

Educational Values within the Scope of the Technological Revolution

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Abstract. *In order to tackle the various challenges of nowadays society, it is necessary that education be oriented not towards the nondiscriminatory and abusive disposal of pedagogical ideas of Modernity, but towards their transformation and adjustment to the particularities and features that postmodern society calls for. Set within the scope of technological changes, society and the educational system try to face the pressures within and outside the system and to face the need to change. Democratic societies, based on respect and mutual support, humanism and social justice, require the development of educational policies that could lead to the building of a universal values' culture including: the truth, justice, love. There is a constant search in educational practice to find solutions for the attribution and respect of values, of the rights belonging to all those who are being educated and to equal chances granted to each of them. This way, educating children becomes more than a mere syntagm of Postmodernism, but rather a firm and clear requirement of our times, determined by the stringent needs of the present.*

Keywords: education, values, technology, Information Society, Technological Revolution.

Education in the Information Society

In the current social context, when universal knowledge is under the print of digital transformations, there is the need to adjust and transform all educational resources according to the corresponding technological epoch. The human interaction with the surrounding reality is made through the technological means and products.

The contemporary society, based on knowledge, is characterized by the generation of large quantities of raw data, information and knowledge that result from the processing of these data, their mass dissemination using the information technologies. In order to emphasize the dimension of this phenomenon, the phrase “information explosion” was introduced, which, in a figurative sense, refers to the rapid growth, high increase in the quantity, dynamics and flow of information and data, as well as the effects of this abundance. Under the circumstances of analyzing information explosion, it can be observed that as the quantity of data and information increases, their management becomes more and more problematic, generating difficulties in the data's selection, update, processing or valorification etc., in ensuring conceptual coherence, in avoidance of information overload. Thus, the correct reference to the universal values such as: truth, humanism, love, justice, honesty, morality, altruism, freedom is severely affected, sometimes the distortions being major.

Some authors such as Dimzov & Stričević point out the historic dilemma that we face as a result of the exponential increase in inventions, opportunities to gain knowledge on the one hand and the traditional basis of

literacy, reading-writing-numeracy, extremely inadequate to the purpose of making use of the scientific advances, on the other hand: How can the human mind seek, find, organize, understand, evaluate, and then apply this information, make use of technological resources in order to help solve personal, social, business issues, and those belonging to local or national communities?¹A possible answer may be the solution offered by Pawel Gondek²in the paper *The place of philosophy in the contemporary paradigm for the practice of science*, in which he suggests the learning of philosophy as „intellectual” or wisdom-oriented, allowing for human knowledge to be most thoroughly accomplished. The use of more information and communication technologies „only offers a more rapid and cheaper way of disseminating information”³

The reformist dynamism also put its print on the educational system. We rightfully witness the reform of educational systems as innovative, coherent and flexible sets. Consequently, a stressed mobilization is deemed necessary for the design of new educational models in close relation to the intellectual and skill potential of students, to the time resource, socio-cultural motilities and the scientific-technological grounds.

Technology and IT (information technology) such as: the Internet, online communication, the use of smart phones have generated multiple possibilities of gaining knowledge and interactions, of accessing and distributing information, free expression of opinions and feelings. In an information society such as the current one, adjustment and readjustment processes are mandatory, hence, the need for lifelong learning and self education.

Paradigm changes that occurred at the level of societies, challenges and imperatives in the contemporary world-be them political, economic, ecological, demographic, sanitary etc., as well as the socio-pedagogical needs that are getting more and more visible, all require from educational systems to project, enunciate and implement new types of contents, didactic strategies and flexible psycho pedagogic attitudes.

In the educational field, the progress of digital technologies influenced the accessibility of learning through digital libraries, allowing learning and development from specialists/teachers who are located thousands of kilometers away, an essential decrease in costs related to self education and ongoing learning.

¹ S. Dimzov, I. Stričević, "Professors' Influence on Students' Choice of the Format of Research Materials: Are There Differences between the Academic Disciplines?", in *The Second European Conference on Information Literacy (ECIL)*, 2014, p. 82.

² P. Gondek, "The place of philosophy in the contemporary paradigm for the practice of science", in *Studia Gilsoniana*, 3 (2014), p. 85–96.

³ F. R. Zamudio, "Audiovisual Technologies in Education", *Digital Universitaria Magazine*, V (2004), no. 10, p. 3.

The easy adaptation to the information society of the future calls for the development of digital skills among all teachers, which may be obtained through initial and continuous education, through the building of scientific skills that are necessary to the efficient selection and use of information⁴. The paradigmatic changes in society, the challenges and imperatives of the contemporary world - political, economic, ecological, demographic, health, etc., as well as the socio-pedagogical needs, are increasingly demanding from the education systems the design, articulation and implementing new types of content, teaching strategies and flexible, creative and innovative psycho-pedagogical attitudes.⁵ It is necessary to conceive and design creative learning situations, to develop didactic strategies that, although subordinated to the needs of the future, should not lead to depriving students of indispensable knowledge and skills of socio-professional integration or the occurrence of disadaptive behaviors, of some flagrantly disagreeable attitudes to personal interests or demands imposed by the current society. In the field of education, the advancement of digital technologies has made its mark on learning accessibility by generating virtual libraries, learning / training under the guidance of a professor / specialist thousands of miles away, essential reduction in the cost of self-training and continuous training. Easy adaptation to the computerized society of the future involves the development of digital competences at the level of all teachers, which can be ensured through initial and continuous training, the formation of scientific competencies necessary for the selection and efficient use of information.⁶ The required skills for the successful use of technological resources imply the identification, collection, evaluation, coordination, adjustment and information processing, in order to use it critically and systematically, according to their relevance, with the purpose to carry out specific tasks, accomplish efficient interpersonal communication, increase individual or institutional productivity, generate contents, and develop opportunities for knowledge and action.

Learning and the use of technology

The use of technological resources that promote inter-activism and interaction in the school environment are favored by trainers in relation to

⁴ A. D. Manea, C. Stan, "Online communication," in Chiş V. & Albulescu, I. (eds). *The European Proceedings of Social & Behavioural Sciences*. VIII (2016) no. 40, p. 317-323.

⁵ A. D. Manea, N. C. Stan, „Reușita școlară – repere conceptuale și praxiologice", in *Impactul europeanizării asupra didacticii și cercetării în învățământul superior*, Cahul, 2014, pp.70- 73

⁶ A. D. Manea, C. Stan, "Study regarding the use of information and communications technology," in *The European Proceedings of Social & Behavioural Sciences*, XXXIII (2017), p. 271-277.

motivation, habits, social influence and their compatibility against the need for performance, low effort, and respectively the facilitation of learning.⁷ We indicate in Table 1 a selection of technological resources that are often used and the effects they generate in the contemporary educational environment.

Table 1. Technological resources used in the educational environment

<i>Technical/ Technological element</i>	<i>Definition and action features</i>	<i>Educational effects</i>	<i>Advantages</i>	<i>Disadvantages</i>
The Internet	Information channel with wide use in formal, nonformal and informal learning	Rapidity and information amplitude	Unlimited and easy access to information	Unselected, unstructured data
Personal computer	Efficient educational means, easy to use in the teaching-learning-evaluation process	Data transmission, processing and storage	Technological instrument used in learning, personal and professional development	Direct, immediate interaction with people, events, things
The Blog	Educational platform, structured information network	Debates and interaction; Working on group educational projects	Source of accessing and transmission of data, problem-solving source	Strong group influences, manipulative risk
Educational Software	Technological educational product	Supports learning, generate pleasure and joy of learning	Facilitates learning through detailed elements, logical flow, sequentiality	May inhibit volition and creativity
Projector	Audio-videotechnolo	Display of processed data	Facilitates the acceptance,	High volume of data

⁷ A. Karimzadeh, J. Richter, D. Basten, B. Michalik, „Acceptance and Use of Interactive Whiteboards”, in *Schools: The Teachers' Point of View I CIS*, Proceedings. 3(2017). <http://aisel.aisnet.org/icis2017/IS-Curriculum/Presentations/3>, accessed 12. 07. 2018.

	gical means	and images, focusing on a given topic/theme or various topics	comprehension of things, phenomena, events by involving multiple analyzers	presented over short time span, with increased manipulative effect
Interactive whiteboard	Interactive teaching means	Direct participation to the process of producing learning content	High level of active-participative involvement	Addiction to technological resources
Digital textbook	Learning means-computerized medium	Ease of learning in the online and offline environment	High accessibility (density of data stored in reduced environments, minimizing damage)	Ineffective for note-taking while learning
Robot	Complex technological product focused on carrying out tasks	Interaction with machines and artificial intelligence	Minimum effort in problem-solving processes	Effort limitation and emotional engagement

Techno and technological elements are capable of supporting the achievement of transversal objectives, which are vital in the process of developing the young man's personality and in his/her empowerment (intellectual curiosity, joy and pleasure to learn, the feeling of having power and sharing knowledge and skills, the identification of appropriate information sources, the use of information according to a certain task and the suitable structuring of this information). Technological resources allow for a customization of curriculum contents and more increased learning environments. Published literature provides theories regarding the assessment of highly innovative projects, projects that were evaluated by managers from the point of view of subjective options and as an answer to institutional particularities and the impact of innovation on the respective institution⁸. At the same time, it is necessary to focus on minimizing

⁸ V. C. Brasila, M. S. Salernoa, L.Vasconcelos Gomes, "Valuation of innovation projects with high uncertainty: Reasons behind the search for real options", in *Journal of Engineering and Technology Management* . (2018), www.elsevier.com/locate/jengtecman, accessed 12. 07. 2018.

organizational stress under the circumstances of generating innovation through efficient management, correlated to the level of corporate culture⁹. It can be stated that the technological upgrades of the last decades are responsible for the generation of quantitative and qualitative leaps in the educational environment, in particular, and in all human activity domains and industries, in general. The tech epoch has caused remarkable changes in all existential spheres.¹⁰

Referring to educational values, one may observe that the current initiatives to improve the educational system take into consideration not only the increase in school performance but also the students' education by means of establishing collaboration relations, raising self-esteem, and practicing common sense. In the social, human, historical and geographic context, efforts are being made to find solutions for a conscious education with universally valid values (truth, love, freedom, happiness, democracy, peace, justice, loyalty, responsibility) the more moral, ethical, socio-cultural, professional values of the individual support the personal and professional qualitative training of the individual and the scientific development.¹¹ The improvement of the teaching-learning-evaluation environment is supported by an active and integrating involvement of what is thought of as formidable with the private life experience, exploitation of the new ICT. In this context, one should not overlook the relations between the cognitive styles and the favored learning processes, nor the mediation role of motivational orientations.¹² The awareness and acceptance of the role that schools have in the shaping and development of personality, in professional and multicultural development, in career orientation and counseling, allows us to consider the school as a starting point towards reaching personal goals. Through specific educational activities aimed at personal development, civic and moral education, cultural and aesthetic education, students may be helped to accept this change, by becoming aware not so much of what they represent, but rather aware of what they may become. Lifelong learning projects, continuous education programs together with a responsible attitude towards self-learning represent the dimension of making educational activity permanent. Multimedia apps and innovations, simulation, communication and digital learning provide opportunities for insights, reflections and

⁹ E. H. Toytok, "School Leaders' Innovation Managements and Organizational Stress: A Relational Model Study", in *Universal Journal of Educational Research* XII (2016), no. 4, p. 173-179

¹⁰ Adriana Denisa Manea, Cristian Baciu, "Interrelations Caused by the Technical-scientific Revolution", in *Astra Salvensis*, V (2017), no. 9, p. 103.

¹¹ Adriana Denisa Manea, "Features of Educational Activities in the Contemporary Society", in *Astra Salvensis*, VI (2018), no. 12, p. 245-253.

¹² N. L. Popa, A. M. Țepordei, A. V. Labăr, F. V. Frumos, „Cognitive Styles, Motivational Orientations and Learning Processes in University Students", in *Astra Salvensis*, VI (2018), no. 12, p. 261.

cognitive contexts, calling for active and interactive education, and promoting self-learning strategies and self-developing practices. This way, we expect to witness the development of learning and self-learning behaviors, discovery, innovation and research, questioning in a multitude of active-participative and creativity attitudes.

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Salvensis*, VII (2019), no. 14, p. 31-37