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Cyberspace as a source of dehumanization of the human being

Abstract

The paper points to an important sphere of human safety, as it refers to cyberspace as an environment where information is exchanged via the net and computer systems. In addition to positive accents, cyberspace also creates various threats that lead to the dehumanization of life. The negative effects of being in cyberspace cause threats to mental, social and healthy lives. Very often they pose a danger not only to human health but also to human life. In addition to the introduction, the article includes characteristics of the loss of a sense of reality among people who use cyberspace excessively and the risks of medical hazards.

Key words: cyberspace, cybersecurity, institutional threats, personal threats, risk

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Introduction

The terms „safety”¹ and „cyber harassment”² are categorised as terms of great significance in the sphere of human functioning and frequently appear both in theoretical considerations and in everyday speech.

We live in a unique time in human history, an intense period of change and disruption related to human existence. It seems to us that the reality we live in has always existed this way, but never before have we lived in a world so subservient to our needs. The mass media play a key role in people’s lives. Their importance is evident in the amount of time people spend watching TV, surfing the World Wide Web, listening to music or reading newspapers and magazines. The delivery of information through mass media is immediate and available around the clock. As part of media coverage we need to start thinking and talking more and more often about the negative impacts of the cyberspace technological environment on both the individual and society. Virtual spaces now allow us to satisfy our senses with visions we cannot resist.

Modern man, thanks to developments of technology, increasingly escapes into the virtual world simulating reality, enriching the form of experiences of the present world and desires for an easy future. Cyberspace is a constantly evolving and expanding environment that is being used for an increasing number of purposes. Cyberspace is a growing aspect in almost all areas of human life and needs. On the one hand, it helps promote people’s welfare, educates society and improves the quality of life. On the other hand, cyberspace inflames ethnic and religious tensions, sows discord and causes suffering. The ease of access to cyberspace and the range of hacking tools available, in combination with the inherent insecurity of the Internet, mean many different threats.

1 See: A. Pieczywok, *Działania społeczne w sferze bezpieczeństwa wewnętrznego*, Lublin 2018, p. 13; M. Czuryk, K. Drabik, A. Pieczywok, *Bezpieczeństwo człowieka w procesie zmian społecznych, kulturowych i edukacyjnych*, Olsztyn 2018, p. 7; J. Gierszewski, A. Pieczywok, *Społeczny wymiar bezpieczeństwa człowieka*, Warszawa 2018; M. Karpiuk, *Ograniczenie wolności uzewnętrzniania wyznania ze względu na bezpieczeństwo państwa i porządek publiczny*, „Przegląd Prawa Wyznaniowego” 2017, no. 9, p. 10–17; A. Pieczywok, *Idee bezpieczeństwa człowieka w teoriach i badaniach naukowych*, Bydgoszcz 2021, p. 20–21.

2 See: M. Górka, *Cyberbezpieczeństwo dzieci i młodzieży. Realny i wirtualny problem polityki bezpieczeństwa*, Warszawa 2017, p. 20; A. Pieczywok, *The use of selected social concepts and educational programmes in counteracting cyberspace threats*, „Cybersecurity and Law” 2019, no. 2, p. 62.

Cyberspace is a dynamic and complex environment, making the prospect of securing it a difficult undertaking. It is said that „If you cannot measure it, you cannot improve it” and this can be applied to cybersecurity³. It seems that visual art may become more important today than at any time in the past.

Gradually, the term „cyberspace” has come to be used by scientists to identify phenomena that are not the product of human imagination, to name links of a virtual nature⁴.

Some authors define cyberspace as a network of IT infrastructure interdependencies that consist of the Internet, telecommunications networks, computer systems, embedded processors and controllers in the industrial environment of strategic importance⁵, as well as copper cables, Internet routers, optical fibres, relay towers and satellite transponders⁶.

Pierre Lévy, a French sociologist and author of the term „cyberculture” defines cyberspace as „a new space of communication, sociability, organization and transaction”⁷. The sociologist also points to the emergence of a new market for information and knowledge as a result of modern technological evolution. Cyberspace is a subject of study for sociologists, and references to the achievements of this scientific discipline are found in some state cybersecurity strategies.

A person using cyberspace is both its creator (designer) and consumer and uses other people’s output in both permitted and unauthorised ways. Humans co-create cyberspace through graphics, selfies, opinions, photos, comments, recordings, likes, downloads, biometrics, views, purchases, locations, etc. This phenomenon seems to be the beginning of a process of significant growth in the initiative and creativity of the individual, as virtual space offers more and more opportunities for artistic expression in front of a myriad audience – co-participants of this process. This impact of cyberspace on modern man is becoming increasingly apparent and worrisome.

The purpose of the article is to highlight the negative issues of being in cyberspace, especially its impact on the dehumanization of human life.

3 S. Katzman, *Operational Assessment of IT*, Boca Raton, FL 2016, p. 23.

4 R. Aleksandrowicz, K. Liedel, *Spółeczeństwo informacyjne – sieć – cyberprzestrzeń. Nowe zagrożenia* [in:] *Sieciocentryczne bezpieczeństwo. Wojna, pokój i terroryzm w epoce informacji*, ed. K. Liedel, P. Piasecka, T.R. Aleksandrowicz, Warszawa 2014, p. 23.

5 H. Katzan, *Cybersecurity Service Model*, „Journal of Service Science” 2012, vol. 5, no. 2, p. 72.

6 M. Lakomy, *Cyberprzestrzeń jako nowy wymiar rywalizacji i współpracy państw*, Katowice 2015, p. 82.

7 P. Levy, *Drugi potop*, <http://portal.tezeusz.pl/cms/tz/index.php?id=287> [access: 20.02.2022].

Manifestations of the loss of a sense of reality

The development of the Internet from one day to the next, covering all aspects of life, puts humans between two worlds: the real and the virtual one. The dominance of virtual environments in all aspects of human personality, especially identity, is evident. The emergence of virtual identities in cyberspace, besides real ones, is one of the challenges of the virtual environment of the Internet.

Unfortunately, at a time when cyberspace is becoming a virtual reflection of physical reality, negative forms of human activity are also infiltrating it. Constructed for scientific cooperation, the Internet network provides a great sense of anonymity and is used by criminals, terrorists, as well as some states, to carry out illegal activities or aggression against other entities.

In the study of cyberspace and virtual reality, it is common in the above cases to talk about alternate, side lives. Digital fiction replaces reality for humans and is so much more attractive because anything is possible in it. Leaving such a developed and idealised digital space causes painful feelings. Returning to the real world – inferior, less interesting, limited by many laws, rules and conditions – causes a person to feel psychological discomfort, or even observe in himself syndromes of serious addiction⁸.

People behave differently when they interact with technology, compared to face-to-face interactions with the real world: Whenever technology combines with basic human tendencies, the result is empowerment and acceleration.

Describing cyberspace as a source of dehumanization of human beings, it is worth noting some manifestations of the loss of a sense of reality. Evidence points to the occurrence of significant harm to both individuals and society. Some of these harmful effects include information overload (information overload is associated with a loss of control, feeling overwhelmed, reduced intellectual performance and reduced job satisfaction); damage to social relationships (loneliness and social isolation); violation of public/private boundaries (the blurring of distinctions between different spheres of life, including work, home life and leisure); detrimental effects on cognitive development (development of memory skills, attention, critical reasoning skills, language acquisition, reading and learning abilities); damage to communities (partial migration of human activities to the Internet – shopping, commerce, socialising, recreational activities, professional interactions).

⁸ Cf. A. Jaszczak, *Poczucie uzależnienia od Internetu a poczucie kontroli u adolescentów* [in:] *Psychologiczne konteksty Internetu*, ed. B. Szmigielska, Kraków 2009, p. 238.

Many researchers point to the danger of a detached sense of reality among the youngest users of cyberspace. They include cognitive dysfunctions which may lead to an inability to continue learning, perceptual disturbances, fluency of attention, reduced ability or a loss in the ability to think logically, sense of confusion, intrusive thoughts, compulsive behaviour, and memory disorders. In addition, there is psychological discomfort that occurs as a result of drastic interventions, the so-called withdrawal syndrome, which sometimes has a drastic course⁹.

Humans do not so much participate in the world constructed by cyberspace, but most of all this world becomes part of their nature. From the point of view of epistemology, this paradox of "immersion" is among the most interesting aspects of the new reality¹⁰. It means, first of all, the possibility of participation in the supra-individual impersonal total, transcending the physical boundaries of time and space¹¹. In a space described in this way, the boundaries of human subjectivity and identity, which are the foundations of human rationality, are blurred, and therefore the sense of reality is at risk.

This virtual presence is a step towards alienation, dehumanization, and the loss of a sense of ethics and axiology. According to Richard Spinello „It would be most appropriate to adopt the position that moral values must be the ultimate regulator of cyberspace”¹².

Andrzej Kiepas notes that, in a virtual space, humans change their valuation: „A man deprived of value is a man not only deprived of identity but also deprived of the conditions for building it. [...] Entering the virtual world must therefore involve the need to take accountability, which is particularly difficult in the situation of web dependencies and the axiological opacity of the world we face. Immersed in the world of momentary structures, humans may have certain difficulties in this regard”¹³.

9 Cf. M. Jędrzejko, *Narkotyki w Internecie - nowe zjawisko, nowy problem społeczny i wychowawczy* [in:] *Oblicza Internetu. Opus Universale. Kulturowe, edukacyjne i technologiczne przestrzenie Internetu*, ed. M. Sokołowski, Elbląg 2008, p. 184.

10 Cf. D. de Kerckhove, *Die Architektur der Intelligenz. Wie die Vernetzung der Welt unsere Wahrnehmung verändert*, Basel 2002, p. 48.

11 Cf. Z. Suszczyński, *Hipertekst a „galaktyka Gutenberga”* [in:] *Nowe media w komunikacji społecznej w XX wieku. Antologia*, ed. M. Hopfinger, Warszawa 2005, p. 531.

12 R. Spinello, *CyberEthics, Morality and Law in Cyberspace*, New York 2000, p. 45.

13 A. Kiepas, *Podmiotowość człowieka w perspektywie rozwoju rzeczywistości wirtualnej* [in:] *Media i edukacja w globalizującym się świecie. Teoria, praktyka, oddziaływanie*, ed. M. Sokołowski, Olsztyn 2003, p. 417.

Medical hazards

Health is also a value that can be felt (perceived as valuable) and/or recognised (related to the belief that health should be valued) by the individual. It can be a ceremonial value (belonging to higher, universally respected values) or an everyday value (important for the fulfilment of the individual's private objectives). Finally, health is classified as a declared or realised value¹⁴.

Prolonged work in cyberspace (computer addiction) can cause physical damage. Using a mouse and keyboard for many hours every day can lead to repetitive strain injuries. Back problems are common among people who spend a lot of time sitting at desks. Computer addiction can indirectly lead to a poor overall physical condition and even obesity. The improper placement of computer equipment can strain the shoulders. Too much of this activity stretches the shoulder muscles, resulting in cramps, fatigue, headaches and stiffness in the neck and shoulders. Long-term sleep deprivation causes lethargy, difficulty concentrating and depression of the immune system.

Some health problems caused by active participation in cyberspace include: 1) musculoskeletal problems – neck and back pain, as well as pain in the elbows, wrists and hands. In addition to back pain caused by computer use, often resulting from poor gaming posture or computer posture, there have also been reports of „selfie elbow” or „texting thumb” caused by the overuse of technology; 2) digital eye fatigue – symptoms of digital eye fatigue include dry eyes, redness around the eyes, headaches, blurred vision and neck and shoulder pain; 3) disrupted sleep – symptoms of disrupting the biological clock, activities on digital devices can stimulate and significantly reduce sleep readiness; 4) physical inactivity – too much of a sedentary lifestyle is associated with an increased risk of several conditions including obesity, heart disease, cancer and diabetes; 5) psychological issues – excessive time spent in front of a screen can negatively affect mental and emotional wellbeing. Social media users who log in several times a day may be exposed to non-stop news, usually bad news, such as natural disasters, terrorist events, political divisions, high-profile crimes, etc.; 6) the negative impact on children – children's brains may be more vulnerable to the effects of technology overuse, this affects social skills, creativity, attention span and delays in language and emotional development;

14 B. Woynarowska, *Zdrowie – podstawowe pojęcie w edukacji zdrowotnej* [in:] *Edukacja zdrowotna*, ed. eadem, Warszawa 2017, p. 15.

7) an impact on hearing – is at risk due to unsafe listening practices, partly due to listening to music through headphones or earbuds.

It is worth mentioning that health problems occasioned by the active participation of man in cyberspace cause a variety of ailments, and paying attention to back pain it can be said that it is one of the most common causes of disability among active people. The spine is responsible for correct posture and also for most movement. Cervical spine pain is in second place in terms of the number of spine-related complaints. People with sedentary lifestyles, and especially those who work in a sitting position (computer work), more and more often complain about it. Spinal pain may be accompanied by a feeling of tingling or numbness in one of the limbs. Also, spinal pain is accompanied by a feeling of weakness in the legs.

To meet the problems of the dangers posed by cyberspace, it is worth taking preventive measures to make children, adolescents and adults aware that the development and use of modern technology pose dangers that can affect everyone.

In conclusion, it should be said that cyberspace as a source of dehumanization particularly jeopardizes human health, and has quite an impact on the manifestation of the loss of a sense of reality. Long hours spent at a computer or with a smartphone in hand, without a dose of exercise will turn man from *homo sapiens* to *homo computerus*. Apparently, the most effective way to reduce cybersecurity threats is to periodically implement training and education for young people in schools. Security education should be a continuous process, aimed at the most comprehensive development of skills and personality, as well as general mental fitness.

Simple rules that every computer user should follow are significant, too. It is very important to put less strain on your shoulders, so place the keyboard and mouse where you do not have to strain to reach them. The mouse should be comfortably close, the table should be at a height where you do not have to reach up while typing on the keyboard. Good writing techniques should be practised to avoid hand problems. When working at a computer, take a 10-minute break every hour. The monitor should be directly in front of the user at a distance of 24–26 inches from the user. You should also use larger fonts and good colour contrast, which will reduce eye fatigue while working.

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Cyberprzestrzeń jako źródło dehumanizacji człowieka

Streszczenie

Treść artykułu wskazuje na istotny obszar bezpieczeństwa człowieka, dotyczy bowiem cyberprzestrzeni jako środowiska wymiany informacji za pomocą sieci i systemów komputerowych. Cyberprzestrzeń oprócz pozytywnych akcentów powoduje też powstawanie różnych zagrożeń, które prowadzą do dehumanizacji życia człowieka. Negatywne skutki bycia w cyberprzestrzeni powodują zagrożenia dotyczące życia psychicznego, społecznego i zdrowotnego. Bardzo często zagrażają nie tylko zdrowiu człowieka, lecz także i jego życiu. Artykuł oprócz wprowadzenia zawiera charakterystykę utraty poczucia rzeczywistości wśród osób nadmiernie korzystających z cyberprzestrzeni oraz ryzyko zagrożeń zdrowotnych.

Słowa kluczowe: cyberprzestrzeń, cyberbezpieczeństwo, zagrożenia instytucjonalne, zagrożenia osobowe, ryzyko