting digital violence
- Stimulate and encourage students not to be passive observers of violence, but to report and talk about digital violence both with adults (parents, teachers and other school employees) and with their peers
- In view of the fact that victims of violence usually ask their peers for help, peer teams should be formed to educate their peers about digital violence
- Train students in how to react to situations when they are witnesses of digital violence (the research results show that a certain number of students react with violence, and that there are a lot of passive observers)
- Work on creating a positive atmosphere in your school
- Introduce more specific rules of using mobile phones and the Internet in the school environment
- Ensure that there is the technical protection from digital violence (programmes used for protection from viruses, etc)
- Improve the cooperation between the school and parents in solving the problem of digital violence: inform parents about digital violence (level of presence, measures for its prevention and elimination)
- Establish cooperation between the school and the local community (Centre for Safe Internet, mobile operators, Ministry of Interior Affairs)
- Take systematic preventive measures for reducing traditional forms of violence among students

Recommendations for decision makers in the area of education

- Work systematically on empowering schools and increasing their capacities for facing the problem of digital violence (training sessions for school staff, securing resources/materials for preventing digital violence)
- Digital literacy and safe Internet usage skills are classified among the most important competencies that a student should acquire during the process of formal education, and therefore it is necessary to incorporate them in the mandatory curriculum
- Conduct research resulting in guidelines for taking specific measures for preventing and eliminating digital violence (join international research activities, e.g. EU Kids Online)
- Use examples of good practice from other countries