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Teenagers and the internet – age differences in risky behaviour

Znanstveni članek

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KLJUČNE BESEDE: mladostniki, starostne razlike, tvegano vedenje na spletu

POVZETEK – Cilj raziskave je bil ugotoviti, katere so kompozitne spremenljivke manifestiranja tveganih vedenj na spletu in v kolikšni meri prispevajo k starostni razliki med učenci prvih in tretjih letnikov srednje šole. V vzorec smo zajeli 2395 učencev iz 18 srednjih šol Sisačko-Moslavačke in Zagrebške županije (Republika Hrvaška). Uporabljena je bila multivariatna diskriminantna analiza v bootstrap modelu, ki je pokazala statistično pomembno kanonično diskriminantno funkcijo Nedovoljena in neodgovorna vedenja. Gre za težja nedovoljena in nevarna vedenja na spletu, ki lahko resno ogrozijo telesno in čustveno dobrobit mladih, v primeru zakonskega sankcioniranja njihovih spletnih dejavnosti, pa lahko imajo dolgotrajne posledice za njihovo kasnejše življenje. Spremenljivki tveganega vedenja na spletu: Z Zakonom nedovoljena vedenja in Osebno in družbeno neodgovorno vedenje sta diskriminatorni glede na starost anketirancev.

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KEYWORDS: adolescents, age differences, risky behaviour on the Internet

ABSTRACT – The aim of this research was to explore what are the composite variables of manifestation of risky behaviour on the Internet, and to what extent they contribute to age differences between students of first and third grades of secondary school. The sample of respondents consisted of 2,395 students from 18 secondary schools in the Sisak-Moslavina County and Zagreb County (Republic of Croatia). A multivariate discriminant analysis in a bootstrap model was applied, resulting in one statistically significant, canonical discriminant function, named Prohibited and irresponsible behaviour. It represents serious prohibited and threatening behaviour on the Internet that can endanger the physical and emotional well-being of teenagers. Moreover, in the case of legal sanctioning of such behaviour, it can have long-term consequences for their future life. Two variables of risky behaviour on the Internet: Legally prohibited conduct and Personally and socially irresponsible behaviour are discriminatory with regards to the respondents' age.

1. Introduction

Millions of years passed from cave graffiti to the first written characters; it took thousands of years for the printing press to be invented; three centuries passed from the invention of the high-print printing press to the invention of the planar printing press; it took another century for the invention of the rotary printing press, and 60 years for inventing the first computer being the size of a whole room. About 30 years after that event, the first personal computers occurred, and 10 years later, first laptops. Today, you can fit a tablet into your pocket (Laniado & Pietra, 2005). The changes

which used to take several centuries to happen, are now taking only ten to five years, or sometimes even less.

Such a gap can also be seen between primary and secondary school students. Primary school students spend more of their free time on electronic media, while secondary school students prefer socialising and going out (Opić & Đuranović, 2014). That is supported by the following data: according to Eurispes, the Institute for Political, Social and Economic studies, every other student in primary school is accustomed to using a computer, while every sixth student surfs the Internet. In most cases (56.4%), the computer is used for playing games, but every third student uses it for studying. Their older siblings in secondary schools are a lot less involved: they surf less (9.1%), play less (34.8%), and only every seventeenth student does their homework using a computer (Laniado & Pietra, 2005).

However, it is undeniable that computers and the Internet made our contemporary life easier, better and more advanced. Moreover, it could be said that life in today's postmodern age is unimaginable without them. One of the characteristics of the Internet is that it is accessible to everyone. It is difficult to assess whether this characteristic is good or bad. On the Internet, we can all access numerous educational, interesting and useful content that can contribute to our personal growth and development, as well as find creative ways of using our free time. However, the Internet does not only give us access to quality content and information. Aftab (2003) warns that despite the fact that the Internet offers more good than bad content, the bad content is viewed more often. Such positive and negative sides of the Internet are very vividly described by Schmidt and Cohen (2014; p. 11), who stated that it is a "source of tremendous good, and potentially dreadful evil, and we're only just beginning to witness its impact on the world stage".

Since it is a well-known fact that the forbidden fruit is the sweetest, the prohibited, bad and inappropriate websites are far more interesting and attractive to teenagers than the appropriate ones. The inappropriate and even risky websites, that could potentially harm the physical, social and emotional well-being of children and adolescents, according to scientists who perform research in this field, are: websites that promote the purchase of illegal products (alcohol, narcotics, tobacco), websites that allow insults, humiliation and harassment of other people, websites that require publishing personal data, websites where they can become victims of virtual predators who may try to persuade them to meet personally, and pornographic websites (Aftab, 2003; Mesch, 2009; Varga, 2011; Tsaliki 2011; Jade Đuraković, Šincek & Tomašić Humer, 2014). A very acrimonious debate about how much of the World Wide Web was devoted to sexually explicit sites took place in 1995. An article in Time magazine cited the research concluding that 83.5% of Usenet images were pornographic (Elmer-DeWitt, 1995; Rimm, 1995, according to Mitchell, Finkelhor, & Wolak, 2003).

Miliša and Zloković (2008) further emphasise that content which attracts young people often promotes unhealthy lifestyles, creates false idols, exaggerates the promotion of violence, sex and pornography, encourages social passivity, tolerates rude lan-

guage, uses manipulation in various areas (educational, social, psychological, political, economic and other), makes teenagers create an illusion of their self-realisation, etc. Joinson (1998, according to Jeriček, 2002) believes that the Internet is a medium which encourages behaviour without any barriers, boundaries or social censorship. On the Internet, the individual feels hidden enough and can therefore openly show every bit of themselves, reveal all feelings they might not have been realised before or hidden because of social prejudice, or ask about things they would have hardly even thought about before. The attractiveness of the Internet lays in the feeling of security it offers, and thus encourages expressing a whole range of feelings, which makes the user use it again. Those are the advantages of the Internet that could at the same time be its weaknesses, since they increase the possibility of addiction.

The Internet was once a platform for presenting information, and today it is, among other things, a place to *meet* with familiar people, but also strangers. Social networks are nowadays an integral part of every child's and adolescent's life and have largely suppressed and replaced *face-to-face* communication. Through communication applications on social networks, adolescents communicate with both, familiar people and strangers. Online social contexts offer a wealth of opportunities to interact with peers, express identity, experience belonging, and seek distraction (Modecki, Barber & Vernon, 2013). To adolescents, spending time on social networks is seeking personal space, it is a place where they massively come together, connect with peers and build their own common space. Although many of those relationships are superficial, this is where they learn the rules of social life and how to cope with issues such as: status, respect, trust, and gossip. Personal profiles on social networks can be considered a "public display of identity" (Don, 2012). For adolescents, a networked public has become a modern way of making social interactions (Car, 2013).

Opinions about the effects of communication through social networks on the development of social competencies of teenagers, and about the quality of making their social relationships, are conflicting. Valkenburg and Peter (2007) state that the Internet helps to create and maintain quality relationships, while Kraut et al. (1998) believe that the Internet isolates young people, reduces the quality of their social relationships and has a negative impact on their well-being. One of the reasons for their opposing opinions could be that the aforementioned studies simply did not consider the time spent on the Internet and did not make a distinction between different forms of the Internet use: for example, e-mail and conversations with school friends have a positive effect on the well-being of adolescents, surfing the Internet and searching content related to sports, music or films might not have an effect on the well-being of young, while communicating with strangers and accessing pornographic content has a negative impact on the well-being of adolescents (Subrahnmanyam & Lin, 2007).

Vuletić, Jeličić and Karačić (2014) warn that since the Internet manifests itself as a complex and unpredictable virtual world, it rightly raises moral and ethical dilemmas because of its indisputably powerful impact on the perception of reality, personal identity and creating and maintaining interpersonal relationships. Young people in

the period of adolescence are particularly vulnerable to its impact; it is a well-known fact that adolescence is a human development period characterised by the need for identification, i.e. the search for people who can serve as role models, ideas and ideals worth worshiping, experimenting with identities, and the establishment and maintenance of interpersonal relationships (Bastašić, 1995; Ilišin, 1999; Larsen & Buss, 2008). The Internet offers adolescents a space where they can, almost without consequences, experiment with identity (Sherry, 2012; Sipal, Karakaya & Hergul, 2011). Turkle (1999) talks about the formation of a new identity in the age of the Internet and about the culture of simulation and cyber-space as a part of everyday life. The anonymity offered by the Internet gives teenagers a sense of false security and they try out a lot more identities in the virtual world than they do in the real world. Digital life becomes a "place of hope", a place where the young expect something new will happen to them (Sherry, 2012).

Whilst risk-taking is normally perceived by adults as a bad thing, for adolescents the risk behaviour can bring about a number of rewards. In particular, risk taking assists in securing recognition in the peer group or enables the young person to push against adult boundaries (Bailey, 2006, according to Atkinson & Newton, 2010).

In scientific literature, there are many different definitions of risky behaviour, and one of them describes it as: every unacceptable and harmful behaviour repeated over a certain period of time, being significantly different than the usual behaviour of that individual who thereby endangers himself and (or) other people. The consequences of such behaviour are limiting the healthy, psychosocial, cognitive, work and every other functioning of a young person (Bašić, 2009). Some authors talk about the *society of risk* in which young people grow up; therefore, among other consequences of the rapid development of information and communication technology as an integral part of today's society, we can witness the expansion and advancement of risk taking (Bašić, Koller-Trbović, Uzelac, 2004).

Risky behaviour of adolescents on the Internet has only recently become a topic of serious and systematic scientific research.

2. Methodology

The sample consisted of 2,395 students from 18 secondary schools in the Sisak-Moslavina County and Zagreb County (Republic of Croatia). The research was conducted in the academic year 2014/2015. The distribution of respondents, with regards to age, or the grade which the student attended was: 1,201 students from the first grade of secondary school (50.1%) and 1.194 students from the third grade of secondary school (49.9%). For the purpose of this research, we constructed composite variables of the manifestation of risky behaviour on the Internet on a 5-degree scale

of ordinal type, negatively polarised (scale direction), with values being: 1 – never, 2 – rarely, 3 – sometimes, 4 – often, 5 – very often.

3. Results and discussion

The aim of the research was to explore what are the composite variables of the manifestation of risky behaviour on the Internet and to what extent they contribute to age differences between students of first and third grades of secondary school. The basic descriptive values of composite variables are shown in Table 1.

Table 1. Descriptive statistic of composites

Composites	*Range*	*Min*	*Max*	*Mean*		*Std. deviation*	*Skewness*		*Kurtosis*	
	stat	*stat*	*stat*	*stat*	*std. error*	*stat*	*stat*	*std. error*	*stat*	*std. error*
Legally prohibited behaviour	4.00	1.00	5.00	1.7443	0.01488	0.72838	1.589	0.050	3.037	0.100
Personally and socially irresponsible behaviour	4.00	1.00	5.00	1.8240	0.01232	0.60312	1.151	0.050	2.237	0.100
Communicating with strangers	4.00	1.00	5.00	1.5842	0.01447	0.70801	2.044	0.050	5.165	0.100
Behaviour at the expense of others	4.00	1.00	5.00	1.2132	0.00945	0.46271	3.726	0.050	17.661	0.100
Manipulating one's own and others' data	4.00	1.00	5.00	1.4217	0.01220	0.59720	2.208	0.050	6.027	0.100

The range of answers in all composite variables is maximum (range = 4), which means that variables cover the spectrum of answers well; from low to high prevalence of risky behaviour on the Internet. The highest arithmetic mean was found in the composite variable *Personally and socially irresponsible behaviour* (mean = 1.82), which means that students in the sample, out of all risky behaviours, most frequently threaten their personal safety and manifest socially unacceptable forms of behaviour. Analogously, behaviour which is the least manifested on the Internet is *Behaviour at the expense of others* (mean = 1.21). Given the skewness, they are all positively (some of them highly) asymmetric distributions, which is in accordance with low arithmetic

means, and in accordance with the direction of the scale with low prevalence of certain observed behaviours. Also, the majority variables have highly leptokurtic distributions.

According to the aim of the research, a multivariate discriminant analysis in a bootstrap model was applied. On the basis of individual results of the respondents on predictor variables, the basic application of the discriminant analysis combines prediction of the group (category) an individual belongs to, however, in this case it was used on determining differences between groups (students of the first and third grades of secondary school).

In order to test the equality of the arithmetic means among the subsamples and the variables, the univariate one-way analysis of the variance (ANOVA) was applied. The results of ANOVA (all composite variables; $p \leq 0.05$) imply that arithmetic means of all composite variables are different with regard to the students' grade, and were, in further processing, included in the discriminant analysis. The homogeneity of the covariance was tested with a Box's M test, which was significant for all composite variables, meaning that the matrices of covariance of the groups were different (Box's M = 141.240; F = 9.395; $df_1 = 15$, $df_2 = 2354803.051$; st. sign = 0.000). Inhomogeneity of the covariance of the groups actually prevented lege artis the implementation of the discriminant analysis.

However, despite the mentioned fact, the discriminant analysis had still been conducted for the following reasons:

- Box's M test is very sensitive and would probably show statistical significance, or inhomogeneity of the covariance (Tabachnicks & Fidell, 1996).
- Also, Meyers, Gamst and Guarino (2006) state that discriminant analysis is robust for distortion of the homogeneity of the variance/covariance under the condition that the sample is large and the groups are of equal size and that the limit values (outliers) are not significant.
- Moreover, Hill and Lewick (2016; p. 161) point out that the Box M test for the homogeneity of the variance/covariance is sensitive to deviations from normality and should not be taken too seriously.

However, the results of the discriminant analysis in the text below should be taken more as a trend (indication) rather than a conclusion.

Table 2. Basic values of the discriminant analysis

Fun.	*Eigenvalue*	*% Variance*	*Cumulative %*	*Canonical correlation*	*Wilks' lambda*	*Hi square*	*Df*	*Sig.*
1	0.038a	100.0	100.0	0.192	0.963	89.429	5	0.000

Remark: First 1 canonical discriminant functions were used in the analysis

As it can be seen in Table 2, one obtained discriminant function is statistically significant (p(F1) = 0.000). Canonical correlation (r = 0.19) indicates a weak correlation between the groups (subsamples). The value of the characteristic root (0.38) implies a relatively low value, i.e. the extent to which the discriminant function discriminates between the categories.

The interpretation of the discriminant function (factor) also requires discriminant coefficients or weights (Table 3). They are standardised forms of beta (as in regression) that show a partial contribution of every variable in determining the discriminant function which indicates the level of agreeing of a certain variable with the discriminant function.

Table 3. Standardised canonical discriminant function coefficients

	Fun.	*Coefficient*	*Bootstrapa*			
			bias	*std. error*	*95% confidence interval*	
					lower	*upper*
Legally prohibited behaviour	1	1.121	–0.022	0.072	0.946	1.231
Personally and socially irresponsible behaviour	1	0.408	–0.010	0.124	0.146	0.652
Communicating with strangers	1	–0.101	–0.003	0.150	–0.406	0.183
Behaviour at the expense of others	1	–0.198	0.002	0.145	–0.477	0.086
Manipulating one's own and others' data	1	–0.464	0.019	0.147	–0.748	–0.149

Remark: Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

The structure of the discriminant function is well projected (determined) by these variables (Table 4). It is the Pearson correlation coefficient (structural coefficients) of every variable with the discriminant function (discriminant loading).

Table 4. Structure matrix

	Function 1
Legally prohibited behaviour	0.871
Personally and socially irresponsible behaviour	0.518
Communicating with strangers	0.325
Behaviour at the expense of others	0.266
Manipulating one's own and others' data	0.220

Therefore, the obtained canonical discriminant function can be named *Prohibited and irresponsible behaviour* ($r > 0.40$). Those are serious and threatening forms of behaviour on the Internet that can significantly endanger the physical and emotional well-being of adolescents. Moreover, in the case of legal sanctioning of such behaviour, it can have long-term consequences for their future life.

A variable with the highest correlation with the discriminant function is *Legally prohibited behaviour* ($r = 0.871$), which is also the strongest in discriminating students included in the sample according to the criteria of belonging to a certain grade, meaning that this claim is most characteristic to third grade students (Table 5).

Table 5. Functions at Group Centroids

Class	*Function 1*
1st	–0.195
3rd	0.196

Remark: Unstandardised canonical discriminant functions evaluated at group means

From the sign of the group centroid values (Table 5), we can see the direction of the discriminatory feature in one-dimensional space; first grade students have a negative, while third grade students have a positive pole. This implies that the canonical discriminant function *Prohibited and irresponsible behaviour* is more characteristic for the third grade students. Thus, the two variables of risky behaviour on the Internet: *Legally prohibited activities* and *Personally and socially irresponsible behaviour* are discriminatory with regard to the respondents' age, i.e. such behaviour is more characteristic for older students.

4. Conclusion

Although adolescence is a period in life in which young people try to become independent, parents still have a strong influence on their behaviour (Nurmi, 2004; according to Wiseman, 2011). Adolescents, who have a caring relationship with their parents, are involved in the family and participate in making decisions, and whose parents practice an authoritative parenting style (combination of parental affection and control) are less prone to participating in delinquent activities (Simons, Simons, Chen, Brody & Lin, 2007; Anderson & Hughes, 2009).

Pedagogical engagement of competent teachers, whose positive efforts can greatly contribute to prevention of undesirable behaviour, is an additional factor in suppressing risky behaviour on the Internet. Therefore, it is primarily a task of the fam-

ily, and then of the school institutions, to constantly direct children and adolescents, warning them about the dangers of the virtual world.

According to the results of this research, secondary school students manifest personally and socially irresponsible behaviour on the Internet, while they the least manifest behaviour at the expense of others. It is a fact that the vast majority of young people are not even aware that their behaviour on the Internet is a threat to their security (such as publishing personal data and photos, entering virtual chat rooms that do not have a moderator, etc.).

The Internet itself is neutral (neither good nor bad), and disclosure of personal data should not be dangerous. However, both sides of the Internet are created by people who are not always well-intentioned and may abuse the published information, and thus jeopardise the well-being of people who publish their personal data.

This research determined that the variable with the highest correlation with the discriminant function is the *Legally prohibited* variable. This variable is also the one which best differentiates the students included in the sample, meaning it is more characteristic for the third grade students rather than the first grade students.

Since the Internet provides an illusion of complete protection and anonymity, people often use it to manifest legally prohibited behaviour, believing it is impossible to trace and sanction them. However, on the Internet no one is fully protected, and all laws that apply in the real world, also apply in the virtual world. Therefore, adolescents need to become aware of the fact that the virtual world is not a world of lawlessness and arbitrariness, as well as that there are rules and laws which must be obeyed, and in case of their violation, they can be legally responsible.

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Mladi in splet – starostne razlike v tveganih vedenjih

Miniti je moralo milijon let, da bi se od jamskih grafitov prišlo do prvih pisnih znakov; tisoč let je moralo miniti do izuma tiskarskega stroja; tri stoletja, da bi se od tiskarskega stroja visokega tiska prišlo do ravninskega, oziroma globokega tiska, potem, pa še eno stoletje do izuma rotacijskega tiskarskega stroja in 60 let do prvega računalnika, ki je bil tako velik, da je zavzemal celoten prostor. Približno 30 let po dogodku so se pojavili prvi osebni računalniki, 10 let za njimi prvi prenosni računalniki. Danes pa tablico lahko pospravite v žep (Laniado & Pietra, 2005).

Spremembe, ki so v preteklosti potrebovale nekaj stoletij, danes potekajo v desetih, petih, včasih tudi manj letih. Ta razkorak je že očiten med učenci osnovnih in srednjih šol. Učenci osnovne šole več prostega časa preživijo na elektronskih medijih, medtem ko se učenci srednjih šol raje družijo in grejo ven (Opić & Đuranović, 2014). Nedvomno dejstvo je, da sta računalnik in splet olajšala, polepšala in izboljšala življenje

današnjega sodobnega človeka. Ena izmed značilnosti spleta je njegova dostopnost do vseh. Težko je oceniti, ali je to ena dobrih ali slabih lastnosti spleta. Namreč, na spletu so vsem na voljo številne izobraževalne, zanimive in uporabne vsebine, ki prispevajo k našemu osebnemu rastu in razvoju ter ustvarjalnemu preživljanju prostega časa. Aftab (2003) opozarja, da kljub temu, da je na spletu več dobrih vsebin v primerjavi s tistimi slabšimi in škodljivimi, pogosto te škodljive vsebine zabeležijo večji promet, kot tiste dobre in kakovostne.

V neprimerne, lahko bi rekli tvegane spletne strani, ki lahko potencialno ogrozijo telesno, socialno in čustveno dobrobit otrok in mladih, znanstveniki, ki raziskujejo to področje najpogostejše, navajajo: spletne strani, ki spodbujajo nakup nezakonitih izdelkov (alkohol, droga, tobačni izdelki), spletne strani, kjer lahko žalijo, ponižajo, obrekujejo ali nadlegujejo druge ljudi, spletne strani, ki zahtevajo objavo osebnih podatkov, spletne strani, na katerih lahko postanejo žrtve virtualnih plenilcev, ki jih lahko poskušajo nagovoriti na osebno srečanje ter pornografske spletne strani (Aftab, 2003; Mesch, 2009; Varga, 2011; Tsaliki 2011; Jade Đuraković, Šincek & Tomašić Humer, 2014). Privlačnost spleta je tudi v tem, da daje občutek varnosti, s tem spodbuja izražanje cele palete čustev, ki spodbujajo uporabnika k ponovni uporabi. To so prednosti spleta, vendar hkrati lahko slabosti, saj povečujejo možnost zasvojenosti.

Včasih je splet bil le platforma za predstavitev informacij, danes pa je, med drugim, mesto srečanja z znanci, ampak tudi s tujci. Danes so družbena omrežja sestavni del življenja skoraj vsakega otroka in mladostnika in so v veliki meri zatrle in nadomestile komunikacijo oči v oči. S pomočjo komunikacijskih aplikacij na družbenih omrežjih mladi lahko komunicirajo z znanimi in neznanimi osebami. Mrežna javnost za mladostnike je postala sodoben način ustvarjanja socialnih interakcij (Car, 2013).

O učinkih komuniciranja prek družbenih omrežij na razvoj socialne kompetence mladih in na kakovost oblikovanja njihovih družbenih odnosov pojavljajo se nasprotna mnenja. Tem učinku so posebej podrejeni mladi v najstniških letih, ker je dobro znano dejstvo, da je za to razvojno obdobje človeka, značilna potreba za identifikacijo oz. za iskanjem ljudi, ki lahko služijo kot vzor, idej in idealov, ki jim je vredno se podariti in eksperimentirati z identitetami kot tudi z vzpostavitvijo in ohranjanjem medosebnih odnosov (Bastašić, 1995; Ilišin, 1999; Larsen & Buss, 2008). Splet mladostnikom ponuja prostor, kjer lahko, gotovo brez posledic eksperimentirajo z identiteto (Sherry, 2012, Sipal, Karakaya & Hergul 2011). Anonimnost, ki jo mladim ponuja splet, daje občutek lažne varnosti in v virtualnem svetu lahko preizkusijo veliko več identitet, kot to počnejo v resničnem življenju.

V znanstveni literaturi so številne različne definicije tveganega vedenja, ena izmed njih je, da je to nesprejemljivo in škodljivo vedenje, ki se ponavlja čez določen čas, ki se bistveno razlikuje od običajnega vedenja posameznika, ki s tem lahko ogroža sebe in (ali) druge osebe. Posledice takega vedenja omejujejo zdravstveno, psihosocialno, kognitivno, delovno in katerikoli drugo delovanje mlade osebe (Bašić, 2009). Nekateri avtorji govorijo tudi o družbi tveganja, v kateri mladi odraščajo, tako da med drugimi posledicami hitrega razvoja informacijsko-komunikacijske tehnologije, kot integralne-

ga dela sodobne družbe najdemo tudi širjenje in napredek tveganja in tveganosti (Bašić, Koller-Trbović, Uzelac, 2004). Tvegano vedenje mladostnikov na spletu je šele v zadnje čase postalo tema resnih in sistematičnih znanstvenih raziskav.

Namen raziskave je bil ugotoviti, katere kompozitne spremenljivke manifestiranja tveganih vedenj na spletu in v kolikšni meri prispevajo starostni diskriminaciji med učenci prvih in tretjih razredov srednje šole. V raziskavi je sodelovalo 2395 učencev iz 18 srednjih šol Sisačko-moslavaške in Zagrebške županije (Republika Hrvaška) v šolskem letu 2014/2015.

Za namene tega prispevka so izdelane kompozitne spremenljivke manifestiranja tveganih vedenj na spletu, na 5-stopenjski lestvici zaporednega tipa, negativno polarizirani (smer lestvice) z vrednostmi: 1 – nikoli, 2 – redko, 3 – včasih, 4 – pogosto, 5 – zelo pogosto. Kompozitne spremenljivke manifestiranja tveganih vedenj so naslednje: Z zakonom nedovoljena vedenja, Osebno in družbeno neodgovorno vedenje, Komuniciranje z neznanimi osebami, Vedenje na škodo drugih in Manipuliranje s svojimi in tujimi podatki.

Razpon odgovorov je bil na vseh kompozitnih spremenljivk maksimalen (range = 4), kar pomeni, da spremenljivke dobro prekrivajo spektre odgovorov; od najniže do najvišje prevalencije tveganih vedenj na spletu. Najvišjo aritmetično sredino ima kompozitna spremenljivka Osebno in družbeno neodgovorno vedenje (Mean = 1,82), kar pomeni, da učenci iz vzorca vseh navedenih oblik vedenja na spletu, najpogostejše ogrožajo osebno varnost in manifestirajo družbeno nesprejemljive oblike vedenja, medtem ko se na spletu najmanj manifestira Vedenje na škodo drugih (Mean = 1,21).

V skladu z namenom raziskave je bila uporabljena multivariantna diskriminacijska analiza v bootstrapped modelu. Za testiranje enakosti aritmetičnih sredin med subvzorci in navedenimi spremenljivkami je uporabljena univariantna enosmerna analiza variance (ANOVA). Rezultati ANOVA-e (vse kompozitne spremenljivke; $p \leq 0.05$) implicirajo, da se aritmetične sredine vseh navedenih kompozitnih spremenljivk razlikujejo glede na razred učencev.

Za interpretacijo diskriminacijske funkcije (faktorja) so pomembni diskriminacijski koeficienti ali ponderji. Gre za standardizirane oblike bete (kot v regresiji), ki ponazarjajo parcialni prispevek vsake spremenljivke pri določanju diskriminacijske funkcije, kaj kaže na stopnjo zlaganja posamezne spremenljivke in diskriminacijske funkcije.

Strukturo diskriminacijske funkcije dobro projicirajo (determinirajo) navedene spremenljivke. Gre za Pearsonov koeficient korelacije (strukturalni koeficienti) vsake spremenljivke z diskriminacijsko funkcijo (diskriminacijske obremenitve). Nastalo kanoniško diskriminacijsko funkcijo smo imenovali Nedovoljena in neodgovorna vedenja ($r > 40$). Gre za težja nedovoljena in ogrožajoča vedenja na spletu, ki lahko ogrožajo telesno in čustveno dobrobit mladih, v primeru zakonskega sankcioniranja njihovih spletnih dejavnosti pa lahko pustijo dolgotrajne posledice na njihovo kasnejše življenje.

Najvišjo korelacijo z diskriminacijsko funkcijo kaže spremenljivka Z zakonom nedovoljena vedenja ($r = 0.871$), ki tudi najmočnejše diskriminira učence, ki so vključeni v vzorec, v skladu z merili pripadanja razrednemu oddelku, na način, da je navedena

trditev bolj značilna za učence tretjih razredov. Iz predznakov vrednosti skupnih centroidov je razvidna smer diskriminativne značilnosti v enodimenzionalnem prostoru; učenci prvega razreda so negativnega, učenci tretjega razreda pa pozitivnega pola. To implicira zaključek, da je kanonično diskriminacijska funkcija Nedovoljena in neodgovorna vedenja bolj značilna za učence tretjih razredov. Torej, spremenljivke tveganega vedenja na spletu: Z Zakonom nedovoljena vedenja in Osebno in družbeno neodgovorno vedenje so diskriminatorni glede na starost anketirancev, id est to so vedenja bolj značilna za starejše učence.

Glede na rezultate raziskovanja pri srednješolskih učencih se na spletu največ manifestirata osebno in družbeno neodgovorno vedenje, najmanj se pa manifestira vedenje na škodo drugih oseb. Dejstvo je, da se velika večina mladih ne zaveda postopkov, s katerimi na spletu ogroža svojo varnost (npr. objavljanje osebnih podatkov in fotografij, obisk virtualnih klepetalnic, ki nimajo moderatorja ipd.).

Namreč, splet sam po sebi je nevtralen (ni dober, ni slab) in objavljanje osebnih podatkov ne bi smelo predstavljati nevarnost. Vendar, dobro in slabo stran spleta ustvarjajo ljudi, ki niso vedno dobronamerni in lahko zlorabijo informacije, objavljene na njem in s tem lahko ogrožajo dobrobit oseb, ki objavljajo svoje osebne podatke.

Ker splet ponuja iluzijo popolne zaščite in anonimnosti, osebe zelo pogosto na njem manifestirajo z zakonom prepovedana vedenja, ker verjamejo, da jih ni mogoče odkriti in sankcionirati. Vendar, na spletu nihče ni popolnoma zaščiten, vsi zakoni, ki veljajo v realnem svetu, veljajo tudi v virtualnem. Zato se mladi morajo zavedati dejstev, da virtualni svet ni svet brezpravja in samovoljnosti, ampak da v njem obstajajo pravila in zakoni, ki jih je treba upoštevati, in da je, v primeru njihove kršitve možno, da posameznik pravno odgovarja.

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