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# DISTANCE LEARNING: IMPLEMENTATION OF INFORMATION COMMUNICATION TECHNOLOGIES TO PROMOTE EDUCATIONAL PROCESS AT HIGHER EDUCATIONAL ESTABLISHMENTS

*The article deals with basic principles of contemporary distance learning that affect the main directions of modernization of higher educational system nowadays. Forms and components of distance learning organization and its effectiveness are identified. The model of distance learning, its characteristics from the point of view of psychology and pedagogy is described. Advantages and disadvantages of distance learning are presented. Comparative characteristics of traditional and distance learning are shown. The concept of distance learning as a special form of learning, the history of its emergence and development, as well as the structure, technology, form and role in the modernization of education are highlighted. Analysis of world experience in integrating distance and other forms of learning is pointed out. The history of distance learning as a democratic, simple and free learning system is described. Different forms of distance learning classes, carried out using ICT are identified. The combination of full-time and distance learning, correspondent education, an integrative model of traditional and distance learning at universities are focused on. Basic factors affecting the usefulness of distance learning are analyzed. Distance learning at higher educational establishments as an interactive self-study, which takes place with constant high-quality tutorial support is examined. Combination of different technologies applied in distance learning, namely: pedagogical, information and life-long learning, is underlined. Distance learning as one of the means that makes it possible to obtain higher and, in particular, a second higher education both in the country and abroad, is characterized. The idea of distance learning in the form of the interaction between the teacher and the student in a virtual space is distinguished.*

***Key words:*** *distance learning, information communication technologies, interactive communication, theoretical and practical skills, educational resources, life-long learning.*

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# ДИСТАНЦІЙНА ОСВІТА: УПРОВАДЖЕННЯ ІНФОРМАЦІЙНИХ КОМУНІКАЦІЙНИХ ТЕХНОЛОГІЙ ІЗ МЕТОЮ СПРИЯННЯ НАВЧАЛЬНОМУ ПРОЦЕСУ В ЗАКЛАДАХ ВИЩОЇ ОСВІТИ

*У статті розглядаються основні принципи сучасного дистанційного навчання, які впливають на базові напрями модернізації системи вищої освіти в наш час. Визначено форми й компоненти організації дистанційного навчання та їх ефективність. Описана модель дистанційного навчання, його характеристики з погляду психології та педагогіки. Представлено переваги й недоліки дистанційного навчання. Показано порівняльну характеристику традиційного та дистанційного навчання. Висвітлено концепцію дистанційного навчання як особливої форми навчання, історію його виникнення та розвитку, а також структуру, технологію, форму й роль у модернізації освіти. Запропоновано аналіз світового досвіду інтеграції дистанційних та інших форм навчання. Описана історія дистанційного навчання як демократичної, простої та безкоштовної системи навчання. Визначено різні форми занять на дистанційному навчанні, що проводяться за допомогою комп'ютерних телекомунікацій. Основна увага приділяється поєднанню денної та дистанційної фори навчання, заочної освіти, інтегративної моделі традиційного та дистанційного навчання в університетах. Проаналізовано основні фактори, що впливають на ефективність дистанційного навчання. Розглянуто ключові засади дистанційного навчання у вищих навчальних закладах як інтерактивного самонавчання, яке відбувається з постійною якісною наочною підтримкою. Підкреслено поєднання різних технологій, застосовуваних у дистанційному навчанні, а саме: педагогічної, інформаційної й технології навчання дорослих. Описано дистанційне навчання як один із засобів, що дає змогу здобути вищу й, зокрема, другу вищу освіту як у країні, так і за її межами. Виокремлено ідею дистанційного навчання у формі взаємодії вчителя й учня у віртуальному просторі.*

*Ключові слова: дистанційне навчання, інформаційно-комунікаційні технології, інтерактивне спілкування, теоретичні та практичні навички, освітні ресурси, неперервне навчання.*

**Problem setting.** Almost all spheres of modern man′s life have changed significantly under the influence of information communication technologies (ICT). Education is not an exception, since ICT has become one of the most important mechanisms affecting the main directions of modernization of the educational system. As a result, along with traditional forms of education, a new form of training, such as distance learning, based on modern information communication technologies, which allows not only to learn, but also to increase the qualification level of its users, has appeared. Distance learning is the result of the evolution of traditional education, which led to the emergence of electronic whiteboards and computer-based training systems, which contain electronic textbooks and programs designed for use by a virtual audience. In turn, a virtual lecture course allows you to shorten or lengthen the training time at your discretion. Nowadays distance learning in the form of on-line education is a logical extension of the distance learning experience that gained a qualitatively new level. Practice shows a slightly different situation: the only thing that combines traditional distance learning and the classical form of distance learning based on ICT is the lack of face-to-face communication between teachers and students. And before making conclusions about the advantages or disadvantages of distance education, it is important to distinguish its essence, basic principles and patterns.

**Analysis of recent research and publications.** A deep analysis of scientific papers on the distance learning, its psychological, sociological and pedagogical aspects is important in order to understand the theoretical and practical implementation of ICT at higher educational establishments.

Distance learning is a set of technologies that ensure that students are supplied with the material studied, the interactive communication of students and teachers in the learning process, providing students with the opportunity to work independently to master the material studied, as well as in the learning process. Such system is based on a teaching method called the Natural Learning Manner. Distance learning is a democratic, simple and free learning system. It was invented in the UK and is now actively used by residents of Europe to receive additional education. Any student, constantly performing practical tasks, obtains stable skills. Theoretical knowledge, organically combined with training exercises, is acquired without additional effort. The formation of theoretical and practical skills is achieved through a systematic study of materials and various exercises on-line.

Both foreign and home researchers and practitioners, namely: Daniel Doss, Gregg W. Etter, Vimbi Petrus Mahlangu, Usun, Arasaratnam-Smith, Mahlangu, Mtebe JS, Raphael, Pozdnyakova O., Pozdnyakov A. and others have investigated distance learning as one of the main instruments aimed at higher educational system modernizing, its history, challenges and perspectives. According to Wong, distance learning institutions generally may face a wide range of strategic, operational, and financial risks from both internal and external sources, which may prevent them from achieving their objectives. Conflicts can also arise in an open distance-learning environment, because there is significant complexity in their structure and the pattern of governance (Wong, 2007: 45).

The history of the distance learning is closely connected with its launching at one of the oldest distance learning universities, the University of South Africa, which began offering courses since 1946. The British Open University, founded in 1969, is considered to be the largest distance learning one. University of Hagen was founded in Germany a little later, in 1974. Now these universities are well-known all over the world. Other foreign organizations which provide with distance learning programs are Hagen Open University (Germany), Cape Town INTEC College (South Africa), Spanish National University of Distance Learning, British Open University Open School of Business, Australian Territorial Information Network.

**Setting objectives.** The purpose of this article is to define fundamental concepts, theoretical and practical application of contemporary distance learning, its effectiveness, forms of classes, models, pedagogical and psychological characteristics, motives to use, advantages and disadvantages of implementation, as well as the effect of information communication technologies on educational process in the system of higher education.

Distance learning, carried out using ICT, has the various forms of classes. Chat sessions are training classes carried out using chat technologies. Chat sessions are held synchronously, that is, all participants have simultaneous access to the chat. Within the framework of many distance learning institutions, there is a chat school where the activities of distance teachers and students are organized. Web-based sessions are represented by distance classes, conferences, seminars, business games, laboratory sessions, workshops and other forms of training conducted using ICT and other opportunities provided by the World Wide Web. For web sessions, specialized educational web forums are used. It

is a form of activity when user works at a specific subject or problem implying entries left on one of the sites with the corresponding program installed. Web forums differ from chat sessions by the possibility of prolonged activity and the asynchronous nature of the interaction between students and teachers. As a rule, on-line conferences are conducted on the basis of mailing lists using e-mail. Educational newsgroups are characterized by the achievement of educational objectives. There are also forms of distance learning where training materials are sent by mail to the regions.

Speaking about forms of distance learning, we can distinguish six of them, namely: externship, university education, training based on the cooperation of several educational institutions, study in specialized institutions of distance learning, independent training systems, non-formal, integrated education based on multimedia courses. At the same time, different technologies, such as pedagogical, information, and often life-long learning, are often combined (Ttaynev, 2012: 294).

Other variable distance learning models, for example, the combination of full-time and distance learning, correspondent education, an integrative model of traditional and distance learning at universities, directly distance learning, case technologies and interactive television, are also distinguished (Devterova, 2010: 60).

The main characteristics of distance learning in terms of psychology and pedagogy include asynchrony and flexibility of sessions, modularity, mass character, interactive communication and variability of communication channels, body of knowledge aimed both at the independence of students and the motivation of learning, widespread use of educational on-line, the efficiency of the educational process. The psychological basis of distance learning is presented in a number of motives for students, namely: cognitive (a deep interest in the subject of the distance course, readiness to study the material without assistance, the search for knowledge, the desire to apply and demonstrate the knowledge that has already been gained, abilities); social (willingness to improve the skills or acquire new education, to be useful to society, to take an active life position); situational (the need to be promoted, to change the place of employment, residence, marital status, etc.);- attendant (dissatisfaction with traditional teaching methods, lack of time); reproductive (the desire to put learning into practice); communicative (the need for communication with an experienced teacher, practical advice and recommendations). Distance learning claims to a special form of training (along

with full-time, part-time, evening, external ways of education).

Using distance learning technologies allows you to: reduce the cost of training (no costs are required for renting premises, trips to the place of study, for both students and teachers, etc.); conduct training for a large number of people; to improve the quality of training through the use of modern tools, on-line libraries, etc.; create a unified educational environment (especially relevant for corporate training).

No wonder that along with the traditional forms of obtaining higher and second higher education, both full-time and part-time, in recent years, such an innovative form as distance learning or online learning has become more widespread. E-learning, being a similar form of training, has long been used in the West, where its effectiveness has been proven in practice. Distance learning makes it possible to obtain higher and, in particular, a second higher education on the job, anywhere in our country and abroad, while the quality of knowledge obtained is at the highest level.

What are the advantages of distance learning today for their students? First of all, it is an opportunity to get an education anywhere, regardless of the student′s location. Most of those who want to get a second higher education are working people, and distance learning for them is the only acceptable option. Given the busy professional life of distance-learning students, with inherent challenges in having to take time off work and to be away from their home commitments, it will not be easy for them to attend taught courses that require them to be away from workplace and home (Pawar, 2017: 17). Distance education at higher educational establishments is chosen as a convenient form of education for young mothers, disabled people, people with limited mobility (military personnel, people working on a rotational basis), as well as our compatriots from countries near and far abroad, who choose the distance institution as the only one accessible form of instruction in the native language.

Thus, the main disadvantages of distance learning include: lack of students′ independent work skills and, as a result, inefficient use of time devoted to learning; inability to concentrate on learning in an informal (often home-based environment), increased distractibility and inattention of the student; possible technical problems in the distance learning system; periodic inability to get teacher′s advice; focus on older people, low efficiency in the education of adolescents and youth (Kapov, 2008: 29). The high cost of information and communication infrastructure, and the dearth of technical expertise are another challenges in distance learning (Martey, 2004: 16).

Distance learning at higher educational establishments is an interactive self-study, which takes place with constant high-quality tutorial support. As a result, the requirements for teaching methods and forms, as well as for the functions of teachers and their professional training, are changing. The teacher-consultant (tutor) of distance learning should be responsible for the content of the teaching materials in their subjects. The tutor provides with methodological guidance of the educational process, answers the students′ questions and checks the results of their testing in the subjects. A student who is trained using this technology has the right to ask the teacher questions that arose during his study of each section of the course, and send them by e-mail or in another way. The tutor must send an answer no later than three days later (Sirotkin, 2011: 164).

By analyzing the components of distance learning related to an educational institution, it is possible to determine the structure of a network system. It should include: educational material, submitted not only in the form of programs, tasks, control and graduation papers, but also scientific and practical assistance. A student must be provided with a set of fundamental printed textbooks and study guides, hypertext multimedia programs recorded on CD-ROM; additional materials may include lectures prepared by teachers on subjects that can be provided with the help of the network, or review (visual) illustrated video lectures on course subjects, tests, questionnaires; communication in a different mode, teachers′ advice regarding the implementation of term papers, diplomas or other graduation papers (Bakalov, 2008: 108).

On-line textbooks, which became the basis for creating distance learning courses, like traditional paper textbooks, do not solve the problem of students′ independent activity in obtaining knowledge. These software products only create a virtual learning environment in which distance learning is carried out. But here some psychological problems, for example, inexperience, lack of self-education skills, insufficient self-regulation, the influence of group attitudes, etc., arise (Alfyorova, 2010: 55).

**Conclusions.** Summarizing the material presented above, we can come to the conclusion that the development of economic, social and cultural processes in society leads to changes in the field of education. And the development of ICT has led to the distance learning, which takes place when there is no direct contact between the teacher and the student, and the contact is provided using information and computer technologies, to be implemented.

Distance learning is practiced in the form of various models, but its main components are on-line training materials and communications (multimedia materials, on-line textbooks, video conferences, the use of the Internet resources, etc.).

Based on the psychology and methodology of self-study, distance learning has several advantages and disadvantages. Among its positive aspects are: accessibility, mass character, accessibility of education, the possibility of on-the-job learning, an individual approach and flexibility of the class schedule, the efficiency of the educational process, the possibility of student self-realization and the development of his cognitive skills.

At the same time, distance learning is characterized by a number of shortcomings, namely: low efficiency (due to the lack of independent work skills among students), the lack of "live" communication, the team (especially in the asynchronous model), the possibility of misrepresentation of information, misunderstandings (due to the remoteness of the participants of the educational process).

But in general, despite of a number of legal, methodological and psychological problems, distance learning is very effective and promising. For its further development in our country it is necessary: to form a methodological base, the organizational and managerial structure of distance education, develop both legal framework and theoretical, scientific and psychological approaches in cooperation with the traditional education system.

## BIBLIOGRAPHY

1. Wong A. The importance of e-learning as a teaching and learning approach in emerging markets. *iJAC.* 2007. № 10 (1).
2. Трайнєв В. А. Дистанционное обучение и его развитие. Москва : Дашков и Ко, 2012. 294 с.
3. Девтерова З. Р. Современные подходы к организации и управлению дистанционным обучением. *Гуманизация образования.* 2010. № 1. С. 58–63.
4. Pawar M. The importance of ICT for quality education in developing India / Vidyabharti International Interdisciplinary Research Journal (Special Proceeding Issue): Proceeding of One Day State Level Seminar on The Role of ICT in Quality Education on April 20, 2017.
5. Капов В. А. Дистанционное обучение: подходы и проблемы. *Здравоохранение Российской Федерации.* 2008. № 1. С. 29–30.
6. Martey A. IC in distance education in Ghana. *Library Hi Tech News.* 2004. № 21 (5).
7. Сироткин С. Тьюторство. Самоопределение в контексте современности. Ижевск : Изд-во Удмуртского государственного университета, 2011. 164 с.
8. Бакалов В. П. Дистанционное обучение. Концепция, содержание, управление. Москва : Горячая линия – Телеком, 2008. 108 с.
9. Алфёрова М. А. Проблема самоорганизации личности в системе дистанционного обучения. *Вестник Восточно-сибирской государственной академии образования.* 2010. № 12. С. 50–55.

## REFERENCES

1. Wong A. The importance of e-learning as a teaching and learning approach in emerging markets, 2007. iJAC: № 10 (1).
2. Traynev V.A. Distantsionnoe obuchenie i ego razvitie [Distance Learning and Its Development]. M.: Dashkov i Ko, 2012. 294 p. [in Russian].
3. Devterova Z.R. Sovremennyie podhodyi k organizatsii i upravleniyu distantsionnyim obucheniem [Modern Approaches to the Organization and Management of Distance Learning]. Gumanizatsiya obrazovaniya, 2010. № 1. pp. 58–63 [in Russian].
4. Pawar M. The importance of ICT for quality education in developing India. / Vidyabharti International Interdisciplinary Research Journal (Special Proceeding Issue): Proceeding of One Day State Level Seminar on The Role of ICT in Quality Education on April 20, 2017.
5. Kapov V.A. Distantsionnoe obuchenie: podhodyi i problemyi [Distance Learning: Approaches and Challenges]. Zdravoohranenie Rossiyskoy Federatsii, 2008. № 1. pp. 29–30 [in Russian].
6. Martey A. IC in distance education in Ghana. Library Hi Tech News, 2004. № 21 (5).
7. Sirotkin C. Tyutorstvo. Samoopredelenie v kontekste sovremennosti [Tutoring. Self-determination in the Context of Modernity]. Izhevsk: Izd-vo Udmurtskogo gosudarstvennogo universiteta, 2011. 164 p. [in Russian].
8. Bakalov V.P. Distantsionnoe obuchenie. Kontseptsiya, soderzhanie, upravlenie [Distance Learning. Concept, Content, Management]. M.: Goryachaya liniya - Telekom, 2008. 108 p. [in Russian].
9. Alfyorova M.A. Problema samoorganizatsii lichnosti v sisteme distantsionnogo obucheniya [The Problem of Personality Self-organization in the Distance Learning System]. Vestnik Vostochno-Sibirskoy gosudarstvennoy akademii obrazovaniya, 2010. № 12. pp. 50–55 [in Russian].