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DEVELOPING AN INSTRUMENT TO EVALUATE THE DIGITAL GAME DANGERS FOR MODERN TEENAGERS

Mhana KHATIB[1]

Abstract

The technological progress is known in its impact on social values and customary norms. The internet came into to our life intensively for the last 15 years. Such as other positive activities, also the Internet activity it is not always possible to know when the children and also the adults pass to activity that can cause damage to them. The ability to communicate with large number of people, the ability to transfer information easily, to publish more widely, to find employment, source of work and more were significantly improved. However, as each new phenomenon that comes to the world, also the risks of the internet have not been discussed. The massive infiltration of the Internet to the private homes challenged the way how the society perceives the risk and relates to it. If in the past the perception of risk was revolved around the dichotomous division between the public sphere, which was perceived as unsafe and dangerous place and the private sphere, the domestic, which was perceived as safe and protected place, especially for children and adolescents.

Keywords: digital game, online environment, internet, teenagers, risk behavior

Introduction

Any person who behaves in order to protect, promote or maintain their health, regardless of his understanding of his health, is considered to have a healthy behavior (Eglite, Vintila, Grinfelde, & Kantike, 2012). Throughout their lives, people are confronted with events, different life situations, and challenges that they have to deal with and develop their existence (Tudorel, Macsinga, & Virga, 2013).

The technological progress is known in its impact on social values and customary norms. The internet came into to our life intensively for the last 15 years (it exist for the 60ies year of the twentieth century), and now it is active almost in each home. The Internet network is the most significant source of knowledge and

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information, as well as the source of great fun for children and for adults. There is a significant increase in the recent years in the number of Internet users and also in the hours of activity and the diversity of activities. The Internet network has a great number of information websites, discussion rooms, articles, pictures, games and more. Such as other positive activities, also the Internet activity it is not always possible to know when the children and also the adults pass to activity that can cause damage to them. The digital space in which we live dictates, and not slightly, the conduct of our live in diversity of fields – economic, political, social, educational and psychological. The accessibility, the availability and the immediacy of the network enable us to be in every place and at every time with creation of relationships and search for answer to each question and information regarding each issue. These characteristics that enable participation of knowledge, transparency, publication and distribution of the information that encounters with the participants of the network in various situations. Large part of the users is young and adolescents who find in the network social response, response to exploitation of their free time, educational response and more.

The Internet is a tool of knowledge and information with great strength. The information system was changed completely and changed its face due to the use of Internet and now some argue that the Facebook is one of the significant phenomena of the 21st century, and it has far-reaching influence of the society of the world. The ability to communicate with large number of people, the ability to transfer information easily, to publish more widely, to find employment, source of work and more were significantly improved. However, as each new phenomenon that comes to the world, also the risks of the internet have not been discussed.

The Internet is a tool with great influence, and now some argue that the Facebook is the tool with the greatest influence of the 21st century – but we have to remember, that alongside with the infinite number of positive possibilities in the Internet in the fields of free time, the society and the studies there are the most negative sides: 1) People do and say thing in virtual world that they would not say in the reality – face to face. The written word absorbs everything and there is no need to confront with subject of critique. 2) People create social relationships which cross borders, states, cultures and ages. The network enables to its different users to communicate regardless of religion, race, gender, age and geographical place. The rules of game are changed – the Internet Surfing is similar to surfing with covered eyes – we cannot use the same senses that warn us for the danger or empower our feelings. 4) Invasion to the privacy of other – person who is interested to maintain confidential identity will find to difficulty to do so. 5) Between report and informing – as at the physical world, also in the Internet the most children and adolescents will not report if they were witnesses of abuse and/or if they were victims of other violent act. 6) The responsible adult – many parents aren't familiar with the essence of the virtual world and the meanings of it and allow for children / adolescents to participate without control and protection in the activities that they would never allow in the physical world. The significance of human actions is reflected in how they interact one with each other. To create a good relationship is to choose from the range of possible behaviors, those who provide harmony with the other person (Goian, Vintila, & Bucur, 2012).

The destructive combination of young Internet surfers (from the decreasing ages) in integration with new culture in which it is possible to use any identity and reach to various and distant audiences and to do so easily, alongside with a significant lack of responsible adult – it creates negative behaviors among children and adolescents, behaviors that are sometimes defined as violent and aggressive.

The Internet enables, in addition, use of computer games. Digital games are integral part of the daily routine of children and youth and more than 95% of them dedicate a great part of their free time for them (Hendrson, Eshet-Alkalai & Klemes, 2008; Greenberg, Sherry, Lachlan & Holmsrtom, 2010). Because many of the games include prominent violent expressions, in the recent years, there is conducted in the public and in the research field a lively dispute regarding the extent of influence that these games have on the violent aspects of the personality and the behaviors of the players (Anderson, Shibuya, Ihori, Swing, Bushman, Sakamoto, Rothsten & Saleem, 2010; Ferguson & Kiburn, 2010). Because of the centrality of the digital games in the leisure culture of children and youth, there is known the special importance to understanding the impact of the violent digital games among this age group (Olson, Kutner, Warner, Almerigi, Baer, Nicholi & Beresin, 2007; Olson, Kutner & Warner, 2008). A significant part of the digital games including multiplayer games that become in the recent years part of the life of all kind of users, and they include a main component of violence.

Most of the adolescents in the modern Western societies use Internet and computer games, and use them in various places (home, school, with friends) and through different instruments (computer, tablet, mobile phone). According to the survey that was conducted in USA in 2010, 84% of 8-18 years old people have access to Internet from their homes, increase of 14% from the estimated access from home five years before the survey. There was also found that the young people dedicate about two and half hours of the day for computer use (Redicout *et al.*, 2010). In Europe, 60% of 9-16 years old people use Internet every day or almost every day, of two and half hours on average, and the average age of joining is 9 years old (Livingstone *et al.*, 2011). In Israel 86% of 12-18 years old people surf in the Internet every day (Dror & Saar, 2012).

The perception of risk in the modern society is based significantly on the thesis of "Risk Society" of Beck (1992). Beck defined the risk in the modern society as systematic way to cope with dangers and situations of uncertainty which are the product of the modernity itself. If in the past the social engagement of risk was revolved around the risk of nature and the ways to cope with them, in the modern society, with the technological developments and their use, there were created new dangers that stem from these technological developments. In this spirit, it is possible to say that the Internet technology empowered the existing dangers for children in the modern society.

The massive infiltration of the Internet to the private homes challenged the way how the society perceives the risk and relates to it. If in the past the perception of risk was revolved around the dichotomous division between the public sphere, which was perceived as unsafe and dangerous place and the private sphere, the domestic, which was perceived as safe and protected place, especially for children and adolescents (Hardern, 2000). The surfing in Internet changed the game rules. The study that was conducted recently among 1,048 adolescents of 7th -11th

grades in Israel found that the most of the adolescents connect to Internet from their homes (94.5%) and the most popular Internet activities are participation in social networks, forums and chats (64%) (Buchnik & Deshen, 2012),this means that indeed the bodies of the adolescents are at home, but although that and at the same time they spend time in the public websites and are exposed to the dangers that at the past were kept only to the physical public sphere such as meetings with foreigners, hooliganism and more. Additional popular activity is search of information (64%) (Buchnik, & Deshen, 2012), this is activity that may expose the adolescents to consumption of inappropriate and offensive contents when they sit in their private and seemingly protected rooms. In addition, the survey that was conducted in 2009 among 309 adolescents of 14-18 years old found that 29% of them did purchase online in the past, 62% of them at least once in the last year (Rafaeli *et al.*, 2010). I.e. adolescents are involved in activities of shopping online that may expose them to commercial dangers (collection of personal information, exposure for advertisements). Additionally to the increasing use of computer games, recently there is an increasing interest of the issue of violence and aggressiveness among children and youth. The senses of stress and harm as a result of aggressiveness, led to the developing of theory, research, education and policy in order to reduce the aggressive behaviors. It has been shown that adolescents with a higher level of body dissatisfaction tend to use Internet excessively. Body avoidance correlates negatively with body appreciation. Body appreciation means that the body is accepted and respected as it is, despite the pressures of family, peers or the media toward an ideal look (Swami, Tudorel, Baron, Goian, & Vintila, 2017). Also, it has been demonstrated that offline social support, have a negative effect on Internet addiction (Tudorel & Vintila, 2018).

Method

Procedure

The questionnaire was distributed among 400 pupils from the schools nationwide. 294 questionnaires were returned, 73.5% of return. 45% of the respondents were boy, and 55% were girls. The average age is of 16.5 years old, the frequent age was 17 years old, and the lowest age was 13 years old. Accordingly, most of the sample was children from 11^{th} – 12^{th} Grades. Only 15% of the respondents testified that they have a computer, 250 pupils testified about personal computer use, among them 214 pupils have laptop. About computer consulate, 54% testified that they have a computer consulate.

Validity and Reliability of the Research Tools

For the research questionnaire there were done tests of validity and reliability. Firstly, some items were taken from questionnaires which were validated in the past. For example, items that relate to the use of Internet and parental mediation with assistance of professional translator, verbal translation with cultural adap-

tation from the European questionnaire: EU KIDS ONLINE (2011). It should be noted that the original questionnaire was validated through cognitive tests and pilot tests in 69 European countries that participated in the project (details can be found in the technical report in the Project Website).

Regarding the questions that relate to the risk behaviors (attitudes, intentions for behavior and reported behavior), their construction was done through the use of sample questionnaire and the instructions of questionnaire construction that is Ajzen Website that details clearly the appropriate formulation way. It should be noted that this is a based theory which was examined in many studies and with proved validity and reliability. The formulation of the questions that relate to how adolescent perceive the risk in general and in Internet in particular and specifically behaviors that were examined lies of the research of Lamish and her colleagues (2009), and on additional studies that related to the perception of risk of behaviors at the Internet (Baumgartnet el al., 2010).

After this step the questionnaire was examined through limited number of adolescents who asked to fulfill it and then conversed with the researcher about the meaning of the items in the questionnaire and their understanding. According to the literature, students represent the most at-risk population for problematic use of the Internet (Vintila & Tudorel, 2018). Follow to the insights that were raised from these conversations there were done additional corrections in some questions. Another method that served of the validation of the questionnaire was conducting of pilot among 42 pupils in 6th, 8th and 10th Grades, some of them in the State Schools and some of them in State-Religious Schools. The researcher was present during the distribution of the questionnaires in the classrooms, so she could learn about the difficulties in the understanding of the questions and their interpretation. In this pilot the researcher also conversed with some of the pupils at the end of the fulfilling of the questionnaire.

The next step in the process of questionnaire validation and the examining of its reliability was statistical test of the pilot file. The validity of the structure was examined through the examining of the correlations between the different variables, and the reliability of the behaviors that were chosen was done through Factor Analysis and Cronbach's Alpha.

The Findings

The personal norms of each person are expressed in the extent to which he/she evaluates a certain behavior as positive or negative. In order to measure the respondents' attitudes towards the different behaviors, they were asked to indicate the extent of their agreement (ranging from 1 completely disagree to 5 agree to a very large extent). In a factor analysis, all items were combined to a risk perception variable. Alpha Cronbach 0.815 indicates high reliability among the items. The average of the variable 3.91 indicates that most of the pupils feel an exciting high risk perception in these activities.

Table 1. Use of digital media

		Average	Median	Frequent	Standard Deviation
1	How much time you approximately surf the web in the normal day (not including the time when you do other things but the Internet is open)?	3.37	3.00	5.00	1.34
2	How much time approximately you dedicate for computer games in the normal day?	1.67	1.00	1.00	0.94
3	How much time you approximately dedicate for multiplayer computer game in the normal day?	1.56	1.00	1.00	1.21
4	Do you visit Chat Rooms (for example, a place in Internet in which you can converse with people who you do not necessarily acquainted)?	2.47	2.00	2.00	1.05
5	Do you visit Chat Rooms of Games (for example, place in the game where you can converse with people who you do always acquaint)?	2.45	2.00	2.00	1.06
6	I used software for Instant Messages (i.e., exchange of message with online friends or contacts)	3.28	3.00	5.00	1.44
7	Wrote or read Blogs	2.69	2.50	2.00	1.20
8	Participated in Forums	2.53	2.00	2.00	1.14
9	Provided advice for other player in any game	2.28	2.00	2.00	1.12

The subjective norms relate to the way how person interprets the accepted norms for behavior in his/her immediate social environment. In this study, two significant factors were assessed that affect adolescents, i.e., the group of friends and parents. The participants were asked to indicate the extent of their agreement (moving from 1 completely disagree 0 to 5 agree to a very large extent). Their answers were examined by means of factor analysis, and all items were found to belong to the same content world (25% explained variance) and high reliability (Cronbach alpha 0.833). Building of the measure from the four items was done by calculating the average score for each respondent, the mean score was 1.93, and the standard deviation was 0.98.

Table 2. Risk Perception of digital media

	Variable: Risk Perception	Average	Median	Frequent	Standard Deviation	Alpha
10	Publication of personal information in the Internet (For example number of personal telephone at home, Address)	3.91	4.40	5.00	1.08	0.815
11	Face-to-face meeting with someone who acquainted at first in the Internet or in Computer Game (the meaning is meeting with someone in physical place and not in Chat Room, Telephone of Webcam)					
12	To upload clip that shows someone in insulting way to YouTube (the meaning is clip of someone in embarrassing or not respectful situation)					
13	Sending insulting message for someone (for example to ridicule someone in the way in which will cause him/her to feel bad, sad or angry)					
14	To publish in Internet a lie about someone					

	Variable: The Attitudes of the Respondents	Average	Median	Frequent	Standard Deviation	Alpha
20	It is Okay to publish personal information in the Internet	3.99	4.50	5.00	1.10	0.877
21	It is acceptable to meet with someone who acquainted at first in the Internet					
22	It is Okay to upload clip that presents someone offensively to YouTube					
23	When friend from the close city who I acquainted at first in the Internet offer me to meet face-to-face, it is difficult for me to refuse					
24	It is difficult for me not to upload good clip to the YouTube, even if it hurts someone else.					
25	If I will be asked to fulfill the Telephone Number of my Home or my Address for participation in Lottery, it will be difficult for me to refuse					

26	Sometimes it is difficult for me not to sending insulting message in Internet for child from school who I don't like					

	Variable: Involvement in Risk Behavior	Average	Median	Frequent	Standard Deviation	Alpha
27	You send insulting message for someone (for example wrote for friend in the way that caused him/her to feed sad or angry)					
28	You published your personal details (Mobile Phone Number, Telephone Number at Home, City of Residence)	1.60	1.33	1.00	0.90	0.744
29	You met face-to-face with someone who you acquainted at first in the Internet or in Computer Game.					

A person's intentions of behavior relate to his/her future willingness to perform the behavior in question, and fold within them the amount of effort he/she is willing to invest in order to perform the behavior. The questionnaire included four items that measured the intentions of risky behavior on the Internet during the coming year. 0 - Publish your personal information online (e.g., personal phone number at home or address) 6. Meet face-to-face with someone you first acquaint online (i.e., meeting someone in the same physical place, not in a Chat Room, on the Phone or using a camera connected to a computer) 9. Uploading a clip that shows someone in insulting way to the YouTube (meaning someone's video is embarrassing or disrespectful way) 5. Sending an insulting message to someone (e.g., ridicule someone in a way that makes him feel bad, Sad or angry). The scale of answers ranges from 0 never to 5 – always, the average of the variable 1.56, Standard deviation 0.89. The Cronbach Alpha 0.896 indicates high reliability among the items.

	Variable: Intentions to Involvement in Risk Behaviors	Average	Median	Frequent	Standard Deviation	Alpha
30	Publication of your personal details (Mobile Phone Number, Number of Telephone at Home, City of Residence)					
31	Face-to-face meeting with someone who acquainted at first in the Internet / Computer Game (it means meeting in the physical place and not in Chat Room)	1.56	1.25	1.00	0.89	0.896
32	You will upload clip that shows someone in inappropriate way to YouTube (Meaning that Clip that someone else will watch and will feel uncomfortable)					

33	Sending of insulting message for someone (for ridicule someone in the way that will cause him/her to feel bad, sad of angry)					

Aggressiveness (Little, Jones, Henrich, & Hawley, 2003) – In order to assess the level of aggressiveness of individual participant, we used an aggressiveness questionnaire which is suitable for fifth and tenth graders. Three categories of aggressiveness were calculated: pure or physical aggressiveness ("I am a kind of person who often fights with others"), calculated aggressiveness (Instrumental ("I sometimes start a fight in order to get what I want") and aggression as a reaction to others' aggression ("When I'm hit by someone I usually fight with him/her"). The questionnaire included 15 statements. The participants ranked them on the Likert scale 1-5 when 1 = completely agree at all, 5 = very agree.

	Variable: Aggressiveness: Pure Aggressiveness	Average	Median	Frequent	Standard Deviation	Alpha
34	I am a person who tends to fight with others					
35	I am a person who tend to kick, to push or to beat others					
36	I am a person who tend to say wicked things about others					
37	I am a person that other afraid of him/her					
38	I am a person who sometimes takes thing from others					
	Variable: Aggressiveness: Reaction for Aggression					
39	When I am hurt by someone, I tend to react in return					
40	When I am threatened by someone I threaten in return					
41	When I am insulted by other I take revenge by saying wicked things about them					
42	If someone annoys me greatly, I can kick, beat to push him/her	1.86	1.47	1.00	0.99	0.857
43	If someone hurt me or annoys me, I hurt him/her					
	Variable: Aggressiveness: Calculated Aggressiveness					
44	I usually begin fights in order to get what I want					
45	I usually threaten others in order to get what I want					
46	Many times I push, kick or beat someone in order to get what I want					
47	In order to get what I want I say wicked things about others					
48	In order to get what I want sometimes I hurt others					

Discussion

Regarding the questions that relate to the risk behaviors (attitudes, intentions for behavior and reported behavior), their construction was done through the use of sample questionnaire and the instructions of questionnaire construction that is Ajzen Website that details clearly the appropriate formulation way. It should be noted that this is a based theory which was examined in many studies and with proved validity and reliability. The formulation of the questions that relate to how adolescent perceive the risk in general and in Internet in particular and specifically behaviors that were examined lies of the research of Lamish and her colleagues (2009), and on additional studies that related to the perception of risk of behaviors at the Internet (Baumgartnet el al., 2010).

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The findings showed that the compulsiveness of the participants is not a dichotomous but spreads on a scale in which on one end there are the players that explicitly referred the shift to limited use in violent game as a legitimate way to release pressure in the harmless game environment, while at the other end are players who describe their compulsive behavior and totally ignoring the negative consequences these games have on daily life. Comparing the criteria of the questionnaire of compulsive use of internet (Young, 1996) with the interviewees' claims, shows there is a great similarity between the two cases in the symptoms of compulsive use of the game, especially according to a new meta-analysis, the level of compulsive use of internet in the Middle East is the highest in the world, when Israel is one of the four Middle Eastern countries that entered the analysis (Cheng & Li, 2014).

Conclusion

The technological progress is known in its impact on social values and customary norms. The internet came into to our life intensively for the last 15 years (it exist for the 60ies year of the twentieth century), and now it is active almost in each home. The Internet network is the most significant source of knowledge and information, as well as the source of great fun for children and for adults. There is a significant increase in the recent years in the number of Internet users and also in the hours of activity and the diversity of activities. The Internet network has a great number of information websites, discussion rooms, articles, pictures, games and more. Such as other positive activities, also the Internet activity it is not always possible to know when the children and also the adults pass to activity that can cause damage to them. The digital space in which we live dictates, and not slightly, the conduct of our live in diversity of fields – economic, political, social, educational and psychological.

This paper describes the research trying to evaluate the negative impacts of internet use on children and adults.

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