

Beata Ciupińska

beata\_ciupinska@o2.pl

Jan Kochanowski University in Kielce, branch in Piotrków Trybunalski

ORCID iD: 0000-0002-4344-7510

## CYBERSPACE – DILEMMAS OF AN EDUCATOR

*...wherever (positive) actions are recorded,  
side effects and risks also appear  
and that's the matter the doctors (next to the pharmacists) mainly talk about,  
and not those who earn money on action...*  
(Spitzer, 2016, p. 84)

### Introduction

The rapid development of modern electronic and communication technologies, and, above all, the virtually unlimited spread of the Internet that accompanies modern times, generate the need to look at teaching and learning processes from various perspectives. Due to unrestricted access to the network and unlimited possibilities of mobile devices, broadly understood education has emerged beyond school walls and teacher's mentoring on an unprecedented scale. Growing up children and adolescents – as Jabłońska (2018, p. 15) emphasizes – learn to play, rest, buy, socialize and get to know the world through the screen of a computer or other mobile devices.

It is worth noting that the growing generation does not know and what is more, it cannot imagine, the world without the Internet, computers and mobile phones. The education with the use of modern tools and digital resources is also becoming increasingly important (Borawska-Kalbarczyk, 2017a). As emphasized by Kołodziejczyk and Polak (2011), according to analysts

from the World Future Society, e-learning becomes one of the biggest breakthroughs in the social development of the world, and in the next 20–30 years it will significantly contribute to the increase in the quality of life – among others by spreading the availability of high-quality educational resources and services.

The wide availability of new technologies, on the one hand, brings many benefits, but on the other – it can cause problems. The uncontrolled and immoderate use of the Internet and other modern information and communication technologies has serious consequences. Cyberspace is more often used to harm others, bringing long-term fatal results – primarily to the victim – but often also to the perpetrators. Hence, an important challenge is to introduce students to responsible and reasonable use of high-tech achievements. Children and adolescents should acquire the ability to make a profit and balance while using modern tools and digital resources.

### **Cyber-competences of modern students**

Currently, tendencies towards a broad – if not general (!) – use of modern information and communication technologies in the education process is very popular.

As Kołodziejczyk and Polak postulate – information education and the use of information and communication technology in Polish schools should cease to be an experiment and become a mainstream field integrated with subject education (2011, p. 71). The authors enthusiastically refer to the issue of unrestricted access, in the broadly understood school environment, to the wireless Internet, mobile phones, smartphones and other mobile devices, considering the Internet as a “key tool of the development of education” (Kołodziejczyk & Polak, 2011, p. 71).

However, Spitzer’s analysis of numerous studies raises a number of doubts. It turns out that the intensive use of smartphones to acquire information on the web is associated with poor cognitive skills and has negative effects on attention processes – due to the increased intensity of distractors. Thus, in the situation of the maximum use of smartphones, attention deficits are revealed, which in turn is associated with learning disabilities and reduced accuracy (2016, p. 76–79).

A common opinion that searching the Internet resources is an undeniable manifestation of intelligence is debatable. Several studies prove that it

is quite the opposite – educated people use the Internet less often to solve problems. The resources of the network are more often used by people demonstrating less willingness to use the ability to think because, as Spitzer emphasizes, thinking is exhausting and requires time and energy. Meanwhile, associating things requires no effort (2016, p. 74–80).

Of course, it is difficult to argue that the modern school should prepare students for efficient functioning in an extremely complex reality by forming fundamental skills in adolescence. The said key skills – as emphasized by Kołodziejczyk and Polak – are currently the ability to learn quickly, use the project method, entrepreneurship, communication and efficient use of ICT and foreign language skills (2011, p. 68).

Undoubtedly, the use of modern information and communication technologies and the Internet resources for this purpose is invaluable, but there is an urgent need to reflect on this issue.

Waluś (2016, p. 51) points out that the undisputed advantage of virtual reality is in its infinite space for multidimensional educational activities. Thanks to the wide availability of cyberspace, the user who wants to gain knowledge has the opportunity to make choices in terms of both: the substantive and personal level. The user has the opportunity to freely, individually adjust the learning style to their own preferences. It is worth emphasizing that even if there is no absolute certainty that modern devices are harmful to the development, especially of the younger generation, there is no doubt that “traditional” methods of supporting development, such as reading, drawing, physical activity, social interactions, games, dance or music perform much better and without adverse “side effects”. Unfortunately, adults do not often have such awareness. Quite the opposite – with undisguised approval and satisfaction, they allow children and adolescents to spend several hours in front of the computer. Many of them believe that access to such devices is beneficial because they are not aware of the risks, or simply treat them marginally. The issue of online education is often raised in the literature on the subject. According to Kołodziejczyk and Polak (2011), contemporary technology is an instrument that can move the educational process to a completely different dimension. Appreciated by the authors values of online education include, above all, full-time two-way communication with the parallel transmission of sound and image. This advantage provides the opportunity to conduct distance learning activities. In addition, they indicate numerous other benefits of using the Internet to implement the online education process, such as:

- attractiveness,
- economic advantage reducing logistics barriers,
- efficiency resulting from the wide reach and capacity of the unlimited size of classrooms,
- convenience in terms of uncomplicated establishing and maintaining relationships,
- promoting the idea of supporting the development of social competences,
- transparency,
- anti-discrimination attitude reflecting in the hierarchical network structure, democratic discourse and intercultural dialogue,
- ecological benefits, referring to a friendly attitude to the natural environment and non-invasive correlations with the natural world (Kołodziejczyk & Polak, 2011, p. 73–74).

However, it turns out that in recent years, a number of scientific experiments have been carried out, revealing weaker aspects of virtual education. Spitzer (2016, p. 66) quotes the results of research showing that students attending online seminars are much more likely to drink, eat, listen to music, chat or use social media and talk on the phone than students who take part in traditional classes. The author emphasizes that “there is a significant negative relationship between the number of additional activities performed during the classes and average grades”.

Modern technologies, cyber stock and cyberspace are very attractive for the organization of the teaching and learning process – it is hard to negate this. However, it is worth looking at the situation from the proper perspective, analyzing new research results and sensibly “dosing” the use of modern information and communication technologies in the implementation of didactic and educational tasks.

### **The benefits and threats of computer games**

Computer games are becoming more and more popular. They are also widely applied in education. The fact is that computer games contribute to the acquisition and improvement of important skills. It often happens that the achievement of a certain goal in the game requires the use of previously acquired competencies, what favours the consolidation of previously acquired knowledge. The most important, in terms of stimulating creative

thinking in children, are problem games – simulation and strategic ones, with elements of economy, as they teach planning, making decisions and predicting their consequences. Sometimes they also stimulate the imagination and trigger logical thinking (Laszkowska, 2000). Therefore, they are often used in education and therapeutic work.

The undoubted advantage of educational games is the grading of the difficulty level, which translates into the possibility of success (task solution) already at the initial stage of using the program. It is of a special value when working with a student who has learning difficulties because the level of fear of confronting the task is reduced.

Some types of computer games have educational values and contribute to the broadening of knowledge, improvement of competences. They can be recognized as supporting the development of certain abilities, stimulating curiosity and motivating to undertake actions aimed to solve an emerging problem. Especially computer educational games, whose priority task is to support the educational process by making educational activities more attractive, can stimulate competition and the spirit of rivalry.

Computer games are also useful in therapeutic work with people with cognitive and perceptual-motor disorders. They are especially attractive for children and young people, because they introduce them into the magical world of emotions and colours, words and numbers, giving the chance to improve the incorrectly developing areas. To some extent, they also fulfil a socializing and educational function, influencing the child's personality.

However, the research also shows the second, less advantageous side of computer games. It turns out that their educational advantages are somewhat overrated. Waluś (2016) emphasizes that effective learning is encouraged by imitation, cooperation and simultaneous involvement of many senses. Explaining the role of mirror neurons in the learning process, he emphasizes that: "These processes develop and go much better when the child is accompanied by other people – parents, teachers, siblings, peers. They are real people, interacting with the child, making eye contact, smiling who can be perceived on many levels and with various senses" (2016, p. 48).

Spitzer (2016, p. 92–95) also quotes the scientific arguments for caution in admiring the advantages of computer games. Computer games are designed in such a way as to create addiction – they are a challenge for the player because he/she has the ability to influence the course of events, excel in overcoming challenges, which in turn affects the strong need to continue playing.

The software carefully records the player's achievements and adapts the level of difficulty of the tasks to them – the player is completely immersed in the game, and forgets about the surrounding world, experiencing the so-called *flow*. However, the pleasure of a computer game alone is not enough to justify its unreflective use. Other types of activity – drawing, playing an instrument or sports can become a source of pleasure for an individual, but have a different important purpose – they contribute to mental and physical development. Unfortunately, in the case of computer games, the ultimate goal is to experience pleasure by the player.

In these considerations, it is impossible to omit the matter of the content of computer games – most of them are games pulsing with aggression and saturated with cruelty aimed at both living creatures and objects. Spitzer sums up the discussion with the following statement: “When playing computer games, we learn to kill alien beings, run people down by cars or fight the enemy in the war” (2016, p. 97).

Rewarding and scoring during the game, repeating aggressive behaviours and extreme forms of violence – including killing – deprive us of sensitivity and even demoralize young users. The games do not reserve space for compassion and tolerance, sensitivity and empathy. Over time, patterns derived from the plot of the computer game are often transferred to interpersonal relationships in the real world.

Reassuring, it is worth emphasizing that in addition to values that can be successfully used in the process of education and therapy – computer games carry serious health and relational threats, as well as the risk of addiction and developmental disorders.

## **Educational dilemmas**

Frequent and long-term presence in cyberspace has a significant impact on the individual's behaviour and personality. Kałdon (2016) and Borawska-Kalbarczyk (2017b) draw attention to the fact that currently, cyberspace has become a new, significant development environment for the young generation. It is an important area of the adolescent world because it is a way to spend free time and an important channel of communication with friends. The existing forms of teenagers' activities strongly related to adolescence have been transferred to cyberspace.

Adolescents use cyberspace in a diverse way. One can distinguish two main reasons that guide teen users:

- a network as a source of knowledge, unfortunately often reduced to unreflective copying on the “copy-paste” principle,
- a network as a place of contact with peers.

Analyzing the issues of the importance of cyberspace in the life of the young generation, it is necessary to emphasize, above all, the educational and social functions of the Internet. The Internet affects the functioning of an individual by creating attitudes, educating how to function in real life and teaching social behaviour. However, it is disturbing that – as Andrzejewska (2013, p. 14) points out – young people tend to transfer interpersonal contacts from the real to the virtual world, which clearly disturbs social communication.

According to Jabłońska (2018), a growing problem is the threat of addiction to cyberspace. Young users, in particular, tend to adopt the virtual world to everyday activities that previously have not forced online interaction. The permanent “presence” of the Internet influences the shaping of the worldview, new opinions and patterns of behaviour and social norms.

In the subject literature (Kałdon, 2012) four basic areas significant for the functioning of an individual in the virtual space are mentioned:

- free access to any content. You can easily obtain the information sought because the Internet is an immeasurable data stock that can be used in any way. On the other hand, there are no effective safeguards to protect against access to content that may threaten the normal development of a human being, e.g. pornographic sites.
- unlimited communication options. The Internet is a very important communication network. It allows for contact with any person (known or unknown) no matter where the person is – only one condition must be met – activity on the network. However, it is often a shallow contact, not giving the possibility of full emotional expression, which is achievable in direct relations in the real world. It turns out that despite the expanding number of contacts in terms of quantity, their quality is at least strained and subject to testing.
- a sense of anonymity. It is connected with deindividuation and a strong belief in one’s impunity. In the network, you can act like someone else, and the real identity of an individual is very difficult and sometimes even impossible to identify. However, on the other hand, the sense

of anonymity reduces the fear of opening up to others and translates into greater efficiency in establishing contacts. What's more, expressing yourself while chatting is devoid of physical and non-verbal guidance, it gives you the opportunity to find a community of similar views and beliefs in a more efficient way.

- the Second Self in the virtual world. In cyberspace, the other self, the virtual self, is often created. It is often different from the real Self because other mechanisms affect its development, it is a factor that disintegrates the identity of the person.

Unrelenting use of cyberspace generates many problems, especially when an adolescent loses self-control in terms of time spent online, and when a given community exerts increasing pressure on him, convincing to its own reasons or ideas.

Some features of the Internet, such as apparent anonymity, lack of physical stimuli present in direct interaction and a limited image of emotions, make the individual more inclined to demeaning behaviours that they would not undertake in real life. The Internet – as Jabłońska (2018, p. 152) emphasizes – affects people and their image of themselves.

According to the subject literature, the typical features of such a reality include:

- telepresence – the presence of users in a remote environment without physical movement,
- immersion – consisting in the absorption of users by the artificial world, isolating them from the stimuli of the natural environment, replacing it with computer-generated stimuli,
- real-time interactivity – based on the control of the multimedia system and the response of the electrical environment to the user's action (Andrzejewska, 2013, p. 15).

The consequences of the above properties have a very negative impact on users. Among the negative effects stemming from cyberspace Siemieniecki (2001) distinguishes:

- the disappearance of humanistic values caused by the technocratic understanding of the world,
- the ability to freely manipulate people especially in terms of controlling their awareness,
- difficulties in adapting to the principles of functioning in the information society and becoming dependent on technology,



- the expansion of pathological processes related to the use of modern technologies, such as violence, aggression, eroticism and pornography, piracy and hacking, and addiction to the computer (Andrzejewska, 2013, p. 15).

In addition, Jabłońska (2018) emphasizes that cyberspace affects the escalation of a narcissistic attitude that is a consequence of a personality disorder that is narcissism, and the majority of the Internet users have experienced directly or observed attacks of verbal aggression. This phenomenon is particularly dangerous in the case of children and young people because it extends acts of mutual harassment of students outside the school environment. However, the biggest pedagogical dilemma remains the probability of cyberspace taking the dominant place in the life of an individual, while at the same time reducing the value and meaning of real life in the real world.

## Conclusion

Education with the use of modern tools and digital sources is becoming more and more important. As emphasized by Kołodziejczyk and Polak (2011), according to analysts from the World Future Society, e-learning will become one of the biggest breakthroughs in the social development of the world and in the next 20–30 years it will significantly contribute to the quality of life – among others by increasing the availability of high-quality educational sources and services.

Digital information technologies are tools that allow for effective coping with various life situations- writes Spitzer (2016) – however, they also conceal threats to the young generation, leading to addictions and diseases. An important issue is, therefore, that not computer specialists, but experts in the field of education and upbringing should be those who have a decisive voice in determining the directions and principles of using modern technologies by students.

## References

- Andrzejewska, A. (2013). Rola nauczyciela w ochronie dzieci i młodzieży przed zagrożeniami cyberprzestrzeni. *Rozprawy Społeczne*, 2, 13–18.
- Borawska- Kalbarczyk, K. (2017a). Technologie cyfrowe w edukacji – między immersją ucznia a indolencją szkoły. *Konteksty Pedagogiczne*, 1(8), 117–132.

- Borawska-Kalbarczyk, K. (2017b). Wirtualne środowisko kształcenia w procesie wspierania motywacji do uczenia się. *Konteksty Pedagogiczne*, 2(9), 153–164.
- Jabłońska, M.R. (2018). *Człowiek w cyberprzestrzeni. Wprowadzenie do psychologii Internetu*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.
- Kałdon, B. (2016). Cyberprzestrzeń jako zagrożenie dla człowieka XXI wieku. *Seminare*, 2, 87–101.
- Kołodziejczyk, W. & Polak, M. (2011). *Jak będzie zmieniać się edukacja? Wyzwania dla polskiej szkoły i edukacji*. Warszawa: Instytut Obywatelski.
- Siemieniecki, B. (2001). *Technologia informacyjna w polskiej szkole. Stan i zadania*. Toruń: Adam Marszałek.
- Spitzer, M. (2016). *Cyberchoroby. Jak cyfrowe życie rujnuje nasze zdrowie*, trans. M. Guzowska. Słupsk: Wydawnictwo Dobra Literatura.
- Waluś, S. (2016). Współczesna rodzina wobec nowoczesnych. In: K. Pujer (ed.), *Rodzina i szkoła wobec szans i zagrożeń społeczno-cywilizacyjnych* (p. 43–54). Wrocław: Exante.
- 

## CYBERSPACE – DILEMMAS OF AN EDUCATOR

**Summary:** The author of the following article presents the problem of the place of modern information and communication technologies in the process of teaching, learning and upbringing. The views of various authors regarding cyber-competence of students, as well as the benefits and threats of computer games, have been discussed. Furthermore, the text also raises the issue of challenges related to cyberspace in the field of educational work.

**Keywords:** cyberthreats, preventional education, prevention of risky behaviours

## CYBERPRZESTRZEŃ – DYLEMATY PEDAGOGA

**Streszczenie:** W artykule podjęto problematykę miejsca nowoczesnych technologii informatycznych i komunikacyjnych w procesie nauczania i uczenia się. Przywołano poglądy różnych autorów dotyczące cyberkompetencji uczniów oraz korzyści i zagrożeń płynących z gier komputerowych. Podniesiono również kwestię wyzwań związanych z cyberprzestrzenią w obszarze pracy wychowawczej.

**Słowa kluczowe:** cyberzagrożenia, profilaktyka wychowawcza, profilaktyka zachowań ryzykownych