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Informational Technologies as an Integrative Component of the Sustainable Development Goals and Global Cooperation Strategy in Research Activities of Education Systems

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Abstract. Evaluation of the sustainable development goals should be the first task for education. It should be analyzed the correlation between basic values of the sustainable development and academic institutions, informational technologies, interrelation between state and private means of implementation of educational policy, based on sustainable development goals performance. Informational technology, social philosophy, anthropology and ethics should give pragmatic and organizational results – so their elements should be implemented in political and economic educational programs, relevant laws and first of all in national educational systems. Systematic review of all kinds of production, and, accordingly, knowledge should be carried ensure, for now it is clear that all students acquire the knowledge and skills necessary for sustainable development, including through education and informational technologies for sustainable development, sustainable lifestyles, human rights defense , gender equality, promoting a culture of peace and non-violence, through global civic education and recognition of cultural diversity and the contribution of science, informational technology and education to sustainable development.

INTRODUCTION

Cooperation at all levels is crucial for sustainable development. Governments and civil society, the private sector, the education sector and individuals must work together to make progress in reshaping the world.

The aim of this research is to find out the methodological mission of informational technologies and philosophy of education in global cooperation strategy in the field of education and science according to implementation of Sustainable development goals through informational technologies.

Education is one of the key prerequisites for the implementation of the entire Agenda 2030, so education has a key role to play in seeing a just, peaceful and sustainable global society. The world community has set its own goal: to ensure "inclusive and equitable quality education at all levels" for persons of all ages and to promote all "life-long learning opportunities that help them to acquire the knowledge and skills needed to exploit opportunities and to participate fully in society" (1). Providing of education for sustainable development is international task and it needs international cooperation of educational institutions (2).

Developed countries (primarily EU (European Union) countries) have committed themselves together with all 193 UN (United Nations) member states to implement the global strategic plan entitled "Transforming Our World:

A *Sustainable Development Agenda* for *2030"* (2015). In addition to justification of plan this document consists of Sustainable Development Goals (SDGs), which indicates the main directions of global society development.

Thanks to the 17 SDGs, the world community differs specific areas of activity to implement its ambitious vision of a peaceful, just, socially inclusive world. For future global society will stably and discreetly use natural and human resources, it should make already nowadays comprehensive changes in economic, social (including educational and scientific) and environmental levels. This means also efforts to ensure universal respect for human rights and to enlarge personal possibilities, to guarantee equality and self-determination of citizens of every country.

In addition to encouraging people and protecting the environment and social development, Member States declared their determination "to take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path", and promised to work together and thus "tirelessly". Thus, the concept of partnership in "the spirit of strengthened global solidarity" plays an important role in the implementation of the "Agenda 2030": "Our journey will involve Governments as well as parliaments, the United Nations system and other international institutions, local authorities, indigenous peoples, civil society, business and the private sector, the scientific and academic community – and all people" (1).

All controversial situations of distribution and allocation of limited resources could be analyzed and correctly solved through the clarification of the goals and values – including goals and values in the sphere of education and Socially significant and individually significant goals and values of the person can be different, manifested in different ways – from superficial conflict to mature forms of interaction with society. Conflict with society could be transformed in the inner conflict because it could be extended by the individual on himself as a part of this society, as a part of culture of this society. Social conflict could take a form of the interpersonal conflict, but it could be the conflict that is inner for this person. Social philosophy could help to identify causes of social conflicts and therefore – could help to find the ways out of them. If we take into examination the education, social philosophy works as a part of informational technologies and philosophy of education.

Thoughtful, responsible attitude person to oneself arises on the basis of conscious, purposeful activity of self-education. Generated by social needs, the system of science and education acquires relative independence from those requirements that do not meet the criteria of social value and social integration, go against the actual or potential needs of not only the individual but, above all, society. The informational technologies and philosophy of education is directly and deeply connected with socialization and self-education, but it is neither one nor the other. Its main function – to keep a balance in its influence on the formation of personality in the pursuit of own independence, on the one hand, and the social order – on the other. No matter how important the appeal of modern pedagogical and philosophical-educational schools to global problems is, it should be noted that philosophers mostly underestimate the role of developing a general ethical theory, common approaches to solving modern moral problems.

For example, there is a fascination with highly specialized aspects when considering environmental problems (for example, disputes about which natural objects are legitimate to talk about morality (3) to the detriment of the development of methodological principles for their solution. This provokes the desire of some scholars to link the solution of the most important problems posed by the modern world with the development of "ethics of life". An example is the book by American biosociologist Edward O. Wilson "Biophilia" (2014). Expressing the correct opinion that the "ethics of life" should be based on the principle of humane treatment of all living things, preservation of inherited genetic potential of mankind, Wilson believes, however, possible to solve the problem in isolation from the necessary social conditions, relying only on the knowledge of genetic engineering, which, in his opinion, will only make it possible to identify the deep motives of human actions. Therefore, morality is supposedly designed to pay full attention to biological rather than social living conditions (4).

The most far-sighted researchers of education and science believe that if the goal is not only to diagnose the observed phenomena of moral crisis, but also to develop serious measures to overcome it, society cannot do without the help of these institutions. "The school is designed to fill the moral vacuum and instill in young people respect for property and work" – said the specialist in the philosophy of morality H. Muson (5). Higher education institutions should "help students become morally mature people", – develops his opinion American theorist of stages of moral conscience development Lawrence Kohlberg (6). Schools and universities, he continues, should help young people realize the need and develop the ability to perform in the future those functions that will contribute to social progress, the establishment of a just society.

Also, social anthropology provides for the pedagogy, informational technologies and philosophy of education the idea of human being, which determines the virtues that must be instilled in person. However, philosophical anthropology is unable to provide a generalized concept of human being, and even formulates a position on the variability of ideas about human being depending on the type of society.

Still the anthropological approach to education remains crucial – in pedagogy it is important to use empirical data if it does not want to be fruitless, but these data require a certain way of consideration, which provides philosophy, anthropology and phenomenology (7).

The anthropological method of consideration in pedagogy have to begin anew every time a new result of empirical research is obtained and it is necessary to ask what consequences follow from these data for the general understanding of human being, especially for his or her social and educational development. In turn, the data of empirical research would be uncritical if they did not need a thorough philosophical and phenomenological explanation. At the same time, we believe that pedagogy should also be based on hermeneutics as the only method of interpreting the data that underlie them and determining the meaning of education.

Philosophers-anthropologists set an important task for any society – the instilling of virtues as a necessary element of the moral structure of the individual. Virtues, or moral qualities, determine the value orientation of the individual, especially his or her activity, social behavior, because they help him or her to learn the social norms of morality, make them part of his or her self. Undoubtedly, in every complex and difficult life situation person bases his or her moral decision on certain virtues that are important to educate and explain their meaning.

RESULTS AND DISCUSSION

Results of the Research

SDG 4 (High Quality Education) nudged also an Education Program of UNESCO (United Nations Educational, Scientific and Cultural Organization that includes 193 member states) – renewed, comprehensive and transformative program "Education 2030. Framework for Action" (2015). This program aims to contribute to the achievement of all UN sustainable development goals (8).

One of such tasks is achieved especially successful – to ensure equal access to all levels of education for all, including people with disabilities, indigenous peoples and children with disabilities. This is due the possibilities of international access of open educational programs provided by internet. That is why it could be common educational programs for different persons, different countries and different kinds of participation. "By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States" (1).

But not every task depends just on technical improvement and administrative permission – it is a big gap between educational demands and motivation people to learn. Only if people just start to learn or not interrupt learning it would be real to provide sufficient literacy and skills for all adolescents and the majority of adults. People lose their jobs because of reduction and re-profiling of production, production automation and dehumanization. Not every step and kind of such automation is necessary.

Systematic review of all kinds of production, and, accordingly, knowledge should be carried out to ensure not by 2030, but for now it is clear that all students acquire the knowledge and skills necessary for sustainable development, including through education for sustainable development, sustainable lifestyles, human rights defense, gender equality, promoting a culture of peace and non-violence, through global civic education and recognition of cultural diversity and the contribution of culture to sustainable development. If we do this now, then we could expect the proper performance of all other tasks of Agenda 2030.

That is why the implementation mechanisms for these tasks performing are:

"Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all" (1). This means that not the content, but the forms and ways of communication becomes the educational priority.

"By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and informational and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries" (1). But in the situation of covid-19 pandemic almost every country acquires status of "developing country": so it is necessary to create scholarship programs for international membership in such programs – for persons, teams and organizations not only from Africa, but from Asia, Europe, America, Australia as well. It is very likely that some form of pandemic will be replaced by another form, but there will be no world without a pandemic (9). That is why there will never be enough resources, even for the rich countries. All forms of international cooperation become even more in demand – pandemic is always dangerous for everybody. But individual desires and wishes not always and clear correlate with

organizational goals – in extreme and existential cases person could perform egocentric behavior, oriented on up to day needs and not to care about the future interest, collective and personal as well.

UNESCO considers education to be an integral and important condition for the promotion of democracy and human rights, the strengthening of global citizenship and sustainable development. UNESCO has developed a framework for action to achieve the global educational goal and supports implementation processes in its member countries.

The OECD (Organisation for Economic Co-operation and Development that includes 37 developed countries) also develops and monitors sustainability targets at the global level of experience. In addition, it is planned to prepare reports on policy coherence, analysis of progress, etc. The integrated program «The Future of Education and Skills Education 2030 – OECD» (2018) and «Learning Framework 2030 – OECD» (2015) offers the forms, visions and principles that underlie the future of the global education and science system. The training structure was jointly created for the OECD-2030 Education Development Program as a project of government representatives and a growing community of partners, including ideological leaders, experts, educational networks, heads of educational institutions, teachers, scientists, researchers, students and youth groups, parents, universities (and other HEIs), organizations and other social partners.

The new program "OECD's Education at a Glance" examines annually the phenomenon of global education with help of special OECD Indicators. "OECD Indicators in Focus" (EDIF) is a recurring series of briefs that highlight specific indicators in OECD's Education at a Glance that are of particular interest to policy makers and practitioners recurring series of briefs that highlight specific indicators in OECD's Education at a Glance that are of particular interest to policy makers and practitioners" (10). It provides data on the development, funding and efficiency of education systems in 37 OECD countries and a number of partner countries.

For the first time, two new indicators provide comparative data on the level of success in higher education and on the criteria for access to higher education. One section is devoted to the educational policy goal of the 2030 Agenda.

Higher academic and professional education remains popular and continues to generate high incomes for both individuals and taxpayers. However, new data show that the differences between individual areas of research are significant. This follows from recent OECD research. The report shows that economics, administrative and legal sciences are the most popular areas in OECD countries.

Every fourth student starts studying in these fields. In contrast, on average, only 16 percent study engineering annually and only 5 percent study computer science, even if the employment rate of these graduates exceeds 90 percent in many countries. In Germany, for example, law and economics are in demand among first-year students, similar to the OECD average. However, the share of students in science and technology is significantly higher than the OECD average (10 and 23% in Germany compared to 6 and 16% on average in the OECD). However, in engineering, women are freshmen with only 22%, who are also underrepresented in the OECD. With an employment rate of about 90%, all three entities reach similar values. In the social sciences and humanities, the employment rate is 84%, but still higher for adults who have only a vocational education or a high school diploma. In general, the economic benefits of higher education remain significant. For example, 88 percent of adults with higher education are employed, and adults with secondary education are 81 percent. The income benefits of an employee with a higher education are on average 66 percent, and he or she is almost five times more likely to be among the top employees than an employee with only a professional qualification (11).

In his program report for the next 50 years OECD Secretary-General A. Gurria notes: "Targeted support for the most vulnerable, employment, skills and education to ensure lifelong employability must remain a central focus of our work. We need to address the "E" policy priorities: Employment, Entrepreneurship, Education, Environment and Equality" (12).

But this priorities need decades of years to be successfully implemented. Although the chances of high skills are increasing, the employment prospects of less skilled workers are deteriorating. Even in Germany, 13 percent of 25-34-year-olds do not have a professional qualification or a high school diploma. This is lower than the OECD average, but much higher than in other countries with dual vocational training, such as Austria or Switzerland. At 4.3 percent of gross domestic product (GDP), education spending remains well below the OECD average (5.2 percent). In primary education, spending per student is also lower than the OECD average of $ 8,846. Even in higher education, spending did not keep pace with the increase in the number of students (13).

The European Union seeks to take into account the goals of sustainable development in all its forms, as one of the key guiding principles for EU policy. The Council of the European Union states that "a prosperous Union also hinges on an open and fair international economic, financial and trade system and sustainable and equitable access to the global public goods; STRESSES that the SDGs are a cross-cutting dimension of the Global Strategy" (14).

"Agenda 2030" also identifies the educational concepts and models needed for sustainable development: education for sustainable development, education for global citizenship and relevant concepts must teach competencies to help all of us transform our world for collaboration. Comprehensive competencies of this kind can be developed with the help of teaching principles and educational problems of national educational systems: "We recognize that each country has primary responsibility for its own economic and social development" (1).

But "Agenda 2030" is not just for governments. All people are called to take part in an ambitious program of transformation, which can ultimately succeed only in cooperation at all levels – and in society as a whole. The education system «teaches» society on a small scale. By learning to work in partnership, develop sustainable development skills, develop critical thinking, and share responsibilities between students and the entire educational team, educational institutions can be examples of a sustainable lifestyle.

In the search for ways to moral recovery of society can not avoid the question of what place in this process is given to the most important institutions of education and science.

It seems to us that the very formulation of this immutable problem, an attempt to provide it with a philosophical rationale, can explain the influence that these ideas still enjoy among modern philosophers and educators.

This raises the question of the need to overcome the economic crisis, to preserve the democracy, basic rights and freedoms of the individual. All this causes the formation of a new consciousness of people, discover of new values. According to Otto F. Bollnow, these moral qualities are revealed by the informational technologies and philosophy of education, and the theory of education / upbringing seeks methods and means of their formation. Education of new moral qualities and knowledge in the process of education, according to Bollnow, is designed not only to strengthen the ethical nature of human being, but also to help overcome the ethical crisis, ensuring the status quo of the existing system. The task of educating existence is designed to solve philosophical or anthropological pedagogy, which should be based not only on psychology but also on sociology and other humanities and social sciences. And thus pedagogy, as Otto F. Bollnow notes, "will become a comprehensive pedagogical anthropology" (15).

Informational technology, social philosophy, anthropology and ethics should give pragmatic and organizational results – so their elements should be implemented in political and economic educational programs, relevant laws and first of all in national educational systems. So it is necessary to integrate the benefits of these informational technologies and philosophical disciplines in one philosophical theory. Meanwhile it should be taken into account the pedagogical and political-institutional aspects of performing.

Some researchers especially emphasized that education should be considered as a social methodology that helps a person to consciously use their abilities to serve society, to develop the ability to take into account the interests of others: "The main purpose of education is to prepare a mature, holistic personality" (16). The solution of this problem experts associate with the creation of a new methodology, with the philosophical justification of the goals, means and methods of moral education: "Attempts to solve the problems of education and upbringing without the strength and wisdom of philosophy are inevitably doomed to failure" (17).

CONCLUSION

Conclusions and Recommendations

The realization of educational possibilities of philosophical methodology depends on the concrete approach to their comprehension, on the understanding of the very subject of the informational technologies and philosophy of education. In the new methodology, the main means of making the education system relevant to the tasks of sustainable development is not only to refresh its integration with science, but it is also the strengthening of its integrative component into the social education system. The ultimate goal of new education system should be the establishment in society, state and in all their institutions such values as justice, equality, consent and devotion to the social common cause.

To achieve this, all education partners around the world must be involved. In particular, SDG 4 aims on «inclusive and equitable quality education» to achieve some tasks on which it should make emphasize.

By 2030, it was planned to develop tools and models that would allow everyone to receive and complete free, fair and quality primary, secondary and higher education, which will lead to appropriate and effective learning outcomes and social development. This proposition however needs concretization because the criteria of social and personal development are quite changeable: even now in terms of pandemic districts one has to revise significantly the understanding of «appropriate» outcomes. So, it is hardly to implement properly the demand to ensure that everyone has access to quality education at all levels, creating appropriate conditions by 2030, which will allow

everybody to move successfully to the next levels of education and carry out lifelong learning. On the other hand, domination of distant education simplifies the performing in general several tasks even now, not by 2030: to eliminate gender disparities at all levels of education, to allow all women and men equal and affordable access to high-quality vocational and academic education; to make sure that a much larger number of young people and adults acquire knowledge, skills and abilities related to employment or self-employment.

Informational technologies and philosophy of education integrates the possibilities of informational technologies, philosophical anthropology, social philosophy, ethics, political and organizational theories, theoretical pedagogy and therefore it could give a clear vision of interdependence goals, means and ways of performing of education for sustainable development tasks. That is why the informational technologies and philosophy of education is called to substantiate freedom as the purpose of education and science and to compare values of free and obligatory (compulsory) systems of education. The education sistem should reveal the meaning of the concept of "freedom", which will provide an opportunity to more clearly define the degree of responsibility of young people to society. The task of education include finding out the impact of modern policy and informational technologies on the individual, on the value of the educational process itself.

That is why the evaluation informational technologies for the sustainable development goals should be the first task for the informational technologies and philosophy of education. It should be analyzed the correlation between basic values of the sustainable development and functions of academic institutions, informational technologies, interrelation between state and private means of implementation of educational policy, based on sustainable development goals performance.

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