



DIGITAL MEDIA AND INTERNET SAFETY AMONG PRIMARY SCHOOL STUDENTS DURING THE COVID- 19 PANDEMIC

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Abstract/Izveček Digital media has become part of our everyday life in recent years, and this applies especially to school-age students. The COVID-19 pandemic and the transition to distance learning have raised the level of student exposure to the Internet, including its dangers. Aiming to examine the impact of preventive programs for safe Internet practices on the media literacy of children in primary school, we conducted an empirical study among 267 students. Media literacy was analysed in terms of the ways of using digital media as well as in terms of safe Internet practices, and comparisons were made by student gender and age.

Ključne besede:
digitalni mediji,
osnovnošolci, pandemija
COVID-19, preventivni
program, varnost spleta

Digitalni mediji in varnost osnovnošolskih učencev na internetu med pandemijo covid-19

Digitalni mediji imajo v zadnjem obdobju pomembno vlogo v našem vsakdanjem življenju, to še posebej velja za šoloobvezne otroke. S pandemijo COVID-19 in s prehodom na učenje na daljavo se je izpostavljenost učencev svetovnemu spletu in z njim povezanim pastem še povečala. Članek obravnava vpliv preventivnih programov varne rabe interneta na medijsko pismenost osnovnošolskih otrok. V empirični raziskavi, v kateri je sodelovalo 267 otrok, smo analizirali medijsko pismenost tako z vidika rabe digitalnih medijev kot z vidika varne rabe interneta. Ugotavljali smo tudi razlike med udeleženci glede na spol in starost.

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Introduction

Today's generation of students encounter media much earlier than previous generations, and the impact of the media on student development is strengthening increasingly. The Internet, and social networks especially, have become a new form of socialization, while students often remain unaware of the dangers of virtual environments such as fake news, fake profiles, inappropriate content, offensive comments, hate groups, and other forms of electronic violence. To educate students about the importance of safe Internet practices, it is necessary to make them media literate from an early age, which means developing a critical approach to media content. Parents, the educational system, and the wider social environment play a key role in the development of media literacy.

The outbreak of the COVID-19 pandemic increased the exposure to digital media among students because of the rapid implementation of distance learning at all levels of education. Such an organization of teaching in the given conditions was the best possible way to ensure the right to education (Batarelo Kokić, 2020, 20). Although the results of previous research have shown that teaching in an online environment strongly motivates students to learn, similarly to modern teaching that uses active methods of learning and student work in the classroom (Bulić and Blažević, 2020, 85), attention had to be paid to other activities that students could carry out online outside of school duties. In this sense, the role of teachers was extremely important because they had to be able to properly design lessons and distribute the amount of computer materials (Brumen et al., 2017), but also to identify safe Internet practices. This is crucial, knowing that students like to use computers, the World Wide Web, and interactive whiteboards in the classroom, and they enjoy being in a virtual learning environment, since all these present a more interesting way to gain knowledge using visual and audio information (Bratina, 2012).

The attractiveness of the media is easy to explain because they occurred in society along with our need for communication, and they are most often defined as a means of communication or transmission of news and as a mediator of message transmission from sender to recipient (Jurčić, 2017). Children are consciously exposed to the media; they read newspapers and magazines, listen to music, watch television, are active users of mass media and consume them to meet their needs for information, entertainment, and development of social relations (Labaš and Marinčić, 2018), wherein new media and social networks play the key role.

New media include the computer, the Internet, and websites, which are characterized by an unlimited number of communication channels, varied content and great accessibility (Ilišin, Marinović Bobinac and Radin, 2001). The key features of new media are digitality, multimodality, interactivity and hypertextuality (Car, 2009: 94, as cited in Diklić, Nakić and Šošić, 2019: 182). Media that offer entertaining and manipulative content most often gain a younger audience, and by creating such content they negatively affect children in their daily lives, for example, by advertising and spreading consumerism, tabloidization and sensationalism, as well as by showing violence and child pornography (Labaš and Marinčić, 2018). In the past, television used to be the most influential medium, but its influence has been declining over the years, while the influence of new media is growing. This is shown by the results of research by Ilišin et al. (2001) and Ciboci (2018) showing that in 2001, 60% of students read the press for children and young adults, and more than 90% of students watched television every day, while as many as 50% of respondents did not use a computer, and of those who did use one, only 11% often surfed the Internet. On the other hand, the results of the Ciboci (2018) survey show that only 17% of students read newspapers every day, more than 70% watched television, and more than 70% of respondents surfed the Internet. These results support the fact that today's children and young adults grow up in a world of television, computers, Internet, and mobile phones. The role of such media in socialization should not be overlooked, because watching and imitating models, such as television and film characters, can often make younger generations acquire certain negative behaviours as well as many positive behaviours on different occasions. For example, exposure to violence in resolving peer conflicts in the media can lead to the creation of scenarios that children apply when placed in conflict situations themselves (Kuterovac Jagodić, Štulhofer and Lebedina Manzoni, 2016). On the other hand, thanks to media, children also adopt prosocial behaviours, such as helping others, empathy, altruism, respect for diversity and tolerance (Kuterovac Jagodić et al., 2016). Moreover, the influence of media content is affected by regulations on the use of technology. The data from research on the use of mobile devices by primary school students in the Republic of Croatia indicate a significant negative correlation between the perception of primary school students about the level of parental mediation in the use of digital technology and self-assessed dependence on mobile devices (Dropulić and Batarelo Kokić, 2021). March (2006, as cited in Matijević and Topolovčan, 2017) explains the abbreviation *mmm* as whatever, whenever, wherever.

Access anytime and anywhere to varied content and a large amount of information along with the ability to connect are the primary features of the Internet that attract many users. The popularity of the Internet is evidenced by the fact that there are more than four billion users in the world, according to data collected before June 30, 2020 (Internet World Stats, 2020), and more than 90% of children have Internet access (Ciboci, Kanižaj, Labaš and Osmančević, 2018; Ciboci, Čosić Pregrad, Kanižaj, Potočnik and Vinković, 2020). The use of the Internet enables active, creative, and independent learning, and children and young adults can find a great deal of educational material and additional materials for school on the Internet (Ciboci et al., 2018). Children access the Internet every day, most often at home, via mobile phones. Since many children have mobile Internet, they can access the Internet anywhere (Muratbegović and Vujović, 2016; Ciboci et al., 2020). Although there are multiple possibilities for using the Internet, children mostly use social networks (Muratbegović and Vujović, 2016, Ciboci, 2018; Džambo and Zuko, 2019; Ciboci et al., 2020). Social networks are defined as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (Boyd and Ellison, 2008: 211, as cited in Kušić, 2010: 104). Social networks have become the most popular global communication phenomenon because of their universal means of communication and grouping people by common interests (Grbavac and Grbavac, 2014). The most commonly used social networks for children are *Facebook*, *Instagram* and *YouTube*, as well as the messaging applications *WhatsApp* and *Viber* (Muratbegović and Vujović, 2016; Džambo and Zuko, 2019; Ciboci et al., 2020). Children mainly use social networks for messaging with friends, watching photos and videos, playing games, meeting new friends, searching for information, creating groups and participating in them, but they also post their status and photographs (Kušić, 2010; Diklić et al., 2019). However, unlimited accessibility, access to a variety of content and information, and the use of social networks bring with them certain dangers. Children may encounter information that is unverified and of poor quality, information that could negatively affect children’s development, such as pornographic and violent content, intellectual property theft, child pornography, hate speech, and electronic violence (Ciboci et al., 2018). In addition to e-violence, the impact on mental health and addiction to the Internet and social networks are serious dangers posed by the Internet and social networks.

All the above speaks in favour of the need for early development of media literacy, which is, among other things, aimed at promoting Internet safety. Media literacy is defined as “the ability to access, analyze, evaluate, and create media messages in a variety of forms” (AEM, 2020). Thoman and Jolls (2005: 190) add that media literacy develops an understanding of the role of media in society. Its goal is not to protect children from unsolicited messages, but to help them become competent, critical, and literate in all forms of media, so that they can independently interpret what they hear and see, rather than having the interpretation imposed on them. Media literacy also includes the ability to create content, interpret content on social networks, seek information, develop a critical attitude toward social networks, and the ability to communicate with others using various social networks (Vanwynsberghe, 2014). Social media literacy is defined as “a set of technical, cognitive and emotional competencies needed to use social media to seek information, communicate, create content, avoid problems and solve problems, both in a professional and social context” (Vanwynsberghe, 2014: 238).

Parents have an important role in developing media literacy, as well as the educational system with its prevention programs that are mainly related to the prevention of Internet addiction and electronic violence, but also include topics such as online practices and Internet safety related to privacy, harassment, inappropriate content, the development of critical use of the media, resisting undesirable influences and taking one’s own position. Homeroom teachers and professional associates implement such programs, often in cooperation with the local community, i.e., with the police. Workshops and lectures are organized, and these are not intended for students only, but parents can take part in them as well. These characteristics are extracted from short descriptions of school prevention programs related to media literacy (Programs, 2020). On the other hand, as Tomljenović (2018) states, civil society organizations have a greater role in promoting media literacy, including the Association for Communication and Media Culture with their project “Children of the Media” and their participation in the EU Kids Online survey, as well as the Agency for Electronic Media with their projects “Portal medijskapismenost.hr” and “Media Literacy Days”. All these projects aim to promote media literacy and systematic education on media and media content (Tomljenović, 2018).

Methodology

Research Objective and Hypotheses

The aim of this empirical study is to examine the impact of programs for preventive safe Internet practices on the development of media literacy among primary school students. We analysed media literacy with regard to the ways of using digital media and safe Internet practices. The differences in media literacy of primary school children by gender and age were examined. The following hypotheses were set:

H1: There is no statistically significant difference in the ways of using digital media by student gender.

H2: There is no statistically significant difference in the ways of using digital media by age.

H3: There is no statistically significant difference in safe Internet practices by gender.

H4: There is no statistically significant difference in safe Internet practices by age.

H5: There is no correlation between the Digital Media Usage Scale and the Internet Safety Scale.

Research Instrument, Sample and Course, and Data Analysis

For the purposes of the research, we constructed a three-part questionnaire. At the beginning, the questionnaire explained to respondents the purpose of the study; they were also guaranteed anonymity, voluntariness, and the possibility to withdraw at any time. The questionnaire also included parental consent for the participation of underage respondents. The first part of the questionnaire related to socio-demographic characteristics: gender and age. The second part of the questionnaire included the *Digital Media Usage Scale*, with twenty-nine items, where respondents assessed the extent to which each individual item applied to them, using a 1–5-point scale, where 1 meant “It does not apply to me at all”, and 5 meant “It applies to me completely”. The third part of the questionnaire was the *Internet Safety Scale*, with fifteen items related to the dangers of the Internet, where students used a 1–5-point scale to assess the extent to which a particular item applied to them, just as in the previous scale.

The empirical research was conducted in June 2020 using Google Forms. The sample included 267 students in grades 5 to 8 of primary school.

Table 1 shows the socio-demographic structure of the respondents and shows that the sample consisted of more girls (65.2%) than boys (34.8%). Sixth graders were predominant (33.7%), while the fewest were the eighth graders (16.5%).

In the data analysis, descriptive analysis was used including frequencies, percentages, and mean values (median and interquartile range). We tested the hypotheses by inferential statistics including factor analysis, the Kruskal-Wallis and Mann-Whitney U-test, and Spearman's correlation coefficient. The normality of distribution of factors obtained was tested by the Kolmogorov-Smirnov and Shapiro-Wilk test. The results are presented in tables and graphs with accompanying textual explanations.

Table 1: Socio-demographic structure of the respondents

GENDER		f	%
female		174	65.2
male		93	34.8
	Total	267	100.0
AGE		f	%
Grade 5		58	21.7
Grade 6		90	33.7
Grade 7		75	28.1
Grade 8		44	16.5
	Total	267	100.0

Results and interpretation

Table 2 shows the results on the *Digital Media Usage Scale*. The results of the Kaiser-Meyer-Olkin and Bartlett tests proved to be significant for the scale, and the value of the KMO test was 0.834. Using the principal components method, two factors were extracted, which after normalized Varimax rotation explain 39.93% of the variance. Using factor analysis, two factors were formed: F1 – Social Networks (Cronbach's Alpha = 0.897) and F2 – Applications for Everyday Life (Cronbach's Alpha = 0.763). The consistency measures shown here indicate a good internal consistency of the factors.

The results show that students mostly use digital media as participants in social networks, but also for everyday life. In addition to using social networks, students use the Internet to search for movies, series, and music, as shown in research by Kunić et al. (2017).

Table 2: Digital Media Usage Scale

	M	1	SD	2	Cronbach's Alpha
F1: Social Networks					0.897
11. I exchange messages with strangers on a social network where I created a profile.	1.45	0.751	1.083		
10. I accept friend requests from people I don't know on the social network where I created a profile.	1.73	0.717	1.322		
20. I give my mobile phone number to strangers.	1.24	0.706	.816		
7. I have my own <i>YouTube</i> channel.	1.67	0.708	1.410		
18. I post photos on a social network every day.	1.53	0.694	1.087		
16. The number of likes my posts gain is important to me.	1.64	0.690	1.163		
12. I have a fake social media profile.	1.53	0.661	1.196		
8. I post videos on <i>YouTube</i> .	1.44	0.651	1.147		
15. I post on a social network every day.	1.83	0.621	1.250		
9. I have more than 100 friends on each social network where I have created a profile.	2.16	0.604	1.615		
19. I post stories on a social network every day.	1.93	0.575	1.396	0.336	
6. I watch inappropriate content on <i>YouTube</i> .	1.35	0.578	0.898		
24. I take screenshots of other people's posts every day and send them to my friends.	2.13	0.552	1.481	0.336	
29. During my classes I check social networks.	1.91	0.528	1.348		
25. I share photos and posts of other people every day.	2.09	0.488	1.387	0.344	
17. I follow strangers on a social network.	2.18	0.477	1.525	0.347	
14. I am the administrator of a page/group on a social network.	2.08	0.470	1.610		
F2: Applications for Everyday Life					0.623
21. I am a member of a group on WhatsApp.	4.27		1.345	0.780	
22. I am a member of a class group on WhatsApp.	4.42		1.234	0.736	
23. I share school materials with my friends on WhatsApp.	4.00		1.395	0.648	
2. I browse the Internet for movies, series, and music.	3.91	0.318	1.330	0.600	

27. Before going to bed, I check all the social networks.	2.95		1.658	0.557
5. I follow famous YouTubers.	3.61	0.323	1.484	0.487
28. In the morning when I wake up, I first check my social networks.	2.72		1.601	0.421
3. I use the Internet to buy and book things (e.g., cinema tickets).	2.33		1.450	0.421
4. I search for locations on the Internet (<i>Google Maps</i>).	2.77	0.388	1.452	0.381
13. I am a member of a group on a social network.	2.69		1.791	
1. I browse the Internet for books to read.	2.12		1.213	
26. Before going to bed, I turn off my mobile data or wi-fi.	2.40		1.711	

As with the research by Jumbo and Zuko (2019) which showed an increase in the popularity of *YouTube*, this study shows there is a growing trend among students towards following famous YouTubers. It is YouTubers, various funny videos, and music videos that make *YouTube* attractive to students (Ofcom, 2016; Ofcom, 2020). Most students are members of a group and a class group on *WhatsApp* and exchange school material. These data are not surprising because the study was conducted during the period of distance learning where students of one class had the chance to gather in one place and obtain information and teaching material from their homeroom teacher. Regarding activities on social networks, students are not inclined to post on a daily basis, nor do they care about the number of likes their posts gain, but they mostly do share the posts of others and send them to their friends. As shown in research by Kušić (2010) and Ciboci et al. (2020), students do not accept friend requests from people they do not know on social networks or give mobile phone numbers to strangers; nor do they check social networks during classes, or watch inappropriate content and similar, findings that are certainly encouraging. Table 3 shows the results of the Kolmogorov-Smirnov and Shapiro-Wilk tests for normality of distribution. Since for all observed factors, the level of significance does not exceed 0.05, we can conclude that these distributions differ from normal, which indicates the implementation of nonparametric statistical methods.

Table 3: Testing for normality of distribution

	Kolmogorov-Smirnov ^a			Shapiro-Wilk	
	Statistic	df	Sig.	Statistic	Sig.
Social networks	.171	267	.000	0.817	0.000
Applications for everyday life	.115	267	.000	0.960	0.000

a. Lilliefors Significance Correction

Table 4: Mann-Whitney U-test – differences in digital media use by gender

	Gender			Mann-Whitney U
	male median (IQR)	female median (IQR)	total median (IQR)	
Social networks	1.47 (1.18 – 2.06)	1.59 (1.24 – 2.06)	1.53 (1.18 – 2.06)	U = 7897,500 p=0.747
Applications for everyday life	3.25 (2.58 – 3.67)	3.42 (2.75 – 3.75)	3.25 (2.75 – 3.75)	U = 6959,500 p=0.060

Table 4 shows that there is no statistically significant difference by gender in the use of digital media for F1: Social networks (MW(U) = 7897,500; $p = 0.747$) nor for F2: Applications for everyday life MW(U) = 6959,500; $p = 0.060$). Based on these data, it is possible to accept the H1 hypothesis according to which there is *no statistically significant difference in the ways of using digital media by gender*. Table 5 shows the values of the Kruskal-Wallis H-test for differences in the ways of using digital media by age.

Table 5: Kruskal-Wallis H – differences in digital media use by age

	Grade					Kruskal-Wallis
	5 median (IQR)	6 median (IQR)	7 median (IQR)	8 median (IQR)	total median (IQR)	
Social networks	1.41 (1.06 – 2.06)	1.41 (1.18 – 1.82)	1.71 (1.24 – 2.18)	1.82 (1.24 – 2.21)	1.53 (1.18 – 2.06)	KW= 6.203 df=3 p=0.102
Applications for everyday life	3.21 (2.58 – 3.58)	3.25 (2.67 – 3.67)	3.58 (3.08 – 4.00)	3.42 (2.50 – 3.92)	3.25 (2.75 – 3.75)	KW= 13.083 df=3 p=0.004

As with the previous research variable of student gender, there is no statistically significant difference in the ways of using digital media with regard to student age, except for F1: Social Networks (KW(H) = 6.203; $df = 3$; $p = 0.102$). On the other hand, the data show statistically significant differences for F2: Applications for Everyday Life (KW(H) = 13.083; $df = 3$; $p = 0.004$).

Students in Grade 7 (M = 3.58; IQR (3.08 – 4.00)) and Grade 8 (M = 3.42; IQR (2.50 – 3.92)) use digital media for everyday life to a greater extent than do students in Grade 5 (M = 3.21; IQR 2.58 – 3.58)) and Grade 6 (M = 3.25; IQR (2.67 – 3.67)), i.e., older students are more likely to search for movies, series, or locations and to join *WhatsApp* groups, compared to students in Grades 5 and 6.

Following analysis of the results, we can assume that differences appear in this factor because older students live more independently and thus use applications as an aid in everyday life. Based on the data, it is possible to partially accept hypothesis H2, according to which *there is no statistically significant difference in the ways of using digital media by age*.

Table 6 shows the results on the Internet Safety Scale. The results of the Kaiser-Meyer-Olkin and Bartlett tests proved to be significant for the scale, and the value of the KMO test was 0.841. Two factors were extracted by the principal components method, which after normalized Varimax rotation, explain 52.74% of the variance. Factor analysis formed two factors: F1 – Electronic Violence (Cronbach’s Alpha = 0.870) and F2 – Internet Danger Prevention (Cronbach’s Alpha = 0.811). The consistency measures shown here indicate good internal consistency of the factors.

Table 6: Internet Safety Scale

	M	SD	1	2	Cronbach’s Alpha
F1: Electronic Violence					0.870
8. I have been abused on the Internet.	1.38	1.021	0.816		
9. I have been mocked on social networks.	1.40	0.993	0.780		
11. My photos have been shared on social media.	1.41	1.056	0.772		
15. I have sent inappropriate content to other people on social media.	1.21	0.733	0.757		
10. Untruths have been told about me on social networks.	1.46	1.098	0.719		
14. I have spread untruths about another person on social media.	1.22	0.775	0.713		
12. I have received messages with inappropriate content on social networks.	1.68	1.298	0.661		
13. I have been a member of a social media group that made fun of another person.	1.59	1.209	0.636		
F2: Internet Danger Prevention					0.811
5. I have watched TV programs about the dangers of the Internet.	3.40	1.646		0.791	

1. I have talked to my parents about the dangers of the internet.	3.42	1.565	0.751
3. At school, I have heard about the dangers of the Internet.	4.31	1.255	0.685
2. I have talked to friends about the dangers of the Internet.	2.92	1.499	0.662
4. In class, I participated in a workshop about dangers on the Internet.	3.67	1.624	0.648
7. I am familiar with the term "media literacy".	3.24	1.646	0.610
6. I have read about dangers of the Internet in the newspapers.	2.38	1.632	0.611

The results show that students have not been abused on the Internet and social networks, nor have they abused others on social networks. The results of this study are not in line with other research, such as the studies by Muratbegović and Vujović (2016) and Ciboci et al. (2020), in which many more students stated that they had been victims of electronic violence, yet it should be stressed that more students participated in these studies. Although these students were not abused online, it is important to note that several students reported being mocked on social media, that untruths had been told about them, and that they had received messages with inappropriate content, which shows that students are not fully aware of everything that electronic violence involves. Within the Internet Safety Scale, Internet danger prevention was also examined, i.e., to what extent students do discuss the about dangers of the Internet. Students had most often heard about the dangers of the Internet at school and in workshops they attended in class, which confirms the importance of the school's role in prevention and in the development of media literacy, a term with which students are mostly familiar. They learn least about the dangers of the Internet from newspapers, which is in line with research showing that students read print media increasingly less often (Ciboci, 2018a). Moreover, parents have a significant role in prevention, and the results showed that students often talked to their parents about the dangers of the Internet.

Table 7 shows the results of the Kolmogorov-Smirnov and Shapiro-Wilk tests for normality of distribution. Since for all observed factors, the level of significance does not exceed 0.05, we can conclude that these distributions differ from normal, which indicates the implementation of nonparametric statistical methods.

Table 7: Testing for normality of distribution

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Electronic violence	.288	267	.000	.616	267	0.00
Internet danger prevention	.077	267	.001	.962	267	0.00

a. Lilliefors Significance Correction

Table 8 shows the Mann-Whitney U-test values for differences in the Internet Safety Scale according to the gender of the respondents. Table 8 shows no statistically significant difference in the realization of Internet safety with regard to gender for F1: Electronic Violence (MW(U) = 7892,000; p = 0.717) nor for F2: Internet Danger Prevention (MW (U) = 7461,000; p = 0.294).

Table 8: Mann-Whitney U-test – Internet Safety Scale by gender

	Gender			Mann-Whitney U
	male median (IQR)	female median (IQR)	total median (IQR)	
Electronic violence	1.00 (1.00 – 1.63)	1.00 (1.00 -1.63)	1.00 (1.00 – 1.63)	U= 7892,000 p=0.717
Internet danger prevention	3.29 (2.29 – 4.14)	3.43 (2.86 – 4.29)	3.43 (2.71 – 4.29)	U= 7461,000 p=0.294

According to the data, it is possible to accept hypothesis (H3) according to which there is *no statistically significant difference in safe Internet practices by gender*. The values of the Kruskal-Wallis H-test for differences in the Internet Safety Scale according to age are shown in Table 9.

Table 9: Kruskal-Wallis H – Internet Safety Scale by age

	Grade					Kruskal-Wallis
	5 median (IQR)	6 median (IQR)	7 median (IQR)	8 median (IQR)	total median (IQR)	
Electronic violence	1.00 (1.00 – 1.50)	1.00 (1.00 – 1.50)	1.00 (1.00 – 1.63)	1.06 (1.00 – 1.69)	1.00 (1.00 – 1.63)	KW= 2.294 df=3 p=0.514
Internet danger prevention	3.43 (3.00 – 4.43)	3.57 (2.29 – 4.14)	3.57 (2.57 – 4.43)	3.21 (2.29 – 3.86)	3.43 (2.71 – 4.29)	KW= 2.612 df=3 p=0.455

As with the previous research variable of student gender, these data show no statistically significant difference by age in the realization of Internet safety for F1:

Electronic Violence ($KW(H)= 2.294$; $df= 3$; $p= 0.514$) nor for F2: Internet Danger Prevention ($KW(H)= 2.612$; $df= 3$; $p= 0.455$). Thus, hypothesis H4 is accepted, according to which *there is no statistically significant difference by age in safe Internet practices*. Based on all the data, we can conclude that students behave in similar ways on the Internet. They talk to parents about the dangers of the Internet, hear about this topic in school during homeroom class, participate in workshops on the dangers of the Internet, and have been introduced to the term “media literacy.” Precisely because of this prevention, students are aware of the dangers, protect themselves from electronic violence, and do not take part in electronic violence.

The importance of prevention programs and educating students about safe Internet practices is also shown by the results obtained by correlating the factors obtained (Table 10).

Table 10: Spearman’s correlation coefficient of extracted factors

		1	2	3	4
1. Social networks	r	1,000	.409**	.303**	-.184**
	p	.	.000	.000	.003
	N	267	267	267	267
2. Applications for everyday life	r	.409**	1,000	.094	.232**
	p	.000	.	.126	.000
	N	267	267	267	267
3. Electronic violence	r	.303**	.094	1,000	-.096
	p	.000	.126	.	.119
	N	267	267	267	267
4. Internet danger prevention	r	-.184**	.232**	-.096	1,000
	p	.003	.000	.119	.
	N	267	267	267	267

** . Correlation is significant at the 0.01 level (2-tailed).

The results show positive correlations between the factor F1: Social Networks and F2: Applications for Everyday Life and F1: Electronic Violence. According to these data, students who are more active on social networks are more likely to use applications for everyday life but are also more likely to have been exposed to electronic violence or have taken part in it themselves. On the other hand, a negative correlation was obtained between factors F1: Social Networks and F2: Internet Danger Prevention, which shows that students who were less involved in some form of Internet danger prevention are more often present on social networks and do take part in online activities similar to those covered under the specified factor.

These data confirm the importance of prevention in the development of media literacy. This is confirmed by the positive correlation between F2: Applications for Everyday Life and F2: Internet Danger Prevention, which shows that students who participated in workshops related to dangers of the Internet, heard about the topic and discussed it, do apply the positive aspects offered by digital media in everyday life; they search for locations, movies and music, participate in *WhatsApp* groups and exchange school material. This makes them media literate because they do not refrain from using digital media, but instead take advantage of the benefits. On the other hand, they protect themselves from risk, do not accept strangers' friend requests, do not exchange messages with them, do not feel obliged to post something on a daily basis and get likes, which is confirmed by the negative correlation between F2: Internet Danger Prevention and F1: Social Networks. There are many dangers offered by the Internet and social networks with which it is important to acquaint students by offering them participation in various prevention programs and presenting them methods of protection, thus developing their media literacy. In addition to danger prevention, it is important to prevent electronic violence. Accordingly, a negative correlation was obtained between F1: Electronic Violence and F2: Internet Danger Prevention, which shows that students who participated in prevention activities were less exposed to electronic violence and less likely to abuse others online. Based on these data, it is possible to reject hypothesis H5, according to which *there is no correlation between the Digital Media Usage Scale and the Internet Safety Scale.*

Conclusions

Digital media in today's world have become entrenched in the everyday lives of every human being. This is crucial for new generations from the earliest age, especially primary school age. The results of the study showed that primary school students use digital media in similar ways, with some differences according to gender and age. Digital media are used in everyday life through participation in social networks, communication, and exchange of materials with friends and the class, searching for movies, series, and music, but also using applications for everyday life such as finding locations, booking tickets etc. The differences that have emerged in this part of the research are that older students use applications for everyday life more often than younger students.

It is important to point out the results indicating that these students have not developed an addiction to digital media, since they do not post daily, do not worry about the number of likes, do not “make friends” with strangers on social networks, do not watch inappropriate content etc. It is precisely this avoidance of risks and dangers along with the use of the benefits of digital media that make students media literate because the goal of media literacy is to be critical of media while taking advantage of the positive aspects. Various forms of prevention of Internet dangers, such as prevention programs, play a role in the development of media literacy. Prevention activities have proven to be crucial in this study when looking at students’ safe Internet practices. Thus, the results showed that students who discussed the dangers of the Internet and participated in workshops related to this topic proved to be more media literate because they exploited the positive aspects of the Internet and social networks, while remaining less exposed to risks and electronic violence. These data confirmed the importance of timely prevention and of the development of media literacy at school age. Although students spend most of the day using the Internet and social networks, which means they do not avoid them, the students harness the benefits, which is the goal of media literacy.

When interpreting the results of this research, it is necessary to consider the context of the COVID-19 pandemic and distance learning, because of which students were more exposed to digital media. To follow everything they needed related to teaching content, the students had to participate in a class group or exchange school materials, both of which activities may have further influenced the results. The data obtained from this research can certainly be used by all those involved in the development of media literacy, and especially by designers of prevention programs. Finally, further research could focus on studying the characteristics of media literacy prevention programs and the ways schools are working towards developing media literacy.

References

- Batarelo Kokić, I. (2020). Učim od doma: školovanje u vrijeme pandemije COVID-19 bolesti. In Strugar, V., Kolak, A. and Markić, I. (eds.), *Školovanje od kuće i nastava na daljinu u vrijeme HR-COVID-19*. (pp. 7-26). Zagreb – Bjelovar: HAZU, HPD and ELEMENT.
- Bratina, T. (2012a). Multimedijaska učna gradiva in izbira strategij reševanja problemov pedagoškega raziskovanja. Doktorska disertacija. Maribor: Univerza v Mariboru, Pedagoška fakulteta.
- Brumen, M., Krušič, H., and Zupančič, T. (2017). Uporaba informacijsko-komunikacijske tehnologije pri poučevanju in učenju angleščine v otroštvu. *Revija za elementarno izobraževanje*, 10(4), 427–443.
- Bulić, M. and Blažević, I. (2020). The impact of online learning on student motivation in science and biology classes. *Revija za elementarno izobraževanje*, 13(1), 73–87.

- Ciboci, L. (2018). Medijska pismenost učenika osmih razreda u Zagrebu. *Medijske studije*, 9(17), 23–46.
- Ciboci, L., Kanižaj, I., Labaš, D. and Osmančević, L. (2018). *Obitelj i izazovi novih medija: Priručnik s radnim listićima za roditelje, nastavnike i stručne suradnike*. Zagreb: Društvo za komunikacijsku i medijsku kulturu. Retrieved from <http://www.djecamedija.org/wp-content/uploads/2018/0-4/prirucnik-obitelj-i-izazovi165x240mm-v3-web.pdf>
- Ciboci, L., Čosić Pregrad, I., Kanižaj, I., Potočnik, D. and Vinković, D. (2020). *Nacionalno istraživanje o sigurnosti djece na internetu - HR Kids Online*. Zagreb: Društvo za komunikacijsku i medijsku kulturu. Pridobljeno s <http://hrkids.online/prez/EUKidsOnlineHRfinal.pdf>
- Diklić, J., Nakić, M. and Šošić, D. (2019). Edukativna uloga društvenih mreža u medijskom odgoju djeteta. *Communication Management Review*, 4(1), 178–195.
- Džambo, I. and Zuko, K. (2019). Učestalost korištenja interneta u osnovnoškolskoj i srednjoškolskoj dobi. *Educa: časopis za obrazovanje, nauku i kulturu*, XII (12), 27–34.
- Dropulić, A., and Batarelo Kokić, I. (2021). The perception of parental mediation of digital technology use and its relation to mobile phone use experiences among elementary school students. In Gómez Chova, L., López Martínez, A., Candel Torres, I. (eds.). *EDULEARN21 Proceedings*, (pp. 11426-11432). Palma: IATED. <https://doi.org/10.21125/edulearn.2021.2380>
- Grbavac, J. and Grbavac, V. (2014). Pojava društvenih mreža kao globalnog komunikacijskog fenomena. *Media, culture and public relations*, 5(2), 206–219.
- Ilišin, V., Marinović Bobinac, A. and Radin, F. (2001). *Djeca i mediji: uloga medija u svakodnevnom životu djece*. Zagreb: Državni zavod za zaštitu obitelji, materinstva i mladeži.
- Internet World Stats (2020). Pridobljeno s <https://www.internetworldstats.com/stats.htm>
- Jurčić, D. (2017). Teorijske postavke o medijima – definicije, funkcije i utjecaj. *Mostariensia*, 21(1), 127–136.
- Kunić, I., Vučković Matić, M. and Sindik, J. (2017). Korištenje društvenih mreža kod učenika osnovne škole. The use of social networks among elementary school population. *Sestrinski glasnik*, 22(2), 152–158.
- Kušić, S. (2010). Online društvene mreže i društveno umrežavanje kod učenika osnovne škole: navike Facebook generacije. *Život i škola*, LVI(24), 103–125.
- Kuterovac Jagodić, G., Štulhofer, A. and Lebedina Manzoni, M. (2016). *Preporuke za zaštitu djece i sigurno korištenje elektroničkih medija*. Zagreb: Agencija za elektroničke medije. Retrieved from <https://ww-w.medijskapismenost.hr/wp-content/uploads/2016/09/medijska-pismenost-preporuke-dokument.pdf>
- Labaš, D. and Marinčić, P. (2018). Mediji kao sredstvo zabave u očima djece. *MediAnali*, 12(15), 1–32.
- Matijević, M. and Topolovčan, T. (2017). *Multimedijaska didaktika*. Zagreb: Školska knjiga.
- AEM (2020). Medijska pismenost. Zagreb: Agencija za elektroničke medije; UNICEF Hrvatska. Retrieved from <https://www.medijskapismenost.hr/pojmovnik/>
- Muratbegović, E. and Vujović, S. (2016). *Ponašanje i navike djece na internetu: stavovi djece, roditelja i nastavnika informatike*. Sarajevo: Save the Children in North West Balkans. Retrieved from <https://nwb.savethechildren.net/sites/nwb.savethechildren.net/files/library/Izvjestaj-ponasanje-djece-na-internetu.pdf>
- Ofcom (2016). *Children and Parents: media use and attitudes report*. Pridobljeno s https://www.ofcom.org.uk/__data/assets/pdf_file/0034/93976/Children-Parents-Media-Use-Attitudes-Report-2016.pdf
- Ofcom (2020). *Children and Parents: Media use and attitudes report 2019*. Retrieved from https://www.ofcom.org.uk/__data/assets/pdf_file/0023/190616/children-media-use-attitudes-2019-report.pdf
- Programi (2020). Retrieved from <http://www.programi.uredzadroge.hr/>
- Thoman, E. and Jolls, T. (2005). Media Literacy Education: Lessons from the Center for Media Literacy. *Yearbook of the National Society for the Study of Education*, 104 (1), 180-205.
- Tomljenović, R. (2018). *Regulatory Authorities for Electronic Media and Media Literacy - Comparative analysis of the best European practices*. Strasbourg: Council of Europe. Retrieved from <https://rm.coe.int/regulatory-authorities-for-electronic-media/1680903a2a>

Vanwynsberghe, H. (2014). *How Users Balance Opportunity and Risk: A conceptual exploration of social media literacy and measurement*. Ghent: Ghent University. Faculty of Political and Social Sciences. Retrieved from <https://biblio.ugent.be/publication/5780342/file/5780347.pdf>

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