

GENDER DIFFERENCES IN THE MANIFESTATION OF RISKY FORMS OF ADOLESCENTS' BEHAVIOR ON THE INTERNET

Marina Đuranović

*University of Zagreb, Faculty of
Teacher Education, Croatia*

Irena Klasnić *

*Juraj Habelić Primary School,
Velika Gorica, Croatia*

Ana-Marija Malbašić

Zagreb City Libraries, Croatia

Abstract

We live in a time of highly developed technologies. The Internet has become an integral part of the lives of children and adolescents. It offers us a number of high-quality and practical content, but also the content that can have an adverse impact on the development of children and adolescents and threaten their emotional, social and physical well-being. The objective of this study is to investigate gender differences in the manifestation of risky forms of students' (adolescents') behavior on the Internet during their free time. The research was conducted during the school year 2014/2015 in 18 high schools in the Republic of Croatia on a sample of 2,395 participants. The research results suggest that adolescents most often visit websites for downloading movies, music and programs without paying a fee, while the least time is spent publishing stories and pictures about other people that could harm their reputation. For all variables, it has been statistically proven that there are statistically significant gender differences in the manifestation of risky forms of behavior on the Internet. Statistically significant differences were also found in the amount of free time that students spend online.

Keywords: internet; adolescents; risky behavior; gender differences

Introduction

Highly developed technology, rapid flow of information and global mobility are just some of the characteristics of the times we live in today. New

Correspondence concerning this paper should be addressed to:

* Juraj Habelić Primary School. Address: Baranjska 4, Gradići, 10 410 Velika Gorica, Republic of Croatia. E-mail: idklasnic@net.hr

technologies are a part of everyday life of almost every child and adolescent. The speed with which children and adolescents master new technologies is truly amazing. We can say that children are very adept at using computers and the Internet, but do not have the adequate knowledge about them and are mostly not aware of the consequences that may arise as a result. It is an indisputable fact that the Internet has made our lives easier and better. It offers access to an array of useful, educational and entertaining information. The Internet is available to everyone. Laniado and Pietra (2005) point out that it is precisely its availability, immensity and impartiality that cause its risks. The Internet has also no taboos or censorship. Anything can be published by anyone, and in such a way that the published information, pictures, videos or messages are visible to all Internet users. Therefore, the Internet contains a vast amount of information and content inappropriate for children and young people. It is true that the amount of useful content on the Internet greatly outnumbers the amount of harmful content; however, the latter often has a greater attendance rate and receives more interest than the useful and appropriate content (Aftab, 2000). Everyone knows that forbidden fruit is much more interesting, which is especially true for adolescents. Adolescence is a very specific period in human development, filled with a lot of “unbridled joy and seemingly inconsolable grief and bewilderment, loneliness, altruism and selfishness, insatiable curiosity and boredom, self-confidence and insecurity” (Conger, 1979, p. 6). Due to their youthful, exploratory spirit, adolescents are attracted to precisely those harmful portals that promote pornography, websites that encourage hatred, spread rumors and slander under the guise of news, websites that suggest certain forms of auto-destructive behavior with topics such as suicide, anorexia, Nazism, abortion methods or kidnapping (Vuletić, Jeličić, & Karačić, 2014). Scientists in this field of research that examine dangers that threaten children and adolescents on the Internet usually cite the following as the most common: disturbing, aggressive or impolite e-mail messages, exposure to sexual and violent content, as well as content that promotes discrimination and hatred, pedophilia, direct communication with strangers, encouragement of the publication of important and personal data, encouragement of illegal activities (e.g. buying and consuming tobacco products, alcohol and narcotics, gambling, etc.) and the possibility of becoming a victim of Internet violence, which has been described as a growing global phenomenon (Aftab, 2000; Bilić, 2014; Stanić, 2010; Živković, 2006). With the

development of modern technologies and new media, classic crime is gradually spreading from the real world to virtual space by means of the Internet. Electronic violence is described as an extended form of traditional violence. These two forms are significantly different as victims cannot escape violence that is not limited by time and place, and malicious information is spread quickly and is easily accessible to everyone (Kernaghan & Elwood, 2013; Vuletić, Jeličić, & Karačić, 2014). Victims of electronic violence are helpless, cannot defend themselves, and, thanks to the anonymity provided by the Internet, possibilities to reveal and punish abusers are minimal (Bilić, Buljan Flander, & Rafajac, 2014). Research conducted on a suitable sample in 23 schools in Croatia in 2010 by UNICEF, within the program “Break the chain!”, has shown that 23.8% of children between 10 and 15 years of age think that it is fun to send someone anonymous disturbing messages. According to the results from the same research, 57.9% of respondents think that it is easier to avoid being punished if your abuse someone over the Internet because no one knows your identity (Tomić Latinac, 2010).

In fact, it is considered that cyberbullying causes the victim more emotional pain and damage than traditional violence because of the durability of digital data, as well as the inability to escape it, and the inability to feel safe even in their own home (Pregrad, Tomić Latinac, Mikulić, & Šeparović, 2010; Runions, Shapka, Dooley, & Modecki, 2013; Tokunaga, 2010). In cyberbullying, the power of the written word is evident and the victim can re-read what the abuser wrote over and over again. With physical and verbal violence, physical violence and ugly words are eventually forgotten, while cyberbullying is repeated and continuous. A written text stays on the Internet for a long time. It is evident that the frequency and duration of exposure to violence is significantly longer than is the case with direct violence, which is a one-time event. Furthermore, the audience (witnesses) is much broader than on a school playground or in a classroom (Pregrad et al., 2010). Cyberbullying can be divided into seven types (Willard, 2004, *as cited in* Li, 2010):

- sending angry, unpleasant and vulgar messages to a person or online group
- harassment which includes repeated sending of threatening messages to a person,
- Internet stalking which aims to intimidate individuals
- slander - sending or posting insulting and untrue statements about a person

- pretending to be someone else and sending or publishing material under another person's name, which makes the victim seem bad or a potential threat to others
- betrayal and deception, which involves sending or publishing private, sensitive or embarrassing information about another person
- deliberate exclusion of a person from an online group

Ciboci (2014) points out bullying through social networks as one of the most common forms of abuse. This form of abuse involves creating different hate groups where abusers publish offensive photos and videos of their peers, call them names and make fun of them.

When it comes to violence on the Internet, gender is one of the most commonly studied variables; however, results obtained by various research are very contradictory. The results of some studies have shown that there are gender differences in cyberbullying (Lee et al., 2007; Soule, Shall, & Kleen, 2003), while other studies came to a conclusion that males are more prone to abusive behavior on the Internet than females (Yang & Tung, 2007).

Raskauskas and Stoltz (2007) found a significant positive correlation between violent behavior on the Internet and physical and verbal aggression. Approximately 20-40% of young people have experienced cyberbullying at least once in their lives (Tokunaga, 2010). Previous research of classical (traditional) violence among adolescents confirmed the connection between violence and low self-esteem of the victim, however Patchin and Hinduja (2010) have conducted research which suggests a connection between Internet violence and low self-esteem in adolescents who had been exposed to cyberbullying. Klomek, Sourander, and Gould (2010) warn that exposing children and adolescents to any form of violent behavior (physical, verbal, social or Internet violence) increases the risk that the victim would experience suicidal thoughts and behavior. Litwiller and Brausch (2013) examined the connection between physical and Internet violence and adolescent suicidal behavior. Results showed that both types of violence, physical and virtual, are positive predictors of suicidal behavior, drug abuse, violent behavior and unsafe sexual behavior. Therefore, any form of violence leaves long-lasting and severe consequences on the child's development, and even later in adulthood (Cook, Williams, Guerra, Kim, & Sadek, 2010). The biggest and most serious threat to children and adolescents on the Internet are unknown and ill-intentioned people who try to establish personal contact with them, while somewhat less serious

dangers lie in inappropriate information they can come across. Communication applications on the Internet (e-mail, instant messaging, blogs, social networks such as Myspace, chat rooms...) are deeply rooted into lives of adolescents and have become its integral part (Blais, Craig, Pepler, & Connolly, 2008; Subrahmanyam & Lin, 2007; Werner, Bumpus, & Rock, 2010). According to an Australian Communications and Media Authority (ACMA) report, one of the most common reasons why adolescents access the Internet is a desire for online communication with their peers (ACMA 2009, *as cited in* Waite, 2011). About 94% of young Americans between the ages of 12 and 17 state that they use the Internet and that social networking services (SNS) like Facebook and MySpace are their primary destination (Pew, 2009, *as cited in* Waite, 2011). Young Croatians do not fall behind their American peers either. According to research, 93% of adolescents in Croatia between the ages of 11 and 18 have a Facebook profile (Poliklinika za zaštitu djece grada Zagreba, 2013). While some adolescents use the Internet in order to meet and communicate with strangers (Wolak et al., 2003, *as cited in* Blais et al., 2008), the majority uses it for communication with people they already know (Valkenburg & Peter, 2007). Adolescents report that while communicating on the Internet, they are able to reveal their real self better than while communicating face to face (Blais et al., 2008). They know that in the real world they need to tell the truth in order to preserve friendships, and not lie or represent themselves as being someone else. So for them, social networks represent a true, genuine diary. The diary is no longer kept secret, but is made public and in it they share their feelings with the people they communicate with (Labaš, 2011). However, adolescents often ignore the fact that anonymity in communication provided by the Internet allows people false representation. If we do not know someone personally, we cannot really know who we are communicating with; the person can present themselves as a woman, not a man; a child, not an adult; can pretend to be benevolent, open, honest, charming and attractive, although in reality they do not possess these traits. Anonymity provided by the Internet can encourage a person to create an idealized self and change their personality.

Cyber-crime is a relatively new phenomenon; however, the Internet abounds in criminal activities, ranging from digital piracy, violation of the concept of copyright by downloading music, movies and books, to arms trafficking, human and human organs trafficking, pornography, bank account theft and more (Ružić, 2011).

Objectives

The objective of this study is to investigate gender differences in the manifestation of risky forms of students' (adolescents') behavior on the Internet during their free time. Free time will, for the purposes of this paper, be defined as the time left to students after fulfilling all their obligations.

This study is based on two hypotheses:

H1 - There is a statistically significant gender difference in the manifestation of risky forms of students' behavior on the Internet.

H2 - There is a statistically significant gender difference in the amount of free time that students spend on the Internet daily.

Method

Participants

The research was conducted during the academic year 2014/2015 in 18 high schools in the Sisak-Moslavina County and Zagreb County (Republic of Croatia). The research included students from the first (15 years) and third grade (17 years) of high school, which were, at the time of the survey, at school. The total number of students who participated in the study is 2,395. There is almost an equal number of male (n=1.182, or 49,4%) and female (n=1.213, or 50,6%) participants.

Instrument

A questionnaire was used to obtain socio-demographic data about the students (gender, type of school, grade, parent employment). In order to research gender differences in the manifestation of risky behavior of adolescents on the Internet during their free time, a scale with 22 claims was designed. The scale of risky behaviour in the Internet was based on the research of relevant literature within this field (Aftab, 2000; Bilić, 2014; Ciboci, 2014; Kernaghan & Elwood, 2013; Lee et al., 2007; Valkenburg & Peter, 2007; Werner, Bumpus, & Rock, 2010; Yang & Tung, 2007). On a 5-point ordinal type scale, negatively polarized (scale direction), with values being: 1-never, 2-rarely, 3-sometimes, 4-often, 5-very often, the participants had to mark their level of agreement with the claim.

Procedure

Participation was voluntary and anonymous, and abided by the Code of Ethical Conduct for Research Involving Children. The children were given an explanation regarding the aim of the research. Every questionnaire contained instructions. The research was conducted in a group setting, during one school hour.

Results and discussion

Basic descriptive indicators and the results of the Mann Whitney U Test are shown in Table 1.

Table 1. Descriptive Statistics of Scale and Mann Whitney U Test

Variable code	M	SD	Skewness	Kurtosis	Mann-Whitney U	Wilcoxon W	Z	p
v 1	2,12	1,05	,69	-,16	668608,00	1367761,00	-2,99	,003
v 2	1,17	,56	4,33	21,46	644390,00	1380681,00	-7,98	,000
v 3	1,10	,44	5,93	40,58	670047,50	1406338,50	-6,81	,000
v 4	1,20	,63	3,73	15,04	656685,50	1392976,50	-6,41	,000
v 5	1,14	,59	4,95	25,90	659998,00	1396289,00	-7,51	,000
v 6	1,13	,58	5,02	26,14	658956,00	1395247,00	-8,10	,000
v 7	2,03	1,12	1,06	,51	610721,00	1347012,00	-6,63	,000
v 8	1,27	,76	3,27	10,85	640964,00	1377255,00	-7,40	,000
v 9	1,21	,66	3,65	14,20	669206,00	1405497,00	-4,97	,000
v 10	2,42	1,14	,50	-,42	676292,00	1375445,00	-2,49	,013
v 11	1,68	1,00	1,62	2,18	662878,50	1399169,50	-3,61	,000
v 12	1,55	,99	2,00	3,48	625004,00	1361295,00	-6,66	,000
v 13	2,09	1,34	,97	-,33	533563,50	1269854,50	-11,65	,000
v 14	3,10	1,56	-,12	-1,48	615481,00	1351772,00	-6,16	,000
v 15	1,28	,79	3,15	9,77	631201,00	1367492,00	-8,31	,000
v 16	1,35	,83	2,76	7,55	648741,00	1385032,00	-5,81	,000
v 17	1,42	1,03	2,51	5,19	539291,00	1275582,00	-15,75	,000
v 18	1,45	,90	2,28	4,95	653301,00	1389592,00	-4,86	,000
v 19	1,18	,69	4,23	18,01	659008,00	1395299,00	-7,13	,000
v 20	1,32	,87	3,01	8,61	569729,00	1306020,00	-13,64	,000
v 21	2,21	1,61	,83	-1,02	243656,50	979947,50	-31,37	,000
v 22	1,23	,75	3,68	13,51	614008,00	1350299,00	-11,08	,000

Note 1: Grouping Variable: gender; $p \leq 0,05$

Note 2: v 1-You upload personal information, photographs of yourself or your family members without their approval; v 2-You e-mail disturbing or threatening messages; v 3-You publish stories, pictures and jokes about another person which can damage their reputation online; v 4-change other person's nickname

on chat; v 5-You open groups on Facebook in order to mock or insult others; v 6-You send viruses to other people; v 7-You communicate with strangers on the Internet; v 8-You introduce yourself by someone else's name on the Internet; v 9-You visit websites that promote suicidal behavior; v 10-You neglect your school obligations because of the Internet; v 11-You respond to e-mails from strangers; v 12-You visit chat rooms that don't have a moderator; v 13-You lie about your age in order to gain access to a certain website; v 14-You copy movies, music or software without paying any fee; v 15-You go to private chat rooms after a stranger's proposal; v 16-You meet strangers whom you met on the Internet; v 17-You gamble on the Internet; v 18-You block or exclude someone from a group in order for them to feel isolated; v 19-You visit websites that offer purchases of narcotics; v 20-You visit websites that promote violence; v 21-You visit websites with porno graphic content; v 22-You visit websites that encourage racial and national hostility

As can be seen in the table above (Table 1), the variable with the highest mean is the variable v 14 (You copy movies, music or software without paying a fee; $M=3.10$), which indicates that the participants, out of all forms of behavior on the Internet, most frequently violate copyrights of others by copying movies, music or software without paying a fee. One of the reasons for the increased prevalence of the above mentioned behavior can certainly be a lack of awareness about the importance of respecting copyright. The task of an educational system, as well as the society as a whole, is to show children and adolescents the importance of other people's work. Behavior on the Internet in which students engage the least is posting stories, pictures or jokes about other people which could harm their reputation (v 3; $M=1.10$). This result is very encouraging given that many studies warn about the severity and long-term emotional consequences of cyberbullying.

Considering the skewness, almost all variables are positively skewed (most of them are highly positively skewed) asymmetric distributions, which is in line with the low arithmetic means, and in accordance with the direction of the scale of low prevalence of certain assessed variables. Also, the majority of the variables have highly leptokurtic distributions, which is in line with the large dispersion of results around the mean. Analogously, the arithmetic mean is not as representative when it comes to all results, so it is necessary to be careful in possible generalizations.

H1 - There is a statistically significant gender difference in the manifestation of risky forms of students' behavior on the Internet

The distribution of the gender variable is as follows: there are 1.192 (49.4%) male and 1.213 (50.6%) female participants. In testing H1, a non-parametric Mann-Whitney test was used. Because of the expressed asymmetry

(skewness) and kurtosis and the prerequisite of normal distribution, the U-test was not fulfilled (KS test $\leq .05$).

As it can be seen in Table 1, there is a statistically significant gender difference in all variables of the manifestation of risky forms of student's behavior on the Internet.

The direction of the differences is shown in Table 2.

Table 2. Direction of gender differences of the manifestation of risky forms of student's behavior on the Internet

Variable code	Gender	N	Mean Rank	Sum of Ranks
v 1	male	1182	1157,16	1367761,00
	female	1213	1237,80	1501449,00
v 2	male	1182	1259,33	1488529,00
	female	1213	1138,24	1380681,00
v 3	male	1182	1237,62	1462871,50
	female	1213	1159,39	1406338,50
v 4	male	1182	1248,93	1476233,50
	female	1213	1148,37	1392976,50
v 5	male	1182	1246,13	1472921,00
	female	1213	1151,10	1396289,00
v 6	male	1182	1247,01	1473963,00
	female	1213	1150,24	1395247,00
v 7	male	1182	1287,82	1522198,00
	female	1213	1110,48	1347012,00
v 8	male	1182	1262,23	1491955,00
	female	1213	1135,41	1377255,00
v 9	male	1182	1238,34	1463713,00
	female	1213	1158,69	1405497,00
v 10	male	1182	1163,66	1375445,00
	female	1213	1231,46	1493765,00
v 11	male	1182	1243,69	1470040,50
	female	1213	1153,48	1399169,50
v 12	male	1182	1275,73	1507915,00
	female	1213	1122,25	1361295,00
v 13	male	1182	1353,09	1599355,50
	female	1213	1046,87	1269854,50

Table 2. Direction of gender differences of the manifestation of risky forms of student's behavior on the Internet - *continued*

Variable code	Gender	N	Mean Rank	Sum of Ranks
v 14	male	1182	1283,79	1517438,00
	female	1213	1114,40	1351772,00
v 15	male	1182	1270,49	1501718,00
	female	1213	1127,36	1367492,00
v 16	male	1182	1255,65	1484178,00
	female	1213	1141,82	1385032,00
v 17	male	1182	1348,25	1593628,00
	female	1213	1051,59	1275582,00
v 18	male	1182	1251,79	1479618,00
	female	1213	1145,58	1389592,00
v 19	male	1182	1246,96	1473911,00
	female	1213	1150,29	1395299,00
v 20	male	1182	1322,50	1563190,00
	female	1213	1076,69	1306020,00
v 21	male	1182	1598,36	1889262,50
	female	1213	807,87	979947,50
v 22	male	1182	1285,03	1518911,00
	female	1213	1113,19	1350299,00

As can be seen in Table 2, from the level of range, and according to the polarization (direction) of the scale, female students show a statistically significant higher level of the following behaviours: uploading personal information, photographs of themselves or their family members without their approval (v 1) and neglect their school obligations because of the Internet (v 10). It is interesting that on all other variables of manifesting risky behavior on the Internet boys have a higher estimate than girls. Thus, in comparison to girls, boys show the following forms of behavior more frequently: e-mailing disturbing or threatening messages (v 2); publishing stories, pictures and jokes about other people which can harm their reputation online (v 3); changing another person's nickname on chat rooms (v 4); opening groups on Facebook in order to mock or insult others (v 5); sending viruses to other people (v 6); communicating with strangers on the Internet (v 7); introducing themselves by someone else's name on the Internet (v 8); visiting websites that promote suicidal behavior (v 9); responding to e-mails from strangers (v 11); visiting

chat rooms that don't have a moderator (v 12); lying about their age in order to gain access to certain websites (v 13); copying movies, music or software without paying a fee (v 14), visiting private chat rooms after a stranger's proposal to do so (v 15); meeting with strangers whom they met on the Internet (v 16); gambling on the Internet (v 17); blocking or excluding someone from a group to make them feel isolated (v 18); visiting websites that offer the purchase of narcotics (v 19); visiting websites that promote violence (v 20); visiting websites with pornographic content (v 21); visiting websites that encourage racial and national hostility (v 22).

The media (TV, press) frequently reports on risky behavior of girls, which makes the results of some variables somewhat surprising. It was expected that girls would be the ones to ridicule someone on Facebook more frequently (v 5), communicate with strangers on the Internet (v 7) and meet with strangers who they had met online (v 16) because such behavior is usually associated with the female population.

It should be noted that the biggest difference between male and female participants was reported on the variable "I visit websites with pornographic content" (v 21), where such behavior is typical for boys. Pornographic content is extremely interesting to boys, while girls exhibit the least amount of interest for the same content, which makes gender differences the most obvious on this variable.

According to the Mann Whitney U test, the H1 hypothesis is fully confirmed.

H2 - There is a statistically significant gender difference in the amount of free time that students spend on the Internet daily

The distribution of the variable of the amount of average daily free time that students spend on the Internet is: less than one hour: 346 (14.4%), up to 2 hours: 906 (37.8%), 3 to 5 hours: 749 (31.3%), while 394 (16.5%) spend more than 5 hours on the Internet per day. As it can be seen from the obtained results, adolescents spend a large amount of their free time on the Internet. Particularly worrying is the fact that 16.5% of participants spend more than 5 hours on the Internet per day, and thus represent a potential group of future Internet addicts.

The Mann Whitney U test was used to test the aforementioned hypothesis. The test results are shown in the Table 3 (*see* Figure 1).

Table 3. Values of the Mann Whitney U test

Total N	Man-Whitney U	Wilcoxon W	Std. Err.	p
2,395	786776,50	1523067,50	16120,92	.000

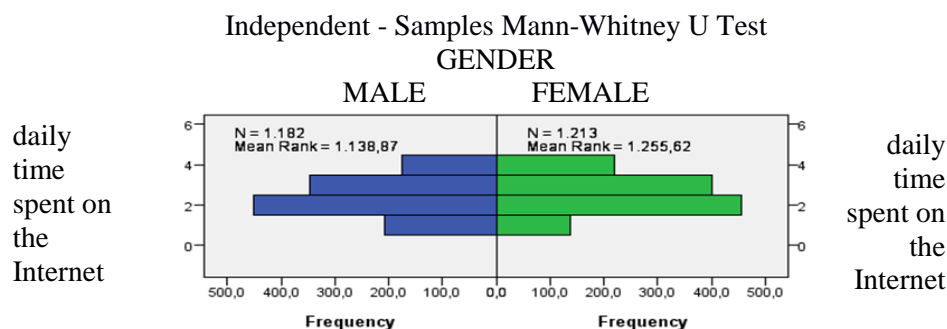


Figure 1. Gender differences in the amount of daily time spent on the Internet

As can be seen in Table 3 (*see* Figure 1), there is a statistically significant gender difference in the amount of daily time spent on the Internet. From the average value of the ranges, it is evident that girls spend more time than boys on the Internet. The effect size is 0.081, meaning that only 8% of the variability in ranges is explained with gender ($z=4336$). This is a low effect size, meaning that the gender difference on the variable of spending free time on the Internet is really low, although it is statistically significant. The results are somewhat surprising since they are different from previous research which reported that boys are those who spend more time on the Internet than girls (Colley & Comber, 2003; Shashaani, 1997; Young, 2000). It is certainly important to once again mention the results of the research, although statistically significant, show a very weak gender difference on the variable of spending free daily time on the Internet. With the development and increasing implementation of online technologies in everyday life, it is considered that gender differences in the use of computers and Internet will eventually be lost.

Conclusions

Today's generation of adolescents can rightfully be called the Net Generation since the Internet has become an integral and deeply rooted part of their lives. With the advent of smart phones, adolescents are given the opportunity to be online 24 hours a day, which many of them actually are. We could say that the Internet largely determines and directs the lives of adolescents - it shapes their view on life and the world considerably, influences the formation of moral and aesthetic attitudes and values in their lives, and affects their lifestyle. The virtual world also determines which patterns of behavior are acceptable and which are not, what kind of behavior is, or is no longer, cool. Thus, it is undeniable that life today without the Internet is almost unimaginable. It provides us with a vast sea of information, new content and practical advice, enables us to perform our everyday work- and life-related tasks, offers us new possibilities of spending our free time, allows growth and development of the economy and therefore affects the very quality of human life.

We must not forget that the Internet itself is neither good nor bad. It is shaped and determined by the people who use it and who publish information and content. Unfortunately, there is no censorship on the Internet so anyone can publish information and content. Quite often, people with ill intentions publish content and information that can harm the physical, emotional and social life of children and adolescents. To prohibit Internet access for adolescents would be impossible and quite wrong. The cure against this so-called disease is to educate the young, develop their media competences and train them for critical thinking and accepting content and advice on the Internet. Since the primary prevention is the best choice, the objective of this paper was to detect which risky behaviors young people partake in on the Internet, in order to take preventive measures against them and reduce their prevalence.

According to results of the research on risky behavior of adolescents on the Internet, the prevalent risky behavior is copying different materials from the Internet without paying any fees, while publishing stories and jokes on the Internet about other people which could harm their reputation is least prevalent. It is certainly important to mention that a large number of the estimated risky behaviors on the Internet have a low prevalence. Research results show a statistically significant gender difference on all variables in the manifestation of

risky behavior on the Internet. On a statistically significant level, girls publish personal data, photos of themselves or members of their family and friends on the Internet without their consent (v14.1) and neglect their school and household duties because of the Internet (v14.10) more often than boys. On the other hand, on all other variables of the manifestation of risky forms of behavior on the Internet, boys give a higher estimate than girls. The research shows statistically significant gender differences in the amount of free time that students spend on the Internet per day. Girls spend more free time on the Internet than boys.

We have to be aware of methodological limitations such as the fact that the adolescents' answers depended solely on their honesty, and should be interpreted with caution. It would be interesting to see in future research if there are any age differences in the manifestation of adolescents' risky behaviour on the internet. Are younger adolescents manifesting more risky behaviour on the Internet, or is the prevalence of such types of behaviour reduced along with the growing maturity of adolescents?

The most important concern about adolescents spending their free time on the Internet needs to be focused on quality rather than quantity. Longitudinal monitoring of how adolescents spend their free time imposes itself as a necessity with the purpose to prevent risky behavior. The alternative to undesirable forms of behavior needs to be found in enriched, customized, creative and interesting ways of spending free time, which would promote a holistic development for adolescents.

References

- Aftab, P. (2000). *The parent's guide to protecting your children in cyberspace*. New York, USA: McGraw-Hill.
- Bilić, V. (2014). The Role of Perceived Social Injustice and Care Received from the Environment in Predicting Cyberbullying and Cybervictimization. *Media Research*, 20(1), 101-125.
- Bilić, V., Buljan Flander, G., & Rafajac, B. (2014). Life Satisfaction and School Performance of Children Exposed to Classic and Cyber Peer Bullying. *Collegium Antropologicum*, 38(1), 21-29.

- Blais, J. J., Craig, W. M., Pepler, D., & Connolly, J. (2008). Adolescents Online: The Importance of Internet Activity Choices to Salient Relationships. *Journal of Youth and Adolescence*, 37(5), 522-536.
- Ciboci, L. (2014). Grupe mržnje na društvenim mrežama-novi oblici nasilja među djecom i mladima [Hate groups on social networks - new forms of violence amongst children and youth]. In M. Majdak, L. Vejmelka, K. Radat, & A. Vuga (Eds.), *Nasilje na Internetu među i nad djecom i mladima [Internet violence amongst and on children and youth]* (pp. 13-26). Zagreb: Društvo za socijalnu podršku.
- Colley, A., & Comber, C. (2003). Age and gender differences in computer use and attitudes among secondary school students: what has changed? *Educational Research*, 45, 155-165. doi: 10.1080/0013188032000103235
- Conger, J. J. (1979). *Adolescence: Generation Under Pressure*. New York, USA: Harper & Row.
- Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: a meta-analytic investigation. *School Psychology Quarterly*, 25(2), 65-83.
- Gross, E. F., Juvonen, J., & Gable, S. E. (2002). Internet Use and Well-Being in Adolescence. *Journal of Social Issues*, 58, 75-90. doi: 10.1111/1540-4560.00249
- Kernaghan, D., & Elwood, J. (2013). All the (cyber) world's stage: Framing cyberbullying as performance. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 7(1), article 5. doi: 10.5817/CP2013-1-5
- Klomek, A., Sourander, A., & Gould, M. (2010). The association of suicide and bullying in childhood to young adulthood: A review of cross-sectional and longitudinal research findings. *Canadian Journal of Psychiatry*, 55(5), 282-288.
- Labaš, D. (2011). Djeca u svijetu Interneta: zatočnici virtualnog svijeta [Children in the Internet world: The virtual world captives]. In L. Ciboci, I. Kanižaj, & D. Labaš (Eds.), *Djeca medija-Od marginalizacije do senzacije [The children of the media - from marginalization to sensation]* (pp. 35-64). Zagreb: Matica hrvatska.
- Laniado, N., & Pietra, G. (2005). *Naše dijete, videoigre, Internet i televizija [Our child, videogames the Internet and television]*. Rijeka, Hrvatska: Studio TiM.

- Lee, M. S., Ko, Y. H., Song, H. S., Kwon, K. H., Lee, H. S., Nam, M., & Jung, I. K. (2007). Characteristics of Internet use in relation to game genre in Korean adolescents. *CyberPsychology & Behavior, 10*(2), 278-285.
- Li, Q. (2010). Cyberbullying in High Schools: A Study of Students' Behaviour and Beliefs about This New Phenomenon. *Journal of Aggression, Maltreatment & Trauma, 19*, 372-392. doi: 10.1080/10926771003788979
- Litwiller, B. J., & Brausch, A. M. (2013). Cyber bullying and physical bullying in adolescent suicide: the role of violent behavior and substance use. *Journal of Youth and Adolescence, 42*(5), 675-684.
- Patchin, J. W., & Hinduja, S. (2010). Cyberbullying and self-esteem. *Journal of School Health, 80*(12), 614-621.
- Poliklinika za zaštitu djece grada Zagreba (2013). *How much time and at what risks do children spend their time on the Internet and Facebook*. Retrieved from [http://www.poliklinika - djeca.hr / aktualno / rijec-ravnateljice / naseistrazivanje-koliko-vremena-i-uz-koje-rizike-djeca-provide-na-internetu-i-facebooku/](http://www.poliklinika-djeca.hr/aktualno/rijec-ravnateljice/naseistrazivanje-koliko-vremena-i-uz-koje-rizike-djeca-provide-na-internetu-i-facebooku/)
- Pregrad, J., Tomić Latinac, M., Mikulić, M., & Šeparović, N. (2010). *Children, parents and teachers' experience and attitudes towards electronic violence. A report on survey results taken amongst children, teachers and parents within the electronic violence prevention programme called "Cut the chain!"*. Retrieved from http://www.unicef.hr/upload/file/353/176706/FILENAME/Izvjestaj_Iskustva_i_stavovi_djece_roditelja_i_ucitelja_prema_elektronickim_medijima.pdf
- Raskauskas, J., & Stoltz, A. D. (2007). Involvement in traditional and electronic bullying among adolescents. *Developmental Psychology, 43*(3), 564-575.
- Runions, K. C., Shapka, J. D., Dooley, J. J., & Modecki, C. (2013). Cyber-aggression and victimization and social information processing: Integrating the medium and the message. *Psychology of Violence, 3*(1), 9-26.
- Ružić, N. (2011). Zaštita djece na Internetu [Protection of children on the Internet]. *Nova prisutnost, 9*(1), 155-170.
- Shashaani, L. (1997). Gender differences in computer attitudes and use among college students. *Journal of Educational Computing Research, 16*, 37-51. doi: 10.2190/Y8U7-AMMA-WQUT-R512

- Soule, L. C., Shall, L. W., & Kleen, B. A. (2003). Exploring Internet addiction: Demographic characteristics and stereotypes of heavy Internet users. *Journal of Computer Information Systems, 44*(1), 64-73.
- Stanić, I. (2010). Ovisnost o Internetu, cyber-kockanju-kako ih sprječavati? [Internet and online gambling addiction - how to prevent them?]. *Napredak, 151*(2), 214-235.
- Subrahmanyam, K., & Lin, G. (2007). Adolescents on the net: Internet use and well-being. *Adolescence, 42*(168), 659-677.
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior, 26*(3), 277-287.
- Tomić Latinac, M. (2010). *Survey results on electronic violence*. Retrieved from http://www.unicef.hr/upload/file/347/173890/FILENAME/Rezultati_istrazivanja_o_elektronickom_zlostavljanju.pdf.
- Valkenburg, P. M., & Peter, J. (2007). Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology, 43*(2), 267-277.
- Vuletić, S., Jeličić, A., & Karačić, S. (2014). Bioetičke konotacije internet [Bioethical aspects of Internet]. *Diacovensia, 22*(4), 525-558.
- Waite, C. (2011). Sociality online: An exploratory study into the online habits of young Australians. *Youth Studies Australia, 30*(4), 17-24.
- Werner, N. E., Bumpus, M. F., & Rock, D. (2010). Involvement in internet aggression during early adolescence. *Journal of Youth and Adolescence, 39*(6), 607-619.
- Young, B. J. (2000). Gender Differences in Student Attitudes toward Computers. *Journal of Research in Computing in Education, 33*, 204-216. doi: 10.1080/08886504.2000.10782310
- Yang, S. C., & Tung, C. J. (2007). Comparison of Internet addicts and non-addicts in Taiwanese high school. *Computers in Human Behavior, 23*(1), 79-96.
- Živković, Ž. (2006). *Dijete, računalo i Internet [Child, computer and the Internet]*. Đakovo, Hrvatska: Tempo.

Received April 2, 2016

Revision April 14, 2016

Accepted April 29, 2016