Globalization of the education space in EU countries and Great Britain through radical information reform

Abstract

The article reveals the main principles of globalization of the educational space in the EU countries and Great Britain through radical information reformulation. The action plan, which includes the six dimensions disclosed in the article, is of great importance from 2020 to 2025 for the formation of the European Education Area (European Education Area), in the conditions of the COVID-19 pandemic and for the development of innovativeness. Measures developed by the European Commission to achieve the specified dimensions are proposed.

DOI:  https://doi.org/10.34069/AI/2023.65.05.3

How to Cite:


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ISSN 2322 - 6307
Introduction

The 21st century exists under the name: the century of radical information reformation of the educational sector, which is connected with the constant deployment and implementation of the information revolution in the educational society, where information, knowledge, and intelligence actualize the educational status of the student in the system of social life and appear as its driving force (Zhyzhko, 2013).

The peculiarities of the development of the modern information society and its specificity are reflected in education, which requires constant modernization and transformation, which is due to the need for such needs that correspond to social development and personal development, taking into account the increase in information flows, the constant acceleration of the pace of life, and the improvement of technologies. Informatization of education is one of the main factors in the improvement of the educational sector and is a guarantor of the future intellectual potential of the nation (Yordan, & Yordan, 2020).

The constant global development of information technologies has increased the relevance of the educational sector and made it possible to modernize the system of continuous education. Nowadys, distance education is presented as the basis of a new educational paradigm, and its importance and necessity are substantiated. The essence of such modernization is reflected in the concept of distance education, its importance is most clearly shown and its necessity for all layers of society is proven, which becomes the most important factor in its development (Ozerova, & Barvinok, 2021).

The globalization of the educational space in the EU countries and Great Britain through radical informational reformation in the direction of homogenization of the economic, political, and cultural spaces of humanity changes the requirements for civil and professional characteristics of the individual, actualizing the context of education. Society directs the countries of the world to the necessary implementation of drastic changes in the educational sector. We see continuous transformational development in the context of understanding the following dilemmas: on the one hand, the need to develop the economy and its labor markets by competitive specialists, and on the other hand, the interpenetration of cultures, the development of social harmony, and the strengthening of national identity. The joint search for ways to overcome problems by the countries of the EU, Great Britain, and the United States related to the globalization of the educational space through comprehensive education reform made it possible to develop promising practical experience (Zhurylo et al., 2018).
Goal. To reveal the main principles of the globalization of the educational space in the EU countries and Great Britain using radical information reformation.

Literature Review

S. Sysoeva, T. Krystopchuk (2012) showed the role and justified the main categories of education in the conditions of globalization of the educational space in the EU countries through radical information reformation: non-formal, formal, informal; proposed trends that are the main ones in the structure of higher education in the European Union; highlighted the features of the structure of compulsory education in European countries; described the types of education, presented the content and stages of education, revealed, and analyzed the peculiarities of the structure of the education systems of the European Union countries, compared the levels of education in different countries, described the level of education, showed the specifics of qualifications, substantiated the types of higher education institutions and showed their work in the conditions of the globalization of the educational space in the EU countries through radical information reformation, named academic levels and degrees in educational institutions in the analyzed countries.

A. Zhurylo, O. Glushko, & O. Lokshina (2018) characterized the approaches to the interpretation of educational transformations in the educational space; showed ways to solve the problem of transformations in education in the aspects of humanizing processes, decentralization-centralization, differentiation, and standardization of education in the conditions of globalization of the educational space in the EU and the USA using radical information reformation. The authors reveal the approaches of foreign countries, through radical information reformation in the conditions of globalization of the educational space, applied to the implementation of reforms.

I. Onyshchenko (2018) analyzed the components of the professional competence of specialists, the impact of informatization of higher education under the conditions of globalization of the educational space on the formation of IT competencies of future specialists is shown; the characterization of skills, abilities, and knowledge was carried out, the process of formation of IT competences of future specialists and the influence of skills, abilities, and knowledge on the acquisition and further transformation of professional information in the professional activity of the future specialist were shown.

S. Babijchuk (2018) highlighted the experience of informatization of the disciplines of the natural cycle in the conditions of globalization of the educational space through radical information reformation in the Small Academy of Sciences of Ukraine using remote sensing of the Earth and the use of geoinformation systems.

O. Kondur, & N. Fuchynska (2021) carried out an analysis of information technologies in the conditions of globalization of the educational space of radical information reform and showed the importance of the information component, the possibility of using information technologies in the spheres of life and the formation of a competitive specialist. The information society in the conditions of the globalization of the educational space is presented as a necessary stage of the development of the post-industrial society, the features that distinguish the information society from other forms of society in the conditions of the globalization of the educational space through radical information reform are highlighted; features of the information society are shown from the standpoint of differentiation of both negative and positive features; from the position of influence on the development of the individual, the state through radical information reformation of education.

O. Lokshina et al. (2021) showed the problem of transformations in education in the EU countries, the USA, and China in the conditions of globalization of the educational space; substantiated the meaning and found out the essence of the trend as a scientific category of pedagogical comparativism in the conditions of the globalization of the educational space in foreign countries through radical information reformation, as well as a phenomenon that characterizes the development of the modern educational space; the main directions of international organizations in the development of education in the conditions of Europeanization and globalization are shown; trends in the development of the educational school industry in foreign countries (Germany, USA, China, Poland, Great Britain) and the context of Ukrainian education were revealed.

I. Makarevych (2016) described the informatization of education and showed its importance and necessity in our time; the theoretical foundations of informatization of
higher education in the conditions of globalization of the educational space through radical information reform are revealed, the importance of information (educational phenomenon and social phenomenon) is shown, ways of creating an information environment in institutions of higher education are proposed.

L. Ozerova, & N. Barvinok (2021) emphasized the relevance of the modernization of the continuous education system in the conditions of the globalization of the educational space through radical information reform in connection with the rapid development of information technologies, which is the most fundamental in the concept of distance education, which is a factor in the development of the educational field.

I. Shkutnyk & O. Shestopalova (2015) considered the concept of informatization of society, media education; the interaction of new forms of information technologies and the prospects of library informatization, and the importance of information technologies in the modern world are shown.

S. Alekseeva (2022), in the conditions of informatization of education through radical information reform, shows the importance of developing a theoretical basis of didactics, to ensure a modern conceptual understanding of the role of information technologies in education.

Methodology

To achieve the goal, the following was used:

- general scientific methods (analysis, synthesis, systematization of scientific works of foreign and domestic authors on the problem of research to develop a source base on the problem of educational transformations, etc.);
- specific scientific methods: the method of terminological analysis – to reveal the essence of the studied phenomena, to clarify the semantics of key concepts, to form the terminological field of research;
- system-structural method – to clarify the key directions of transformations and identify the components of these directions and establish connections between them;
- comparative-comparative and scientific extrapolation method – to compare the nature of educational transformations in the analyzed EU countries and Great Britain.

The study is based on the proposition that the globalization of the educational space in the EU countries and Great Britain through radical information reform is a personal and professional characteristic of the educational field, which is based on the development of value-meaningful attitudes to the received profession during studies in higher education institutions, determines to the educational process, the individual style of the teacher's professional activity can be formed in the educational process of educational institutions on a systemic and integrative basis. This allows us to implement scientific research according to the following concepts: methodological, theoretical-pedagogical, and technological.

The methodological concept represents the interaction and relationship of fundamental scientific approaches as a search strategy for solving the researched problem of globalization of the educational space in the EU countries and Great Britain through radical information reform, namely the following fundamental scientific approaches:

- an axiological approach that guides the content, forms, and methods of forming the globalization of the educational space in the EU countries and Great Britain through radical information reform in the plane of forming value orientations, value orientation of the individual;
- a systemic approach that provides an opportunity to explore and perceive the process of forming the globalization educational space in the EU countries and Great Britain through radical information reform as an open system that is integral, multi-component, which is constantly not only changing but also developing under the influence of internal and external factors (a system of attitudes towards the profession, which is determined by public demand and the requirements of the education system; emotional internal instructions of the individual for the performance of his professional activity; expansion of scientific knowledge of the structural and component manifestation of the globalization of the educational space in the EU countries and Great Britain through radical information reform in development and dynamics), reveals the integrative characteristics of the given phenomenon in the researched process;
- acmeological approach, which allows one to theoretically understand the essence of the individual in the conditions of the
globalization of the educational space in all countries through radical informational reformation as a subject of self-development and self-realization;

- a synergistic approach, which offers the idea of self-organization of the researched process, emphasizing the importance of activating one's strengths and abilities in the educational space through radical information reform, ways of personal development, initiation of individual educational trajectories;

- subject approach, which contributes to the renewal and improvement of the appropriate content and meaning of the globalization of the educational space through radical information reformation, forms, means, and methods of subject-subject interaction of participants in the educational process and is the basis for the further development of the student's activity as a sub-object of activity;

- competence approach, which focuses on the subject-cultural, intellectual, and general professional development of the future specialist through radical information reformation of the educational sector, as a condition for the formation of activity-role characteristics (skills, abilities, knowledge, attitude, experience), the success of the professional position of the future a specialist as an integrative personal education, which reflects the globalization of the educational space through radical information reformation, the readiness of the future specialist for work, professional growth, the ability to self-realize throughout life;

- a personal-activity approach, which directs the prioritization of the student's interests and needs to the professional aspect, is based on a dialectical combination of the globalization of the educational space in the EU countries and Great Britain through radical information reform and the tasks of professional training of the future specialist with his trajectory of self-realization and development of personal and professional qualities;

- an interdisciplinary approach that ensures the integrity of the formation of knowledge of the future specialist through the interdisciplinary integration of knowledge in the conditions of globalization of the educational space in the EU countries and Great Britain through radical information reformation, reflecting the integrative nature and complexity of the phenomenon under study.

The theoretical-pedagogical concept includes a system of definitions (philosophical, pedagogical, psychological, sociological) for a holistic understanding of the essence and characteristics of the phenomenon in the conditions of globalization of the educational space in the EU countries and Great Britain through radical information reformation.

The technological concept ensures the development of a system for the formation of the professional position of the future specialist in the conditions of the globalization of the educational space in the EU countries and Great Britain through radical information reformation, which groups together technologies, pedagogical conditions aimed at ensuring the essential dynamics of the educational process, which is based on a diagnostic basis.

The methodological basis of the study is based on the dialectical principles of interdependence and interconnection of phenomena and laws of objective reality, fundamental provisions of continuity of personality development, theory of knowledge, unity of practice and theory, special and general in the conditions of globalization of the educational space in the EU countries and Great Britain through a radical information reformation; socio-pedagogical, psychological and general philosophical positions of the theory of activity and personality; humanistic philosophy of human-centeredness in the educational space of intercultural interaction; the use of a complex of methodological approaches in the conditions of globalization of the educational space in the EU countries and Great Britain through radical information reformation; conceptual provisions of the professional development of the individual in the conditions of continuous globalization of the space of professional education in the EU countries and Great Britain through radical information reformation.

**Results and Discussion**

The implementation of information technologies in education in the conditions of globalization of the educational space and modern methods of organizing the educational process through radical information reformation in institutions of higher education allows updating the content, methods, and forms of education to the needs of society in modern innovative development, to carry out the individualization of the educational process taking into account the needs of students of higher education to obtain a competitive
specialist, to optimize the entire training process (Ozerova, & Barvinok, 2021).

Informatization of education is an interconnected, educational-methodical, socio-economic, managerial, organizational-legal, scientific-technical, production process aimed at solving computing, information and telecommunication needs in the conditions of globalization of the educational space through radical information reform (other needs, related to the introduction of means and methods of information and communication technologies) participants of the educational space, as well as managers of this process, who carry out scientific and methodological support and personal development (Bykov, 2010).

In the conditions of globalization of the educational space in the countries of the EU and the USA, through radical information reform, new sources of information are being attracted, new means of management of the educational sector are being used, teaching methods are being changed through the comprehensive use of the computer, multimedia, and communication technology (Shvets, 2004).

Education is the basis not only for the comprehensive growth of the individual, his competitive employment, responsible and active citizenship. The right to quality education and lifelong learning is proclaimed (as the first principle) in the European Foundation of Social Rights (European Parliament, 2017). Education is considered the basis of the European way of life, the main condition for strengthening democracy and the social market economy, social justice, and human rights, as the highest category of being (European Parliament, 2017). Therefore, in 2020, in the conditions of the COVID-19 pandemic, the Action Plan for the formation of the European Education Area until 2025, which includes six dimensions in the conditions of the globalization of the educational space, became an important factor for the development of EU innovation: the geopolitical dimension, the quality of education, higher education, inclusion and gender equality of the individual, teachers and pedagogues, green and digital transformations. To achieve the specified dimensions, the European Commission, in the context of the globalization of the educational space through radical information reform, proposes such measures as:

- improving the quality of education;
- strengthening measures for inclusive and gender education and modernization of such education;
- support green and digital transformations within the educational space and through education;
- increasing the motivation for education and competence in the educational profession (European Commission, 2020).

The announcement in 2020 of the initiative to build a New research space for research and innovation, radical information reform, was no less ambitious in the conditions of the globalization of the educational space. The European Research Area (European Research Area) was launched in 2000 in the context of the Lisbon Strategy in the context of the globalization of the educational space through radical information reform. The main goal of the Strategy for the Formation of the European Research Space is to focus on the construction of a common scientific and technical space for the EU, the creation of a single market for research and innovation through radical information reform, which promotes the movement of scientific knowledge and innovation of researchers, encouraging a more competitive European industry (Lokshina et al., 2021).

The basis of the new educational paradigm in the conditions of the globalization of the educational space is distance education (distance education) – a progressive type of education, the basis of which is the high-quality active use of modern information technologies in the educational process through radical information reform and means of communication, which allows the teacher and student to be constantly in space, interact interactively in different parts of the planet during all stages of the educational process.

In the early 1970s, we observed intensive development of distance education in Europe and Great Britain. This contributed to the creation of several open universities in different countries of the world, which implemented distance learning. Today, in every country of the world there is a group of educational institutions that implement distance programs. The methods of such training are quite well developed. Educational programs of radical information reform with the use of new information technologies in the conditions of globalization of the educational space are of great interest. The following are especially relevant: satellite television, computer networks, multimedia, etc. (Sysoeva, & Krystopchuk, 2012).
A significant part of educators feels the need to apply innovative approaches to the educational field, and limiting the number of classroom classes remains a problematic issue here. The following requirements for higher education remain relevant:

- availability of higher education
- inclusive education;
- flexibility of the educational space for certain categories of higher education seekers: they have children, work, etc.;
- innovative changes in the individual learning trajectory of the recipient;
- application of dual education.

To solve the issues raised, regarding the improvement of education, it is necessary to carry out large-scale implementation of online technologies, to carry out thorough changes using innovative approaches to the organization of the educational sector in general, and in educational institutions and each educational discipline, in particular. Classroom classes that are built on an interactive basis play a special role (Ozerova, & Barvinok, 2021).

The first such type of education is observed in Great Britain. The Open University of the United Kingdom was founded in 1969. The Open University is a unique innovation in the development of global education. The creation of such educational institutions of a new type is characterized by the possibility of functioning according to the principles of flexibility, openness, and accessibility.

In Great Britain today there is an extensive network of such institutions that develop and apply distance education programs. Their work is based on models that the whole world knows.

Model 1. Autonomous educational institutions. These are institutions whose work is organized exclusively for conducting the entire educational process remotely. Distance programs using multimedia learning tools are developed and applied. An example of this model is the British Open University (OU UK). Today, this powerful institution provides more than 200,000 students with the opportunity to receive higher education remotely (including foreign students). Active implementation of the online learning model (online learning) is used here. Such a model of online learning (online learning) provides for the permanent use of global and local computer networks in the structure of the educational process of the Open University. There are three types of courses, the basis of which is the constant use of information and communication technologies (ICT):

- Web-intensive – the educational process is carried out online;
- Web-focused – ICT is used as a mandatory element of the educational program;
- Web-enhanced – students have free access to electronic services, but the student does not necessarily have to be online.

Model 2. The consortium of several educational institutions. There is cooperation between several educational institutions in the development of distance learning educational programs. A consortium of several educational institutions allows for reducing the cost of educational programs, raising the quality of programs, and expanding the number of students. According to this model, the Commonwealth of Learning consortium has been working in Great Britain since 1987. The consortium includes higher education institutions of all Commonwealth countries, which are connected to the distance education network based on telecommunications.

Model 3. University education (based on one university). These are only separate, special departments of higher education institutions. Such departments direct their work on programs of independent, distance, correspondence, and open education, but a small part of classroom classes is used in their work. Such a scheme in the educational sector of Great Britain has developed during historical development and today remains the most popular form of education for students.

Model 4. Informal distance learning based on multimedia programs. In Great Britain, these programs are aimed at teaching adults who experience gaps in basic knowledge, focused on eliminating illiteracy problems.

In the field of distance learning in European countries, a system of open universities has been developed, in which: integrative educational processes are clearly expressed, mutual accreditation of higher education institutions took place, and high-quality standards of the educational sector were developed. It should be noted that at the moment, the technical level of European institutions of higher education does not reach the American level.

We will analyze the most effective and significant open universities.
The Hellenic Open University in Greece operates on the model of the Open University of Great Britain and has shaped its work according to its requirements, while under special agreement with the University of Manchester.

The Open University of the Netherlands works with students of the master's level only and provides training in the following academic disciplines: business and public administration, psychology, law, culture, economics, ecology, and computer science. For high-quality training, more than 350 courses are offered, almost all of which are autonomous printed packages of educational materials and are designed for 100 hours of training. They are called second-generation materials.

The Open University of Catalonia in Spain started its work in 1995. Its first students were 200 people from business administration and psychology. For 6 years in a row, 16,000 students from eleven specialties that were officially accredited (computer sciences, business and economics, humanities, law, philology, information sciences, multimedia sciences) and 4,000 students studied in programs studied at the open university continuing education (more than 250 courses).

In Latvia, the first courses on psychology in education and law have been launched in institutions of higher education. These are 27 international distance courses developed under the PHARE ODL project, 6 of which were developed under the guidance and with the participation of specialists from Latvia: business planning, English language, agricultural ecology, agribusiness marketing and management, training of future high school leaders, European legislation (Sysoeva, & Krystopchuk, 2012).

The introduction of information and communication technologies into the wide circulation of educational practice promotes the development of logical thinking, algorithmic thinking, and the ability to approach information critically; process information, use the information for educational purposes, reproduce information, exchange information, isolate the essence of messages, use the information for adequate solutions to today's problems.

Let's consider what are the factors on which the effectiveness of the process of informatization of education depends. These are the use of the information resource of the Internet for educational purposes, the filling of databases and data banks of scientific and pedagogical information for the implementation of information interaction between educators, the development of new methods, the creation of educational and methodological complexes, the development of organizational forms of education, the accumulation of a fund of electronic educational resources with an orientation to quality training of education seekers, etc. The effectiveness of the process of informatization of education primarily depends on the ability of an individual to build his life trajectory, which will be successful, the ability to ensure the formation of a "person of the third millennium" – creative imagination, harmonious development, holistic mind, innovative technologies, objective assessment of innovative technologies in reality.

Therefore, the use of ICT in education provides the following opportunities:

- to involve all possible ways of information perception by the student of education – to visualize the studied objects, and processes in the form of geometric interpretations (graphs, diagrams, tables, etc.) and the form of models;
- due to the presentation of objects in a dynamic way, to visualize abstract information;
- to focus the attention of students during the study on individual details of objects, processes thanks to image adjustment (zooming in or zooming out, zooming in on individual details, etc.), using animation (repeat, stop viewing, etc.);
- to build one's own "educational trajectory" of education seekers;
- to diversify the set of educational tasks of a practical nature;
- to make independent work in the construction of objects, diagrams, and graphs, which include the dynamics of the investigated patterns, an innovation;
- students of education to organize research of various objects to change their individual parameters;
- during the organization of independent work, ensure quick feedback of education seekers with the software;
- to automate the processes of assimilation and control results.

Thus, computer information technologies contribute to objective conditions for using the potential of the latest technologies in the practical component of education, for the development of innovative teaching methods based on them (Andrievska, 2019).
When analyzing different concepts of informatization of education (Zhuk, 2004; Makarenko, 2013) the following areas are distinguished:

1) updating the educational base based on information technologies and creating service centers for maintenance;
2) updating the content of education and its goals caused by the introduction of a general education course in informatics at all stages of education in the conditions of the information society;
3) achievement of a new level of education due to the integration of information technologies in the educational sector;
4) improvement of informational and pedagogical activity during retraining of management personnel in the educational field;
5) intensification of models, methods, scientific-methodological and scientific-research activities;
6) application of information technologies in the management of educational institutions;
7) creation of a unified general educational environment;
8) improvement of the legal framework in education based on information technologies;
9) constant updating of the content of educational programs;
10) integration of the national education system into the information infrastructure of the world;
11) monitoring the quality of information and educational technologies;
12) information security in the educational information space.

Informatization of the educational space contributes to its intensification when introducing new developments into the learning process (Yordan & Yordan, 2020).

Innovative changes in the field of information ensure the emergence of a new innovative type of social organization. With this approach, the Information Society is understood as:

- a new type that appears as a result of global social change caused by the development of communication and information technologies;
- knowledge, where innovative knowledge that has no political boundaries becomes the main condition for the good life of the state and man;
- a networked global society where information has no spatial boundaries (Loik, 2009).

Conclusions

The global basis of the educational process in the EU countries and Great Britain was revealed by way of radical information reformation. Since 2020, the COVID-19 pandemic has become an impetus for building the EU's innovativeness. This is stated in the Action Plan for the formation of the European Education Area (European Education Area) adopted until 2025, which includes six dimensions (green and digital transformations, inclusion and gender equality, quality, teachers and pedagogues, higher education, and geopolitical dimension). The measures proposed by the European Commission to achieve the specified dimensions (supporting digital and green transformations within and through education and training, increasing attention to inclusiveness, improving the quality of education, supporting gender education, and increasing motivation and competence in the teaching profession) were considered.

The importance and necessity of using distance education (distance education), the basis of a new educational paradigm, progressive and high-quality education based on the use of modern means of communication and information technologies in the educational process, is revealed. During the study of the information society, the main prerequisite of the approaches (political, spatial, technological, economic, cultural) was singled out. The increase in the amount of information in all areas of a person, and changes in the field of information, lead to the emergence of a new type of social system. In this approach, the information society is shown to be necessary and important.

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www.amazoniainvestiga.info ISSN 2322- 6307