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Risk behavior of students on the Internet

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Abstract

The aim of this research is to examine risk behaviour of students (adolescents) on the internet, i.e. which risk websites students visit most in their free time, and whether there are differences among students considering the type of school they attend (gymnasium, four-year high school and three-year high school). The research was carried out in the school year 2014/2015 in 18 high schools on a sample of 2395 participants in Republic of Croatia (two counties). According to research results, students most often visit websites that reproduce movies and music and offer entire channels without having to pay any sort of fee. Websites where they can upload pictures and stories that might affect other people's reputation are the least visited. A difference in visiting risk websites considering the type of school students attend has also been confirmed. According to research results, there are no statistically significant differences among students considering the way they spend their free time and the amount of free time they spend on the internet.

Keywords: new technologies; leisure time; risk behavior; students

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1. Introduction

The times we live in are times of many scientific-technological and social-economic achievements, global mobility and fast flow of information. New technologies have been taking a bigger and bigger part in the lives of children and adolescents every day. The appearance of the Internet could certainly be considered a revolutionary event in the history of mankind. Originally designed to enable high efficiency in communication among research facilities, universities and government agencies of the USA, it quickly matured into an international network available to everyone (Matejcic, 2003).

The Internet represents a big challenge to children and adolescents. It is a remarkable utility which offers entertainment, communication, current information, a lot of educational content. All it takes is a click of a mouse in order to sail the sea of the Web and visit lands never before visited, meet people never before met and make new friends, read about interesting political, sports, cultural and all other events, follow the lives of favorite celebrities... The world of the Internet is exciting, interesting and never boring. Anyone can reach all published information and communicate with anyone on the Internet. However, we should not neglect the fact that basically, nobody can stop someone in publishing something on the Internet which can be seen by everyone online. The Internet has no owner, it is not controlled and it doesn't exist in space. But even though the Internet is global and it is hard to impose a legal framework to it, does not mean that there are not any laws in the apparent space. Most laws are equally applied to both the real world and the virtual world. With a few exceptions, if an act is illegal in the real world, it is also illegal in the virtual world (Aftab, 2003). However, the perpetrators are a lot harder to find and sanction for their offenses in the virtual world.

Adolescents spend a lot of time on the Internet. They consider it a very important media in their everyday social life and they use it to create and maintain social relationships (Subrahmanyam, Smahel & Greenfield, 2006). According to a GfK research published in September 2011 under the headline "Youth online 2011" carried out on a population from 15 to 30 years of age, 85% of them use the Internet, and that percentage is even higher in the urban areas - 95%. Adolescents spend approximately more than two and a half hours a day on online activities. More than half of adolescents spend between one and four hours daily on the Internet. About 20% of adolescents are not users of any social networks. However, more than 70% have visited a social network in the last 30 days and almost everyone (over 90%) do it at least once or more times a day. 80% of social network users are members of Facebook and 10% of them are members of Twitter and LinkedIn (Labas, 2011).

It is an irrefutable fact that the existence of the Internet has considerably made our lives easier and nicer. There is far more useful, educational and fun content on it than there is bad content. However, the truth is that the bad and low-quality content on the Internet attracts far greater attention than the good and useful content. The greatest threat on the Internet is people who, because of the fact that they can be practically anonymous, often endanger others, mostly children and adolescents.

Aftab (2003) points out six types of risk to which children and adolescents on the Internet are exposed:

- They can access inappropriate information.
- They can access websites that sell illegal products or encourage illegal activities.
- They can be stalked or harassed by other people.
- By filling in forms or participating in different online competitions, they can publish important or personal information.
 - They can become victims of frauds or tricks while shopping online.
 - They can become victims of virtual stalkers who will try to persuade them to meet personally.

Modern technological utilities are, unfortunately, misused by different morally deformed and criminal people in order to use, blackmail and harass children and adolescents. The most common

dangers lurking on the Internet are: cyber-crime, pedophilia, pornography, sexual harassment, violence, exploitation, organization of minor prostitution, children and adolescents trafficking, persuasion to purchase and consume alcohol, drugs and other harmful products, persuasion to gamble, persuasion to indulge in illegal activities (Laniado & Pietra, 2005; Zivkovic, 2006; Mesch, 2009; Stanic, 2010; Mandaric, 2012; Bilic, 2014). The following items are noted by Ybara and Mitchell to be among risks that can occur online: revealing personal information, aggressive behavior, communicating with strangers, activities tied to sexual behavior and downloading. Scientists warn that the exposure of children and adolescents to pornographic content on the Internet has an extremely negative impact on their development, motivates them for greater acceptance of sexual permissiveness, encourages sexual activity in early age and contributes to the creation of negative attitude towards women (Barak, Fisher, Belfry, & Lashambe, 1999; Lo & Wei, 2002; Greenfield, 2004). Violence on the Internet is becoming more present every day. The concept of Internet harassment, completely unfamiliar until recently, is becoming more and more spread and dominant and is often described as a growing global phenomenon (Bilic, 2014). The main difference between Internet violence and "face to face" violence is the media in which violence takes place. Negative impacts on the victim are equally apparent, even more so in the case of Internet violence (Buljan Flander, 2008, according to Jade Durakovic, Sincek & Tomasic Humer, 2014). Classic violence takes place in a certain physical space, most often in school, and the bully can be easily identified and sanctioned. In the case of classic violence, the victim can respond and ask for protection. Unlike classic violence, violence over the Internet is indirect, without any physical interaction, it can happen at any time and the victims cannot defend themselves. The possibility to identify and sanction the bully is minimal since the bully can stay anonymous (Bilic, Buljan Flander & Rafajac, 2014). This type of violence often manifests itself through SMS and MMS messages, e-mails, blogs, forums, video messages and social networks (Facebook, MySpace, Twitter). Electronic violence leaves bad and long-term consequences on children and adolescents. Hrenar and associates (2014) carried out a research about the connection between suffering from electronic peer violence and high school students' self-respect. According to results, being a victim of electronic violence is connected to bad physical self-awareness and self-respect in general.

There are many varieties of dangers that children and adolescents can encounter on the Internet. Risk behavior of students (adolescents) on the Internet, i.e. which potentially risk websites students most often visit in their free time and the difference among students who go to different types of school (gymnasium, 4-grade high school, 3-grade high school) will be researched in this paper. It will also be examined if there is a difference among the students of listed schools in the way they spend their free time and the amount of free time spent on the Internet. For this paper, the term free time means the time children and adolescents have after completing their school obligations and other obligations.

2. Methodology

2.1. Sample of examinees

The sample consists of 2395 students of 18 high schools in Sisak- Moslavina county and Zagreb county (Republic of Croatia). The research was carried out in the 2014/2015 school year. Considering the type of high school, the sample was divided into: 5 gymnasiums (n=669; 27.9%), 6 4-grade high schools (n=939; 39.2%) and 7 3-year high schools (n=787; 32.9%).

2.2. Sample of variables

For the purposes of this research, a questionnaire was developed. It consisted of 22 items on a 5-degree ordinal scale, negatively polarized (direction of the scale) with values: 1-never, 2-rarely, 3-sometimes, 4- often, 5- very often.

2.3. Results

Basic descriptive indicators are shown in Table 1.

Table 1. Descriptive Statistics of Scale.

	N	Range	Minimum	Maximum	Mean	Std. Error	Std.	Skewness	Kurtosis	Std. Error	
							Deviation				
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	
v14.1	2395	4	1	5	2,12	,021	1,050	,693	,050	-,159	,100
v14.2	2395	4	1	5	1,17	,011	,562	4,329	,050	21,464	,100
v14.3	2395	4	1	5	1,10	,009	,444	5,931	,050	40,580	,100
v14.4	2395	4	1	5	1,20	,013	,632	3,734	,050	15,036	,100
v14.5	2395	4	1	5	1,14	,012	,588	4,954	,050	25,899	,100
v14.6	2395	4	1	5	1,13	,012	,575	5,015	,050	26,143	,100
v14.7	2395	4	1	5	2,03	,023	1,119	1,056	,050	,510	,100
v14.8	2395	4	1	5	1,27	,015	,756	3,267	,050	10,846	,100
v14.9	2395	4	1	5	1,21	,013	,661	3,645	,050	14,202	,100
v14.10	2395	4	1	5	2,42	,023	1,141	,497	,050	-,415	,100
v14.11	2395	4	1	5	1,68	,020	,996	1,616	,050	2,182	,100
v14.12	2395	4	1	5	1,55	,020	,988	2,000	,050	3,477	,100
v14.13	2395	4	1	5	2,09	,027	1,344	,974	,050	-,325	,100
v14.14	2395	4	1	5	3,10	,032	1,560	-,118	,050	-,1479	,100
v14.15	2395	4	1	5	1,28	,016	,789	3,150	,050	9,765	,100
v14.16	2395	4	1	5	1,35	,017	,833	2,761	,050	7,548	,100
v14.17	2395	4	1	5	1,42	,021	1,028	2,509	,050	5,191	,100
v14.18	2395	4	1	5	1,45	,018	,902	2,283	,050	4,954	,100
v14.19	2395	4	1	5	1,18	,014	,687	4,230	,050	18,007	,100
v14.20	2395	4	1	5	1,32	,018	,866	3,011	,050	8,613	,100
v14.21	2395	4	1	5	2,21	,033	1,607	,825	,050	-,1020	,100
v14.22	2395	4	1	5	1,23	,015	,745	3,677	,050	13,507	,100
Valid (listwise)	N 2395										

Legend-v 14.1-You upload personal information, photographs of yourself or your family members without their approval; v14.2- You e-mail disturbing or threatening messages; v14.3- You publish stories, pictures and jokes about another person which can damage their reputation online; v 14.4- change other person's nickname on chat; v 14.5- You open groups on Facebook in order to mock or insult others; v14.6- You send viruses to other people; v 14.7- You communicate with strangers on the Internet; v 14.8- You introduce yourself by someone else's name on the Internet; v 14.9-You visit websites that promote suicidal behavior; v 14.10- You neglect your school obligations because of the Internet; v 14.11- You respond to e-mails from strangers; v 14.12- You visit chat rooms that don't have a moderator; v 14.13-You lie about your age in order to

gain access to a certain website; v 14.14- You copy movies, music or software without paying any fee; v 14.15- You go to private chat rooms after a stranger's proposal; v 14.16- You meet strangers whom you met on the Internet; v 14.17-You gamble on the Internet; v 14.18- You block or exclude someone from a group in order for them to feel isolated; v 14.19- You visit websites that offer purchases of narcotics; v 14.20- You visit websites that promote violence; v 14.21- You visit websites with pornographic content; v 14.22- You visit websites that encourage racial and national bigotry

The variable with the highest average is v14.14 (You copy movies, music or software without paying any fee; Mean=3,10), which means that students from the sample most often copy various content from the Internet without paying any fee. On the opposite, they rarely publish stories, pictures and jokes about other people that could damage their reputation (v 14.3; Mean=1,10) and send viruses to other people by e-mail (v 14.6; Mean=1.13). Considering the skewness, almost every variable is positive asymmetrical which implies lower average values, i.e. implies the direction of the scale about low prevalence of certain estimated behaviors. Also, most variables show leptokurtic distributions which imply great dispersion of results around the average value. The average value is a less representative indicator of all results and one should be careful with possible generalizations.

H1-There is a statistically significant difference in the manifestation of risk types of behavior of students on the Internet considering the type of school they go to (gymnasium, 3-grade high school or 4-grade high school).

Together with the H1 test, a non-parametric Kruskal Wallis H test was applied because of the significant skewness and kurtosis, and the normality of distribution prerequisite not being fulfilled (KS test $\leq 0,05$).

The results are shown in Table 2.

Table 2. Test Statistics^{a,b}.

	v14.1	v14.2	v14.3	v14.4	v14.5	v14.6	v14.7	v14.8	v14.9	v14.10	v14.11	v14.12	v14.13	v14.14	v14.15	v14.16	v14.17	v14.18	v14.19	v14.20	v14.21	v14.22
Chi-Square	3,70	4,32	8,15	,545	10,6	7,87	58,1	,171	11,5	29,2	38,7	7,99	22,5	18,3	40,1	61,1	32,4	10,1	8,57	16,6	49,1	10,6
df	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Asymp. Sig.	,157	,115	,017	,761	,005	,020	,000	,918	,003	,000	,000	,018	,000	,000	,000	,000	,000	,006	,014	,000	,000	,005

a. Kruskal Wallis Test

b. Grouping Variable: school

As it can be seen in Table 2, a large number of variables (v14.3, v14.5, v14.6, v14.7, v14.9, v14.10, v14.11, v14.12, v14.13, v14.14, v14.15, v14.16, v14.17, v14.18, v14.19, v14.20, v14.21, v14.22) display a statistically significant difference in manifesting risk behavior of students on the Internet considering the type of school they go to.

Differences among students' behavior (from gymnasiums, 3-grade high schools and 4-grade high schools) are visible from the following table (Table 3).

Table 3. Differences in Manifesting of Risk Behavior among High School Students on the Internet.

	v14.3	v14.5	v14.6	v14.7	v14.9	v14.10	v14.11	v14.12	v14.13	v14.14
	Mean Rank									
1	1183,50	1174,69	1173,74	1056,31	1164,25	1156,27	1081,06	1150,13	1255,49	1248,72
2	1188,85	1191,15	1199,58	1197,52	1192,31	1288,62	1213,95	1202,41	1230,91	1231,97
3	1221,25	1225,99	1216,73	1319,02	1233,48	1125,36	1278,38	1233,43	1109,86	1114,36
Legend:	1-Gymnasiums; 2-4.grade high schools; 3-3-grade high schools									
	v14.15	v14.16	v14.17	v14.18	v14.19	v14.20	v14.21	v14.22		

	Mean Rank							
1	1132,12	1090,40	1116,01	1145,89	1171,08	1152,94	1071,04	1183,73
2	1184,70	1199,60	1211,91	1204,71	1196,96	1189,91	1204,73	1177,91
3	1269,87	1287,55	1251,10	1234,30	1222,12	1245,95	1297,90	1234,10

Legend: 1-Gymnasiums; 2-4.grade high schools; 3-3-grade high schools

Gymnasium students more often than others lie about their age in order to gain access to a website and copy content without paying any fee.

Students of 4-grade high schools more often than others neglect their school obligations because of the Internet.

In comparison to gymnasium and 4-grade high school students, students of 3-grade high schools more often: publish stories, pictures and jokes about other people that can damage their reputation; open groups on Facebook with the goal of mocking and insulting others; send viruses to other people by e-mail; communicate with strangers of the Internet; respond to e-mails from unfamiliar senders; visit virtual chat-rooms which have no moderators; go to *private chat rooms* after being persuaded to it by a stranger; go to meetings with strangers who they met over the Internet; gamble on the Internet; purposely exclude someone from a group so that they would be isolated; visit websites that offer purchases of narcotics; visit websites that promote violence; visit websites that contain pornographic content; visit websites that encourage racial and national bigotry.

H2-There is a statistically significant difference in the way students spend their free time considering the type of school they attend

The results of the research are shown in Table 4.

Table 4. Students' Free Time Spending Considering the Type of School They Go to (Kruskal Wallis H test).

Test Statistics ^{a,b}	
v7 How I mostly spend my free time	
Chi-Square	2,000
df	2
Asymp. Sig.	,368

a. Kruskal Wallis Test

b. Grouping Variable: type of school

As seen in Table 4, the given hypothesis has not been confirmed, i.e. there are no statistically significant differences in the way gymnasium, 4-grade high school and 3-year high school students spend their free time. According to results of the research, most participants spend their free time hanging out with friends on social networks, 23,7% of them. Aside from hanging out with friends on social networks, the participants indicated that in their free time they: play sports (15,7%), surf the Internet (15,4%), listen to music (12%), watch television (8,4%), hang out with friends (7%), educate themselves (2,5%), read books or magazines (2,1%), send SMS texts (2,0%), while 9,3% of the participants indicated that they do something else. The least of them, 1,9%, indicated that they spend their free time doing hobbies. While setting the hypothesis, an assumption was made that gymnasium students will spend more time educating themselves (foreign language school, various courses etc.) in regard to other students since it is a well-known fact that gymnasiums mostly enroll excellent students and prepare them for further education (university).

H3-There is a statistically significant difference in the amount of time students spend on the Internet daily

Research results are shown in Table 5.

Table 5. Free Time Spent on the Internet (Kruskal Wallis H).

Test Statistics ^{a,b}	
v8 Average time I daily spend on the Internet	
Chi-Square	2,000
df	2
Asymp. Sig.	,368

a. Kruskal Wallis Test

b. Grouping Variable: type of school

According to results of the research (Table 5), there are no statistically significant differences in the free time high school students spend on the Internet and with that, the set hypothesis was not confirmed. After carrying out the research, the results were as follows: less than an hour daily on the Internet is spent by 14,4% of high school students, up to 2 hours are spent by 37,8%, 3 to 5 hours are spent by 31,3% and more than 5 hours a day are spent on the Internet by 16,5%. The received data is somewhat worrying. The amount of time a person spends on the Internet is one of the indicators of Internet addiction. According to results of this research, 16,5% of students are potentially addicted to the Internet.

While forming of the listed hypothesis, it was assumed that the students of gymnasiums and 4-grade high schools have less free time than the 3-grade high school students due to a more demanding syllabus. However, it is obvious that the Internet is challenging to be resisted by adolescents no matter the type of school they go to.

3. Conclusion

The Internet is no longer a matter of choice; it has simply become a need and a key to a successful future of children and adolescents. All children should have access to this technology, but they need to be taught to use it properly and safely. It is the task of adults, especially parents and teachers, to teach children medial literacy and criticality when receiving information offered on the Internet. The duty of adults is to warn children and adolescents about all the consequences that can occur while using the Internet irresponsibly. It is known that, along with the many useful, educational and fun contents on the Internet, there are contents that are inappropriate and potentially dangerous to children and adolescents. Since the fact is that the forbidden fruit is the sweetest, it is exactly the bad content that gets a lot of attention from adolescents and it is obligatory that they are always encouraged to behave responsibly, both in the real world and in the virtual world.

According to results of the research about risk behavior of students on the Internet, they most often copy various content from the Internet without paying any fee and they least publish stories, pictures and jokes about other people that can damage their reputation. However, it is important to note that a large number of perceived risk behaviors on the Internet have a low prevalence. The research has confirmed a statistically large difference among risk behavior of students considering the type of school they go to (gymnasium, 4-year high school or 3-year high school). There aren't a lot of statistical differences in the way students spend their free time considering the type of school they go to (gymnasium, 4-year high school or 3-year high school). The largest number of participants spend their free time hanging out with their friends through social networks (23,7%), while the least of them have hobbies (1,9%). The research has not shown a statistically significant difference in the free time

that high school students spend on the Internet. 14,4% of students spend less than an hour on the Internet daily, 37,8% spend up to two hours daily, 31,3% spend 3 to 5 hours daily and 16,5% spend more than 5 hours a day on the Internet.

References

- Aftab, P. (2003). *Opasnosti interneta*. Zagreb: Neretva.
- Barak, A., Fisher, W., Belfry, S. & Lashambe, D. R. (1999). Sex, guys and cyberspace: effects of Internet pornography and individual differences on men's attitudes toward women. *Journal of Psychology and Human Sexuality*, 1, 63-91.
- Bilic, V. (2014). The role of perceived social injustice and care received from the environment in predicting cyberbullying and cybervictimization. *Medijska istrazivanja*, 20(1), 101-125.
- Bilic, 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.
- Greenfield, P. M. (2004). Inadvertent exposure to pornography in the Internet: Implications for peer to peer file sharing networks for child development and families. *Applied Developmental Psychology*, 25(6), 741-750.
- Hrenar, D., Bedic, B., Mudrovic, D. & Josic, M. (2014). Povezanost doživljavanja elektroničkog vrsnjackog nasilja i samopoimanja srednjoskolaca. U: M. Majdak, L. Vejmelka, K. Radat, A. Vuga (Ur.), *Nasilje na Internetu među i nad djecom i mladima (27-38)*. Zagreb: Društvo za socijalnu podršku.
- Jade Durakovic, S., Sincek, D. & Tomasic Humer, J. (2014). Prikaz skale doživljavanja/ucenja nasilja preko interneta i rezultata primjene te skale na vinkovackim srednjoskolcima. *Zivot i skola*, 60(32), 61-74.
- Labas, D. (2011). Djeca u svijetu Interneta: zatocenci virtualnog svijeta. U: L. Ciboci, I. Kanizaj, D. Labas (Ur.), *Djeca medija-Od marginalizacije do senzacije (35-64)*. Zagreb: Matica hrvatska.
- Laniado, N. & Pietra, G. (2005). *Nase dijete, videoigre, Internet i televizija*. Rijeka:Studio TiM.
- Lo, V. H., & Wei, R. (2002). Third person effect, gender and pornography on the Internet. *Journal of Broadcasting & Electronic Media*, 46(1), 13-33.
- Mandarić, V. (2012). Novi mediji i rizicno ponasanje djece i mladih. *Bogoslovna smotra*, 82(1), 131-149.
- Matejčić, A. G. (2003). Povijest Interneta. *Drvo znanja*, 66, 39-42.
- Mesch, G. S. (2009). Social bonds and Internet pornographic exposure among adolescents. *Journal of Adolescence*, 32(3), 601-618.
- Stanić, I. (2010). Ovisnost o Internetu, cyber-kockanju-kako ih sprječavati. *Napredak*, 151(2), 214-235.
- Subrahmanyam, K., Smahel, D. & Greenfield, P. (2006). Connecting developmental constructions to the Internet: identity presentation and sexual exploration in online teen chat rooms. *Developmental Psychology*, 42(3), 395-406.
- Ybarra, M. & Mitchell, K. (2007). Prevalence & frequency of Internet harassment instigation: Implications for adolescent health. *Journal of Adolescent Health*, 41(2), 189-195.
- Young, K. S. (2009). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology and Behavior*, 1(3), 237-244.
- Zivković, Z. (2006). *Dijete, racunalo i Internet*. Dakovo:Tempo.