

DISTANCE LEARNING AS AN OPEN EDUCATIONAL SYSTEM IN THE INFORMATION SOCIETY

AUTHORSHIP

Yana Okopna 

Department of Professionally oriented Foreign Languages,
National University for Food Technologies, Kyiv, Ukraine.

ORCID: <https://orcid.org/0000-0001-9549-4637>

E-mail: yana.okopna.work@gmail.com

Kateryna Fadyeyeva 

Department of General and specialized piano, Tchaikovsky
National Academy of Ukraine, Kyiv, Ukraine.

ORCID: <https://orcid.org/0000-0003-2329-469X>

E-mail: katefadedevapiano@gmail.com

Svitlana Karpliuk 

Department of Computer Science and Information Technology,
Zhytomyr Ivan Franko State University, Zhytomyr, Ukraine.

ORCID: <https://orcid.org/0000-0002-6988-0531>

E-mail: aleksa@zu.edu.ua

Anatolii Shevchuk 

Department of Disaster Medicine and Military Medicine National
Progov Memorial Medical University, Vinnytsia, Ukraine.

ORCID: <https://orcid.org/0000-0001-9646-6312>

E-mail: anatoliishevchuk2020@gmail.com

Halyna Kosarieva 

Department of Ukrainian Philology and Intercultural
Communication, Petro Mohyla Black Sea National University,
Mykolaiv, Ukraine.

ORCID: <https://orcid.org/0000-0003-2407-7259>

E-mail: kgala7705@gmail.com

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INTRODUCTION

At the turn of the XX and XXI centuries. it became apparent that the objective the regularity of further social development is the transition from an industrial to an information (post-industrial) society as the most rational way to improve the quality of life of people, to transfer the economy to science-intensive and resource-saving industries. Over the past years, in many countries of the world there has been a consistent and steady movement towards building an information society, which is designed to create the best conditions for the maximum self-realization of each member of society. The reasons for this process are the intensive development of computer and telecommunication technologies and creation of a developed information and educational environment.

An information society can be imagined as a society where the main subject of labor of most members of society will be knowledge and information, which are considered the main resources and driving force of progress, and information technologies are the instrument of labor. The main factor social differentiation becomes knowledge, not property. Thanks to this, the economy of this

society will be aimed at the production of products of intellectual and informational activity, transforming them into a form that will be convenient for consumption by other people and, naturally, the sale of these products. This judgment indicates an increase in the share of workers in the production and processing of various information. Thus, we can say that the transition to an information society presupposes a connection between information, the importance of new information technologies and socio-structural changes in society.

Informatization of modern society is becoming one of the main and most significant areas of world scientific and technological progress. It is also one of the main factors in the development of society, which strongly influences social relations within the country, between countries and peoples. Informatization covers the sphere of economics, politics, social and individual life of the population and is built on top of the technological basis. Currently, there is an active influence of informatization on the material, production, the social and cultural area of each person and humanity as a whole.

It is becoming more and more obvious that the lag in the field of informatization threatens any country with a loss of the pace of its development. The value of information lies in the fact that it allows you to build up, transform and make the most grounded decisions in the field of substantive, practical, socio-political and spiritual life of society (IASECHKO, IASECHKO, SMYRNOVA, 2021).

Information ensures the functioning of computer systems and, being processed by them, returns again to the person who extracts new knowledge from it. The process of assimilating the scientific knowledge accumulated by mankind, acquiring certain skills and abilities for the subsequent performance of socially significant functions is provided by education. Education is an objective necessity of human existence. In all historical periods of the evolution of human civilization, it was aimed at the development of the individual, her creative abilities,

aesthetic perception of the world, the formation of the spiritual image of a person. Traditional classical education is the result of assimilating systematized knowledge, skills and abilities as a necessary condition for preparing a person for life and work, which is based on the scheme: science - education - practice. Knowledge as the sum of truths necessary for assimilation, is the content of education and the organizational basis of the educational process. This implies a logical distribution and a strict sequence of study of academic disciplines.

Classical science and education played a leading role in determining the directions of development of human civilization, but in the era of mankind's transition to the information stage of development, they discovered its limitations precisely at the level of rigid differentiation and isolation. It becomes obvious that the classical model of education inherent in most countries of the world community has already exhausted itself. The global education crisis at the end of the 20th century. recognized as accomplished fact. The main conditions that contributed to the development of the crisis of national education systems include:

- the limitation and weakness of the factors of socialization of the individual in an industrial society;
- the lack of organic unity between the rational side of educational activity and the preservation of the integrity of the individual, its individual nature;
- the impact of informatization and computerization processes public life, modern communication system in the field of education.

THE INITIAL PRESUPPOSITIONS

In the article, the following research methods were used to solve the set tasks: theoretical (study and analysis of scientific and pedagogical, psychological and pedagogical, reference, specialized literature, regulatory documentation on the topic of research, additional professional advanced training programs; analysis, comparison, classification of the information received and generalization); empirical (pedagogical experiment, observation, questionnaire survey, survey, conversation, testing); mathematical (statistical data processing).

METHODS

An alternative to traditional education with its philosophy of rigid differentiation of ways of mastering the world can only be open education, which is based on the integration of various ways of knowing the world. Open education assumes continuity of learning throughout life, the possibility of changing the nature of relations between participants in educational activities, efficiency and accessibility in obtaining knowledge, education of a socially active personality capable of adapting in a constantly changing and unpredictable world in conditions rapidly growing volumes of information.

Thus, the transition to open education is an opportunity to overcome the orientation of traditional educational systems on the encyclopedic nature of education, excessive overload with informational and factual material, which is far from always connected with the actual requests and needs of the individual and society. At the same time, the openness of education is understood not as a mechanical the movement of the personality from one form of education to another, but as a process of cyclical renewal of the intellectual and professional appearance of the individual throughout his life.

Any socio-economic system can be called an open-type system. These systems arise at the intersection of two main systems - society and resources. The necessary system arises when there is the combination of interrelated and interacting elements that represent a single whole and form a new property. All this applies to the distance learning system, because this system is one from the subsystems of an educational institution that uses distance learning technologies in the educational process for those wishing to receive higher education in the chosen specialty. Let's consider the categories of those wishing to study in the distance learning system. This is:

- persons with disabilities in motion;
- persons who have left the state on student exchange programs;
- persons called up for urgent military service;
- persons who are on a long business trip abroad;
- persons who already have higher education, but want to get a second education;
- persons holding positions in regional authorities;
- young people who do not have the opportunity to get education according to the traditional training system due to the limited capacity of this system, the need to combine work with study,
- territorial remoteness from university centers;
- persons whose work specifics do not allow them to study in the rhythm of existing educational technologies;
- students seeking to get a parallel education (POLAT, 2021).

An open system is influenced by both the internal and the external environment, which indicates the existence of direct and feedback connections, initial and final information and, due to the presence of a method for transforming this information. According to the generally established classification, resources can be divided into material, labor, informational and financial. All these resources are present in the distance learning system. Now we need to consider and prove this open-type system from the point of view of cybernetics. It is known from literary sources that cybernetics is an integration science about the methods of cognition of complex highly organized systems. The system analysis method is one of the main methods of cybernetics. Thus, we can use this method in order to prove that any socio-economic system, including the distance learning system is an open system (HARRIS, SUTTON, 1986).

Now it is necessary to determine what is included in the concept of initial and final information in relation to the distance learning system and what constitutes a distance learning system as a backbone. Before answering these questions, you need to understand the concepts of "education" and "training", determine the difference between them, as well as determine what the distance learning system itself is and its relevance. Learning is a process, and education is the result of this process. Considering the definition of a control process as direct the impact of the control system on the controlled in order to achieve a certain result, you can define the concept of "training" and "education".

The concept of "training" in the scientific literature is considered as a systematic, purposeful and organizational process of mastering knowledge, skills and abilities, and education acts as a result of training, upbringing and personal development. Modern distance learning is a form of education, together with full-time and part-time a form where in the educational process not only traditional but also innovative methods, teaching aids based on innovative computer and telecommunication technologies are used. Distance education and training is a fairly new phenomenon in our society. There is a concept for the creation and development of distance education, according to which distance learning is one of the forms of continuous education, designed to realize the rights of every person to receive education.

Let's consider some issues of development and understanding of this phenomenon. To this day, there is no single definition of distance learning. Researchers and specialists in this field, when talking about distance education, very often put different meanings in this concept. In order to understand and better understand the essence of the definition of "distance education", it is necessary to consider the interpretation of this definition, offered by various scientists (BOGOMOLOV, 2007).

American researchers define distance education as "the transfer of educational programs through technologies such as cable or satellite television, video or audio recordings, faxes, modems, video conferencing for learning outside educational institutions".

European scientists understand by the term "distance education" the process when teachers and students, are at a significant physical and technological distance from each other, communicate for educational purposes through various means of communication (IASECHKO, IASECHKO, SMYRNOVA, 2021). Distance education as a new form of education and considers it as a result, process and system at the same time (POLAT, 2021). I would also like to cite excerpts from works in which distance education is:

- the form of obtaining education by methods and means of distance learning;
- a system and process that provides students with learning resources;
- a special form of education, a force that transforms all forms education into a single, qualitatively new educational system of e-learning;
- a complex of educational services provided to specialists and the general population using a specialized information and educational environment at any distance from educational institutions;
- a form of education that differs from other forms in the way of obtaining (providing) education or the nature of educational communication, carried out mainly indirectly (at a distance);
- distance learning.

RESULTS AND DISCUSSION

Summarizing the above definitions of distance education, we can conclude that there is no single point of view even on the recognition of this term as a special concept in the field of education, allowing professional, scientific communication, not to mention recognition of distance education as a philosophical category. Hence the spread of opinions and judgments: from the denial of distance education as such to its recognition as a special form of education. At the same time, distance education is understood as a form, method, method, and as system, and as a process, and as a set of technologies, and as a complex educational service. A separate issue is that distance education is an independent category and is a form of education. But common to all interpretations of distance education is the approach to filling the content of the above categories.

Thus, summarizing what has been said, taking into account the points of view of different authors, we define distance education as a complexly organized system, attributed to a new form of education, capable of satisfying the educational needs of the population regardless of its spatial and temporary location in relation to educational institutions, including the means, process and appropriate educational standards are the result of the interaction between the teacher and the student implemented using telecommunication technologies, which is carried out in a specific educational environment (IASECHKO, KHARLAMOV, SKRYPCHUK, FADYEYeva, GONTARENKO, SVIATNAIA, 2021). In addition, the following excerpts from various works can be cited, where distance learning is understood as:

- technology of learning at a distance, in which the teacher and students are physically in different places;
- a form of training in which the teacher and students are physically separated in time or space, which differs from the correspondence form of training by the use of special technologies;
- a form of education, along with full-time and part-time, in which the best traditional and innovative methods, means and forms of education based on computer and telecommunication technologies are used in the educational process;

- training, which is based on the use of special computer technologies and Internet facilities that provide optimal management of the learning process;
- a new method of didactics;
- organization of the educational process in the conditions of mediated interaction between a student and a teacher with the predominant use of information technology and telecommunications;
- a set of technologies, methods and means that provide the opportunity to study without visiting an educational institution, but with regular consultations with the teachers of the educational institution or persons certified by this educational institution (tutors);
- a purposeful process of interactive asynchronous or synchronous interaction of a teacher and students with each other and with teaching aids, indifferent to their location in space and time;
- a new form of education, which currently exists along with other forms of education - full-time, part-time, external studies in the system of continuous education.

Most authors, especially specialists far from didactics, equate distance education and distance learning (IASECHKO, SHELUKHIN, MARANOV, 2021). According to Polat (2021), it is very important to separate the concepts of distance education and distance learning. These are related, but not identical concepts. Distance learning is the foundation of distance education, which is acquired as a result of the purposeful and accelerated development of human abilities thanks to the pedagogically organized transfer of the culture accumulated by people, i.e. rules of behavior, thinking, knowledge and technology from generation to generation.

Learning is understood as a joint purposeful activity of a teacher and a student, during which the development of the personality, its education and upbringing is carried out. Distance learning is a form of education, it is also a system that presupposes a design stage, which is absolutely inevitable in any organization of the educational process. The design stage provides for the definition of the general concept of the training system, the goals adequate to it, the selection of the appropriate training content, its structuring taking into account the form of training used, its specificity (in this case, the specificity of distance learning, the specificity of the subject), the selection of methods and pedagogical technologies, organizational forms of training, adequate to the general concept and goals of training and, finally, information technology tools, other teaching aids and organization of the educational process.

Thus, having examined the various views of scientists, we agree with this opinion and adhere to the point of view that distance learning is a new form of education that currently exists along with other forms of education - full-time, part-time, external studies in the system continuing education; distance learning is a system and process of learning in which the teacher and student are at a distance from each other, and therefore rely on electronic means and printed manuals for organization of the educational process. Distance learning includes distance teaching and distance learning.

We believe that the definition of "distance learning" is the most accurate concept, and the concept of "distance education" includes many types and forms of knowledge acquisition: full-time, part-time, evening, external studies, distance learning. The very concept of "education" is multidimensional and ambiguous, and training is one of the ways (means) for a person to gain sociocultural experience, i.e. education.

In the modern world, existing forms of education, such as full-time, part-time, external studies, presuppose well-known forms of training, as well as the mandatory physical presence of the student in higher education. institution - at lectures, seminars, workshops and consultations at certain time points in the learning process.

Part-time students must, twice a year - as a rule, in winter and summer, be present at the orientation classes, passing the exam. The opposite of this is distance learning, where the

physical presence of students is not mandatory, but in some cases, with the mutual agreement of the teacher and the student, an element of full-time education may be present.

The distance learning process is a controlled independent work of a student who chooses a place of study convenient for himself, draws up an individual schedule for himself, has a set of special training aids with him, plus an agreed opportunity for contact classes with a teacher. Distance learning can be viewed as a purposeful and interactive process where subjects and learning objects are interconnected with each other, as well as interconnected with teaching aids. The educational process takes place in a certain pedagogical system, in which subsystems act as elements: learning objectives, learning content, teaching tools and methods, organizational forms of learning, control, economic, legal.

Summarizing all of the above, the author of the dissertation research believes that distance learning is a modern and simple form of education, where the latest innovative methods, means and forms of learning are used in the educational process, the foundation of which is IT - technologies based on the principles of intensity and independence of learning in individual schedule. Distance learning students have in their arsenal the necessary learning tools and the ability to communicate with the teacher by phone, e-mail or visually.

Modernization of the educational process allows the use of modern information technologies to build a completely new form of education in combination with traditional methods. Modern society needs intellectual potential to solve the most important economic and political problems, which justifies the relevance of organizing a distance learning system. Regardless of the form of training, the teacher is the subject of training, and the student is the object of training. As a result of the study, it can be noted that the system distance learning would be more correct to build on the basis of certain conditions:

- the human factor is essential for the successful implementation of the distance learning system;
- learners independently acquire knowledge both promptly and over a long period thanks to a flexible training system;
- communication and cooperation between participants in the learning process in the cognitive process and creative activity must be present in distance learning;
- knowledge acquired independently should be active in order to be able to apply it in future practical activities;
- systematic control over the assimilation of knowledge should be constant and built on the basis of operational feedback or have the character of delayed control;
- if necessary, full-time final control may be present in the educational process.

In order to determine what is the initial information, the method of its transformation and the final result, we should return to distance learning as an open-type system. We know everything that enters the system from the external environment - these are learning objects, normative and methodological materials, legislative acts affecting the activities of the distance learning system, labor and material resources. These components, getting into the distance learning system, are programmed to change according to the methodology for transforming primary material determined by universities, as a result of which the system creates a given result.

CONCLUSION

Thus, we can say that the presence of the initial factor, the transformation methodology and the final result, as well as direct and feedback links between subjects and objects, suggests that distance learning is an open system.

Taking the cybernetic understanding of the system as a basis, we can identify the typology of solving the main problems by the distance learning system. We can say that this is the simplest type of tasks - trivial, since we know the outgoing information, methods of its transformation and final information. But at present, the distance learning system is in such a

state that we cannot unequivocally assert that this system is perfect from the point of view of the methodology for transforming the initial information. Therefore, from the point of view of its sufficiency, the system is more suitable for the type of problem "search", since the outgoing and final information is known, and the method of its transformation and receipt is unknown. These conclusions confirm the relevance of the development and improvement of the distance learning system.

The openness of the distance learning system from the point of view of practice is confirmed by the principle of humanity. In accordance with this principle, the distance learning system is open to anyone wishing to get a higher education or improve their professional level of knowledge. As a result of the objective process of informatization of society and education, absorbing the best features of other forms of the educational process, distance learning at the present stage of development and modernization of higher educational institutions is the most promising, integral form of education among traditional forms. From the point of view of openness, distance learning is confirmed by universality, which is based on the use of traditional and information technologies. IT - technologies create comfort for students, namely free choice of training courses, dialogue exchange with the teacher, where the learning process does not depend on the location of the student in time and space.

Distance education is a system where the process of distance learning takes place. The information and educational environment of distance learning is a systemically organized set of information resources, means of interaction, organizational and methodological support and an orientation towards meeting the educational needs of the population. Distance learning is a form that ensures the use of the latest technical means to deliver educational materials and information directly to the consumer.

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Distance learning as an open educational system in the information society

O ensino a distância como sistema educacional aberto na sociedade da informação

La educación a distancia como sistema educativo abierto en la sociedad de la información

Resumo

O artigo estudou os princípios da educação à distância no processo educacional e o seu uso no ensino à distância em instituições de ensino superior da Ucrânia. The research was developed through an exploratory and empirical study. Os resultados comprovaram a eficácia da introdução do ensino à distância no sistema de ensino superior; uma vez que auxilia na formação de novas abordagens de gestão no sistema ensino à distância. A partir da análise foram desenvolvidas propostas de organização e melhoria do ensino a distância na universidade.

Palavras-chave: Treinamento vocacional. Ensino inovador. Ensino superior. Tecnologia de ensino. Ensino à distância.

Abstract

The article studied the principles of distance education in the educational process and its use in distance learning in Ukrainian higher education institutions. The research was developed through an exploratory and empirical study. The results proved the effectiveness of introducing distance learning in the higher education system; as it helps in the formation of new management approaches in the distance education system. Based on the analysis, proposals were developed for the organization and improvement of distance education at the university.

Keywords: Vocational training. Innovative teaching. Higher education. Teaching technology. Distance Learning.

Resumen

El artículo estudió los principios de la educación a distancia en el proceso educativo y su uso en el aprendizaje a distancia en las instituciones de educación superior de Ucrania. La investigación se desarrolló mediante un estudio exploratorio y empírico. Los resultados demostraron la efectividad de la introducción de la educación a distancia en el sistema de educación superior; ya que ayuda en la formación de nuevos enfoques de gestión en el sistema de educación a distancia. A partir del análisis, se desarrollaron propuestas para la organización y mejora de la educación a distancia en la universidad.

Palabras-clave: Entrenamiento vocacional. Enseñanza innovadora. Educación superior. Enseñanza de la tecnología. La educación a distancia.