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Components of Building a Child-friendly Digital Environment in the Context of Sustainability Efforts

Elementy budowania przyjaznej dziecku przestrzeni cyfrowej w kontekście działań na rzecz zrównoważonego rozwoju

KEYWORDS

digital space,
children's rights,
sustainable
development, digital
competencies

ABSTRACT

The main purpose of the study is to identify and describe the conditions and opportunities for building a child-friendly digital environment in a modern world dominated by new information and communication technologies, particularly in relation to sustainable development efforts. The review of these opportunities is based primarily on official documents and available reports and studies published by international, state and social institutions working in this area. Children and adolescents are a strongly inconsistent group of users of virtual space. The key and basic element influencing the use of digital tools and vulnerability to online threats is the age of the recipients of digital content and their competencies in this area. The article outlines the characteristics of different age groups of young Internet users and the related challenges for lawmakers, parents and educators. It discusses selected aspects of children's functioning in the space of the Internet and new technologies based on General Comment No. 25 (2021) on children's rights in the digital environment, issued under the UN Convention on the Rights of the Child. It is also pointed out how these rights can be respected through the realization of certain sustainable development goals.

SŁOWA KLUCZE ABSTRAKT

przestrzeń cyfrowa,
prawa dziecka,
zrównoważony
rozwój,
kompetencje
cyfrowe

Głównym celem opracowania jest wskazanie i opisanie uwarunkowań oraz możliwości budowania cyfrowej przestrzeni przyjaznej dziecku we współczesnym świecie, zdominowanym przez nowe technologie informacyjno-komunikacyjne, w szczególności w odniesieniu do działań podejmowanych na rzecz zrównoważonego rozwoju. Przeglądu tych możliwości dokonano przede wszystkim na podstawie oficjalnych dokumentów, dostępnych raportów i opracowań publikowanych przez działające w tym obszarze instytucje międzynarodowe, państwowe i społeczne. Dzieci i młodzież stanowią mocno niespójną grupę użytkowników przestrzeni wirtualnej. Kluczowym i podstawowym elementem wpływającym na sposób korzystania i podatność na zagrożenia płynące z sieci jest wiek odbiorcy treści cyfrowych i posiadane przez niego kompetencje w tym zakresie. W artykule przybliżono cechy poszczególnych grup wiekowych młodych użytkowników Internetu i związane z tym wyzwania dla prawodawców, rodziców i wychowawców. Omówiono wybrane aspekty dotyczące funkcjonowania dzieci w przestrzeni Internetu i nowych technologii, bazując na Komentarzu ogólnym nr 25 Konwencji o prawach dziecka (2021) w sprawie praw dziecka w środowisku cyfrowym. Wskazano również, jak te prawa mogą być respektowane poprzez realizowanie określonych celów zrównoważonego rozwoju.

Introduction

A major breakthrough in the approach to children's presence and activity in digital space was brought about by the COVID-19 pandemic. The concept of digital space is used in this context to refer to a virtual environment without physical dimensions, in which it is not only possible to search for information, communicate and share content with others, but also to establish and develop relationships (Polak, 2016). Thus, the use of the new environment and ICT tools in the process of interpersonal communication and education was, in a way, top-down and forced by the epidemic situation. However, in this process, all the deficiencies and shortcomings related both to the equipment and the entire technical infrastructure have become apparent, but it also revealed (and this is perhaps more important and has strongly influenced the quality of this form of contact) deficiencies in the digital competences of children, young people and adults. The importance of the digital world as yet another space in which modern man functions has become clearly apparent. As a consequence, a wide-ranging discussion has begun in official bodies about the role and tasks of governments and international institutions in this regard.

Children and young people's time in the digital environment has become one of the essential and virtually inseparable elements of modern reality. Indeed, digital space offers new "opportunities for knowledge and holistic development, as well as access to education and the possibility to fulfill children's rights, including in crisis situations such as war or pandemics" (*Wyciąg z Komentarza [Excerpt from the Commentary]...*, 2022).

The presence of children in the digital space and related implications

According to the 2017 *Children in a Digital World* report, children and adolescents, i. e. those under the age of 18, accounted for around one-third of all internet users worldwide. However, it is important to note that young people aged between 15 and 24 formed the most networked group, with as many as 71% using the internet, when the same rate for the entire population was only 48%. With the development of new technologies, mainly mobile devices, and the expansion of network resources, the age at which children access the internet is decreasing (UNICEF, 2017b).

However, children as Internet users cannot be considered as a homogeneous group. The primary factor that determines the ways and extent to which new information technologies are used is age. Elizabeth Milovidov (2020), discussing the issues of different types of challenges facing parents, caregivers and educators in the digital age, distinguished and characterised four basic groups of young users of virtual space.

The first group (the youngest children, aged 0-3 years) is special, as newborns and infants cannot be directly involved in the digital environment. Children at this age should be isolated and protected from premature exposure to the media environment. The risks to the children's health and proper development are too great as compared to the potential benefits. For this age group, it is recommended that digital activity should only be an occasional element; much more valuable is face-to-face activity and play in the real world. Milovidov, however, draws our attention to online activities of parents and carers, who are keen to post photos and videos of the child during this period, thus creating the child's first digital footprints. However, they should do so responsibly and consciously, bearing in mind the possible threats involved.

The next age range is from 4 to 8 years. This is when children begin their adventure with the web and screen media. They usually start by watching videos and using simple applications. Experience shows that children at this age are very good at operating devices and navigating different screen interfaces. Older children enjoy playing games or using educational programmes. As they learn to read and write, they are expanding their online activities and they are already starting to use social media. As a rule,

however, their primary purpose is entertainment and communication with others. During this time, the role of parents and carers is to support their children and help them make positive choices, offering alternative (other than digital) opportunities to play and explore the world. The challenge for many parents is to control and limit their children's time spent in front of different types of screens.

When children are in the pre-adolescent phase, i. e. between the ages of 9 and 12, they move (as Milovidov notes) from shyness to independence. Children become more independent and start to undertake new activities online, using social networks more willingly and intensively. The computer, tablet or smartphone are also becoming tools used at school, for educational purposes. Parental attention and interest is important at this stage. From the beginning, they should try to teach their children to be critical of all information communicated via the internet, to be aware of manipulation, e. g. by marketing companies, and to be aware of the dangers of the internet (e. g. requests for personal data). It is also a time to form good habits related to the use of digital devices, e. g. by concluding an agreement with the child on the rules for using digital devices at home and at school. The task of adults during this period of adolescence is to accompany the child in his/her digital activities, watch him/her, and provide support if necessary.

The last category covers the age from 13 to 18 years. This teenage period is a time of developing autonomy, a time of exploration and experimentation. It carries with it both positive and negative implications. Involvement in various online activities can help one to acquire the necessary skills in the use of information and communication technologies, develop critical thinking and other abilities, but, at the same time, it makes one more vulnerable to possibly harmful contents and activities such as cyberbullying, sexting, grooming, pornography, etc. Young people at this age use social media very intensively, whether for socialising, creative expression or sharing common interests with others. Social media and online team gaming can bring many benefits to teenagers, including building networks or mutual support groups. On the other hand, however, they can also carry serious external social pressures that can be seen as a burden on the young person. The presence of parents and educators in the child's life, good relationships with them and the support shown to them during this period are very important and often result in maintaining the right attitude and functioning in the environment of new technologies (Milovidov, 2020).

While in the virtual space, young people are exposed to all kinds of dangers. There are usually several main categories of risks. These are most often related to harmful contents that a child may encounter online and the propensity to misuse the internet, and thus, in extreme situations, the loss of control over the intensity of using new digital technologies (understood here in a very broad sense). Playing games or being present on social networks are examples of activities that strongly engage the young

person and draw him/her into the virtual world. People encountered online do not always have good intentions, as a result of which children may be exposed to aggressive behaviour, cyberbullying, promotion of dangerous behaviour, etc. Due to their age, children and young people have less experience in dealing with others and are therefore more likely to be victims of manipulation and violent marketing activities (Bochenek et al., no data).

It is worth noting that the concept of screen time, i. e. the amount of time a child can spend per day using different types of media, which has been widely used since the 1980s in discussions about children's safe use of electronic media, is no longer relevant. When it came into general use, it referred primarily to time spent in front of the television. Nowadays, the range of uses and the range of interactions that children can have with digital media has greatly increased and changed qualitatively. This raises the question of whether time spent by a child on activities using different media devices, e. g. taking pictures with a digital camera, should also be counted as screen time. Changes in technology and the increasing digitalization of all spheres of life point to the need to change the way we approach and talk about this subject. It is not so much the time limits that are important, but the construction of a space where children have the opportunity to create healthy relationships in contact with new technologies (Donahoo, 2022).

When we use the term "child-friendly space" with reference to digital space, we usually mean a broadly defined online environment where the child enjoys spending time, feels safe, can develop interests, expand their knowledge and contact others, as well as get help and support when needed. In order to create a safe and welcoming space for children online, prevention is essential, i. e. preparation of young internet users for possibly difficult situations. If adults accompany the child on this journey through the world of new technologies, equipping him/her with the right knowledge and skills, this will make it possible to at least partially mitigate the risks. However, this can be more easily achieved not through a system of bans and orders, but through frank conversation and the establishment of close relationships (Bochenek et al., no data).

Children's rights in the digital space and their fulfilment in practice

When the United Nations prepared the Convention on the Rights of the Child in 1989, the internet as we know it today was only just being born, and its authors could not have been aware of the transformations that new technologies have brought to the lives of successive young generations over the last thirty years. For this reason,

the Committee on the Rights of the Child published *General Comment No. 25 (2021) on Children's Rights in Relation to the Digital Environment* (UN, 2021). It includes explanations and legislative guidance for state authorities so that the provisions of the Convention, including the protection of children's rights in the digital space, can be properly implemented. However, it should be emphasised that in these documents, the term "digital environment" itself is understood very broadly. It includes all digital and media services, including contents, applications, software, computing, mobile technologies, etc. Relevant provisions should also include database services, e. g. digital administration, social media platforms, big data, internet of things, etc. (*Child Protection...*, no data).

Documents prepared by the Committee on the Rights of the Child emphasise that the digital space is becoming the new environment in which children function, and therefore children's rights should also be fully respected there. It should also be taken into account that the impact of new information and communication technologies is now so great that it can affect children even when they are not directly using the internet (Ciesiołkiewicz, 2022).

In the paper: *In Our Own Words – Children's Rights in the Digital World* (no data) it is emphasized that children have the right to information, freedom and privacy. If these rights are to be respected, the following principles should be followed in the digital space (*Convention on the Rights of the Child...*, no data):

- non-discrimination (giving children free and safe access to digital services, preventing digital exclusion),
- the best interests of the child (taking the best interests of the child into account when creating the digital environment and drawing up appropriate legal regulations),
- the right to life, survival and development (providing necessary information, prevention, e. g. through appropriate media campaigns, of threats such as cyberbullying, manifestations of cyber-aggression, promotion of gambling and risky behaviour, or the spread of false or deliberately falsified information),
- respect for children's views (respect for children's rights to express their own opinions, consideration by service providers of the experiences of young internet users) (*Excerpt from the Commentary...*, 2022).

It is the task of the adults who create the digital world to adapt it to the needs of young audiences, not only to make it accessible to this age group, but also to guarantee safety in it.

The current generation of children and young people take access to the internet for granted. They perceive it as a necessity that is essential for education, entertainment,

information, and contact with family and friends. In global surveys, however, almost half of children report connectivity problems which mainly result from the lack of access to appropriate technological devices and infrastructure, but also from the lack of relevant data and information. The poorest sections of the society are the most disadvantaged in this regard. In order for children's rights in this regard to be respected, an appropriate strategy of action is needed at supranational level that would encourage countries to review and strengthen their legislation and internal policies to protect and promote children's rights in the online world. It is also necessary to put pressure on the owners of online platforms, as well as game and app developers, to bear these issues in mind, and to take into account the child's right to privacy and safety in the virtual space already in the design phase of digital services (*Excerpt from the Commentary...*, no data).

When we analyse the process of digitalisation of the environment of the modern child, several key areas can be identified. The first is the issue of access to new technologies, especially to the internet. It allows children to exist in this relatively new space, to use the resources stored there and the services offered. Through the use of digital services, children can fulfil their educational and cultural needs, as well as their civil rights. Digital exclusion, on the other hand, can lead to widening social inequalities and marginalisation of certain communities. It also raises the issue of various forms of discrimination, for example on the basis of disability, economic status, ethnic origin or language (*Excerpt from the Commentary...*, 2022).

It is important to bear in mind that the digital environment is building a new quality in terms of seeking, receiving and communicating information. Related to this is the second important area of respecting freedom of expression and the child's right to express and share their own views and opinions. Young users are keen to play the role of content creators and distributors in the digital environment. However, in order to exercise their full rights in this respect, they should be aware of the consequences of their actions, take into account legitimate constraints related, for example, to respecting the law and the dignity of others, complying with intellectual property rights, etc. The role of the State is to provide children with quality content that is specifically adapted to their age and needs (easy to find and understand, available in their language) (*Guidelines to Respect...*, 2018).

The internet plays an important communicative role, creating a meeting space where children can easily interact with their peers, friends or family. By bridging physical boundaries, it also allows them to get to know representatives of other cultures and nations. Modern digital space also allows people to shape and develop their social, ethnic or cultural identity, and facilitates fuller participation in the life of their communities

Achieving Sustainable Development Goals in the context of building a child-friendly digital environment

According to the definition, sustainable development is development “that meets the needs of today without compromising the ability of future generations to meet their own needs” (*Our Common Future...*, 1991). Among the 17 Sustainable Development Goals, a large part refers to the topic of respecting human rights. The use of new digital technologies can help in many ways, not only in the fight against poverty, but also in facilitating the fulfillment of information, education or health needs (*Principles on Identification...*, 2022).

Information and communication technologies have already invaded and transformed, to a greater or lesser extent, almost all spheres of our daily lives. From an early age, children are becoming active consumers of the digital tools that the modern world provides them with. This is radically changing the face of childhood. Access to new technologies itself is transforming into a new dividing line between those who benefit and those who are deprived of these opportunities. With the advancement of technology and the development of new technologies, there are also new associated and hitherto unknown risks to the proper development of the child. The possible impact of ICT on children’s health and happiness remains an issue of considerable controversy and concern among parents, educators and the general public (UNICEF, 2017a). Currently, the policy and practice of many countries’ actions in terms of sustainable development, aimed at bridging barriers and including children and young people in the digital environment, does not always take into account the full range of children’s rights.

The importance of new digital technologies is repeatedly referred to when describing the Sustainable Development Goals in detail. In the case of Goal 1: “Eradicate poverty in all its forms worldwide”, the need to ensure access to new technologies for all, especially for the poor and vulnerable, is clearly emphasised. It is also difficult today to speak of free, equitable and quality education at various levels and the promotion of lifelong learning without making greater or lesser use of digital tools (achievement of Goal 4). Children learn primarily by observing the actions of adults, and this, in some environments, can foster the phenomenon of inheriting digital inequalities (Batorski, 2017). Virtual learning environments in which children can function should be inclusive, free of violence, and facilitate the start in life for children regardless of their age, gender, economic status, religion, disability, or nationality. Information spaces based on modern technologies should also play a similar role for the young generation (Objectives 9 and 16). The building of a sustainable world is influenced by activities such as the provision of reliable news through the mass media,

the dissemination of knowledge on environmental issues, and the promotion of pro-environmental attitudes and living in harmony with nature.

Conclusion

Summarising the considerations so far, it is worth noting that it is possible to look at the digital transformation and the construction, in the space of new information and communication technologies, of a child-friendly environment from a slightly different and broader perspective. Indeed, the observed transformations indicate that digital technologies are increasingly embedded in the social infrastructure rather than being something separate and isolated, and therefore it is not so much about new digital rights, but rather about children's basic human rights and their fulfilment in the changing reality. Similarly, digital competence training can be seen as a means of achieving rights in the digital age.

The European Parliament Resolution of 11 March 2021 on the rights of the child

highlights the importance for the EU of investing in digital literacy in order to guarantee free access to digital literacy and digital education for all children, particularly children from underserved or marginalised communities, focusing on building their resilience and offering psychosocial support (*European Parliament Resolution...*, 2021).

At the same time, the authors emphasize that

(...) investments in ensuring that education systems can provide digital education, literacy and skills to all children are key to promoting children's understanding of digital technologies, overcoming inequalities, improving digital inclusion and empowering and protecting children and their rights online and offline (...); the development of digital education, literacy and skills should equip children to fight against the dangers of the digital space as well as to manage their responsibilities when interacting within it (*European Parliament Resolution...*, 2021).

Using the potential of digital technology in the right way and improving access to it can help achieve the Sustainable Development Goals. Children who, for a variety of reasons (poverty, race, ethnic origin, gender, disabilities, displacement or geographical isolation), have limited opportunities in life, can be given the opportunity to develop more fully and fulfill the potential they have (UNICEF, 2017a).

This paper seeks to demonstrate the need to build child-friendly spaces in the digital age that, on the one hand, keep children safe from the harms of an increasingly networked world and, on the other hand, take advantage of the opportunities and chances for development that modern technological infrastructure provides.

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