IMPACT OF THE INTERNET AND COMPUTER GAMES ON PATHOLOGICAL BEHAVIOUR AMONG CHILDREN AND TEENAGERS

Casual access to modern information technologies, including the use of the internet, combined with the increased importance of information and media-based transmissions (which create a new view of reality), became a source of new concepts which characterize functioning of the modern society. One of such concepts is a well known concept of information society (Jap. johoka shakai), for which “(...) the computer, the internet and all digital technologies are becoming to be one of the most important elements of life”¹, while the information is the very base of economy, politics and culture.

The development of the mass media, and multimedia - and media-based communication in particular - has become a trigger for development of another new concept of society, namely the media-based society, “(...) for which the dominant form of social contact is media-based indirectness, and not a face to face contact.”² This phenomenon may be characterized by the following characteristics³:

- personal relationships take a media-based form,
- media create a kind of alternative virtual reality and media-based culture,
- telecommunication is a base of information circulation in every sphere of our lives,
- virtually every action we take is supported by information technologies and media,
- the majority of the gross domestic product is produced by the service sectors strictly connected with information provision, telecommunication and media,
- information, knowledge and culture are the basic production factors, they combine economic categories; production is strictly related to circulation of data and knowledge, and such circulation may become the core of business;
- social development is based on the application of the teleinformatics.

The term media-based society is not limited to the adult fraction of the society but points to the interest of children and teenagers in media as well. Nowadays, children, whose first contact with new media begins in the kindergarten, and who use computers much more skillfully than their parents, according to Fern Shen, are shaped by, “(...) the three "m" - movies, music and microchips”⁴ - as she states in the weekly "Washington Post. This naturally means that media and information accessible via them accelerate children’s development.

In addition to a number of beneficial aspects of modern communication technologies (mainly in the area of psychological and physical development of children), we should not forget about numerous related threats. Among the most characteristic pathological behaviors, the source of which should be sought in the use of a computer games and the internet, we may enumerate such

¹Golka M., Bariery w komunikowaniu i społeczeństwo (dez)informacyjne. PWN, Warsaw 2008, p. 80.
phenomena as: the internet addiction (also known as netaholism) and aggression, including electronic aggression, violence and cyberbullying.

These pathological phenomena, have escalated significantly in recent years, creating a threat to the global social order. It is therefore necessary to consider where the cause of those changes lies and to identify the factors which may help eliminate or at least significantly reduce such occurrences.

The term *pathology* (from Greek: *pàthos* – suffering, *lógos* – a word), is not clear, nonetheless, it is most commonly used in relation to the study of unhealthy processes and diseases that occur in biology and medicine\(^5\)(...) and “the causes, mechanisms, forms, symptoms and consequences of physical and mental illness”\(^6\). But it is also often used in the humanities. “The problem lies in the difficulty with a diagnosis of what this sick body is, what a symptom of the disease is, what the reference point of such disorders is - in other words: what health is.”\(^7\)

Consequently, social pathology is “a general count of death cases, of lowering moral standards, of deterioration of psychological well-being and material losses caused by the violation of praxeological, moral and legal rules, as well as of self-destructive conduct”\(^8\). This phenomenon, which defines destructive and self-destructive behavior of individuals, groups and entire societies, remains in the unembroidered contradiction with the world-view values, which are accepted in a given society.\(^9\)

Among self-destructive behaviors, effects of which particularly threaten the proper development of children and adolescents, we should include addiction to the internet, which, just like any other addiction, is a strong need to perform a particular function. Organic, psychological or psychosomatic necessity to fulfill a specific need, which stands at the head of the hierarchy of values for a given individual\(^10\), may be characterized by the following symptoms\(^11\):

- emotional clarity of command - realizing the need for addictive behavior become most important,
- permanent change of mood - the mood optimization occurs only at the time of compulsive behavior,
- dosage tolerance - a pre-anesthetic syndrome: the need for "dose" enhancement,
- abstinence symptoms - mental and physical changes,
- occurrence of conflicts - excessive entering into conflicts with the immediate environment, and
- relapses - failed attempts to quit.

In the case of Internet addiction, by Tadeusiewicz referred to as the new negative social phenomenon, we could have predicted its development (since every new technological advancement becomes a source of a deviate fascination). However, we could not have predicted the scale and

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\(^{8}\) Quoted after: Pospiszyl I., as before, p. 17.


\(^{11}\) Pospiszyl I., as before, p. 125.
scope of related deviations\textsuperscript{12}. In fact, this pathology can be considered the biggest current problem caused by computerization of virtually every sphere of life. The fact that this phenomenon is escalating and reaching more and more people ads to the problem. Other aspects of this problem are related to psyche, when psychological disorders appear, e.g.: social phobias, drugs abuse, lack of control over impulses, and personality disorders, leading to a state of deep depression or even death. Social aspect of the problem is, too, eminent: we deal with such [social problem] which can restrain life expansion of a human being, eliminate them from the interaction with the environment, disturb the physical and psychological needs, and limit ambitions and aspirations.\textsuperscript{13} This can lead to social poverty and social exclusion.

According to well known neurologist, prof. Kostowski, “neaholism is a behavioural addiction, which means it is a type of compulsive disorder. The drives for this addiction are similar to the ones in play in case of gambling or shopping (...). A typical system of reward works here: a function or activity stimulates the centre in the brain responsible for pleasure. Therefore, we get addicted not directly to the internet (as it would be in the case of nicotine), but we get addicted to behaviours related to use of the internet.”\textsuperscript{14}

Young constructed a taxonomy of netaholism distinguishing the following\textsuperscript{15}:

- *cybersexual addiction* - that is, a compulsive search for pornographic material and content of sexual conversations on the chat-rooms,
- *cyber-relationship addiction* - reliance on internet social contacts, resulting in breaking of direct contacts,
- *(inter)net compulsions* - obsessive tracking of what is happening on the network,
- *information overload* - consisting of feverish skimming of information and participation in several discussions on various forums, which leads to a reduction in mental efficiency,
- *computer addiction* - compulsion to spend time in front of the switched on computer screen.

Internet addiction is especially a danger to children who more and more often become netaholics. As Seweryn reports, for the youngest users computer is the main provider of entertainment, a major way to spend free time and a means to rest; this in time becomes a specific type of drug, which they cannot give up.\textsuperscript{16} Getting addicted to the internet is a process which consists of three stages, each of them differing in the degree of intensity. It has the following behavior characteristics (Fig. 1)\textsuperscript{17}:

\begin{itemize}
  \item Pospiszyl I., as before, p. 186.
  \item [in]: as before
  \item Kozak S., as before, p. 33.
\end{itemize}
Stage I, Involvement, starts with getting to know the internet and new possibilities related to its use. Common emotions at this stage include fascination, anticipation and anxiousness. There are also signs of relaxation and increase in energy. Making new (internet) acquaintances causes the feeling of loneliness to disappear. Emotions imitating euphoria emerge. After a short time, the feeling of peace begins to dominate the internet user always at the time of (or strictly after) the contact with the internet.

Stage II, Replacement, begins when the internet user feels a need to continue contacting new internet acquaintances, such contacts become necessary for keeping life balance and they bring a feeling of relief (their lack causes a discomfort). At this stage, the internet user withdraws from the previous relationships and things of the highest importance in the real world, while (s)he begins to depend on the internet contact more and more. Also (s)he starts to identify with the internet community. At this point the internet user starts to concentrate on, and constantly thinks about, the moment when (s)he will be able to connect with the internet, and what (s)he will do then. This happens both, when the user is alone, and when (s)he is with the real world friends.

Stage III, Escape, is characterized by escalation of addiction, which takes the form of impossibility to overcome the need to use the Internet. At this stage we deal with a total escape from the real world. The internet is no longer just a tool for communication, information gathering or entertainment, but it is a form of escape from unsolved problems. This situation leads to a deepening depression, and feelings of alienation and loneliness.\(^\text{18}\)

Such addictions, in which the computer plays a major role, are not restricted to the internet. Many young people who spend their free time playing computer games, (whose contents, no doubt, have a tremendous impact on their psyche and their forming attitudes) are so addicted, that they are becoming computer hostages. “Computer games allow to actively participate in the virtual world, they offer the opportunity to decide on the course of action and influence the fate of characters. In

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\(^{18}\)Kozak S., as before, p. 33.
addition, while playing a computer game, presence of a human companions becomes unnecessary, since they get replaced by the computer. All these features make the video games providers of strong feelings and experiences to a child, engaging it emotionally and enabling it to avoid the feeling of boredom.”

In the meantime they cause a strong dependence (addiction), which is accompanied by closing down or, how it is in many cases, by the aggressive behavior both at home and in school.

“Looking at the sources of aggression from the etiological point of view, we cannot ignore the increasing role of the media, especially electronic media (video games and the internet) in formation of conflict-based, aggressive behavior.” This may, in part, be due to the fact that many games contain brutal scenes of violence, therefore they show and enhance abnormal behavioural patterns. “Participation in these can lead to desensitization or anesthesia. Apathy, decreased sensitivity and lack of compassion may manifest”, while the virtual struggle for victory is transferred to reality, often manifesting in a number of pathological behaviors.

Probability of following of the negative role models appearing in video games is higher the more the child is in contact with them, but, as L. Kirwil mentions, factors that specifically affect the aggressive behavior include:

- portraying of aggression as justified, correct and socially acceptable;
- rewarding of aggression (and not punishing for it);
- showing many people participating in aggressive acts simultaneously;
- demonstrating aggression by an attractive person with whom the child easily identifies.

The world of computer games is the world of war where to survive you need to win and to win you have to kill. In their article, published in the journal *Aggression and Violent Behavior*, Dill and Dilly write that in computer games based on violence: “[a]ggression is often the main objective: to kill the enemy, achieve victory and obtain benefits thanks to this. While in real life murder is a crime, in the case of this type of game, killing and aggression is rewarded more than anything else: to facilitate their task, players receive new funds and different means as rewards for previous aggression. As a result, empathy in dealing with other people gets reduced, and there is a risk that the player will become a violent person.”

Images of brutal violence, often presented in a very realistic way, reinforced by the music and sound effects, are not without significance here, since they intensify the atmosphere and cause the player to be in “(...) strong emotional states where the boundary between the simulated (game) reality and actual reality is easily blurred.”

20 Quoted after: Wrzesień M., as before, p. 16.
24 Braun-Gałkowska M., Ulfik I., as before, p. 28.
Aggression (Lat. aggressio - assault) is a “behavior oriented on inflicting harm to others, which cannot be justified from a social point of view.”\textsuperscript{25} From the psychological standpoint, aggression is a “physical or verbal conduct with intent to damage or destroy some object, to harm or kill an animal or a person, or even oneself (self-injury, which may even lead to suicide).”\textsuperscript{26} According to Z. Skorny aggression is a “peculiar form of behavior where attack is initiated giving rise to a specific material or moral damage.”\textsuperscript{27} It should be noted that aggression entails not only fighting but also spreading of malicious rumors, exclusions from the group, calling names and teasing.\textsuperscript{28}

G. Cęcelek distinguishes several forms of aggression, including\textsuperscript{29}:
- direct aggression, which takes the form of physical, verbal or expressive aggression;
- intermediate aggression, which is mostly verbal (e.g. slander);
- overt or covert aggression (e.g. aggressive dreams or fantasies);
- "hot" aggression (spontaneous) and "cold" aggression (undertaken with malice aforethought).

The most frequent form of aggression used by children and adolescents is verbal and involves “(...) insulting, defamation, ridiculing, bullying, calling names, teasing and mocking.”\textsuperscript{30} In the recent years, aggressive behavior, which usually up until now took only verbal form have been adapted to the internet capacities and are currently being used by a large proportion of young people at forums, chats, or are sent via email in the written form.

We may notice a new phenomenon - electronic aggression - understood as: “(...) a system of hostile behaviors which are realized via the internet or mobile phone, known collectively as the so-called new media and modern communication technologies.”\textsuperscript{31} This is not a homogeneous phenomenon, as acts of violence relate to a variety of people (various types of victims), who stay in diversified relationships with the aggressor (Fig. 2).

The primary mechanism facilitating this type of behavior is anonymity, which allows the attackers to externalize their feelings to a greater extent, than it would be possible in a traditional form of aggression, and thus with impunity to attack the victim at any time and place with little liability for punishment. Victims of such aggression are most often people affected by certain disabilities or dysfunctions, including e.g. mentally handicapped, alcoholics, or homeless people who are usually offended, humiliated or ridiculed.

\textsuperscript{25}Okoń W., as before, p.19.
\textsuperscript{28}Quoted after: Wrzesień M., Społeczne i sytuacyjne uwarunkowania agresji młodzieży. e-bookowo 2009, p.6.
\textsuperscript{29}Cęcelek G., Geneza zachowań agresywnych a sposoby zapobiegania im. [in:] „Przegląd Edukacyjny” no 2/2010.
\textsuperscript{30}Wrzesień M., as before, p.10.
Aggression against celebrities, people whom D. Boorstin defined in 1961 as “well-known for the fact that they are well known” is frequently reduced to sharp criticism, or ridicule, e.g., by placing their photo-shopped images, or movies with them online. Among the most frequently attacked are actors, musicians, athletes, politicians, journalists, and representatives of other spheres of public life, which are often talked about and whose images are widely available on the internet.

Random aggression is addressed at strangers who most often become the object of attack after writing a controversial comment at the discussion forum or express opinions different from the aggressor's opinion on the same subject.

Aggression towards groups “(...) stems from the fact that people belong to a specific group: racial, ethnic, or a group manifesting common interests or preferences (for example, fans of a band or a football team)”\(^{32}\), and aim of such aggression is to discredit the group or the views expressed by it in the eyes of others.

The concept of aggression involves the notion of violence understood as “the overwhelming power of one's strength and physical superiority used for acts carried out on someone, imposed unlawfully by power and domination, done with the use of physical coercion or rape”\(^{33}\), which ends with inflicting pain, mutilation or death of the victim; or in the case of psychological violence, violation of human dignity.\(^{34}\) Among many authors dealing with issues of aggression and violence we can find the view that we speak about aggression when both sides of the conflict have similar physical and mental strength, which allows them to defend themselves. According to Kalina, a distinguishing feature of violence as opposed to aggression is the fact that two people take part in the act of aggression, while the act of violence is committed only by one party, the attacker.\(^{35}\)

In today's media-based society aggression generated by the media is a part of everyday life. Violence in the media may be defined as: “(...) any intentional activity with application of media which might affect the personal freedom of an individual, e.g with the use of image manipulation, sound and other channels of communication; or all those actions which contribute to psychological, physical or moral damage to individuals, which cross social rules of mutual relations.”\(^{36}\)

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With the development of teleinformatics and related technologies, a new phenomenon known as cyberbullying appeared. Cyberbullying is a kind of mobbing via the internet which includes forms such as: slander, disrepute, scoffing, or blackmail through electronic media, including, in particular, the use of: electronic mail, chat rooms, instant messaging, websites, blogs, social networking, newsgroups, SMS and MMS sending websites.  

The phenomenon of cyberbullying more and more often takes the form of peer violence, the research results indicate that more than half of children in Poland experience this type of aggression. Harassment, stalking or death threats are becoming more common among young people, and the causes of such behaviour lie in the events from their everyday life. “Lack of support from the family, lack of fulfilling by it the basic needs of security and love”, as well as problems present within disturbed families (e.g. addictions, poverty, social maladjustment), difficulties when dealing with peers, problems with self-definition, images of aggression and violence easily accessible via the internet, the focus on negative emotions - all of these issues cause the child “to acknowledge that the world is based on rape and violence, and that the noblest goals are achieved by force or deception. Psychosis of fear and willingness to be superior over others create the need for being shrewd, brazen and ruthless. (...) Under the influence of watching violence (...), its frequent observers not only become convinced of its naturalness, but they also learn to react to it with indifference which as an attitude may be transferred into everyday life, and get reinforced by lack of internal sense of guilt over personal aggressive behavior.”

The internet abuse is characterized by a high level of anonymity of the perpetrator and the associated benefits. In the case of direct violence, which can usually be found in schools or in other places where children and young people meet, it is necessary to demonstrate the physical strength or advantage in the group - usually the fighting occurs when the attacker can count on help from colleagues, or if there is an audience to which (s)he wants to show strength, or which (s)he hopes to impress.

On the other hand, in cyberbullying it is enough to disseminate information against a chosen victim, and such information will be received not only by friends and acquaintances but also by virtually any other network users. This significantly expands the field of action. “Compromising photos, videos and information can make a very quick career on the internet, while their removal is often impossible. Yet another inconvenience for the victims of cyberbullying is the constant exposure to attack, regardless of location or time of day or night.” This form of violence is usually aimed at ridiculing a specific child among his/her peers, and effects of this can be observed in changing of the victim’s behavior: closing down, difficulty concentrating, anxiety; and avoiding of contact with others (leaving school, isolation from peers, etc.). In the extreme form internet mobbing can lead to serious depression or even suicide.

It is very difficult to prevent the pathological phenomena described in this article primarily due to lack of education which could instruct the society about the risks their loved ones face every day. Social acceptance is an additional problem, which in the case of aggression and cyberbullying, can have very dangerous consequences. In such situation it is necessary to build cooperation among parents, teachers, psychologists, governmental and nongovernmental organizations in combating
negative behaviour possibly caused by media messages in children and adolescents. Indeed, information campaigns are mostly limited to short periods, whereas deepening of the problem calls for sustained efforts in this regard.

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Розвиток мультимедіа і розширення доступу до них є причиною того, що комп'ютери й Інтернет стають невід'ємною частиною нашого сучасного життя. Інформація, розширення знань і інтересів з використанням Інтернету так само, як швидкий і легкий доступ до миттєвого контактів з людьми, що живуть у найвіддаленіших кутоочках світу, є основними причинами, чому молоді люди проводять все більше часу перед екраном комп'ютера. Переваги, пов'язані з використанням Інтернету, як для приватного, так і професійного життя, безпрецедентні. На жаль, деякі нові небезпеки також пов'язані з цим новим середовищем, що особливо небезпечно для розвитку дитячої особистості і моделей поведінки, яка формується в процесі дорослішання. Це може стати причиною ескалації патологічного явища, відомого як соціальна патологія. Найбільш поширеними її формами є: залежність від комп'ютерних ігор і Інтернету, традиційні форми агресії, викликані жорсткими повідомленьми ЗМІ, і електронні агресії. Самою проблемною поведінкою, проте, є кібербулінг, який набуває великого поширення серед користувачів Інтернету і результати якого можуть мати руйнівні наслідки для його жертв.

Ключові слова: патологія, агресія, залежність, кібербулінг, Інтернет, комп'ютерні ігри.

Марія Копштейн

ВЛИЯНИЕ ИНТЕРНЕТА И КОМПЬЮТЕРНЫХ ИГР НА ПАТОЛОГИЧЕСКОЕ ПОВЕДЕНИЕ ДЕТЕЙ И ПОДРОСТКОВ

Развитие мультимедиа и расширение доступа к ним являются причиной того, что компьютеры и Интернет становятся неотъемлемой частью нашей современной жизни. Возможность поиска новой информации, расширение знаний и интересов с использованием Интернета, так же, как быстрый и легкий доступ к мгновенному контакту с людьми, живущими в самых отдаленных уголках мира, являются основными причинами, почему молодые люди проводят все больше времени перед экраном компьютера. Преимущества, связанные с использованием Интернета, как для частных, так и профессиональной жизни, беспрецедентны. К сожалению, некоторые новые опасности также связаны с этой новой средой, что особенно опасно для развития детской личности и моделей поведения, которая формируется в процессе взросления. Это может стать причиной эскалации патологического явления, известного как социальная патология. Наиболее распространёнными ее формами являются: зависимость от компьютерных игр и Интернета, традиционные формы агрессии, вызванные жестокими сообщениями СМИ, и электронные агрессии. Самым проблемным поведением, однако, является кибербуллинг, который широко распространяется среди пользователей Интернета и результаты которого могут иметь разрушительные последствия для его жертв.

Ключевые слова: патология, агрессия, зависимость, кибербуллинг, Интернет, компьютерные игры.

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