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Educational Traditions VS Modern Educational Technologies: Methodological Support Integration

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Abstract — The article presents an analysis of specific features of modern long-distance learning based on Internet technologies. Modern technology application in the field of education changes our everyday life. It is becoming an integral part of it ensuring the creation of a barrier-free information and educational space. These circumstances allow the person receiving an education to undertake the role of a 'manager' in the issues related to choosing and shaping his or her educational path. Modern Internet resources provide great opportunities for both teachers and students expressed in such things as quick change of methodological support preventing the educational process from becoming routine. To say more, with the help of modern Internet resources one may create a virtual classroom, a training course tree, organize step-by-step learning, upload texts, tables, diagrams, video and audio materials, as well as hyperlinks to primary information sources, conduct web lectures, web discussions, respond to comments and questions that arise during the online learning process, have one-on-one sessions, create test tasks, monitor learning through e-journals, record lessons, conduct online surveys, organize an electronic library by course and topics. In this regard, it is necessary to design educational online resources and their content in accordance with the methodological principles and techniques that ensure continuity with educational traditions.

Keywords — e-learning; distance education; educational space; Internet technologies; method.

I. INTRODUCTION

Rapid changes in the life of society such as digitalization of economy, automation and informatization of production, internetification and virtualization of social and cultural fields rightfully shape an idea of what is going on around us as moving and unique phenomena of social reality. Social reality is transforming and acquiring new outlines of mediation and

virtuality for a person due to actively introduced Internet technologies. Their distribution transforms the relationships, people's activities, as well as it forms a new content and interaction types. With this in mind, the loss of relevance of past traditions and implementation of innovative technologies are very obvious. Similar changes are occurring in the education system. Traditional forms of relations (teacherstudent) and educational process (class) which form the trinity of the transmission of knowledge and experience as the educational system basis are subject to restructuring and give way to relationships of host-participant type, as well as webinar and on-line classes. The social distance is replaced by technological and spatial one, and traditional beliefs about mentoring nature of education are replaced by the prefigurative context of knowledge and experience transmission. In this regard several questions arise: Is everything that obvious? What can be transformed into the educational activities as a result of the Internet technologies involvement and application?

II. RESULTS AND DISCUSSION

Referring to the history of organization implementation of a distance learning in the field of education one can find that this type of education is far from being new. So the officially regulated distance learning with further certification had been quite successful even before the introduction of the Internet technologies in the educational process [1; 2; 3]. Postal services used to be the main link between the organizer of educational activities and the consumer. After the Internet introduction into the daily life of Russians, there was an alternative to the old ways of delivering educational materials and collecting feedback from students.



At the moment the following models of distance learning are distinguished [4].

- 1. The traditional (part-time) model is focused on an individual work of students and their limited interaction with teachers, involving the delivering of lectures followed by individual work on the issued sets of methodological support.
- 2. The model which implies the fragmented use of information and communication technologies. In this case, the student works independently with a set of educational and methodological materials partially presented in an electronic format (data CD, file documents, educational websites). The interaction between a teacher and a student is carried out through various types of communication.
- 3. The electronic model based on sending teaching and methodological materials via e-mail. This model implies independent studies. It is necessary to keep in mind that this model lacks personification (interaction between stakeholders).
- 4. The combined model includes several types of interaction between a teacher and a student, various ways of presenting educational material, as well as knowledge assessment.

The modernization effect of modern Internet technologies in the process of education can be found in three aspects. First, at present, the Internet technologies are the elements of modern life. They have become part of everyday life and are integrated into social and cultural environment. The Internet technologies are regarded as active tools of social and cultural processes. The Internet technologies model our society, social and cultural environment, consciousness, as well as they make our life more dynamic. Therefore, this aspect determines the content of the problem [5; 6]. Secondly, the Internet technologies are the elements of modern educational field. Moreover they are tools for social educational institution functioning, and also means of education for individuals. In this context, it is advisable to consider the Internet technologies as a means of establishing communication between participants of the educational activities aimed at expanding and raising the educational level of an individual [7; 8]. Thirdly, the modern use of the Internet technologies makes it possible to call them the information sources where information can be collected with the aim of self-education and implementation of the principle of long-life-education. Modern Internet technologies have a great diversity of knowledge and information making it possible to expand the educational horizons of initiative individuals [9; 10]. The consideration of the presented topics in the trinity of the aspects will allow to determine methodological principles and guidelines for distance learning development.

The specific nature of modern digital era is the formation of unified information space that erases cultural, political, economic boundaries and mental barriers with the help of the Internet technologies. On the other hand, the modern model of education forms the individual educational space as a space of initiative and responsibility with the help of Internet resources. The effectiveness of the use of information technologies in the individual educational space is determined by the ability of a

subject to independent cognitive and educational activities, his/her adaptability to various cultural models that implement the variability of education. With this approach, a person acts as an architect and manager of his/her educational path and educational level [11] since the educational activity and the use of Internet resources is subordinated to the planned results and value systems formed by social and cultural environment [12]. In the conditions of polyparadigm and multiculturalism the educational space should be built in accordance with the principle of ensuring the interests of an individual in education. Therefore, the use of Internet resources should occur, on the one hand, from the standpoint of standardization of development of educational activities, and on the other hand, taking into account the individual needs of a student.

The analysis of the use of the Internet technologies in an open educational space shows the presence of the following key components:

- an open content of preparing a student for social, professional and personal self-fulfillment as an effective target basis of the educational space [13];
- the content of educational environment as a reflection of the system of performance of departments and other structural units providing professional, social and personal self-fulfillment of students (designing the content of training courses as a project of student's individual educational path based on his/her personal needs and chosen educational field) [14];
- the content of research and educational activities of a student and a teacher, who in the conditions of the open educational space attract various resources for their development (an algorithm for student's actions as a project of his/her individual educational program and teacher's activities supporting this program).

Apart from the specific features of educational space functioning with the use of Internet resources, one can determine the basic methodological principles for educational activities with the help of Internet resources:

- open education for stakeholders;
- availability of information;
- mutual respect and equality principle;
- freedom to choose individual educational path;
- dialogue as interaction;
- maintaining of interest;
- focus on stated result;
- reinforcement of success in achieving the goal.

The inevitable consequence of the use of the Internet technologies in education is the lack of direct personal communication (in particular, communication between a teacher and a student). An inexperienced student (IT user), a newcomer who is deprived of direct pedagogical support may get confused and fall behind in mastering the possibilities of the information space and the educational material. It can be manifested in a long and unproductive presence in the



educational space and in an attempt to implement educational activities, insufficient understanding of ambiguity of wording of educational material and, as a consequence, the impossibility of transforming a large body of information into meaningful knowledge. Therefore, in order to improve the efficiency of using Internet resources in education, it is important to provide the learner with direct advice on the content of the subject of educational activity, on the method of its development and on the technology of using the software product.

The modern level of development of information technology provides a great diversity of Internet resources for distance learning. These are software platforms that have gained popularity within educational institutions, among them are as follows: Moodle, Mirapolis LMS, Adobe Captivate, Mirapolis Virtual Room, HyperMethod iWebinar, Radmin and others [15; 16; 17; 18]. These distance learning tools differ in the details of material presentation, organization of the interface window and an interaction with audience. However, the main thing that unites them all is that along with the simplicity and ease of the use they provide a wide range of forms, means and methods of learning. The use of the mentioned above Internet resources makes it possible to create a virtual classroom, a tree of training course, upload texts, tables, diagrams, video and audio materials, as well as hyperlinks to primary information sources, conduct web lectures, web discussions, respond to comments and questions that arise during the online learning process, have one-on-one sessions, create test tasks, monitor learning through e-journals, record lessons, conduct online surveys, organize an electronic library by course and topics. In addition, the online learning resources allow to present the distance learning participants through their personal pages, as well as make portfolio of one's strength and accomplishments.

III. CONCLUSION

The specifics nature of Internet technologies regarding educational activities obliges the developers of e-courses who integrate modern forms of education into the traditional ones to adhere to methodological recommendations in order to increase the efficiency of learning process.

It is necessary to ensure the standardization of training courses, which, in fact, are the reflection of standards of educational and methodological complexes. Training courses in general and individual topics within one course should form a single whole created according to the same rules, obeying the same logic of presentation and staffing. The compliance with this recommendation ensures the simplicity and clarity of the interface of training course, as well as the elimination of psychological barriers on the part of students.

Structuring of training courses in the form of modules is of great importance. Modules can be differentiated by goals and types of educational activities, for example, a teaching and learning module that incorporates a compulsory minimum of knowledge prepared by a teacher that represents the core of the training course. It should be based on the program and notes of lectures, seminars, discussions, glossary, as well as tasks for independent studies. The academic performance

module offers various types of knowledge assessment tasks (tests, essays, etc). Knowledge assessment tasks can be differentiated and adapted to different levels of preparedness and knowledge of students. The module with additional information can be filled with electronic materials and links of various kinds that would exceed the minimum required level of mastering the topic and provide information support to interested students. The research module provides methodological support for students' research activities in the framework of the course and topic.

The alternation of various forms of presenting material avoiding monotony which ensures the maintenance of attention and interest in the educational process is welcomed. The implementation of this recommendation is possible through the updating of various means of information transfer: text, image, diagram, table, sound, speech, etc.

It is also necessary to gather student feedback in the process of online classes, as well as during other extracurricular activities. The dialogue between the teacher and the students occurs through the response to questions in the process of web lectures, web discussions, seminars, and web one-on-one sessions.

Before proposing the use of the Internet resources or distance learning software in the process of education, the teacher needs to be well mastered and aware of these teaching aids, make sure which websites contain scientific and reliable information, what methodological techniques are advisable to be used. Besides, it is necessary to determine the principles of material structuring. The teacher should strive to update relevant educational information in a timely manner and improve his or her knowledge on the information technologies [19].

However, in order for the innovations to be rewarding it is necessary to foresee all the pitfalls. First, an open access to the education (through distance technologies) leads to its massification, which is unacceptable in higher professional education. Universality leads to mass education [11], which results in a decrease in quality and social mission of education. The next possible negative point can manifest itself in the fact that the remote technologies may become a tool that can be owned at a user level and at a level of virtuoso. It goes without saying that skillfully used tool in the hands of virtuoso will create a masterpiece; the teacher will act as a professional creator. The inverse rule is also true.

Thus, the skillful use of modern Internet technologies in the process of education opens up new opportunities for communication and effective interaction that stimulate independent and motivated learning of individuals. Moreover, modern Internet technologies open up new horizons in an open educational space.

References

[1] E. Hertenstein, "Distance learning in labor education," Labor Studies Journal, 1999, vol. 23, issue 4, pp. 3-16.



- [2] G.E. Miller, "Distance education and the emerging learning environment," Journal of Academic Librarianship, 1997, vol. 23, № 4, pp. 319-321.
- [3] Z. Kotevski, A. Milenkoski, "Are Free Internet Technologies and Services the Future of Synchronous Distance Learning?" Turkish Online Journal of Distance Education, 2018, vol. 19, № 3, article 1, pp. 4-14.
- [4] I.V. Snegurova, "Models of distance learning in secondary education," Vestnik RUDN, Series Informatization of education, 2009, №. 2, pp. 106-120.
- [5] N. Dewald, A. Scholz-Crane, A. Booth, C. Levine, "Information Literacy at a Distance: Instructional Design Issues," Journal of Academic Librarianship, 2000, vol. 26, №. 1, pp. 33-54.
- [6] V. Potkonjak, M. Gardner, V. Callaghan, P. Mattila, C. Guetl, V. Petrović, K. Jovanović, "Virtual laboratories for education in science, technology, and engineering: A review," Computers & Education, 2016, vol. 95, pp. 309-327.
- [7] S. Joksimovića, D. Gaševićab, Th. M. Loughinc, V. Kovanovićb, M. Hatalad, "Learning at distance: Effects of interaction traces on academic achievement," Computers & Education, 2015, vol. 87, pp. 204-217.
- [8] Th. W. Peterman, "Elements of Success at a Traditional/Virtual University: Lessons Learned from Three Years of Growth in Cyberspace," Journal of Academic Librarianship, 2000, vol. 26, № 1, pp. 27-32.
- [9] A. Hwang, "Online and Hybrid Learning", Journal of Management Education, 2018, vol. 42, issue 4, pp. 557-563.
- [10] L. Peslak, W. Kovalchick, Wang, "Attitudes toward Course Delivery: A Multi-University Study of Online, On-Ground, and Hybrid Instruction," Information Systems Education Journal, 2018, vol. 16, №. 4, pp. 27-33.

- [11] L.B. Rylova, "The methodological foundations of the innovative model of modern professional education as an open Educational space", Vestnik of the Udmurt University, 2005, № 9, pp. 167-181.
- [12] A.A. Beschasnaya, A.A. Beschasny, "The choice of profession and the quality of education as factors of successful professional career of graduates", The theory and practice of social development, 2017, № 1, pp. 16-21.
- [13] E.V. Troynikova, "Open educational space of the University in the context of international convergence," Kazan pedagogical journal, 2012, № 4, pp. 66-73.
- [14] B. Griffiths, "A Faculty's Approach to Distance Learning Standardization," Teaching and Learning in Nursing, 2016, vol. 11, issue 4, pp. 157-162.
- [15] B. Thoms, E. Eryilmaz, "How media choice affects learner interactions in distance learning classes," Computers & Education, 2014, vol. 75, pp. 112-126.
- [16] E. McNally, "Webinars: Learning at Your Fingertips," Delta Kappa Gamma Bulletin, 2017, vol. 84, issue 2, pp. 50-52.
- [17] E.V. Avdoshenko, A.A. Kuldin, "The project "Open education": phases of implementation in an educational organization", Perspectives of Science & Education, 2018, vol. 33, issue 3, pp. 43-48.
- [18] M.J. Marcelino, T. Pessoa, C. Vieira, T. Salvador, A.J. Mendes, "Learning Computational Thinking and scratch at distance," Computers in Human Behavior, 2018, vol. 80, pp. 470-475.
- [19] L.V. Smetankina, "The role of the teacher in increasing the motivation of students to learn," Development of military pedagogy in the XXI century, Military Academy of communications, 2016, pp. 112-117.