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ZAPOROZHCHENKO Oleksii *– Candidate of Philosophy Sciences, Associate Professor at the Department of Law and Social Work, Izmail State University of Humanities, 12, Repina str., Izmail, Odesa region, Ukraine, postal code 68600 (alexzap1973@gmail.com)*

ORCID: https://orcid.org/0000-0003-0496-2605

FUNDAMENTAL PRINCIPLES OF EDUCATION
IN THE INFORMATION SOCIETY

Summary. The purpose *of the article is to give a brief description of the information society features, with special attention paid to how the role of the person themselves changes in the global informatization processes. On the one hand, the information society allows to significantly increase the efficiency of work, reveal the individual's potential in free and creative activities, and express themselves in innovation and science. On the other hand, it is the person in these conditions that can be a risk factor. This research is devoted to the study of the information globalization's anthropological problems and the possibilities of their solution with the help of new educational strategies.* ***Methodological principles of the study.*** *Based on the results of fundamental research of foreign theorists of the information society, the author identifies the main problem – the unpreparedness of society itself for the new realities of information globalization. E. Toffler gives the name to this problem – "the shock of the future" which is firmly entrenched in the twenty-first-century scientific literature. The literature analysis allows us to establish that one of the information society's problems is the consumer value system, which was formed in the twentieth century. However, it is in the conditions of the information*

society's rapid formation that the former system of values poses a certain threat to the future of civilization. **Scientific novelty.** *The article also considers the problem of an "information gap", i.e., a new type of social inequality, the cause of which is that a certain part of the population does not have the appropriate level of knowledge and skills to work with information technology and, accordingly, cannot adapt to new conditions of total digitalization and, consequently, is marginalized. In the context of this problem, the phenomenon of the individual's information culture is comprehensively considered as well as the main strategic directions and values of its formation are shown. Particular attention is paid to a new type of ethics – "information ethics." There is substantiated the conclusion about the need for proper attention to the problem of forming a new system of humanistic values which would meet the information globalization challenges through new educational strategies, trends, and paradigms. Such basic tendencies of modern higher education as fundamentalization, humanization, and informatization are considered, and the expediency of a synergetic paradigm of education is substantiated which considers education itself as an open, nonlinear, and self-organizing system.* **Conclusions.** *This paradigm of education is more in line with the information society demands, as it allows to significantly enrich the scientific methodology and stimulate the interdisciplinary research which will significantly improve the quality of both technical and socio-humanitarian education.*

Key words: information society, informatization, information culture, anthropological problems, educational strategies, humanization.

Запорожченко Олексій *– кандидат філософських наук, доцент кафедри права і соціальної роботи, Ізмаїльський державний гуманітарний університет, вул. Репіна, 12, м. Ізмаїл, Одеська обл., Україна, індекс 68600 (alexzap1973@gmail.com)*

ORCID: https://orcid.org/0000-0003-0496-2605

ОСНОВНІ ПРИНЦИПИ ОСВІТИ
В ІНФОРМАЦІЙНОМУ СУСПІЛЬСТВІ

Анотація. Метою статті є короткий опис особливостей інформаційного суспільства, з особливою увагою до того, як змінюється роль самої людини в глобальних процесах інформатизації. З одного боку, інформаційне суспільство дозволяє значно підвищити ефективність праці, розкрити потенціал особистості у вільній та творчій діяльності та проявити себе в інноваціях та науці. З іншого боку, саме людина в цих умовах може бути фактором ризику. Це дослідження присвячене вивченню антропологічних проблем інформаційної глобалізації та можливостям їх вирішення за допомогою нових освітніх стратегій. Методологічні принципи дослідження. На основі результатів фундаментальних досліджень зарубіжних теоретиків інформаційного суспільства автор визначає головну проблему – непідготовленість самого суспільства до нових реалій інформаційної глобалізації. Е. Тоффлер дав назву цій проблемі – «шок від майбутнього», який міцно закріпився в науковій літературі XXI століття. Аналіз літератури дозволяє нам встановити, що однією з проблем інформаційного суспільства є система споживчих цінностей, яка сформувалася у XX столітті. Однак саме в умовах швидкого формування інформаційного суспільства колишня система цінностей становить певну загрозу для майбутнього цивілізації. Наукова новизна. У статті також розглядається проблема «інформаційного розриву», тобто нового типу соціальної нерівності, причиною якої є те, що певна частина населення не має належного рівня знань та навичок для роботи з інформаційними технологіями та, відповідно, не може пристосуватися до нових умов повної цифровізації, отже, маргіналізується. У контексті цієї проблеми всебічно розглядається феномен інформаційної культури особистості, а також демонструються основні стратегічні напрями та цінності її формування. Особлива увага приділяється новому типу етики – «інформаційній етиці». Обґрунтовано зроблений висновок про необхідність належної уваги до проблеми формування нової системи гуманістичних цінностей, яка відповідала б викликам інформаційної глобалізації за допомогою нових освітніх стратегій, тенденцій

та парадигм. Розглянуто такі основні тенденції сучасної вищої освіти, як фундаменталізація, гуманізація та інформатизація, обґрунтовано доцільність синергетичної парадигми освіти, яка розглядає саму освіту як відкриту, нелінійну та самоорганізуючу систему. Висновки. Нова парадигма освіти більше відповідає вимогам інформаційного суспільства, оскільки дозволяє значно збагатити наукову методологію та стимулювати міждисциплінарні дослідження, що значно покращить якість як технічної, так і соціально-гуманітарної освіти.

Ключові слова: інформаційне суспільство, інформатизація, інформаційна культура, антропологічні проблеми, освітні стратегії, гуманізація.

Target setting. The main features of the modern information society are its planetary scale as well as the widespread use of scientific knowledge and science-based innovative and highly efficient technologies, primarily information ones. According to the forecasts of information society theorists F. Machlup, K. Koyami, Y. Masuda, Z. Brzezinski, D. Bell, E. Toffler, D. Lyon, and others, it is globalization, informatization, and new digital technologies that will form a new type of society that will radically change the usual way of life and activities of almost the entire population of our planet (Zaporozhchenko, 2016, p. 82).

Another important feature of information civilization is that it significantly increases the role of the person themselves. However, this role is ambiguous. On the one hand, the person is the main resource and factor in the information society's development, and on the other hand, they are also one of the main risk factors for this development. Therefore, the main attention should be focused not only on the material sphere development, as was typical of industrial society, but also on humanitarian issues related to the development and use of human potential and, above all, the individual's potential. An extremely important role in solving these problems should be played by the system of humanitarian education, the structure and content of which today do not yet meet the new twenty-first-century challenges and do not take into account the information society's specific problems and features.

Analysis of recent research and publications. Thorough socio-philosophical research of anthropological problems of social

development was initiated as far back as the twentieth century in the works of world-famous philosophers and sociologists M. Weber, O. Spengler, G. Simmel, A. Toynbee, J. Ortega y Gasset, K. Jaspers, A. Schweitzer, M. Heidegger, E. Fromm, and others. Later, in the second half of the twentieth century, the study of trends and anthropological problems of post-industrial (information) society was carried out by such information society theorists as D. Bell, Z. Brzezinski, R. Dahrendorf, M. Castells, D. Lyon, M. McLuhan, Y. Masuda, E. Morin, E. Toffler, T. Stounier, A. Touraine, F. Webster, and others.

E. Toffler for the first time most thoroughly raised the question of the information society's possible risks, pointing to its threats to the person as a social being; arguing that, on the one hand, the intellectualization of working conditions and computer technology are the next step towards creating an intelligent environment; on the other hand, there is a danger of deforming human consciousness. According to him, the Third Wave civilization encourages individual development, but it increases social diversity which provokes the phenomenon of social exclusion because individualized self-expression enhances isolation. D. Bell noted the fact that, on the one hand, the computer technology provokes globalization which is spreading on a universal scale and directly affects the interpersonal communication nature; on the other hand, individualization "locks" the person in front of a computer monitor and creates a certain self-isolation from the cultural context.

Domestic researchers also joined the research of humanitarian problems in the context of the 21st century total informatization: O. Artiushenko, S. Danylenko, O. Danylian, O. Dzoban, S. Zhabin, L. Ivanova, A. Iovcheva, A. Karpets, V. Kondrusieva, O. Kriukov, A. Kulia, N. Kushakova-Kostytska, N. Lazarovych, M. Lukashenko, N. Liutko, L. Makarenko, A. Menshenina, L. Mudrak, A. Nazarchuk, M. Onopriienko, Yu. Petrukhno, V. Pozhuiev, V. Politanskyi, V. Poperechniuk, O. Proskurina, K. Raida, I. Rieshetnikova, L. Ryzhko, O. Seleznova, V. Skyrtach, O. Shevchuk, M. Shmyhol, V. Shcherbyna, M. Yarush, K. Yatsenko, and others. In their works, they explored the features of the "knowledge society" and "network society," reflected significant changes in the individual's state in the information society. For us, this is important in the sense

of transformations of the individual's consciousness. And in the works of such domestic researchers as T. Andrushchenko, N. Batechko, V. Baranivskyi, R. Yevsovych, V. Kremen, O. Prudnikova, O. Rudenko, and others, the problem of modern higher education conformity to the information globalization challenges is considered, and new education strategies are offered.

At the same time, the study of this problem allows us to state that despite the available thorough theoretical study of information globalization and its anthropological influences, there still remains relevant the problem of reforming the humanitarian component of education in Ukraine taking into account new socio-cultural processes.

Purpose of the article is to explore the main anthropological problems of informatization and possibility of solving them with the help of new educational strategies.

Statement of basic materials. The person's growing role in the information society is objectively determined. It is explained by the fact that the main labor object in this society will be information and its personal form – knowledge which becomes the most valuable resource for society's further development. Therefore, in the employment structure, the number of people whose activities are related to the production, processing, storage, and dissemination of information and knowledge is constantly growing. And we are talking not only about experts who are professionally engaged in science or IT sphere, but also representatives of other professions – medical workers, engineers, government and municipal officials, academicians, etc. (Laion, 1996, p. 372).

The rapid development and spread of digital technology, information and communication technologies, the formation of a global system of knowledge are already providing the person with fundamentally new opportunities not only as a factor in improving their work's efficiency but also in their own intellectual and cultural development. But the acceleration of the pace of events that are characteristic of the information society and the reduction of reaction time to them cause certain negative consequences. In his work The Shock of the Future (Futuroshock), E. Toffler warned that soon radical changes could overwhelm people, organizations, and even entire countries which would inevitably lead to disorientation

and negatively affect the ability to make smart, moderate decisions that were necessary for adaptation and further effective activity of people (Andrushchenko, 2016, p. 84).

The problem of human unpreparedness for change is a serious threat to the civilization's further safe development, and here it all depends on what personal qualities an individual will have in the near future. In this regard, we can recall the words of Aurelio Peccei, founder and first president of the Club of Rome, which he wrote in his monograph Human Qualities, "Now a person has nothing left than to approach the next phase of their development as soon as possible: the one where, combining their power with worthy wisdom, they will learn to keep all human affairs in harmony and balance. But this can happen due to a chain of events which I call the 'human revolution'" (my translation) (Pechchey, 1985, p. 35).

Some modern scientists also write about the need for radical changes in society's consciousness. For example, in 1997, a monograph under a distinctive title The Revolution of Consciousness: Transatlantic Dialogue was published. In this monograph, concrete examples show quite convincingly that the fundamental cause of the modern global civilization crisis is the materialist orientation of social consciousness that prevails in modern consumer society and is of growing concern to philosophers. This situation is characterized in this monograph by the following words, "Our business ethics, our policies, even our individual way of life are all just symptoms of a deeper problem. Our whole civilization is unviable, and the reason for this is the unviability of our value system, our very consciousness, which determines our attitude to the world" (my translation) (Grof, 2004, p. 20).

Also, the modern German philosopher W. Wickert believes that this materialistically oriented culture is today the greatest threat to the further sustainable and safe development of society, as it destroys its moral foundations, generating double standards (Filosofiia sohodni, 2003, p. 75).

Among the reasons that make the person the main risk factor in the information society is the problem of information inequality, the gap. Its essence is that not all members of the information society will be able to utilize practically the new opportunities that it offers people. The need for the person's special training for life in the information society and minimization of information inequality

is emphasized in the main documents of the World Summit on the Information Society (WSIS) (Geneva, 2003; Tunisia, 2005).

The concept of the World Summit on the Information Society identifies 36 priority areas to be taken into account in the concept implementation for the period after 2015. In particular, there are positions that relate to many aspects of the problem of human socialization and information inequality in the information society (Vsemirnyiy sammit po informatsionnomu obschestvu, 2014).

It should be noted that not only economic and instrumental and technological factors related to the possibility of providing users with access to electronic means and information resources of society should be taken into account, but mainly humanitarian factors that depend on the person's qualities. These include, for example, information competence, information culture of the personality, general education as well as human motivation, their desire for knowledge, self-learning, and development of their intellectual abilities. After all, if a person does not want to be an active member of the information society, then no technique and technology will help them. It should be noted that information culture involves not only certain knowledge but also some application of this knowledge and its improvement in the process of a particular activity, including activities related to information. Moreover, the knowledge application and improvement is significant only in creativity, which is realized in any sphere of human life. Therefore, the motives of creativity, the motives of this human activity are a natural psychological component of such individual's characteristic as their information culture (Prudnykova, 2016, p. 155).

To form the information culture of society and each person, which corresponds to the current level of technology and information technology development, one needs a set of measures that applies to all parts of the social system. The process of forming the individual's information culture can become effective only when developed by a special program of activities with a clearly defined goal and sequence of actions leading to the goal achievement.

In addition, without a coherent state policy, it is impossible to talk about the successful solution of the problems of forming the individual's information culture. The formation of the individual's information culture is the social order of this stage of society's

development because the information society culture is determined by the cultural level of people. All this is of great importance, as the informatization success in a country will determine the role and place of this country in the world community.

Thus, the formation of the new information culture of the individual and society, adequate to the conditions and requirements of the information society, is one of the pressing problems of our time. This culture implies not only a higher degree of human competence in the use of new tools in information activities, but mainly the development of its many personal qualities, such as philological culture, spatial imaginative thinking, and the ability to self-education and creativity. All these qualities are the most needed in the knowledge society and will help a person to effectively use this society's opportunities to achieve both their personal and social goals. However, the formation of the new information culture of the individual and society can be achieved only through the combined efforts of culture, science, and education.

According to many information society theorists, one of the important and socially significant results of the formation of the new information culture of the individual and society should be the formation of information ethics that would meet the post-industrial society's challenges (Laion, 1996, p. 375). Information ethics is a necessary component also because only it will be able to provide the necessary level of its information security, as no technical, legal, organizational, and other measures by themselves will not be able to solve this problem in principle.

Thus, modern university education, as O. Rudenko writes, "should shape the future specialist not so much in the craft paradigm, but in the perspective of intelligence. This means an organic combination of modern vocational training with programs of quality social and humanitarian education. Only such a strategy for the development of modern educational practices can really provide investment in human capital which is rightly assessed today as a determining factor of social and economic progress" (Batechko, 2017).

The information society's development is associated with intensive processes of forming a new educational paradigm which is based on the change of fundamental ideas about a person and their development through education. First of all, the main educational

goal is changing which now consists not so much in the knowledge transfer from an academician to student or from a teacher to pupil, but in providing conditions for the individual's self-determination, self-development, and self-realization. Such an educational strategy is based on a synergetic understanding of the education system as a highly complex, nonlinear, open, and self-organizing system. Thus, N. Batechko rightly proposes to change the modern classical education model which does not meet modern conditions to a new one, based on the methodological principles of synergetics, as a science of complex self-developing systems, "Ukraine should, in our opinion, use methodological guidelines, based on which the sphere of education is considered as a complex, open, nonlinear system in which there is a constant exchange of information, which is subject to various influences of society, and in which states of calm and imbalance constantly change each other and enable its development. The use of synergetics as a methodology of educationology allows to comprehend the general processes common to different branches of knowledge, recognize new ideas in them, and focus them on perspective directions of the educational sphere development" (Batechko, 2017, p. 6).

In the new educational paradigm, where the student becomes the subject of cognitive activity, rather than the object of pedagogical influence, dialogical and interactive relations between a teacher and student determine the basic forms of the educational process organization. The result is the student's active, creative activity which is far from the traditional academic model consisting in the transfer of knowledge from a teacher or lecturer to students. The modern specialist must not only have a certain amount of knowledge but also be able to learn: to seek and find the necessary information to solve certain professional tasks or problems, use various sources of information to solve production problems, constantly acquire additional knowledge that becomes the only source of sustainable competitiveness in modern conditions.

Reorientation of the educational process goals involves changing the subject-ontological model of learning to the epistemological model, in which the basis of the discipline subject is the methodology of science, its cognitive tools, and technologies. It forms in students the ability to independently develop a holistic system for solving

professional problems and stimulates the need for independent creative and scientific research.

Among the essential features and principles of the new educational paradigm are:

1. Fundamentalization that consists in the formation of basic knowledge which is a single worldview scientific system based on modern ideas about science and its methods (Baranivskyi, 2011, p. 282).

2. Humanitarianization which consists in the education orientation to the person and enabling the individual creativity development (Yevsovych, 2012, p. 80).

3. Informatization which is a set of interrelated actions aimed at creating conditions to meet the information needs of all participants in the educational process (Blazhuk, 2015).

Thus, the new strategy of higher education implies that its defining trend should not be further differentiation of various ways of learning about the world, but, on the contrary, their integration, systemic and synergetic approaches to studying the world based on the latest technology, modern communications, and information technology. According to V. Kremen, the synergetic approach implementation in educational activities is to update the content, forms, and methods of teaching taking into account such factors as openness, self-organization, self-development, creativity, and nonlinearity of thinking, management and self-management, etc. (Kremen, 2013, p. 5). The principles of synergetics provide a non-standard approach to learning, completeness and high quality of subject knowledge, professional development and professional adaptation of the future specialist through various disciplines, taking into account their interdisciplinary connections.

Conclusions. Thus, we analyzed the main trends of information globalization of the world. Particular attention is paid to anthropological problems, which have recently intensified: it is the unpreparedness of most people for new living conditions under rapidly increasing information flows that fall on people's consciousness and gaps in the formation of the youth information culture, which is certainly a negative factor of sociocultural exclusion in the information globalization context.

It is substantiated that the deep roots of almost all global problems of information civilization development lie not in the economic,

political, or technical sphere, but result from the system of spiritual values where the focus is on meeting the person's material needs to the detriment of their intellectual and spiritual development. Until this value orientation continues to dominate society, there is simply no need to talk about any hopes of overcoming the modern civilization crisis. However, for the new humanistic system of values to undergo the necessary changes, certain humanitarian changes in the public consciousness will be required which can be done, among other things, by changing the educational socio-humanitarian paradigm. The basic principles of this paradigm are revealed – fundamentalization, humanization, and informatization. The author shows that the synergetics methodology just meets the new challenges of the information society, as it allows to synthesize and use the data from various sciences, both exact and humanitarian, to solve socio-humanitarian problems of today through interdisciplinary research.

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