Challenges and Current Issues of Education in the Era of Digital and Technological Changes

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Abstract

Aim. The aim of the article is to map out the current issues related to education in the era of digital and technological changes on the basis of theoretical and research findings.

Methods. The published article is based on the theoretical and research findings of various authors and offers a critical reflection on some selected current aspects of education in the digital world, such as the problem of digital dementia and digital intelligence, the addiction associated with it, parenting styles, the development of critical thinking and the formation of a value system.

Results. Creating an analysis that explores the current challenges of education in the digital age. Analysing the selected most frequent problems of the subject matter, primarily from the point of view of ethics, sociology, and psychology, based on several researches reflecting the risks of using modern technology and digital media.

Conclusion. It is necessary to guide the child from early childhood to build values, critical thinking, but also own self-esteem and empathy. Since the foundations for a child's education are laid in the family, it is precisely family education that can (un)prepare the child for entering the world of digital media and its optimal functioning in it.

Cognitive value. The technologies that children and today's young people use in their daily lives affect not only their physical, but especially their psychological health, self-esteem, and critical thinking. As such, it can be beneficial for further building and developing the theory and at the same time be a basis for additional research.

Keywords: education, media, child, youth, digital dementia, critical thinking

Introduction

The 21st century is an era characterised by innovative trends, rapid technological progress, information overload, and digitisation. Access to information and the availability of a large amount of information is definitely one of the benefits of the current globalisation, but at the same time, we cannot overlook the enormous pressure to work with available information so that it is helpful to a person in the relevant area of life. Paradoxically, the very thing we think we know can make us uncertain and overwhelm us. Several researches reflect the fundamental importance of the children's psyche formation and the development of cognitive abilities in individuals in early childhood in relation to the development of critical thinking. It is necessary to eliminate the risk of digital dementia associated with the loss of mental performance and to find some kind of imaginary balance in life, where digital technologies already have and will have an irreplaceable place (see Budayová et al., 2022). The opposite of digital dementia is digital intelligence (DQ). According to the DQ Institute (Bruzzone, 2023), the digital intelligence is a complex set of cognitive, technical, metacognitive and socio-emotional skills that are based on universal moral values and

enable people to face the challenges and opportunities of digital life. Digital intelligence represents a significant positive in the fast pace of modern life. However, we have to control it and learn to work with it. To acquire digital intelligence, intelligence (IQ) alone is not enough, but a certain amount of self-esteem, emotional intelligence (EQ), self-criticism and sound judgment are also necessary.

CURRENT PERSPECTIVE ON RAISING CHILDREN IN THE DIGITAL ERA

Nowadays, a significant trend with regard to personality development of children and youth is the trend of developing evaluative and critical thinking. Life is a constant challenge to control and evaluate. If a person does not know this, he hides in anonymity, defers to the majority and cannot make responsible decisions. The question of a child's personality development and appropriate upbringing is permanently relevant and nowadays, with an effort marked by the principles of democracy and liberality, it is of significant importance. The primary responsibility for raising a child rests with the parents. They are the first and most effective example for the child. We perceive the parents' attitude towards the child as a very important aspect of parenting. A positive relationship based on acceptance and love for the child can be understandably displaced by a negative attitude, which reflects indifference, lack of interest, rejection, or neglect of the child. Of course, both attitudes can manifest themselves in different intensity and forms. The positive attitude of parents towards the child supposes the possibility of a positive relationship of the child with the parents, identification with them, and this simultaneously creates a basis for creating a positive relationship with other people and the child's surroundings. Karis Kimmel Murrayová (2018) states that our generation of parents is burdened by the need for their own perfection in raising children more than ever before. However, it is not necessary to be a perfect parent or to be perfect in education. Perhaps more important is "imperfect" but loving upbringing and building loving, accepting relationships. Relationships that have their own rules, standards, and boundaries. Children need order and rules that give them a sense of security, safety, and anchoring, they need to know the boundaries, and the consequences of crossing them. They need parental reassurance and approval. Children need to bear the consequences of their decisions and behaviour, but they also need the assurance that their parents' love for them persists (Murrayová, 2018).

Education in general must accept the requirements of unpretentiousness, non-directiveness, creativity and empathy, especially when it comes to family education. If we want to direct education towards the formation of an empathetic personality, the empathic dimension of the educational environment itself is a necessity. It is difficult to expect the development of

the ability to empathise with the feelings of others and to understand them unless the child has experienced similar behaviour in the family environment. We consider it important to connect empathic understanding with acceptance, because without true acceptance it is almost impossible to sufficiently empathise with another person's inner world (Kondrla et al., 2022; Kondrla, 2023; Králik, 2023).

One of the basic experiences of modern man is the acute lack of time. It does not only concern adults, but also children and, ultimately, families themselves. The lack of time for each other, for experiencing problems together, the inability to understand each other is not unusual for many families, yet, despite all the changes, the principle of time spent with the child remains unchanged. After all, the best thing for every child is to spend as much time as possible with their parents and get to know each other. Perhaps it is right to mention the problem of uncertainty in education, or too much freedom in education, while this freedom has no limits. We mean a child left to fend for himself, his own preferences, or value orientations of peers, groups, etc. without properly shared norms and values. The lack of clarity in education consists mainly in the fact that parents do not have clear ideas about what they require from their children, they change the standards according to the current mood, or they are subject to a consumer lifestyle, which is tied only to economic efficiency (see Maksaev et al., 2021). They try to ensure that children pursue only economic goals in life which overshadow other values in the family. But the real future of our children, as Tim Kimmel (2018) truthfully states, "lies in how they are able to use their emotions and how they will be able to balance their physical, spiritual, and mental dimensions" (p. 176). Currently, the concept of the so-called generation of snowflakes, with its pluses and minuses, is getting more attention. Snowflake generation refers to young people (age approx. 30 years old, reached adulthood in 2010 or later), who are characterised by extreme sensitivity, self-centeredness, individualism, low resistance to criticism, offensiveness, and inability to bear failure. It is a generation raised by helicopter parents who overdo it with child's care, cannot find a healthy balance in raising children and take excessive responsibility for their children's successes and failures. Max Kašparů's view of this generation is interesting, as he perceives it as a generation of greenhouse flowers protected from the discomfort experienced by previous generations. Based on his professional experience, he points out the excessive sensitivity of these young people even to the smallest failures. The snowflake generation may wander and search, but they usually take the first knowledge as definitive. Despite the negatives, he expresses hope that this generation will be able to bear responsibility in the future (Rendeková, 2022).

In addition to the above, there is an urgent need to know who we are, where we are going, to understand ourselves and to act in this line. Then it is possible to use without fear the endless possibilities of the current society. The upbringing of a good and characterful individual must

be enriched with justice, wisdom, kindness, empathy, conscientiousness, courage, truthfulness, gratitude. As Slávka Kubíková says (2019), it would be enough to raise such children and they would be the children who have the best prerequisites to deal with anything that life brings (see Murgaš et al., 2022).

The Phenomenon of Digital Dementia and Literacy Through the Lens of Selected Research Findings

As we have already indicated in the introduction, in the context of media expansion, the informatisation of society and the increased need for critical thinking, the concept of digital dementia and digital literacy cannot be ignored. Digital dementia is also very closely connected with dependence on digital technologies. The phenomenon of digital dementia is associated with the loss of mental performance, which is characterised by the ability to think critically, to navigate the flood of information and to be able to analyse phenomena in broader contexts (Spitzer, 2012). As stated by Marcela Šarvajcová (2017), while Slovakia ranks among the leading places in the EU in the proportion of digitally literate people and digitally literate teachers, it achieves unflattering results in computerisation and the level of information and communication technologies (see Kobylarek et al., 2022). The brain of the current young generation is significantly modified under the influence of digital media and information overload, as justified by the results of ASHA research (2015). Up to 68% of 2-year-old children use tablets, 59% of these children can handle smartphones and 44% have regular access to game consoles. It is an indisputable fact that the brain development up to the age of 3 years of an individual's life is essential for a person's communication in his later life, while the primary interest of education is centred on the development of vocabulary through listening, speaking and social interaction in the family.

The importance of quality education is also justified. Quality education should start in early childhood. Primary education is given to a child not only by parents, but also by pre-primary institutions, where parents entrust children to experts and educators. Parents are the first to determine the parenting style for a child. The main task of professional and pedagogical employees is to develop and teach the child new skills, experience, and knowledge. It is desirable that educational needs closely connected with the media are reflected in the field of education, which should be considered not only by teaching staff, but also by parents themselves. Life with digital media appears to be particularly risky for teenage children. Prominent Czech neurologist Martin Jan Stránský, in an interview for the Czech programme *Kupředu do minulosti* (Forward to the past), draws attention to the excessive use of technology in the sense of negative changes in the brain. People's IQ decreases, they use short sentences, they don't know

how to solve problems, they have problems in natural communication, and they become slaves of technologies that force them into behaviour that is not biologically natural for them (Koníčková, 2023). In the context of digital media use, the ability to learn declines and results in personality and reading disorders, anxiety and numbness, attention disorders, sleep disorders and depression. We can state that not only the psychological, but also physical health of a person is at risk. As the Italian newspaper La Repubblica reports (**ČTK**, 2016), the first phase of life is crucial for the development of the brain, which soon after birth puts one building block on another. And it does it faster, as it gets more stimuli and gains more experiences. Already in the first three years, the child's development takes its initial stages.

Of course, we will not stop progress, nor should stagnation take place, but it is within education and training that we find room for determining the optimal level and effective combining of the traditional with the modern, as well as managing the pitfalls that the online space brings every day. In these contexts, the question is justified as to whether new digital technologies can be considered as an advantage or a negative associated with the threat of addiction. Modern digital technologies undoubtedly help people and society to progress, achieve various goals, simplify work, etc. The fact is that the younger generation is very adept in the technical world. Although media and new technologies have not always earned a flattering reputation over the years, we must take into account the fundamental fact that no media or technology is good or bad, it depends entirely on the purpose of their use. We cannot deny the indisputable positives of digital technologies, but above all their early and uncritical use can already lead to the development of addiction in children. According to Valentina Guarasci (2023), technological addiction is characterised by a pathological relationship between an individual and new technological means. Unlike traditional addictions, currently socially stigmatised, it is likely that there is not yet a full awareness of the risks of new addictions supported by technological advances. From this point of view, technological addictions are more subtle and unexpectedly affect even self-confident people. The expansion of new technologies is gradually changing our habits and ways of understanding communication processes.

Natasha Tracy (2021) from Healthyplace presents the symptoms that internet addicts can suffer from. Most often it is moodiness, irritability or restlessness when trying to stop their activity on the internet, some people said they are unable to stop their activity on the internet even after several attempts. Another symptom can be thinking about your past activity on the internet, or an increasing desire to spend time on the internet. The results of the Disconnected World study suggest that the withdrawal symptoms experienced by young people when denied access to devices and technology are similar to those experienced by drug addicts. Research results show that nearly four out of five students experienced significant mental and physical difficulties, experiencing panic, confusion and extreme isolation

when forced to disconnect from technology for one day. University students around the world have admitted being addicted to modern technologies such as cell phones, laptops, and television, as well as social networking sites such as Facebook and Twitter (Život bez závislosti, 2022).

The connection between digital dementia and dependence on digital technologies is relatively significant. Digital dementia has rightly been compared to a modern health epidemic resulting from a sensory mismatch in the brain due to excessive use of digital technology and excessive sitting. Other symptoms are e.g., lost track of time, lies in various forms and self-neglect, including duties, work or relationships. A person may or may not notice these symptoms. The «Disconnected World» study cited above, published by the International University Center for Media and Publicity and the Salzburg Academy, states that the majority of students could not go without media for 24 hours (Život bez závislosti, 2022). Also, we find interesting the verbal expressions of the students participating in the research. They described their feelings through these emotions: irritated, confused, anxious, irritable, insecure, nervous, restless, mad, dependent, panic, jealous, angry, lonely, depressed, paranoid. It is obvious that young people do not only use modern technology at home or in their free time, but also they learn to use it directly in the educational process. But where is the line between the benefits of using digital technologies in education and the indirect support of creating addiction in children and young people? We consider the criteria for the use of media and technology to be fundamental. It is also important to build self-esteem and a healthy critical view, which indicates the development of digital literacy and intelligence, helping children and young people to live consciously in the digital world.

Conclusion

There are undoubtedly many current challenges and questions in the field of education in today's modern age of digital technologies. The article has focussed on selected issues that require the attention of the entire society. Digital progress cannot be stopped. Although technology makes our lives more convenient, we cannot avoid the risks and potential problems associated with new technologies and applications. In today's families, it is extremely important that parents teach children to develop value and critical thinking, which is essential not only for their personal development, but also for being able to face the current pitfalls of the digital world. If we lead children to critical thinking, help shape a healthy value orientation, emphasise education based on the principles of morality and ethics, in line with the development of emotional intelligence (EQ), intelligence (IQ), but also adequate self-esteem, there is a high probability that they will be prepared independently to face the pitfalls of the digital world. In these contexts, we primarily appeal to the responsibility of parents since a significant part of a

child's upbringing takes place in the family where child's personality and value attitudes are formed. Parents have certain competences they can use to direct the development of children in the desired way. The conscious approach of parents to education in current digital trends also has its justification. Then it is possible to use without fear the endless possibilities of modern society, and of the digital age, and at the same time resist various pitfalls related to it. The child needs an example of how to resist the traps of the media and the temptations of digital technologies. A parent is the first and most important role model. Educators can also represent positive models of behaviour for their pupils and students and be helpful by providing alternative activities in the educational process, such as emphasis on physical activity and contact between people. The school is a relevant place that, if necessary, can replace absent family media education. In any case, the "digital rules" must be clearly defined, and communicated. It is also important to distinguish between online and offline life, while of course offline is the priority. And don't forget that man is the measure of all things.

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