DOI: 10.7596/taksad.v8i1.2055


Education as Socio-cultural and Economic Potential of the Global Information Society

Natalia Yurievna Taranenko¹, Mikhail Gennad'evich Rusetskiy²
Elena Alekseevna Yanova³, Olga Alekseevna Okorokova⁴
Timur Gadzhievich Aygumov⁵

Abstract
The article deals with education as socio-cultural and economic potential of the global information society affecting its development directly. Education alongside society is in a situation of development, self-development and evolution. In the context of the given problem this development and the factors affecting it mostly are considered. Modern education is changing its purpose, transforming from social and state institution to a universal means of cultural transformations. Therefore, in the modern world, the importance of education as the most important factor in the formation of new quality not only of culture, but also of society as a whole, is increasing. The issues of humans’ spirituality and their value orientations are becoming of particular importance. The change in the value of modern education fundamentally modifies the outlook on educational activities and leads to changes in the modern education system, including the Russian one.

Keywords: Education, Culture, Socio-cultural potential of education, Global information society, Economic potential of education.

¹ Institute of Social Education (ISE) 62, Leningradskaya Street, Voronezh, Russia, 394033. E-mail: natlat1971@mail.ru
² North Caucasus Federal University (NCFU) 1, Pushkina Street, Stavropol, Russia, 355009. E-mail: rusetskiyym@yandex.ru
³ Saint Petersburg National Research University of Information Technologies, Mechanics and Optics (ITMO University) 11/2, Tchaikovsky Street, St. Petersburg, Russia, 192287. E-mail: yanova.ea@gmail.com
⁴ Federal State Budgetary Educational Institution of Higher Education “Kuban State Agrarian University named after I.T. Trubilin” (FSBEI HE Kuban SAU) 13, Kalinin Street, Krasnodar, Russia, 350044. E-mail: Okorokovaoa1986@mail.ru
⁵ FSBEI HE “Dagestan State Technical University” (FSBEI HE “DSTU”) 70, I. Shamyl Ave., Makhachkala, The Republic of Dagestan, Russia, 367030. E-mail: 915533@mail.ru
Introduction
The modern global information society is on the way of forming a new cultural paradigm, which, on the one hand, influences the content, meaning and nature of education, and, on the other hand, education is one of the leading factors of social and economic development of society since there can be information for everyone without education for everyone (Taranenko et al. 2018, p.39). Modern education, being in a crisis nowadays, is a multidimensional socio-cultural and socio-economic phenomenon that is primarily determined by historical and systematic development of society itself.

The subject of our study includes education as socio-cultural and economic potential of the global information society. Our research is mainly based on the cultural-philosophical approach.

Education as a Socio-cultural and Economic Phenomenon

According to the International Standard Classification of Education (ISCED) (2011) developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO), education is considered as "the process by which societies deliberately transmit their accumulated information, knowledge, understanding, attitudes, values, skills, competencies and behaviors across generations. It involves communication designed to bring about learning". Based on this definition, it is possible to conclude that education alongside society is in a situation of development, self-development and evolution.

Within the stated problem it is necessary to understand how this development is arranged and what factors have the greatest influence on it.

The term "education" was introduced to the pedagogical science by a Swiss pedagogue, Johann Heinrich Pestalozzi, in the end of the 18th century. In Russian pedagogy this term started to be used much later. Only in 1860s in the V.I. Dal's (2018) dictionary the word "education" could be found as an everyday word connected with the following: "to give an image to something, to process a thing, to make an image from raw materials by adzing or by other means." "An educated person is a person who received education and learned general knowledge. Educated, scientifically developed, well-bred, decent, knowledgeable about secular customs; first, mental education, second, external education."

There are three functions of education in Russian pedagogy, depending on which sphere of reality it serves: cultural, social, and humanistic.

The cultural function of education has several aspects. The purposeful reproduction of the existing culture as a set of means of human survival has long been a function of education.

According to V.I. Dal (2018), "Education, both mental and moral; they say even to cultivate, to process, to educate, etc." The concept of "culture" originates from the terms denoting the process of promoting the growth of something: since its introduction the word "culture" in all its uses has been a noun denoting the process of control over something, basically over crops or animals. "Since ancient times the concept of culture has accumulated ideas as to how to promote growth, namely, to create an artificial environment to provide optimal conditions for young organisms' development. Such cultivation requires particular tools, both material (a hoe) and intellectual ones (for example, knowledge that plants are not planted until winter is over). These tools were improved from generation to generation and adapted for specific tasks. From this point of view, schools represent institutional forms of culture for bringing up the next generations" (Cole, 2010).

As S.I. Hessen (1995) said, "Education is nothing but the culture of the individual. And if, in relation to a people, culture is a set of inexhaustible goals-tasks, then in relation to the individual, education is an inexhaustible task. Education in its essence can never be completed. We are educated all our life, and there is no such specific moment in our life when we could say that we solved the problem of our personal education. Only an uneducated person can claim that he has fully resolved the problem of education. The
task of education is to introduce a person to cultural values of science, art, morality, law, economy and to turn a natural person into a cultural person."

A fundamental task and function of education, defined and manifested itself in the development of education, includes the formation of mutual understanding skills, necessary for the purposeful coordination of consciousness and worldviews of generations. Therefore, it is possible to conclude that education has changed its cultural function from reproduction of culture to its development. Mastering particular knowledge, skills and cultural values is a significant factor in the implementation of the cultural function of education; creative processing of cultural experience, reproduction of culture in the "reflected" form and transformation of cultural values into their own meanings are also of great importance.

Regarding the social function of education, even Aristotle considered education both as a process and a result of socialization into society, that is, integration of people into complex meaningful ties without which a person cannot be considered as a member of society: "man is by nature a social animal." Aristotle stressed the importance of education to achieve the economic, social and political goals of the state (1962, pp.627-628).

According to modern scientists, education performs several important functions in society, namely:

1) the social control function;
2) the reproduction function, that is, reproduction of new full-fledged members of society possessing the same complex of knowledge about the world around them as all other members of society and similar culture;
3) the intellectualization function, that is, intellectual development, which consists in transferring a complex of knowledge of universally recognized importance, both scientific and others, to members of society, as well as in developing logical thinking skills;
4) the function of increasing social mobility or of the so-called "social lift", that is, education is reasonably considered as one of the key channels of social mobility;
5) the function of forming social conformity. Any channel of social mobility has its filters. In education there are such filters as formal examinations defining the level of knowledge and a test of loyalty to the ruling political system and the dominant value system in society. The institute of education not only forms the intellect, it develops the skills of social conformity.

The content, meaning and nature of education as a social institution are determined by such factors as public opinion and state interests. The development of production and the state as a whole depends on how effectively education fulfills the social order. The social progress is ensured by training, education and development of a creative-minded, initiative person, who is able to master new methods of activities, to solve not only the present-day problems but also those that arise in the future.

A.I. Levko (2017) believes that "modern education is understood as an organized and sustainable process of communication that generates both studying and social integration and disintegration based on studying and purposeful up-bringing as increasing social mobility within regional, national and geocultural systems and value-normative social solidarity." Experience shows that in the modern education system studying and upbringing are more and more often considered separately from each other. Upbringing has always been mostly provided by society itself as a universal system, by its moral and cultural traditions and by its ability to self-organize. And whether the state will perform its upbringing function on a massive scale or not depends only on the state itself. Neglect of the upbringing function of education leads to negative consequences and there are quite a few examples of that in world history. Education is changing its purpose, turning from a social and state institution into a universal means of cultural transformations. In this regard, we consider education in three aspects, corresponding to the three spheres of culture: science, morality and social practice.
The humanistic function of education is manifested in the socialization and individualization of a person. Humanistic pedagogy is based on the ideas of humanistic psychology that was represented by such scientists as Rollo May, Abraham Maslow, Carl Rogers and other. 

Carl Rogers (2002), being among the founders of "the client-centered approach", believed that teaching is a vastly overrated function. Since modern world’s knowledge is in a constant change, the important is not to teach but to learn how to adapt and change. If then, no knowledge is secure, that only the process of seeking knowledge gives a basis for security.

In the modern model of continuous education, "education through life", the humanization comes to the foreground, as a person, his abilities and wishes are at the center of the entire educational process. Ya.A. Ilyinskaya (2012) noted, "Humanization is a process of humanizing the education system: a person develops spiritually and physically as a social and individual being, who, having the freedom of choice, can predict and control his/her life."

Education is a special social institution that, on the one hand, provides the socialization of an individual, and, on the other hand, contributes to the acquisition of individual qualities by a person. It is a person that connects education with all spheres of public life. Modern society requires a person who not only possesses a certain worldview but also the ability to solve problems of any kind and scale, and thereby to develop his worldview, maintain his freedom and independence.

**Education as Economic Potential**

The globalism ideology and the requirements of modern market economy have significantly changed the previous system of education. As Levko (2017) stated, "Transforming the economy of energy resources into the economy of knowledge, proclaiming cultural hegemony and geocultural policy as the main factors of world development has triggered a kind of competition between different countries in the field of the most promising national models of education."

The progressive development of the state is based on a person who is required not only professional knowledge, skills, diligence, discipline and professional competence but also, above all, his/her spiritual and moral qualities, creative potential and culture. Therefore, in the modern world, the importance of education as the most important factor of the formation of new quality not only of culture but also of society as a whole is increasing. The issues of humans’ spirituality and their value orientations are becoming of particular importance.

The significance of education in the development of the potential of each individual citizen and the state as a whole necessitates the improvement in the efficient investments in education. According to the UN, the share of government spending on education is fairly stable; however, it differs significantly from the level of economic development and the level of human development. Thus, in industrialized countries, the share of the expenditure on education remains high compared to developing countries, whereas in the countries with a high level of human development it is twice as high as in the countries with a low level.

However, in the whole world, the share of the expenditure on education remains quite low and no region of the world reaches the level of 6% recommended by the International Commission on Education for the 21st Century. Thus, in Russia, the share of expenditure on education in 2013 was 4.3% of GDP, in 2016 it made 3.7% of GDP, and according to some forecasts, it was 3.5% of GDP in 2019.
Table 1. The expenditure of the federal budget of the Russian Federation on education in 2017, RUB
(Source: Federal Treasury, 2018)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Budget allocations established by the Federal Law on the Federal Budget in 2017</th>
<th>Budget allocations established by the overall budget records in terms of changes</th>
<th>Accomplished</th>
</tr>
</thead>
<tbody>
<tr>
<td>The total expenditure of the federal budget</td>
<td>16,728,363,798,100.00</td>
<td>17,016,913,727,600.00</td>
<td>16,420,303,082,740.18</td>
</tr>
<tr>
<td>Education</td>
<td>611,949,702,900.00</td>
<td>623,107,393,500.00</td>
<td>614,960,200,421.63</td>
</tr>
<tr>
<td>Pre-school education</td>
<td>11,114,679,600.00</td>
<td>8,594,055,300.00</td>
<td>6,511,564,538.30</td>
</tr>
<tr>
<td>General education</td>
<td>45,225,306,100.00</td>
<td>48,794,310,900.00</td>
<td>46,946,091,290.53</td>
</tr>
<tr>
<td>Supplementary education for children</td>
<td>17,252,601,900.00</td>
<td>19,588,728,600.00</td>
<td>19,166,706,780.43</td>
</tr>
<tr>
<td>Secondary vocational education</td>
<td>9,192,214,100.00</td>
<td>10,584,873,600.00</td>
<td>10,491,353,432.88</td>
</tr>
<tr>
<td>Professional training, retraining and skills development</td>
<td>6,524,194,900.00</td>
<td>7,452,198,900.00</td>
<td>7,266,901,115.83</td>
</tr>
<tr>
<td>Higher education</td>
<td>490,636,285,00.00</td>
<td>494,822,262,600.00</td>
<td>491,988,005,653.08</td>
</tr>
<tr>
<td>Youth policies</td>
<td>6,927,131,500.00</td>
<td>7,630,352,200.00</td>
<td>7,535,468,719.38</td>
</tr>
<tr>
<td>Applied scientific research in the field of education</td>
<td>12,321,327,500.00</td>
<td>12,899,766,100.00</td>
<td>12,695,648,595.61</td>
</tr>
<tr>
<td>Other issues in the field of education</td>
<td>12,755,962,300.00</td>
<td>12,740,845,300.00</td>
<td>12,358,460,295.59</td>
</tr>
</tbody>
</table>

The elimination of imbalances in education and the strengthening of the role of the state in this sphere should become a priority direction in the development of education. According to some research, in developed countries the share of human capital in the national wealth of the country reaches from 60 to 80%. However, a high level of education is not yet a guarantee of economic growth in a country. In our opinion, there are several reasons for it:

1. Improper education development strategy;
2. Low quality of education;
3. The irrational structure of education, the inefficient use of financial resources and existing educational potential (for example, when a person is forced to perform work that does not correspond to his level of education);
4. Low level and inadequate investments in education.

Being a national priority for the state, education has become not a declared, but a real factor of the development of society and the achievement of people’s well-being. Most of economically developed countries undergo reforms and legislative changes, transforming education, its content and structure in some degree. In these countries, conditions are being created for the speedy development of educational society, characterized by the key idea that education is important not only as a means of individual development but also as a factor of the qualitative change in social life. Education as a socio-cultural institute will achieve a truly massive positive effect only when it becomes global. Meanwhile, the differences in the cultural level of various nations are too great to consider any kind of cultural unity.
The Changes in the System of Russian Education

Education in modern Russia is in a complex and controversial condition. Searching for ways to overcome the crisis in the last decades, the system of Russian education literally "suffers" from radical changes in this sphere. The changes in the field of education are inextricably linked with the processes occurring in the socio-political and economic life of the society.

In tables 2 and 3, the authors present the main indicators characterizing the development of the Russian education system (Russia in Figures, 2018).

Table 2. Educational institutions of higher education and scientific organizations that carry out educational activities in training bachelors, specialists and masters

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of organizations</td>
<td>626</td>
<td>965</td>
<td>1,068</td>
<td>1,115</td>
<td>969</td>
<td>950</td>
<td>896</td>
<td>818</td>
<td>766</td>
</tr>
<tr>
<td>Number of students (thousands)</td>
<td>2,613</td>
<td>4,741</td>
<td>7,064</td>
<td>7,050</td>
<td>5,647</td>
<td>5,209</td>
<td>4,766</td>
<td>4,399</td>
<td>4,246</td>
</tr>
<tr>
<td>Number of students trained to be bachelors, specialists and masters per 10,000 of population</td>
<td>176</td>
<td>324</td>
<td>493</td>
<td>493</td>
<td>393</td>
<td>356</td>
<td>325</td>
<td>300</td>
<td>289</td>
</tr>
<tr>
<td>The share of female students in the total number of students (thousands)</td>
<td>1,347</td>
<td>2,686</td>
<td>4,114</td>
<td>4,030</td>
<td>3,054</td>
<td>2,813</td>
<td>2,549</td>
<td>2,358</td>
<td>2,280</td>
</tr>
<tr>
<td>Teaching staff of organizations (thousands)</td>
<td>243.6</td>
<td>307.4</td>
<td>387.3</td>
<td>356.8</td>
<td>319.3</td>
<td>299.7</td>
<td>279.7</td>
<td>261.0</td>
<td>245.1</td>
</tr>
</tbody>
</table>

Table 3. Admission and graduation of bachelors, specialists and masters

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students admitted (thousands)</td>
<td>590</td>
<td>1,292</td>
<td>1,640</td>
<td>1,399</td>
<td>1,247</td>
<td>1,192</td>
<td>1,222</td>
<td>1,158</td>
<td>1,142</td>
</tr>
<tr>
<td>Bachelors, specialists and masters graduated (thousands)</td>
<td>445</td>
<td>635</td>
<td>1,151</td>
<td>1,468</td>
<td>1,291</td>
<td>1,226</td>
<td>1,300</td>
<td>1,161</td>
<td>969</td>
</tr>
<tr>
<td>Bachelors, specialists and masters graduated per 10,000 of the employed population</td>
<td>63</td>
<td>99</td>
<td>172</td>
<td>217</td>
<td>181</td>
<td>171</td>
<td>180</td>
<td>160</td>
<td>134</td>
</tr>
</tbody>
</table>
The current system of education in Russia is not accomplishing its objectives which results in the issues of socio-political and economic spheres of life. The national project "Education" aimed at implementing the May decrees of the President of the Russian Federation and approved by the Presidential Council for Strategic Development and National Projects (protocol no. 10 of 3 September, 2018) sets the following, rather ambitious goals for the Russian system of education to achieve by 2024.

- To ensure global competitiveness of Russian education, that is, "to join the ranks of ten leading countries in the quality of general education" (National Project "Education", 2018);
- To bring up a well-balanced and socially responsible person on the basis of spiritual moral values of the peoples of the Russian Federation, taking into account historical and national cultural traditions;

We have already noted that the current system of education in Russia has not performed its upbringing function lately (Sundukova & Taranenko, 2009; Taranenko et al., 2018), as education was considered as a service. Thus, achieving the goals set by the President will help solve the accumulated problems with the upbringing of the younger generation that will have a positive effect on the development of civil society and will reduce the negative impact on the global information society of a system of cultural contradictions.

- To create an up-to-date and secure digital educational environment promoting high quality and availability of all forms of education by establishing and introducing a federal information service platform of the digital educational environment and a set of standard information solutions,
- To introduce a national system of teacher’s professional growth that would cover no less than 50% of all teachers of general education establishments.
- To introduce a system for assessing the quality of general education to all general education establishments of the country based on of international research experience in studying the quality of schoolchildren’s education (National Project "Education", 2018).
- In order to form the key skills and competencies corresponding to the priority directions of the technological development of the country, the support in the form of subsidies is provided within the federal project "Education". It implies the establishment of technological parks for children or "Kvantoriums" in each municipality of more than 60,000 people (245 technological parks for children in the Russian Federation), organizing base schools at the Russian Academy of Sciences, etc.
- To modernize the professional education system by introducing adaptive, practice-oriented and flexible educational programs as well as to update the material technical base.

It is planned to establish a network of 100 centers for forward-looking professional training and 5,000 workshops equipped in accordance with modern requirements including WorldSkills Russia demonstration examinations for more than 1,500 students. Since 2018 intensive efforts have been made to carry out state final certification within the framework of secondary vocational education in the format of a demonstration exam. By 2024 "in 50% of professional educational organizations state final certification and mid-term assessment will be held in the form of a demonstration examination taking into account WorldSkills experience." It is also expected to develop methodology and to attract practitioners to this activity resulting in the active development of mentoring. In the higher education system it is planned to transit to adaptive, practice-oriented and flexible educational programs, which provide students with professional competencies to meet the current labor market requirements, including in the field of digital economy, entrepreneurship, team and project work, health protection. In 2022 it is also planned to introduce a monitoring system to take into account employers’ satisfaction with the quality of graduates’ training in terms of higher educational establishments and educational programs. The system will concern the compliance of training areas with regional labor markets and the sectoral structure of the economy, the
self-employment sector; it will be used to define and distribute admission quotas for higher education programs.

- To develop a system of continuous professional training for employed citizens as well as to allow anyone wishing it to obtain new professional skills, including competencies in the field of digital economy.

It is expected that no less than 20% of universities scientific-pedagogical staff will be involved in the implementation of continuous education programs; no less than 3 million of citizens will be trained in various supplementary professional programs.

- To create conditions for promoting volunteer organizations and their involvement in Russian social life and social tasks solution; to support the existing volunteer organizations and increase their potential, to assist in establishing new ones.

To achieve this goal a network of volunteer support centers will be established based on both state educational and non-profit organizations, educational programs will be developed, no less than 25,000 specialists will be trained and grant funding will be allocated for the best projects in the field of volunteerism.

- To double the number of foreign citizens who are trained in educational establishments of higher education and scientific organizations, to assist the best ones in their employment in the Russian Federation.

To achieve this goal the following activities are planned: establishing the mechanism of state support for promoting a united brand of Russian education through the system of summer and winter schools, branches and representative offices of Russian organizations abroad to attract foreign citizens; designing models of modern multifunctional campuses focused on the ergonomics of life of students and teachers; developing models of support for the export of education by reference groups of partner countries and territorial-industry segments of the world market in order to effectively provide highly qualified personnel for export-oriented sectors of the Russian economy; ensuring a systematic approach to solving the migration problems and eliminating "gaps" in the labor market, forming, among other things, a favorable migration regime for foreign students and graduates, which will make it possible to employ at least 5% of graduates from among foreign citizens.

Thus, the main trends in the development of modern Russian education include:

- promoting education and science in the forefront of social development;
- implementing the upbringing function of education;
- developing the system of lifelong education, the possibility of obtaining any kind of education throughout a person’s life;
- increasing the level and quality of education;
- digitalizing the education system, allocating significant funds for the development of education and the educational environment, technological and informational support;
- developing the export of Russian educational services, etc.

**Conclusion**

The humanistic values of culture are increasingly actualized in the modern world; the fact that a person is not only a means but also a purpose of social advancement is more and more often admitted.

The decisive criteria of social development do not include economic factors alone; they also take into account to what extent the necessary quality of live is provided and the conditions created allowing people to achieve life goals, to completely unleash intellectual, spiritual and creative potential. In the modern global information society there is a gradual rethinking of the place and role of a person both in production
and social development and in the global processes: not only production activities but also human abilities proper are the main factors of progress and human survival. That is why in the modern global information society the role of education as the main factor of the development of a person and his/her spiritual moral qualities, creative potential and culture is increasing. Therefore, education possesses socio-cultural and economic potential of the global information society affecting directly its development.

However, current models of education cannot sufficiently respond to the challenges of modern society, that is why the search for a new model of education, the design of new state education strategies, supported by financial and human resources and by legislative opportunities, come to the fore nowadays. Stimulation and development of research in the field of education is becoming one of the priority tasks of state policy.

Conflict of interest
The authors confirm that the data do not contain any conflict of interest.

References


