Information and Educational Environment as a Sphere for Communication

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Abstract: Communication in various forms is an integral part of society. The development and complexity of society leads to the emergence of new forms of communication. This is particularly evident as a result of the scientific and technological progress that has been observed at the global level in recent decades. Communications have moved into the field of information technology. And this makes it necessary to study both the technologies themselves and the communications carried out with their help. This is especially true in those areas where these processes are carried out purposefully, in particular, in the field of education. The development of information technologies has led to the formation of a new level of communicative interactions in the education system. This applies to various aspects: legal, methodological, educational and organizational, technical, etc. There is an opportunity to talk about the information and educational environment of educational institutions. However, at its core, it still remains a communicative environment, representing a sphere for communication..

1 INTRODUCTION

Informatization of education is a natural process of reflecting the changes in modern society caused by scientific and technological progress aimed at achieving three main goals:

- to improve the quality of education and enhance its effectiveness;
- to make education accessible (both physically and financially);
- to promote the development of culture in general and its individual types (information, communication culture, business communication culture, etc.) (Bakunova, 2020).

The result of this process was the emergence of a new type of educational space, implemented on the basis of using information technologies – the information and educational environment (IEE). Information technologies and informatization of education, according to the UNESCO report "Education in and for the Information Society" (Guttman, 2003), should have a decisive impact on the entire education system and its improvement in all areas and indicators.

In the educational sphere, the information and educational environment with the help of information technologies allows us to provide:

- functioning of various elements and components (objects, subjects, means, etc.) at different levels, in different forms and types of interaction;
- administration in the education system, including control and supervisory nature;
- the activities of individual educational institutions on the organization, planning and methodological support of the educational process; collection, processing, storage, use and protection of various types of information, including personal information, personal data of subjects of the educational process (Zinina, Antamoshkina, Olentsova, 2020);

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distance communication between all subjects of the educational process (students, their parents and other legal representatives, teachers, educational authorities, the public, and other educational organizations). (Zinina, Dalisova, Olentsova, 2020, Olentsova, 2020).

Education is a process of learning and education and in its essence is nothing more than one of the components of social communication in general, then IEE is a sphere for communication between subjects involved in educational social relations, improving the technology of information interaction between them (Tumaleva E. A., 2014).

Accordingly, it is a reflection of the general communication processes and it allows to fill them with the specifics of the essence of education, which determines the importance of their understanding. At the same time, the interaction of education systems is manifested in their openness to each other and the ability to influence each other (Pfanenshtil, Yatsenko, Kudashov, Mongush and , 2018).

2 MATERIALS AND METHODS

The purpose of the study is to consider the information and educational environment through the prism of the communication approach. The objectives of the study are as follows:

- to determine the importance of the information and educational environment for the educational process;
- to reveal the components of the information and educational environment as elements of the communication system and to identify the specifics of their content;
- to analyze the content processes of a communicative nature occurring in the field of information and educational environment.

The purpose and objectives determined the research methodology.

The widespread formation of the information environment in educational institutions in the XXI century has influenced the content of methodological approaches to the learning process. There was a shift of centrism from the teacher to the student. Now the teacher is a mentor, moderator, tutor, coordinator, manager. For example, in the e-learning system, it becomes clear that a modern teacher needs to build pedagogical activities aimed at forming maturity, not taking away gadgets from students, but integrating them into an educational environment saturated with various types of educational activities (Koreneva,

Lutoshkina, Maksimov, Yatsenko and Rakhinsky , 2020).

Despite the fact that there are various communication theories (Miller, 2002), the constructivist approach has been developed in the education system (Meye, 1999). This approach is based on the principles of context (in the process of learning, tasks that are close to reality are solved), construction (the knowledge system is built through active activity, immersion in practice), cooperation (the educational organization, represented by teachers, assists students in learning opportunities, implementing their own ideas, etc.) and communication (in order to develop communication processes, including planning, decision-making, project implementation) (Chou, 2002). This approach in Russian science has become known as a personality-oriented approach, based on active, communicative and activity-based teaching methods, where the learning process is based on the freedom of choice of the student's trajectory in the educational space, and the student himself is placed in the center of the educational process (Rozina, 2005). However, education is still a communication space, a sphere of communication between people (Morreale, 2001), which has simply moved to a different level of evolution. To confirm this hypothesis, the authors use general scientific research methods: the study of information sources, observation, logical analysis of the information obtained, deduction, induction, abstraction.

Issues related to the involvement of computer technologies in the educational process became the subject of scientific research almost immediately from the beginning of the process of industrial production of computers in the mid-twentieth century: the principles of programmed learning, mediated computer group interaction (Engelbart, 1963), a multi-faceted interdisciplinary approach to the integration of new knowledge in pedagogical science (Berger, 1972), etc. The scientific and technological progress of the turn of the XX-XXI centuries made it possible to form the information and educational environment (Bates (Tony), 1995; Maddux, 1997; Barnes, 2003), as well as to raise the field of communication interactions between people to a new level (Markel, 1998), in particular, not only to highlight computer-mediated communications, that is, social communication using information technologies, but also to introduce mediated computer communication into the education system (Kougl, 1997; Krasilnikova, 2012) and give an impetus to its intensive development (Moursund, 1997), which continues to the present (Kruglova

and,Sartakov, 2020; Abeldina, Moldumarova, Abeldina and Moldumarova, 2015; Barlybayev and Sharipbay, 2015; Khrulyova and Sakhieva, 2017; Ching-Ter, Hajiyev and Su, 2017], Bobokhujaev, 2019; Duvenci, Tacgin and Sarac, 2017; Butova, Dubskikh, Kisel and Chigintseva, 2019).

3 RESULTS

Information technologies in the educational environment solve two main tasks:

- expanding the availability of education, which is achieved through the active introduction of information and communication technologies. This makes it possible to involve the adult population, as well as the elderly, in the educational process. This is very important, because the constantly occurring changes in society and in different sectors of the economy require the personnel to have more and more new knowledge and skills for their application. Accordingly, in order to be in demand in the labor market (despite the fact that in many countries the retirement age is about 70 years), employees need to be trained and retrained throughout their working life.
- changing the quality of the educational process itself, which is achieved by bringing educational activities to a new level, thanks to the use of information technologies.

Information technologies are a special type of means of communication. Accordingly, in the educational environment, information technologies, forming, on the one hand, the information and educational environment, simultaneously act as a means of communicative communication between different subjects involved in the field of educational activities.

Having the general characteristics inherent in the means of communication, information technologies in the education system reflect the purpose and objectives of the educational process, where the two main components are training and education. While there is now a greater emphasis on information technologies to support the learning process, we believe that it is necessary to expand their use for educational purposes as well.

Like any field of activity, the information and educational environment includes the object, subjects and means of carrying out this activity (methods of communication). Despite the fact that we can select levels in it:

- IEE as an element of the administrative management system, as one of the activities of state bodies in the field of education (Trashkova and Aisner, 2017);
- IEE of an educational organization, aimed at ensuring the achievement of the goals implemented by a specific educational institution, taking into account its specifics;
- a personal IEE, filled with certain functionality, solved by it, and its main subject (teacher, student, dean's office, etc.).

5Based on the peculiarities of the subject composition and the predominance of the solution of certain tasks, the interaction of the subjects of the information and educational environment is carried out with the predominant use of imperative, imperative-dispositive and dispositive methods of regulating communicative relations, where the imperative method is manifested in the regulation of administrative issues, and the dispositive method-in all other.

If earlier the teacher was a kind of filter, passing through the educational information and giving it out with the help of traditional educational technologies (communication methods) to students, today his functional task is to implement the role of a facilitator and assistant in the work of students. Thus, the teacher acts as a kind of source of information (despite the fact that the teacher retains his administrative and administrative functions, including taking exams, etc., which causes the preservation of the imperative principle in communication with students). But still, the activity of the teacher in the educational process is now giving way to the activity of students (Trashkova, 2018), since the task of the teacher was to create conditions for their initiative (Kondratieva, 2020).

7. The information and educational environment is a kind of field for communication, in which three types of communication interactions can be distinguished (Kosharka, 2021):

- one-to-one communication (carried out between participants: "teacher-student", "student-student", "student-technology", "teacher-technology", for example, e-mail correspondence between a teacher and a student);
- communication of the "one-to-many" type (subject composition is typical: "teacher-group of students", "student-group of students", "technology-group of students", where almost everyone can be the recipient of information, but not everyone can be the source);

- communication of the "many-to-many" type (at the levels of "group of students-group of students", "teachers-group of students", where the transmitter of information is also its consumer and all this happens within the framework of democratizing communication, when a participant in the communication process can turn to other participants for information) (Borodachev, 2011).

4 DISCUSSION

The basis of the element composition of the IEE is the minimum elements indicated in the regulatory documents, in particular, if we talk about Russia, we are talking about various federal state educational standards, according to which the IEE of an educational institution includes "a complex of information educational resources, including digital educational resources, a set of technological means of information and communication technologies (ICT): computers, other ICT equipment, communication channels, a system of modern pedagogical technologies, providing training in the modern information and educational environment " (https://fgos.ru/, 2020). However, elements related to education issues fall out of this set, because education is not only an activity for teaching certain professional knowledge, skills and abilities, but also a process of education aimed at forming an active and self-sufficient personality that can fully realize itself in modern society (Aisner and Trashkova, 2017). Thus, S. A. Nazarov draws attention to the fact that IEE is "a pedagogical system that combines information educational resources, computer training tools, educational process management tools, pedagogical techniques, methods and technologies aimed at forming an intellectually developed socially significant creative personality with the necessary level of professional knowledge and competencies" (Nazarov, 2006).

At the same time, the information and educational environment, representing a symbiosis of educational and other types of activities and information technologies, is a special communication environment, where the object is the educational environment and related processes.

The subjects are:
- public authorities;
- educational institutions;
- teaching staff;
- students;
- administrative and technical staff of the educational institution;
- participants and members of scientific communities, thematic, scientific, scientific and practical conferences, round tables, etc.

Accordingly, we can distinguish the levels of intersubject communications:

Level I reflects the imperative (power) aspect of the relationship, since on one side of the communication are the authorities that implement administrative and power functions to ensure the functioning of the education system, and educational institutions that are endowed with the ability to administer and carry out public activities to facilitate these functions;

Level II is aimed at the implementation of the educational process, through the interaction of students with teachers and the dean's office, which, with a certain equality and democratic system, however, may have administrative and administrative consequences, which means that the method of regulating such communications will still be imperative and dispositive;

Level III is based on dispositive communications formed on the basis of legal equality of the parties (students, members of scientific circles, participants of conferences, etc.).

It should be noted that the forms, types and content of communication interactions in the IEE will be influenced by the specifics of a particular educational organization.

As an example, we can cite the Siberian Federal University, Krasnoyarsk State Agrarian University, and the Khakass State University named after N. F. Katanov, where the authors work. The model described in this article has been repeatedly discussed by the authors with the management of the structural divisions of these universities, as well as at scientific, methodological and other events. The use of this model, its efficiency and effectiveness, made a certain contribution and contributed to the successful passage of state accreditation of the first two educational institutions in 2019 and in 2021, respectively, and is used in preparation for a similar procedure for the third university, which is expected in 2021.

5 CONCLUSION

Informatization of the educational process and digitalization of the education system are designed to:
- develop education as an activity and one of the functions of the state;

- create the necessary infrastructure for the implementation of educational programs;
- provide training of highly qualified and competitive personnel (and not only young people, but also other, older age groups);
- promote the effectiveness of administrative and managerial mechanisms operating in the education system, ensuring its quality, safety, etc.

However, the main task of the information and educational environment is that it should become a single communication space for all participants in educational relations. And it is in this context, first of all, that it should be considered.

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