TRANSFORMATION OF EDUCATION AND TRAINING SYSTEM IN THE CONTEXT OF DIGITAL INFORMATION AND COMMUNICATION TECHNOLOGY IN SOCIOCULTURAL PERSPECTIVE AND ITS AXIOLOGICAL AND ETHICAL DIMENSION

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Abstract

This article focuses on transformation of education and training system in the context of digital information and communication technology in sociocultural perspective. Its goal is first to analyse the reinterpretation of the concept of education and training system and its sociocultural aspect within this transformation and identify specificities of digital (global) education and training system. Secondly, we want to identify the sociocultural risks and moral problems in axiological and ethical perspective and find the moral-value requirements. The author states that throughout digital transformation of education and training system (which is a collaborative and participative process), we need to regulate also its axiological and ethical aspect of the form and content. The author believes that the associated risk that endanger the desired outcome introduce the need to raise ethical questions that regard digital information and communications in the process of education. Further, she points out that they include also sociocultural requirements of moral human creativity and its introduction into the education and training system by responsible and approved entities. Lastly, she also points out that today we are speaking about sociocultural requirement to incorporate moral-value aspects into education and training process within the whole society and use these aspects in a proper and safe manner. This specifically includes shaping and development of personality thought media education that is based on moral values, with the intention to improve digital literacy as conditio sine qua non in our personal and social life.

Key words: *Transformation of Education and Training System, Digital Information and Communications Technology, Digital Education and Training System, Global Aspect, Human Development, Civic Life, Values, Moral Standards, Sociocultural Risks, Moral-value Problems, Sociocultural Requirement*

INTRODUCTION

We live in a digital era, or world [Negroponte 2001] that requires us to use digital information and communication technology. We can state that it penetrates more and more parts of our life, introducing thus new and unique components and situations. One of the fields that is influenced by digital era is education and training system. Implementation of digital information and communication technology and developing of virtual space for the process of education is understood to be the key requirement for development of training projects, forms of education and training systems, or creation of e-learning products. We may note that psychological, pedagogical, teaching and teaching-related technological aspects in preparation of training courses and assessment of various virtual training environments are quite frequently scrutinised. We have conferences, seminars and competitions that are all about e-learning, distance learning, e-community and similar projects. [Semrádová 2010: 325]. Sadly, even though there is much interest in digital information and communication technology, it seems that D. Lewin and D. Lundie are correct when they state that its transformational power may perhaps not be reflected adequately in pedagogical and philosophical practice. As D. Lewin and D. Lundie mention, the promise that digital education and training system would revolutionise teaching and learning process, as it would mean widely available resources or radically restructured virtual learning experience, is often transferred, without any comments, to problematic social, ethical and epistemic requirements that are vital for these revolutionary changes [Lewin, Lundie 2016: 235, 236].

In the following chapters we will speak about global transformation of education and training system in the context of digital information and communication technology, seen in the sociocultural perspective. Our objective is firstly to analyse reconstruction, or reinterpretation of the very concept of education and training system, its sociocultural importance in the concept of this transformation and identify the very relevant specifications of digital (global) education and training system. Further, we want to identify the sociocultural risks and moral problems in the axiological and ethical perspective along with derived moral and value requirements.

1. ON TRANSFORMATION OF EDUCATION AND TRAINING AND RECONSTRUCTION OF ITS SOCIOCULTURAL IMPORTANCE IN THE CONCEPT OF IMPLEMENTATION OF DIGITAL INFORMATION AND COMMUNICATION TECHNOLOGY

In principle, the concept of digital technology includes information and communication technology, together with interactive technology. Digital technology can thus be a synonym for information and communication technology[1], gradually replacing

1 They include computer, the Internet, mobile phones and other means of communication. They are typical now for using the computer and the Internet as well as integration of various forms of media (multimedia, hypermedia). More on this for example [Kostrub, Severini, Rehúš 2012: 7-8; Tináková 2007: 1; Ratheeswari 2018: S45 and others].

the term IKT in pedagogic literature in numerous countries. Generally speaking, this term describes technology needed to maintain information and communication processes that include collecting, handling, processing and exchanging of information. In the context of education and training, information technology means tools, environment and methodology that applies for collecting, storage and processing, as well as assessment, selection, distribution and providing of desired data in a desired form and quality in order to support the process of education and training, or teaching and learning and complementary activities within the concept of education and training [Kostrub, Severini, Rehúš 2012: 8; Tináková 2007: 1].

Today, global implementation of information and communication technology is apparent. Throughout the globe, multimedia, hypertext and hypermedia technology and aids are used in education and training process [Goyal, Puroit, Bhagat 2010: 39; Bhakta, Dutta 2016]. By implementation of these tools of digital technology and usage of network applications, together with changing characteristics and needs of students, the teaching and learning environment of the 21st century is being transformed too [McLoughlin 2010: 28]. New qualities and improvements that we see in the Internet technology, mobile phones, database systems and multimedia is becoming important technology and tools for improvement of the process of education and training, especially in universities and colleges [Hameed 2016: 378]. However, this technology may be efficient only if it meets criteria important for education and training concept [Goyal, Puroit, Bhagat 2010: 39; Bhakta, Dutta 2016]. In information and communication-based societies these criteria do not simply emerge out of the thin air, but come with the context of new social projects and changes that reflect human development within the system of education and training process.

As stated, the processes that apply in education and training system of the global 21st century should favour personal goals and needs. It is necessary to prepare individuals for the world as we see it today. Modern world is characterised by social mobility and diversity of life routes; people are expected to follow multiple professional routes and take several requalification courses throughout their life [McLoghlin, Lee 2010: 31]. New teaching environment, or school version 2.0, may serve also as a platform for better understanding of public sphere that concerns us all at global social level. Such a school can use the knowledge of general social reality, increase sensitivity and use experience seen from a different perspective. With the help of network, this school may really help improve the situation in public sphere, in areas that are important for our common interest, and promote also broader – cosmopolitan citizenship[2] [Gozálves 2011: 135].

2 Communication is now understood to be linked to the ideal of democratic society that wants to exercise human rights, dialogue and transparency, and society that applies the principles of equality and progress [Nanni 2014: 83]. In the past, education and training system was understood to be the key to well-functioning democracy and this is still true today. Citizens are expected to be adequately educated and able to make decisions that are beneficial not only for them, but also for the shole society [Olcott 2015: 61]. Communication, education and training system are now influenced by a rather radical phenomenon of digital technology that revolutionizes and transforms their nature.

Digital culture offers conditions for new expertise and reinterpretation or revision of the concept of education [Gozálves 2011: 135], which inevitably results in change in some of these concepts. For example, we can mention the concept of teaching and learning. Gozáles points out that there is a prerequisite need for change in understanding of knowledge and our approach to knowledge, which is rather horizontal, interactive and reciprocal. The new perspective talks about abolishing mechanical teaching in both the new and old encyclopaedia-like approach to knowledge. The most important task is to teach the learning minds – or critical and creative thinking in individuals. We can state that the teaching and learning environment of the 21st century, or school version 2.0, is understood to be the answer for the commitment to nourish learning minds [Gozálves 2011: 135].

In the new perspective that we are talking about, students, or learners, are taken as active participants and co-owners of the sources of information rather than passive consumers of the pre-defined content. It acknowledges the fact that that the generated content holds the central position in curricula, which also promotes a self-regulation process in education. This requires students to actively participate also in setting the needed objectives and strategy, as well as choosing tools in information and communication technology [McLoghlin, Lee 2010: 31, 38]. Education and training should be combined with a permanent imaginary call for action, this will motivate students to become responsible for developing knowledge and personal skills, which will in reward help them take control of the vital assimilation of knowledge [Gozálves, 2011: 135].

It is important to trigger student's cooperation and interaction in the new perspective of education and training system. This, in fact, means boosting cooperative education and training programmes that take a fresh approach to models relying on student experience and activity [Gozálves 2011: 135]. As was already mentioned, we are talking about social participative processes [McLoghlin, Lee 2010: 31, 28]. In this respect, D. Pimienta mentions a need for true and organised participative partnership in education and training system, a partnership where all participants are active. This should constitute a multilateral process in which participants mutually interact [Pimienta 2009: 20]. Similarly, V. Gozálves notes that all parties, not just teachers and students, but also parents need to be employed in the process of education and training [Gozálves 2011: 135].

We may state here that in the education and training system, digital information and communication technology is the fundamental element for communication, collaboration, presentation and work (or complex development of personality of students/pupils/children) in the new perspective of education and training system [Kostrub, Severini, Rehúš 2012: 8]. Regarding its attributes (capacity, structure, processes), this technology generally very well fulfils the requirements for education and training system established by the modern era [Bhakta, Dutta 2016: 137; Goyal, Puroit, Bhagat 2010]. Most importantly, it is the Internet, a great form of media, that has

the power to supress territories and start massive interaction that can help develop intensive contacts, dialogue, discussion and exchange of information,[3] when every corner of the globe in connected to the world wide web [Nanni 2014: 87].

Efficiency in teaching and learning with the help of new digital aids, means, material and methods, is greatly improved and more attractive for both teachers and students in the modern era [Kostrub, Severini, Rehúš 2012: 7]. It is clearly visible that the new digital information and communication technology is more productive in the process of teaching. When used, the influence on increasing quality of products and processes in education and training systems is obvious [Bhakta, Dutta 2016: 137; Goyal, Puroit, Bhagat 2010]. In this perspective we could and should mention also digital media literacy and competence[4], as important determinants of efficiency of digital education and training, but also active civil life and human progress. As for example J. M. Pérez Tornero and T. Varis note, nowadays this literacy becomes the key condition for digital citizenship, or development of free democratic societies [Pérez Tornero, Varis 2010: 57]. Yet we must also say that, in reality, this human and social development does not automatically have to be successful even if it is traceable and indeed used in education and training system. We face various socio-cultural risks and problems that endanger not only efficiency in teaching and learning, but also education and training system as such, including its goals,[5] of which many have a moral, or moral and value-driven dimension. Of this we will be speaking in the following chapter.

2. SOCIOCULTURAL PROBLEMS AND RISKS IN DIGITAL EDUCATION AND TRAINING SYSTEM IN AXIOLOGICAL AN ETHICAL PERSPECTIVE

As already stated, education and training system that uses new digital information and communication technology, or in other words the so-called digital education and

3 As S. Gálik and A. Modrzejewski point out, the Internet, or usage of the Internet, influences organisation within the society, where individual "cells" communicate certain values and ideas [Gálik, Modrzejewski 2014: 25], which is a condition for global exchange of social and cultural values, especially in digital education and training system.

4 Folloving Kačinová, general digital media literacy may be understood as (gathered) elementary level of knowledge, abilities and competence needed for an individual to handle digital media and their products in various fields. Digital media competence specifically in digital media and media technology can theoretically be understood as competence (or qualification) of an individual that influences their performance in this context [Kačinová 2015: 260]. However, we are presently faced with the need for a more holistic approach to media education, which exceeds this performance [Kačinová 2019].

5 We need to say that digital information and communication technology, or digital communication, does not automatically promote global democracy and civilised development. Many authors are critical in their view of the impact that may, in fact, be harmful. Žanony, for example, points out that the influence on public debate, its quality and on the very democracy is, sadly, rather disastrous and endangers society and democracy. The new world of information that was meant to improve level of awareness, understanding and human emancipation, brought information chaos, anarchy, increasing polarisation and division. We try to escape from this unwanted effect of information ambiguity by settling down within the cage of our prejudice. Žanony believes that this is a logical result of the information and technology state of our society, influenced by commerce and advance in technology that offers post-truth, information bubbles, data altering, increased aggression in public debates or weakening confidence. With this come effects such as addiction or manipulation of the thoughts. These negative effects did just come suddenly, but gradually with disintegration of communicative society [Žanony 2018].

training system, is not problem-free in terms of human development in the global context of countries, communities and individuals. It is accompanied by various risk and problems. In the sociocultural aspects, we face moral or moral and value risks and problems that rise form the actual existence (or non-existence) of this digital technology, its content and finally the impact it brings in education and training system. This includes consequences that are the result of the very nature of this technology, but also consequences that are results of our own routines that we develop when we use it. It is necessary to say that these consequences influence content, but also the formal aspects of digital education and training system.

Fist, we can mention a specific sociocultural and especially ethical problem of global influence – the so-called digital division, or digital divide. This means division between individuals, communities or societies, so we have those who gain from digital technology and those who do not get equal chance since they do not have access to it. As N. Dabbagh and coll. notice, acceptance of network models of Web 2.0 in education and training system requires certain infrastructure, hardware for the end users and applications or teaching material. If any of these three requirements is not met, then this technology cannot be widely accepted. Countries and communities that have access to this kind of education and training system may take advantage of it, whilst those that do not have this chance, cannot benefit from it. N. Dabbagh and coll. also comment that even though inexpensive devices, for example smartphones, may improve the situation a little, they cannot be the solution to this problem [Dabbagh et al. 2016: 37].

It seems that though on the one hand we potentially have digital technology that offers the poorest ones the same access to the cultural heritage as those who are luckier, on the other there is a real danger of technological dominance and even greater difference between those who can access modern technology and those who cannot [Nanni 2014: 87]. As Pimienta points out, this difference copies the present social division or digital divide in the (virtual) world of societies, a division that describes possibilities for various people and groups for personal development through digital technology [Pimienta 2009: 1, 2],[6] also in the context of education.

We can state here that digital divide is the key factor for global acceptance and usage of Web 2.0 network model in education and training system [Dabbagh et al. 2016: 37]. Basing on its features, it can be regarded as one of the fundamental global sociocultural problems that determinates personal development and society development in the new perspective of education and training system. This obstacle constitutes a topical issue and challenge, mainly in personal and ethical dimension. Pimienta also notes that mere provision of access to digital information technology does not mean that people who use it are automatically granted access to opportunities for their per-

6 The opposing view of this perspective then tells us that usage of digital information and communication technology offers indisputable opportunities to reduce social division between humans and societies [Pimienta 2009].

sonal development. It appears that non-existence of infrastructure for getting online is not the only obstacle, apart from digital divide; there are some other challenges that we have to fight in order to provide individuals and groups of people with real opportunities for personal development through digital technology [Pimienta 2009: 1]. For example V. Olcott et al. talk about various ethical problems that influence both individuals and collectives, and since these problems stand in the way of personal but also social development, they become sociocultural challenges for education and training system inside, but also outside of schools. These challenges include digital identity and reputation, online privacy and safety, but also online bullying – a new phenomenon that is not restricted to only exist in the world of school, but also outside of school, so it may cause permanent invasion of privacy. Then there is misuse and abuse of information and communication technology. Even though this does not have to result in addiction to technology, it is characterised by unusual and excessive or unregulated, or in other words, immoderate usage. We can also mention plagiarism, reproducing ideas, words and works of other people and pretending they are original and so on. We also face the issue of intellectual property in digital environment, which indicates tension between commercial and social opinion on the Internet usage. Finally, we should mention also problematic spreading of information of questionable quality and accuracy and related uncritical consuming of information [Olcott et al. 2015: 64, 65].

In the context of the previously said, it seems that when we consider correlation between morality and digital technology, especially in respect to education and training system, many ethical questions and challenges start to arise. They chiefly concern the influence on education, independency, and freedom of individuals. We are talking about the current ethical questions and challenges that come with this technology and its usage. These questions cover a wide range of legal topics, or issues, including privacy, neutrality, computer crime, transparency and similar [Olcott et al. 2015: 61]. However, we should also acknowledge that along this ethical and legal questions, education and training system that uses digital information and communication technology meets also another ethically significant problems that are influenced by factors such as social and political influence, cultural and geographical diversity, prejudice, students diversity and other similar factors [Goyal, Purohit, Bhagat 2010: 40]. It is therefore visible that these issues are big enough to endanger the objectives of digital education and training system through harmful character of factors, or data, and introduced information influence that reflects these factors.

It is obvious that currently it is the Internet that greatly influences students, researchers, academics, but also non-academic personnel and the whole process of education and training in general [Hameed 2016: 372, 378]. In the context of data and information it brings, we are speaking about social and moral values that it offers, this has a great influence both on people and education and training system in the society. Sh. A. Hameed states that research shows that the most problematic and

harmful effects are the results of sexual, anti-religious and antisocial content, as well as advertisement, because this all introduces various religious, ethical, cultural and social influence [Hameed 2016: 372, 379]. In the context of education, this brings a great impact on sociocultural aspects of users, especially within the frame of moral and value system.

The global character of network opens really exciting opportunities to produce and spread knowledge, but through promotion of customs, values and norms of foreign culture that clashes with values and norms of various national cultures, it also brings certain cultural risk. We agree with J. Weckert who points out that this sometimes leads to wiping away of national or original values or cultures [in Voronkov 2004: 13]. It seems that this happens despite the fact that digital culture is by nature disorganised and decentralised, which may in fact be exactly what makes it to certain degree resistant to the prevailing cultural domination [Nanni 2014: 87]. Given this, many users, or in fact most users of the Internet, generally accept the concept, or strategy that filters this harmful data and content that has anticultural potential [Hameed 2016: 379].

As Hameed points out, it is possible and necessary to develop efficient tools for filtering data and information[7] and this way increase its usefulness in schools [Hameed 2016: 372, 379], or generally in education and training system. However, it is necessary to say that even these technological tools carry a set of values, just like any other means of information and communication technology. Therefore, also they are inevitably involved in the system that enforces certain social and cultural, political and moral values in education and training system. This we may understand to be risky in the view of its primary goals or in the perspective of real development of individuals and societies. Sometimes this seems to be forgotten.

When designing education and training system, it is necessary to keep in mind value and moral aspects that are linked to its content brought by digital information and communication technology, or the very virtual or technological dimension. As also I. Semrádová points out, this form and content can (or better said – should) take into account value, emotional, moral and aesthetic coherence and thus contribute to securing of personal development in education and training system [Semrádová 2010: 327]. Therefore, we believe that if we take into account all of the previously mentioned risky factors that endanger educational objectives in the perspective of human development or efficiency of digital information and communication technology in teaching and learning, it is necessary to establish certain axiological and ethical requirements for any activities that are meant to bring positive effects in here. A mere pragmatic vision of now practical and functional technology that could be used in education and training system is not strong enough a base for ensuring of real human development

7 For example, Smart Data Filtration tool (SDF) should be able to filter multimedia content using defined rules and standards that cover religion, ethical, cultural and social interests for a given environment or group of users. We can understand this tool to be a complement to the present functions of firewall [Hameed 2016: 378, 379].

and society development, or even worse for deducing it.[8] About this we will be speaking in the following chapter.

3. SOCIOCULTURAL REQUIREMENTS IMPOSED ON DIGITAL EDUCATION AND TRAINING SYSTEM IN AXIOLOGICAL AND ETHICAL PERSPECTIVE

In our pursuit of education and training we have, since always, been making products that come with cognitive value and that, together with emotional, moral or aesthetical values, aim towards certain objective (either originally intended or contextual). These are not only textbooks or teaching material, but presently also e-learning courses [Semrádová 2010: 323], as well as information and communication technology and virtual space for students and teachers. Everything of this is a valuable result of human creativity that reflects social and cultural needs, as also B. Kosová [Kosová 2014: 80] states. When we speak about these products, we should also say that their form and content should reflect also ethical requirements and withstand ethical questioning.

Let us notice first the sociocultural requirement, which states that global digital education needs quality digital material that fulfils cultural requirements and that is available for both teachers and students. Such material needs to be properly prepared. This means that the process of preparation includes ethical aspects raising from both social and cultural circumstances that cover the content and values - for example adequate intercultural aspect of the content that reflects social interaction in digital education. We believe that special care should be taken in the case of the Internet as media technology for education material and communication.

It is also important not to be interested only in practical and functional potential in education when we analyse digital information and communication technology in education and training [Nelson 2015: 374, 387]. This in fact means to consider also other aspects and not just the technological vision once we assess quality [Pimienta 2009]. It is necessary to broaden criteria and make sure they also cover moral adequacy in education and training. It is important then to include ethical aspects and thus make it possible to deal with moral values. We need to keep in mind what technology is capable of and what it brings to life of modern people, we also must be aware of its personal and social role in pedagogy as emphasizes also M. E. Nelson [Nelson 2015: 374]. This we need to accept as early as in beginning of the process of designing information and communication technology in education and training, which needs to have its axiological and ethical dimension clearly defined.

8 Semrádová states that there are some calls that protest against modern technology in education and training. These voices express scepticism, concern about rapid spread of technology, depersonalisation, algorithmization, excessive rationalisation and economisation and, perhaps, also possible simplification of approach to the world and people... This negative standpoint roots also in general neophobic attitude. This author also points out that the question raised by philosophers, teachers, psychologists and some e-learning course creators and students, is a question that concerns scope of education in practical world that is influenced by reduction of elementary education needed for human, limited to education required for our technocratic and bureaucratic civilisation, or for roles that we play and need to play in order to succeed [Semrádová 2010: 326-327].

In this respect, we need methodology for construction of digital information and communication technology, the so-called value-sensitive design[9]. This design is based on the fact that this technology functions as media for various values (social, cultural, political, moral) because these have unique characteristics. It is therefore important to implement them into the designing process. As J. v. d. Hoven points out, ethical aspects and moral values in technology are understood to define its design requirements. We may state that these requirements should enable pragmatic methods and frames that support moral and ethical values in users of this technology, so that digital systems, products and services could indicate a high standard of moral quality and become reference index for moral appropriacy [Hoven 2017: 66, 75].

Decision-makers should try to predict future development and social functionality of digital innovations in education and training system. However, they should also be prepared to implement practical measures that would prevent any malicious usage of what was meant to be positive [Kosová 2014: 80]. We believe that digital information and communication technology should be incorporated in education and training system with respect to axiology and ethics. As also Pimienta points out, if decision-makers that influence public policy or projects in information and communication technology that aims at human development only regard the technological vision, we have a problem [Pimienta 2009: 1]. Local and global decisions and actions that influence incorporation of digital technology in education and training should favour convergence of values, people and technology, therefore the decision-making process should definitely be a subject of ethical assessment [Olcott et al. 2015: 61].

Olcott and others point out that the decisions and actions of subjects that have the power to decide should agree with certain ethical presumptions or rules that should be taken into account and that, in our view, directly become sociocultural requirements. For example, they should follow the idea that technology should be used wisely, thoughtfully and with respect, rather than just "used." Appropriate usage of technology should be in agreement with moral criteria of long-term sustainability, regulated dosage, respecting other people and their rights, as well as satisfy basic needs of people (including the need of education, communication and social inclusion), as well as personal and collective wellbeing (good life). It is obvious that excessive, inappropriate of harmful decision, design or management of technology that has a negative influence on people either now, or will have it in the future, should immediately be dismissed in the process of decision-taking. Any decision-maker should keep in mind that individual and collective practice that sets rules for responsible and exemplary usage of technology is a commitment that is bound to values and duties. This requires awareness in terms of impact of rules concerning technology - rules that individuals or groups of people issue and systematically use and, finally, also usage

9 Value-sensitive design is a multidisciplinary field of theory and methodology that describes values and moral insight in the process of construction of technology. It introduces human values (such as privacy, respect, confidence, and other values) into the whole process by the means of principle and structure [Friedman, Kahn, Borning 2006; Hoven 2017].

of this technology respecting relevant considerations. These considerations include for example how I can improve my status using this technology and also how my performance will be improved; whether using this technology may be beneficial for me, but also how it helps or harms the others and what benefits it offers for the society [Olcott et al. 2015: 67], all these considerations should regard the obvious axiological and ethical perspective.

As already stated in several places, we are speaking about current education and training system with relevant usage of the Internet where, as also C. Nanni points out, it is usage of the Internet that may most promote plurality and homologation of variety of unique cultures [Nanni 2014: 87] through its own media capacity and media potential, e.g. its content (data, information, knowledge) and formal dimension (technology dimension and process), but also through social practices that we change with regard to them in the context of digital culture. This is the reason why we believe that there are important questions to ask when taking decisions about the Internet. These questions are: To what extent does the Internet influence local culture and traditional way of life? What is the possible future effect of such changes for culture and society in the global and local scale? To what extent are traditional cultures and values in such cultures changed by the digital infosphere of the Internet?" These question, which cover the intent of intercultural information ethics [Cappuro 2006: 183],[10] should be followed by another ones that are relevant in terms of axiology and ethics and that explicitly aim at a broader sense of good of the information and communication dimension of human existence in the 21st century, or moral context of information and communication technology itself (as already stated).

Finally, we can agree with Olcott et. al that the power and potential of digital information and communication technology for human development is only exceeded by power and potential of human. As these authors note, decisions that now influence humans, for example decisions regarding education and training system, are, when we speak about potential ethical, or axiological and ethical problems, designed by people – technicians, politicians, teachers, educators or private agents, communities, universities, various organisations, societies, governments… It is especially dialogue and engagement that is important in the case of local teachers, businesspersons, community specialists, parents and members of government. As active decision-makers they should ensure that their decisions about using digital information and communication technology in education and social environments respects axiological and ethical line. However, we must not forget that we all are responsible for making sure that advantages introduced by these innovations are balanced and precaution measures that eliminate misconduct are implemented. Still, it is necessary to say in this respect that politicians and educators must play the fundamental role to teach the whole population about the proper, or appropriate use of these innovations [Olcott et

10 Intercultural information ethics is a macroeconomic field of ethical research that takes into account various cultures. Moral questions found in infosphere are studied using a comparative method that considers various cultural traditions [Cappuro 2006].

al. 2015: 68], as it is necessary especially in axiological and ethical perspective. We will be talking on this later.

4. THE NEED OF VALUE AND MORAL ASPECT IN THE CONTEXT OF SOCIOCULTURAL CLAIMS FOR EDUCATION IN DIGITAL WORLD

Basing on what was previously said, it is obvious that within the framework of digital education, which uses potential for human development, it is the human potential that is vitally important. This potential is determined chiefly by responsibility and honour [Olcott et al. 2015: 68]. In this respect, moral values are the pillar of the process of establishing shared knowledge-based societies. This requires educating people in ethics, ethical behaviour in participative processes and active approach in ethical discourse [Pimienta 2009: 1, 21].

To insure general human development in the context of global digital education and training, we feel that it is important to support knowledge and reflective practice not only in practical handling of digital technology, but also its moral aspect. Olcott et col suppose this is why we should not only teach people how to use digital information and communication technology, but also train them how to use it safely and responsibly. However, there is an important presumption – it is necessary to do so throughout the whole society, so that each and every individual receives quality training, reflecting their needs, interests, abilities and skills.11 Another condition is that this shall be based on universal moral values that are explicitly incorporated in any educational activity [Olcott et al. 2015: 66, 67].

Also Gozálves identifies a more extensive sociocultural need for education not only in the field of technical and practical application of communication technology, but also responsible use of this technology in everyday life. He talks about integral education that combines ethical aspects and techno-communication, this may support digital citizenship with usage of communication technology, as well as participative and advisory processes. This ethical dimension follows the concepts of reversible and universal dignity, global or cosmopolitan justice and sustainable human development, it is associated with moral values and standards such as freedom, equality, solidarity, dialogue and respect [Gozálves 2011: 136, 137]. This allows opening a dialogue about how new technology influences our privacy, independence and freedom [Olcott et al. 2015: 66].

We now need to mention digital and media literacy, which J. Suorant and T. Vadén understand as using digital information and communication technology for the common good [Suoranta, Vadén 2008: 7].12 The idea of improvement of this literacy and

11 Therefore, all individuals, but especially the less privileged people (who would otherwise feel digitally excluded) need to be approached [Olcott et al. 2015: 67].

12 Theoretical critical approaches define social benefits of media, or digital media literacy [Gutiérrez Tyner 2012: 7] and lead to relevant understanding of ideology and power, or – how power and information are linked one to each other. These approaches analyse the policy of participation, the key dimensions such as gender, race, class and similar, because these are relevant for both students in their process of transformation to socially active citizens and whole society that transforms itself to less

competence that reinforces excellence and stimulates personal autonomy of citizens and their social and cultural commitment [Kačinová 2019: 23] expects moral and value-conscious shaping and development of critical thinking, improvement in ability to choose and process information, but also better expressive, communication and interactive skills – this all is influenced by media education.

The ideal that we want to achieve in media education that aims at digital media literacy and competent individual is exactly this competent, flexible, intelligent and critical individual that exercises introspective thinking. It is also an individual that is able not only to discuss media content, but also be creative and productive and use tools that this modern technology offers to interact readily and meaningfully with other people [Pérez Tornero, Varis 2010: 93]. However, we are speaking not only about conscious and critical, but also responsible use of these tools in professional and personal life or anywhere where one is confronted with digital media. The ability to succeed in this is a sing of quality and fully developed digital media competence in an individual [Kačinová 2015: 260].

Also in the context of what was previously said, it is obvious that media education must include correct approach to the new language of technical media, but shall not be restricted to mere construction of technical and instrumental attitude to digital media [Goméz Galán 2015: 31].13 This should insure reflective and critical standpoint in individuals and serve as a platform for two modes of critical approach – one that regards the content (digitally spread information); as noted by Pérez, Torner and Varis, this should also offer means for critical assessment and selection, and one that regards the technological context [Pérez Tornero, Varis 2010: 55]. Also, as already pointed out, these two modes of critical approach should definitely employ morally relevant reflection that regards also axiological and ethical aspects.

As noted also by Olcott et al, education in safe and morally responsible use of digital technology should be based on values [Olcott et al. 2015: 67] that define a mature democracy. In this view we may note that especially in the context of axiological teaching and learning that involves media, education that concentrates on values is an important component of media education [Kačinová 2015: 69-71]. We praise for example informing about primary semiotic links, personal and social values, ethical and aesthetical consequences and possibilities for creative work that come with experience that is presented electronically, or digitally, as noted also by Nelson [Nelson 2015: 374]. However, media education should not concentrate solely on this, in

repressive and more egalitarian democracy [Kellner, Shale 2007].

13 Solely technical approach to assure digital media literacy is not sufficient. We need to note in this context that there is a risk of inappropriate approach or strategies in media education, resulting in degradation of digital media literacy. As A. Gutiérrez, K. Tyner and also J. Goméz Galán point out, these risky strategies occur when teaching digital competence is taken solely as promoting a narrow skillset that only covers handling of technical dimension of digital information and communication technology. They concentrate on technical expertise, so this approach sees the operational training as the goal. In real life, such training makes the situation in digital media literacy even worse [Gutiérrez Tyner 2012: 6, 7; Goméz Galán 2015: 2]. See also an article on media education and media competencies by A. Fedorov and A. Levitskaya. [Fedorov, Levitskaya 2020].

addition to this, it is necessary to invoke also reflexive and interpretative teaching, learning and evaluating in the field of digital media. Here, V. Kačinová notes it is not only building a decent sense of values that is important, but also, and especially, shaping one's own opinion that is based on critical thinking. This, according to V. Kačinová, means critical assessment, taking account of certain standards and criteria on which media education must concentrate [Kačinová 2015: 69-71]. A. Kiryak et al suppose that a truly competent person is capable of well-developed argumentation assessment and therefore media education should concentrate particularly on improving personal readiness for argumentation assessment to open space for critical attitude14 [Kiryak et al. 2015: 148].

Having spoken of axiological and ethical dimension of media education, it is now possible and in fact necessary to emphasize sociocultural importance, role, or benefit that this education brings to people and without which it would basically be useless. We agree with C. Nanni that media education should influence and encourage students to become free self-confident individuals who are able to think critically, be reflective and creative, but also solidary and responsible members of society in their pursuit of adequate usage of digital information and communication media and technology [Nanni 2014: 88]. As stated also by P. Aroldi, the main challenge for media education is to contribute to creation of "homo civicus," a citizen of Mediapolis, capable of plunging in to the "serious game" of freedom and responsibility in social activities. This author explains that media education and any education agency, whether it is family or school, must promote forming a responsible person in the context of the new digital age [Aroldi 2007: 27], which is the essential condition - conditio sine qua non – for our social existence.

CONCLUSION

In the context of global implementation of digital information and communication technology, education that pursues personal development as well as global-scale social development is transformed to cooperative and participative education. It is visible that this technology offers features that increase efficiency of teaching and learning, but its implantation might not automatically mean success. In fact, we are confronted with various risks and problems that influence both effectiveness and goals of education. Many of these risks are linked to value and moral context. This constitutes a need for certain axiological and ethical requirements applicable to every human action and product that is meant to bring a positive effect in education. It is obvious here that mere pragmatic approach to the technical aspect, or practical and functional dimension of digital technology is simply not adequate for assessing its quality and contribution to the process of education.

14 Kiryak emphasises axiological approach in media literacy. She understands media criticism as an axiological phenomenon [Kiryak et al. 2015: 148]. A specific axiological perspective in relation to digital technology is noticed also by Nelson [Nelson 2015: 387]. Kačinová et al. [2014] too speak about importance of media education that keeps in mind axiology.

The current sociocultural requirements are inevitably applicable for the content and form of any input in the newly transforming education that respects personal and social development. This input should represent a valuable result of human actions; it needs to be in harmony with the required ethical, or moral aspect of human creativity. It is therefore important in the primary perspective to consider ethical aspects when designing the content and form. We believe that these aspects must be sensitive not only to social and cultural context in digital education and values it presents, but also to ethical context. These aspects are taken into consideration when assessing quality and usefulness of digital information and communication technology – we want to determine the value and moral quality, or acceptability, as this technology also communicates values in its own technology-dominated dimension. Finally, we must not forget the sociocultural requirement of axiologically and ethically relevant implementation of digital information and communication technology into education and training system. This means that the decision-making subjects must, after relevant ethical investigation, make decisions and take measures that do not violate ethical standards and norms

Further, we think it is possible to identify a general sociocultural need for training in technical handling of digital technology, but also in personal development, as this influences its appropriacy, safety and moral relevancy, as well as performance in the process of education. This means that techno(communication) education also needs to be based on value and moral dimension, which basically means it needs to follow especially moral values. Here we can mention for example human and pedagogic aspect of media education, which means that this education's objective is "good use of media" [Nanni 2014: 88]. We can say here it is the critical, value and moral aspect-aware and responsible acceptance and use of digital information and communication media, as the objective of media education with axiological dimension, that is fundamental for the much-needed media, or digital media literacy and competence that seems to be a determinant (sine qua non) of our human, personal and also social development.

In conclusion, we agree with a more general view, or idea, that the pillars of new information-based societies, where real human development is the key, are represented by education, ethics and participation; these should interreact as a system process [Pimienta 2009]. In the light of this, we believe that it is our present challenge and duty to nourish, support and secure this interaction. This is a challenge for us all, we all are responsible for this development, into which digital information and communication bring a unique opportunity.

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