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Informatization of education in the era of globalization of educational space

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The beginning of the 21st century was marked by the information revolution, which is a cultural – oriented process, in the search of context of the problem of human integrity and unity, of their environment system interactions and finding consensus in resolving survival issues. In the new conditions of increasing human's own limits, its expansion into global culture is a global necessity of pedagogical support for mastering information tools that means dialogue with the world and themselves.

The development of society and humans is associated with changes in types of culture and education. Education as a socio-cultural phenomenon, and as a factor in personality development, opens up and enriches its culture, ensuring the continuity of generations and individual human development. Educator and philosopher S. Hessen wrote about the problems of any education – attachment of human to the cultural values of science, art, morals, law, economy, transformation of “natural” human to a cultural one². Humanity today is aware of the circumstance that its future depends on if a person would be able “to be different in their interests, needs, values.” To address these challenges education, the orientations and priorities of which have changed, is of fundamental importance.

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²S. I. Gessen, *Osnovy pedagogiki. Vvedenie v prikladnyu filosofiyu* / S. I. Gessen. – Moskva: Shkola-Press, 1995. 448, s. 36.

Education – a complicated, multifaceted concept that reflects various aspects of nonlinear interactions of personality that is formed by the society in the space of culture (relationship, the impact of a single component of the “society – culture – education – personality” system). “Values of education – are ideals, facing ethical guidelines in education and training: truth, goodness, personality, usefulness, freedom, love, creativity. Values that are dictated by feelings and consciousness are accepted”, – as Ye. Bondarevska and S. Kulnevych underline³.

The concept of informatization of education in Ukraine is reflected in the various government programs – “Informatsiini ra komunikatsiini tekhnolohii v osviti i nautsi” na 2006–2010 roky” Government program; State program of work with talented young people for 2007– 2010, approved by the “Cabinet of Ministers of Ukraine, dated August 8, 2007 r. № 1016”; State scientific and technical program “Obraznyi kompiuter” (approved by the Cabinet of Ministers of Ukraine, of 08.11.2000 № 1652 and approved by the Cabinet of Ministers of Ukraine, dated 27 January 2010. № 58); State scientific and technical program “Vprovadzhenia i zastosuvannia hrid-tekhnolohii na 2009–2013 roky”, “Pro Osnovni zasady rozvytku informatsiinoho suspilstva v Ukraini na 2007–2015 roky”, “Kontseptualni zasady rozvytku pedahohichnoi osvity Ukrainy ta yii intehratsii v Yevropeiskyi osvitnii prostir”; Concept of development Education of Ukraine for the period 2015– 2025 years and other regulations documents [7–14] designed to overcome backlog of Ukraine from Western developed countries in the development of the Information Society, which present a system of interconnected goals, trends, methods and means of education informatization in Ukraine (for the last ten years several concepts of informatization of education have changed, but they are not made to introduce holistic education structural changes but were mostly fragmentary). The analysis of the different concepts of informatization of education made it possible to highlight its basic areas:

The first direction is determined by the tendency to expand the sphere of using information and communication technologies, the application of which becomes the norm in all spheres of human activity, which leads to the emergence of academic disciplines that provide preparation of the students in computer science and information technology – the formation of their integral information culture.

The second direction is connected with philosophical rethinking of the role of media in the development of nature and society, increasing the understanding of the general value system – information and evolutionary synergistic approach as fundamental methods of scientific knowledge. Information is transformed from purely technical discipline methods and means of processing information using

³ Bondarevska Ye. V. Pedagogika: lichnost v gumanisticheskikh teoriyakh i sistemakh vospitaniya: uchebnoe posobie / Ye. V. Bondarevska, S. V. Kulnevich; pod. obshchey redaktsiyei Ye. V. Bondarevskoy – Moskva Rostov-na-Donu: Uchitel, 1999. — 560 s.

a computer on the fundamental science of information and information processes not only in technical systems, but also in nature and society, providing humanitarian attitudes to science, defining it as metasubject in the content of education.

The third direction is driven by integration of information technology in education as a new instrument of information and pedagogical activities that provide the possibility of implementing an interdisciplinary approach to education, the convergence of science and of human knowledge, fundamentalisation of education and restoring its integrity.

The fourth direction is associated with a profound impact on the purpose and content of education of processes of information society that lead to increasingly changing the method of human life – the need to develop a qualitatively new model of training members of information society, for whom the ability of human communication, active mastery of the scientific world, fast and flexible change of their functions at work, tolerance, responsible civilian position and developed planetary consciousness will become dominants of life.

To address these challenges, a society needs the teacher who has integrated information culture – integration quality, which provides their activities in the information environment, general cultural and educational objectives aimed at training, development and education of new members of information society. According to V. Andrushchenko, domestic educational reality actualizes the problem of creative-evolutionary dynamics of the teaching profession, which makes continuous pedagogical education on information, personally ensures the functioning of objectively and subjectively effective pedagogical tools for professional training of future teachers⁴.

This problem is quite complicated and ambiguous: its conceptual basis is located at the intersection of research fields of philosophy, psychology, pedagogy, informatics, sociology and other sciences. In this respect, determinant for our study is the work of an information culture, that is characterized by deepening *philosophical and ideological* (V. Andrushchenko, B. Hershunskii, M. Kastels, V. Lutai, A. Sukhanov, Ye. Semeniuk, O. Petrov, A. Ursul, Yu. Shreider and others) [2], *culturological* (A. Arnoldov, M. Vokhrysheva, N. Hendina, O. Hrechykhina, L. Kohan, K. Kolyn, V. Slaktionin, I. Sokolova, M. Chvanova and others) [3] and *informational and technological* (V. Bykov, O. Bilous, Yu. Bohachkov, A. Hurzhii, V. Vember, M. Zhaldak, A. Yershov, Yu. Zhuk, A. Kolomiiets, M. Koliada, L. Makarenko, N. Morze, Ye. Mashbyts, Ye. Polat, Yu. Ramskii, I. Robert, O. Spirin, S. Yashanov and others) [5] approaches to the study of this phenomenon. In them, the scientists deal with the problems of improving infor-

⁴ Andrushchenko V. Svitank Yevropy: Problema formuvannya novoho uchytelia dlia obiednanoi Yevropy KhKhI stolittia. – 3-tie vyd. Viktor Andrushchenko. – Kyiv: Znannia Ukrainy, 2015. – 1099 s.

mational training in educational institutions of different levels of accreditation, the problem of optimum use of scientific, pedagogical, educational, methodical, programmatic and technological developments, focused on the implementation of didactic information and communication of the technologies that are used in the process of teaching.

Based on the work of these researchers, we will analyse the characteristics of target features, semantics and procedural components of education in terms of its information.

In determining the purpose and content of education, it is necessary to search for the optimal combination of traditional approaches that have already formed, and the introduction of new information components aimed at the formation of personality of experience of life on the basis of information that leads to inquiry of the individual in the information society.

Informatization of education entails changes in its procedural component. Despite the certain conceptual differences between the issues in the field of information education, researchers [5] are unanimous that the integration of information technology in the educational process will promote individualization, differentiation, intensification of education and as a result, its optimization and improvement.

The potential of information technology as support situation of the personality of a student: its capacity for alternative thinking, formation of skills to develop strategy for solving educational and practical tasks, to predict the results of the implementation of adopted decisions on the basis of modeling objects studied, phenomena, processes and relationships between them.

Application of ICT during the study of not only the disciplines of information cycle, but also humanitarian and socio-economic, professional and practical training targeted at future profession, increases the effectiveness of the learning process in terms of the ability of self-mastery and obtaining knowledge representation, mastering general knowledge of methods and strategies of learning, self-selection mode of training activities, organizational forms and teaching methods. Information and communication technologies in the educational process allow the teacher to redirect assistance mainly at solving them by students' creativity, research and problem tasks.

The possibilities of integration of information technology into education make it possible to speak of a new-quality informational and educational activity that is of didactic of psychological and educational opportunities [3; 5], in particular:

Improving organizational conditions of the educational process:

– Improving the effectiveness of training through the introduction of new visual, interactive mechanisms of the educational process;

- Using varied sources of educational information;
- Sealing educational information by allowing its folding and deployment in time and space (hypertext);
- Optimization of the pace of students: level differentiation, individualization of learning, the choice of individual educational trajectory;
- Effective implementation of interdisciplinary connections;
- Optimization of information and pedagogical activity of the teacher based on informatization of their individual functions.

Improvement of psychological and pedagogical conditions of educational activity:

- Establishment of students' sustainable interest and positive motivation through the natural interest in new knowledge tool – computer;
- Humane treatment of students, ensuring their positive emotional state, lack of fear at if they do not understand something;
- Creating favourable conditions for the formation of the overall culture of thinking, culture of communication, information culture of students;
- Inclusion of development mechanism of students in research, creative qualities;
- Development of skills of reflection, self-realization.

Based on the theoretical study of domestic and foreign researchers that are listed above, we define the trends of education in the information society, and thus – continuity of education; correlation of the education with the current level of science; the accelerated education; an information educational environment; humanization, liberalization, fundamentalisation, orientation of education on the basis of means of information and communication technologies; the evolution of information technology as a universal multifunctional means of knowledge; multiculturalism education; deepening the ideological function of science, its formation, cross-cultural industry of knowledge, etc.

The specifics of the modern world, especially its learning and development requirements for human, such as the awareness of the realities and peculiarities of modern civilization; learning new value orientation; understanding of the value of knowledge in the modern world for oneself; enrichment of one's thinking by adopting modern methods of scientific knowledge; development of world culture in the integrity and unity; creative, innovative activities; special purpose and understanding of human place in the culture; personal self-actualization in culture and life; combining sustainable world, social and ethical convictions of high psychological mobility, flexibility, adaptability, etc. The choice of professional development of teaching methods of a teacher due to motivational metamorphosis, showing the relationship of the value of professional growth and motives that encourage people to take responsibility for their own livelihoods, gaining

success in life and professional calling as a professional and what “I” achieve, i.e. the formation of persistent intent on self-transformation of “I – professional” and its objectification in pedagogical reality.

Conclusion

Thus, the objective requirement of the times – informatization of education – is caused by the necessity of the current level of knowledge about the world and man, the requirements of a modern educated person, the realities of the modern world and culture in the information society. When considering informatization of the education through the prism of modernization of current educational system of Ukraine, we consider it necessary to draw attention to the merger of individual and cultural meanings of professional and educational activities, which is accompanied by original manifestation of the unity of the organization and the personality of the teacher, and developing in space where it acts subject to entry into a professional vocation with a view to interdependent developing the teacher as regards the vocational and pedagogical spheres, as their personality and pedagogical quality of reality.

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Summary

The article discusses the importance of informatization of education in accordance with modern trends of modernization of the educational system in Ukraine, in the era of globalization of global educational space. Pedagogical activity is regarded to be the way to practice social and cultural personality, which implements the tasks of preserving national traditions, adaptation and regulation of professional development of future teachers. Modernization of the educational system in Ukraine, determined by the trends of European integration, which can be regarded to be an essential level of success, in not only an economic and political transformation of society, but also of strategic changes of educational policy of Ukraine.

Informatyzacja edukacji w erze globalizacji przestrzeni edukacyjnej

Streszczenie

W artykule zanalizowano modernizację systemu edukacyjnego na Ukrainie pod kątem procesów eurointegracyjnych, nie tylko jako czynnika ekonomicznych i politycznych transformacji społeczeństwa obywatelskiego, ale też jako czynnika strategicznych, edukacyjnych zmian na Ukrainie, w czasach procesów globalizacyjnych. Opierając się na analizie badań teoretycznych, określono tendencje rozwoju edukacji w społeczeństwie informacyjnym, w tym tendencje rozwoju technologii informacyjnych: ciągłość; jej korelację z obecnym poziomem nauki; tworzenie edukacyjnego środowiska informacyjnego; humanizację, liberalizację, fundamentalizację, orientację technologii informacyjnych na działalność; ewolucję technologii informacyjnych jako uniwersalnych, wielofunkcyjnych zasobów rozwoju procesów poznawczych; pogłębienie funkcji światopoglądowej nauki jako formacji metaprzekładowej.