

Original article

Cyber space – risks to children and young people – research results

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ABSTRACT

The 21st century is undoubtedly a period of enormous progress in the field of digital technology, a period in which the boundary between the real world and the virtual world becomes less and less visible. The Internet has undeniably become a facilitation of everyday life, since it is a tool of work, communication or a way to spend free time for many users. The virtual world is present in almost all areas of our lives, and people spend more and more time in front of the computer screens, operating websites, e-mails or social networks. Highly developed digital technology is a boon of the 21st century, but despite its numerous advantages, negative aspects are also visible. Virtual knowledge displaces physical interpersonal contacts; physical activity is replaced by spending free time in front of a computer monitor. Various threats (social, psychological, psychological, ethical and moral) resulting from modern digital technologies and the increasing degree of dependence on them are extremely significant. The authors of this article present the results of own research, aiming at making the reader aware that there are both positive and negative aspects of the virtual world.

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KEYWORDS

threats, virtual world, digital technology, Internet addiction



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Introduction

The information society is associated with a great number of very dangerous threats. They are associated, among others, with modern digital technologies. Cyber threats are placed on equal footing with pathological hazards, i.e. addiction to alcohol and addiction to drugs. It is based on similar principles. At this point it should be emphasized that addiction is influenced by various factors, but in children and adolescents, these

are above all problems at school, at home, failures in children's lives, misunderstandings between peers. Such an attitude of a child who is left alone with problems, neglected by adults, arises that he/she seeks consolation in the virtual network. The speed and dynamics of the development of digital technology increases the exposure of ever-younger children to risks. The virtual world has already taken almost all areas of our lives by storm, pushing out recreation and spending free time with relatives, as well as destroying family foundations. Interestingly, that is a contradiction: cyber space that facilitates the access to knowledge and learning about the world, causes on the other hand a decrease in psychological and physical activity, since, as the proverb goes "we have everything given on the plate" without the slightest effort. Analyzing the threats, individual processes of addiction stages can be distinguished: learning (satisfying curiosity), initial feeling of the effects of satisfying curiosity, feeling the psychological and psychological effects, feeling the effects of tragic consequences.

It can be seen that the literature available in Poland on the subject of studying addictions from cyber space is extremely scarce. Programs, preventive actions and tools are missing. There should be more institutions specializing in the prevention of addiction and combating the effects. Elaborations of the issue of addiction to cyber space are becoming increasingly frequent, for instance we hear more and more often on television, radio and in the press about tragic consequences of using a computer connected to the network. This prompts us to reflect on the widespread Internet pathology, which is confirmed by the results of the conducted research.

1. Mass media influence on children and youth

The impact of mass media exerted on children and youth has increased the interest of parents, carers, teachers and all institutions involved in education in general as well as education in the field of children and adolescents' health. The problem of bad influence has aroused interest not only of teachers and parents, but also: doctors, psychiatrists, psychologists, sociologists and recently also politicians.

The impact they exert on children and teenagers is systematically strengthening, resulting in raising statistics on the introduction of ever-newer, modernized media that reach our Polish market. Producers' competitiveness enables children and young people's easier access to various media that they can take with them everywhere. Although the conducted research was focused on showing the negative impact of mass media, one can also find advantages such as: earlier readiness to learning, developing passions, broadening the scope of scientific methods and the effectiveness of receiving all didactic materials through the media, participating in discussions, participating in art. Obviously, on the condition that the content is devoid of sensationalism, brutality and violence, otherwise the effect will be opposite. It should be remembered that programs containing erotic scenes, showing a perfect figure, anti-health presentations, images of perverse techniques that are addressed to children will be harmful to their intellectual and psychological development.

1.1. The negative impact of mass media on children and youth in the information society

Research carried out by educational centers, statistical centers and the authors illustrate and compare in which areas the negative impact of media on children, i.e. violence, aggressive behavior, erotic content (highlighting particularly the ideal figure), violent behaviors, pornographic behaviors (with children in the main role) could be observed.

Various types of aggression can be observed in man's behaviors. Aggression is used to intimidate someone in order to gain a social or economic position. When comparing the concepts of violence, the behavior of terrorists can be mentioned as they show it in their dangerous activities. Moreover, violence in the form of verbal abuse can be found in personal interactions. Already the youngest children and teenagers can model themselves on negative behaviors from computer games, DVD movies, TV movies and recently very popular short films posted on websites. Modeling on negative behaviors may result in aggression and violence illustrating direct imitation of bad behaviors, insensitivity, lack of reaction to images of violence, seeking to relieve emotional tension through aggressive activities.

Aggression and violence present in the media caused that scientific research commenced in this area. The media distribute the use of violence to achieve goals, defuse emotions or solve problems. Following the publicly available TV programs and messages posted on the Internet, one observes frequent imaging of violence, yet there are no alternative solutions to combat it. Children and youth can read these messages as a phenomenon universally accepted by the society. It often happens that problems are solved by violence. It is known that the correlation exists between the real-world violence and violence in the media: the correlation between watching violence in the media and the use of aggressive behaviors and attitudes: the correlation of accepting violence shown in the media, the lack of attention to the process of education, children's rebellion in relation to school, parents. It is apparent that children and youth who watch violence in the media use it in the real world.

The given behavior can be observed not only in children and adolescents but also in the behavior of adults. Findings from the conducted research show that children can only function in a given and closed environment, they are constantly subjected to media pressure and are often influenced by media messages, e.g. advertisements, violence.

If the media influence a child in a significant way, the antisocial behavior of children and young people also matters. The influence of the media grows stronger when a child demonstrates dysfunctions in functioning, when he/she lacks domestic warmth, is rejected by peers as well as parents, often debased. The child loses self-esteem and looks for a "foster family" in the media. If the family functions properly, the effects of the media influence are counterbalanced. Social pathologies, i.e. poverty (unemployment of or loss of employment by one or two parents), social margin, isolation from society (e.g. due to the abuse of drugs) are the basic factors that trigger a negative impact of the use of mobile phones, the Internet and television.

In such cases, rebellion is perceived in children and youth, especially during adolescence. It arises in a relation to the poor material position of the family, enhancing conflicts. These children make friends with the same group of peers, which often leads to the intensification and consolidation of negative behaviors.

Other basic factors include developmental deficits transmitted genetically in children and adolescents (harm to the unborn child, neurological injuries, often childhood diseases). What is more, insensitivity and indifference to suffering and pain of others have a negative impact on the child's development. A sense of fear develops in children and they begin to perceive the world as a very dangerous area. Research analyzes have reported recently that children are frequently not only victims of criminal violence, but perpetrators as well. It is visible through insensitivity to the suffering of others, that the violence appearing in the mass media fulfils a preventive function. When watching violence, recipients identify with people representing violence, thus reducing their own behavior.

Scientists also point to the increase of attention to the sexual content transmitted in the media [Okon 2007]. The large content of erotic and sexual content arouses great criticism in parents as well as legal and political circles. The collective work of the Kaiser Family Foundation from the USA identified that in 20 years (1976-1996) there was a huge increase (400%) of the scenes containing sexual content watched during the so-called "family hours" [*Children Now 1996* 1996].

Moreover, the image of a perfect body and beautiful appearance is promoted on a huge scale. Cinemas, television, Internet promote images that are contrary to the real ones. The exposed beauty means a slim figure, beautifully modeled hairstyles, make-up and the latest fashion trends. Youth are trying to keep up and adjust to the standard imposed in the media. This often leads to diet-related disorders. When a young person realizes the differences between his/her appearance and the image created in the media, he/she faces a failure. It effects the psychological development of girls and boys. Following the latest fashion trends can be such an example. These goods are often unavailable due to financial reasons. Their dissemination can be considered as another area of research on the negative impact of mass media on the younger generation [Jedrzejko 2005].

The young generation should be able to use the media in a prudent way. Children and adolescents must assimilate basic media literacy, as it is a way of searching for information. It is crucial that pedagogues and carers who have direct contact with children and young people are constantly trained in this aspect. It lies within their duties to ensure that students duly use the transferred knowledge primarily in educational terms, as media education increases the teachers' responsibility for the free use of information available on the Internet (containing the content dangerous to the psyche of children and young people). The bad influence of cyber space reveals virtually in every area of life. This is particularly evident in the young generation. A disturbing influence on intellectual, psychological and even physiological development of children and adolescents has been noticed.

Education goes hand in hand with the mass media, hence a relationship between them occurs. Cyber space has invaded our lives, causing limitations in free time of the young generation. Children devote their free time to using a computer connected to the network, neglecting the duties of everyday life, i.e. reading, spending time with their peers, home duties. The way children use the Internet depends largely on parents' interest. The lack of parental control over the use of the network may have serious consequences both in different spheres of life and in the child's personality. Alarming tendencies that threaten the young generation have always been noticed in social life. If used appropriately, they show development and educational opportunities, as the preparation for life in the culture of the information society is a very important element of the education of the young generation.

2. Children and youth in the information society

In the information society, there is no distinction between the world of children and the world of adults. A very active participation of children and adolescents in the adult life has been observed, and all problems and situations (mainly negative) they participate in destructively affect their development.

The creation of behaviors and attitudes disseminates via the media. It transmits opinions, patterns, including bad ones. Cyber space changes moral, social, cultural and ethical values and violates the child's development in an irreversible way. Parents often do not realize that their child focuses too much attention on the media. Inappropriate use refers to the nature and scope of reception in the family. The first worrisome sign for parents, guardians and educators is the inappropriate amount of time spent on the web, content and time of use as well as games saturated with violence, brutality and cruelty. In the information society, scientists often carry out research illustrating the negative impact of cyber space. Everyday use of a computer connected to the Internet network raises the anxiety of doctors: ophthalmologists, neurologists and orthopedists.

The child's cognitive sphere suffers most from frequent use of the media. Virtual reality becomes real for children, often more real than reality. A small child cannot select images and critically assess the situation, which distorts a true picture of reality. The media world becomes a model for imitation and learning. It is worrying that children identify with what is bad, for example with characters from computer games, movies watched on websites. Analyzes of the conducted research prove that watching scenes containing violent scenes can lead to aggressive behavior of children, increase aggression towards peers, evoke fantasies about aggressive content, cause indifference to other people's injuries and perceiving the world as a threat. The data indicate that contemporary shaping of personality and development process depends to a large extent on: television, mobile phones, computers, computer games and Internet. Parents play the main role because it is up to them to educate and build media awareness of children. Too little attention and free time devoted to children the causes that they are left alone. Young people are looking for "media care".

3. Threats

Using a computer may result in disturbances of the senses – causing troublesome ailments in a human being. It should be borne in mind that the younger generation is exposed to the effects of negative impact much earlier. Threats can be divided into various groups: health risks, psychological and psychological threats, ethical and moral hazards, sexual behavior disorders, the phenomenon of prostitution in the network, pornography in cyber space, social risks and cyber terrorism, which has been also confirmed by the authors of the study.

3.1. Health risks

- Eye damage, eye fatigue, problems with visual acuity. Causes: a long time staring into the computer screen, a lot of light, considerable eye strain, working in dry rooms.
- Headaches, tension and migraine headaches.
- Back pain (overloaded muscles), nerves, strained muscles and tendons, curvature of the spine. Causes: work in a sitting position, outstretched hands.
- Caudal bone injuries. Causes: ill-suited chairs to sit at the computer.
- Pain in the wrists, elbows, arms (overloaded heavily wrists and fingers), tingling, numbness (all work rests on them, and frequent and notorious tapping on the keyboard causes injuries). Causes: bad blood circulation in the body, as the body rests in a static position.
- Tendonitis, hypersensitivity, swollen parts of the body.
- Radiation, the field produced by the media can increase the risk of various types of leukemia (children are most vulnerable).
- Allergies, polarization of the screen causes irritation of the skin and mucous membranes.
- Threats to pregnancy, the generation of a magnetic field, and poor body posture have a detrimental effect on the development of pregnancy.

3.2. Psychological and psychical threats

A computer causes negative psychological problems when used for many hours. They can be temporary or permanent, since the human psyche is very delicate and sensitive. Children are the most exposed in this aspect and threats can bring serious effects that manifest themselves in isolation, fear of people or contact with them. There may be a distortion of the reality image. Children and adolescents are becoming resistant to evil and brutality presented on the Internet. At the beginning, the computer was mainly used for work, it helped to collect data, today it is a children's playground. The fear of computer addiction is enormous, and children are the most exposed to it. The Internet greatly influences the shaping of their personality. It is the center of a variety of information, including sexual, pornographic, pedophile as well as brutal and violent content. It is also dangerous that a child is likely to encounter fascist views in cyber space, or be exposed to contact with satanists and various sects. Furthermore, tips on

how to launch a terrorist attack or how to construct a bomb can be found on the Internet. According to A. Hankala, threats affecting interpersonal development can be divided in a view of: disrupted relations between a teacher and a student, disruption of social contacts, increase in aggressive behavior, the consequence of continuous modification of the risk of updating threats [Hankala 2004]. The friendship that man has made with the computer has caused a change in communication with reality. Maciej Tanas presented the division of threats for various reasons [Tanas 1993].

1. For cognitive reasons leading to difficulties in continuing education by a child: distorted attention, the lack of ability to think logically, getting lost, memory disorders, psychological discomfort making it impossible to continue learning.
2. Due to the escape to the world of cyber space: a false sense of belonging, pathological competition deprived of any rules, the lack of the feeling of the truth and ethical principles, loss of dignity, man becomes a prisoner of the network, has the need for self-presentation (own web pages – blogs, websites).
3. Due to social pathologies such as aggression, frustration, pathological patterns (aggression encountered daily in the media is generally acceptable to the public), involvement in prostitution, pornography, pedophilia, access to sects and satanists.
4. Due to addictions: media addiction – compulsion to be on-line, being manipulated by advertisements and computer games, violation of rules, prohibitions, orders, running away from the real world.
5. Due to neurological disorders: epilepsy, various types of neurosis.

3.3. Ethical and moral threats

The problem is that users are not fully prepared to use cyber space. This scheme has many planes and is very complex. M. Jedrzejko aptly describes the image of computer media claiming that a young person faces a new space and freedom, only that this space is misunderstood [Denning 2000], and the media include more and more content that badly affects the development of the young generation who seeks patterns to follow in them.

3.4. Disorders of sexual behavior

Sexual behaviors have been disturbed in cyber space. In the past, when looking for a partner, people went to cafes, cinemas or clubs. At present, all you have to do is just sit down and connect to the net. Mass media substantially affect sexual behavior and are frequently of deviant nature, distorting the psyche [Suchorzewska 2010]. Three factors affect sexuality on the Internet: anonymity, accessibility and unlimited possibilities. It is estimated that the activity of visiting websites on this issue increases and their users find fulfillment of their hidden dreams, which would never be made publicly known. Analyzing the problem of internet sexuality, the following aspects ought to be mentioned: commercial – disseminating trade and sex trade products; educational – educational materials help parents to understand children's sexual education and get

rid of anxiety; accessibility – all sexual play accessories became public; temporary – all free time is spent on living in the network; isolation – moving away from a partner, internal isolation. It is not surprising that the commercial aspect plays the most important place here, due to the rapid development of the virtual world. In this area, there are ongoing races to break further barriers. Perverse phenomena and perversions make people curious. Operators will create new perversions, launch telephones, add new images that break ethical and moral rules to improve page rankings and satisfy human curiosity.

3.5. The phenomenon of prostitution in the network

The 24-hour availability of the Internet is its greatest advantage. A user uses the web at a time that is convenient for him/her. Anonymity gives a sense of security, offering full satisfaction in the sphere of intimacy. Information about prostitution, addresses where to go to satisfy own needs without obligation is easily found on webpages.

The problem of prostitution of children and youth cannot be ignored. Children who engage in prostitution were often brought up in a similar environment, they do not know respect and can be ruthless not only to themselves but also to other people. In Poland, it is difficult to estimate the phenomenon of child prostitution as – due to criminal responsibility – both children and those who use their services hide it scrupulously. Sponsorship has become very fashionable. Many young girls as well as many boys sell themselves to rich men to have super clothes, perfume, a flat, etc. Owing to anonymity in cyber space, those using child sexual services remain unpunished. The research carried out by organizations and non-governmental institutions as well as the Police data confirm the fact of the growth of the prostitution rate, hence some thought should be given to the problem.

3.6. Pornography in cyber space

In recent years, the web has become saturated with erotic, sexual and pornographic contents. Pornography is, by definition, all verbal or visual materials depicting the image of human anatomy and its sexual activity. The goal is to arouse excitement of a service recipient. Erotic websites can be divided due to their thematic content:

- sexual and pornographic photo galleries,
- movies that can be stored in the memory of own computers,
- teleconferences – pornographic dialogues evoking erotic sensations,
- 24-hour stores enabling the purchase of gadgets, pornographic films (the so-called Sex Shops).

The publication of erotic content is not contrary to Polish law, and even the youngest users have access to it. Increasingly, it is children who visit websites designed exclusively for adults, and entering pornographic websites does not require passwords, no one verifies information on the age. Pedophiles, who benefit from the naivety of children, lurking in the net are a particular threat.

The state should ensure the safety of its citizens, particularly the youngest, however parental control is the best protection against the network danger to the young generation. It is necessary to have an insight into games, programs or films that a child spends time on. Parents' computer skills are also necessary so as to verify the websites visited.

3.7. Social risks

When considering social risks, the following examples can be indicated:

- Hacker activity. Hackers can hack into government servers, steal data, delete critical information, change pages, etc. Their activities also include: eavesdropping conversations, creating and sending viruses, Trojans. Hackers can seize every weakness and neglect on the part of a user for their purposes.
- Piracy is the dissemination of data in any form – i.e. copying, reproduction, production of products that have copyright protection.
- Trade using the Internet, also known as *e-commerce* [Denning 2000]. When visiting websites, one often encounters concepts such as e-shopping, e-business. These stores are stocked literally in everything. In addition, one has a sense of luxury and comfort since everything is possible to buy with a mouse click, without leaving home. Nonetheless, it is also risky due to the fact of disclosing personal data.

E-commerce can be dangerous especially due to:

- disclosing secret personal data,
- deleting these data,
- destruction of data,
- modification of these data,
- incorrect software,
- denial of service,
- questioning of transactions concluded [Chmielarz 2001].

3.8. Cyber terrorism

At first, the notion of cyber terrorism should be considered. Specialists dealing with cyber terrorism indicate difficulties in defining this concept. It is not clear which activities can be described as cyber terrorism. Barry Collin, an employee of the Institute for Security and Intelligence from California, is the creator of this concept; he used the term in the 1980s to determine the connection between cyber-space and terrorism. According to B. Collin, cyber terrorism is a conscious application of an information system, computer network or its components to support or facilitate a terrorist action. D. Denning [2002] gives a restrictive definition and particularly claims that cyber terrorism is an unlawful attack or a threat of attack on computers, networks or information systems to intimidate or enforce far-reaching political and social goals on government or people. Supplementing his definition, he adds that a cyber terrorist attack is only recognized when a given act causes direct damage to man and the property or

at least is so significant that arouses fear. Robert Kosla [2002], on the other hand, defines cyber terrorism as blocking, destructive or distorting activities in relation to information processed, stored and transferred in IT systems, as well as actions destroying (overpowering) these systems. According to R. Kosla, this concept also includes the use of ICT systems for disinformation, psychological warfare, etc. The target of the attack is usually information being processed, not the system as such. Cyber terrorism, as a specific category of threats, includes actions in relation to ICT systems, undertaken to achieve specific goals in cyber space.

Therefore, cyber space becomes an important “nerve element” of our activity. It is a control system consisting of hundreds of thousands of interconnected computers, routers, switches and fiber optic lines that allow state infrastructure and citizens to operate. The ICT infrastructure has many weak points that can enable cyber attacks aimed at significant reduction of their efficiency. Cyber terrorism is becoming the most unpredictable way of influencing of organized groups on the functioning and stability of state structures and thus the life and health of its citizens. A category of critical infrastructure has emerged, the destruction or damage of which may impair the defense capability and the security of the state. Its main elements include the telecommunications, energy system, banking system, production and transport network of natural gas and crude oil, transport, water supply system, emergency services and continuity of public administration operation. Can people save themselves from cyber terrorism? The answer is not unambiguous and simple and the answer is *probably not*, however there are several ways to determine the occurrence of a cyber attack threat. It is also significant to identify the right security policy in this area. Here are some conclusions resulting from the research:

- cyber terrorism is one of the new weapons used to destroy the state's IT systems in order to achieve the intended political, economic or ideological benefits,
- cyber terrorism is a particularly attractive form of struggle stemming from the fact that it is characterized by low costs of such activity, especially when compared to the costs of regular military operations,
- both military (military) and civil (non-military) systems are areas of interest of cyber-terrorists,
- attacks using malicious programs, i.e. viruses, worms and bacteria, are extremely effective and at the same time the most dangerous ones,
- the activity of terrorist organizations in cyber space has become a fact, they have both financial potential and perfectly prepared IT workforce ready to use their skills to achieve ideological, economic or political goals,
- war and conflicts in cyber space are one of the dimensions of the modern battlefield, which was made clear by military and civil conflicts.

Cyber terrorism as a contemporary threat to the state security destabilizes the political and economic life. Due to many dangers on the Internet, special attention should be paid to the problem of IT systems security and education of user, especially children and adolescents as well as people deciding about the security of ICT systems.

4. Research and results

This research was carried out to raise awareness of potential threats resulting from cyber space. The intention of the researchers was to obtain answers to the following questions:

- What is the awareness of children and adolescents in terms of the dangers lurking on the web?
- What psychological impact can this have on functioning in the society?
- What is the risk of making acquaintances and communicating with strangers through the net?
- How does a child alert that something wrong has happened?
- How does a child inform about undesirable and extraneous phenomena on the web? (for example about pages with pornographic content),
- How great is the phenomenon of violence and crime that occurs through Internet connections and what effect does it bring to the information society?
- How high is the rate of Internet victims?

Research methodology:

- The research was carried out on the basis of observations and a survey sheet.
- The questionnaire was carried out in the Pomeranian Voivodeship, in schools and centers that requested anonymity. These institutions were: Special School and Education Center, Secondary School Complex and Public Junior High School.
- Observation was conducted at the Pre-school Care Center.
- Almost half of the respondents (41%) used the Internet every day, the rest used almost every day.
- The diagnosis covered a total of 478 people, divided into two groups: 1 – survey, 2 – observation.
- The percentage share of children and teenagers was as follows: 278 boys, 200 girls.

Generalizing the results of the research, it can be concluded that:

- Youth most often use the Internet at home and at their friends' places, so the question is: *how do parents influence this?*
- Frequency of Internet use: 1-2 days a week (17%), 3-4 days (17%), 5-6 days (25%), daily (41%).
- Daily computer frequency: 1-3 hours per day (21%), 3.5-6 hours (46%), over 6 hours (33%).
- Activities performed while using the Internet: playing (21%), visiting various websites (19%), chat rooms, forums, communication (14%), making new friends (13%), downloading music, films (8%), Gadu-Gadu, Skype (19%).

When analyzing the results of the conducted research, it was pointed out that all the examined children had previously heard about the threats associated with using the Internet.

The question “Did anyone talk to you and your peers about using Internet services safely?” was answered as follows: parents (36%), teachers (24%), peers (26%), siblings (10%), police officers (4%). 21% of the respondents declared that they were controlled by their parents in terms of computer usage, while 79% said they used the network without any restrictions. As many as 387 out of 478 respondents admitted that they provided their personal data when using the Internet. The boys were the predominant group. The girls proved more cautious.

When asked “May meeting people on the Internet be risky?” the respondents gave the following answers: definitely yes (163 people), rather yes (76 people), rather not (138 people), definitely not (101 people).

The next question was: “Do you think that giving information about yourself, e.g. e-mail address, photo, phone number, address to the strangers can be dangerous?”. The respondents answered: definitely yes (121 people), rather yes (90 people), not really (137 people), definitely not (130 people).

Children and adolescents were asked in the questionnaire about the type of personal data that they most often made publicly available: e-mail address (101 people), photos (100 people), home address (60 people), telephone number (138 people), Gadu-Gadu, Skype number (79 people).

The conducted research showed the emotions of a computer user who shared his/her personal data via the Internet: I did not know who I could inform (22%), informing anyone would not change anything (8%), I felt anxiety, shame (30%), my mind went blank (14%), I was afraid to be scolded (21%), I do not know (5%).

Conclusions

The results of the conducted research indicate that in order to make the use of the Internet as safe as possible for children and teenagers, it should be remembered to:

- ensure good contact so that the child can be sure that he/she can trust us,
- set the rules for using the network and enforce them strictly,
- talk to the child and do not treat topics about pedophilia and strangers lurking on the Internet as taboo.

Spending most of the free time on using a computer leads to ASC (Altered States of Consciousness). Tomasz Goban-Klas [1999] believes that “the symptoms of the Altered States of Consciousness are similar to those obtained as the effect of pharmacological intoxication, alcohol or drugs and various training and therapeutic interactions”. The rules to be followed to protect oneself from Internet addiction – the so-called “Decalogue of the Internet User”, which is confirmed by the results of the conducted research, are presented below:

- do not treat a computer as a guru,
- when you sit down, ask yourself – why am I going on the computer?

- be aware that information with the obscene content may be encountered,
- parents: broaden your knowledge of the Internet to be able to fully watch over the safety of your child,
- do not waste time that can be spent actively,
- do not underestimate the symptoms of addiction,
- Say a firm NO to hacking, piracy
- do not trust a stranger met on the web,
- do not substitute friends or family for a computer.

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Conflict of interests

The author declared no conflict of interests.


Author contributions

All authors contributed to the interpretation of results and writing of the paper. All authors read and approved the final manuscript.

Ethical statement

The research complies with all national and international ethical requirements.

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Biographical notes

Marian Kopczewski – Prof. Dr. hab. Eng., Full Professor of the AWL in Wrocław, graduate of several military universities. In the military, he worked on prestigious command posts, especially didactic ones, ending his service in the rank of colonel as the Chair of the Faculty – Professor at the WSOWOPL in Koszalin. Since 1997, he has been a research and didactic worker; he promotes modern teaching techniques and manages the diploma processes in the field of security subjects, crisis management, security geography, information technology and European studies. In his scientific work, he focuses on the analysis and assessment of the possibility of using information systems in management and teaching as well as national and internal security systems, including in the European and Euro-Atlantic political and military integration processes. He is the author and co-author of over 500 various national and foreign publications, including a dozen or so monographic publications thematically related to national security. He manages scientific and research works at the national and international level, within the framework of this work he promoted 6 doctors and currently he has been supervising several others. He is a member of the Editorial Board of the AWL Journal of Science and Chairman of the Scientific Committee of Scientific Journals Education for Safety, the Polish Society of Security Sciences and the Polish Society of Defense Sciences as well as Chairman of the Polish Society of Production Management and the Polish Association of Creative Teachers.

Agnieszka Napieralska – M.A., graduate and academic teacher at the University of Security in Poznań. In 2014-2016 she was awarded with the Diploma of Recognition by the Rector of the University of Security, in 2016 she was honored with the scholarship by the Minister of Science and Higher Education for outstanding scientific achievements. Author and co-author of several publications, thematically related to broadly understood security. In the years 2014-2016, co-organizer of Nationwide Scientific Conferences for Students and Young Scientific Workers. President of KU AZS of the University of Security.

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