

DISTANCE LEARNING IN THE DIGITALIZATION OF HIGHER EDUCATION**Li Yekaterina Vladimirovna**

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Abstract. Over the past thirty years, the institution of higher education of Uzbekistan, Russia and other republics of the post-Soviet space have undergone many changes and the process of transformation and modernization continues. The need to train competitive, qualified, creative personalities is caused by reforms and transformations in the educational sphere. In higher education, the introduction of innovations and innovations of different natures, especially e-learning is part of the digitalization process, which occurring with varying intensity throughout the world.

Distance learning involves many problems and complaints but, nevertheless, is recognized as promising. Distance education is a complex problem that requires detailed, thoughtful analysis and the gradual introduction of innovations in higher education, and it is one of the most important components of the digitalization of various spheres of society. Unfortunately, oftentimes, the abandonment of traditional teaching methods and the introduction of innovative teaching methods do not always lead to the expected result. Education is a complex, multifaceted process, with many elements of great importance in the end.

Keywords: e-learning, online, distance learning, life, higher education, education system, informatization, digitalization, innovative technologies, information pedagogical technologies, pedagogy

Introduction. The problem of innovative pedagogy is the subject of research conducted by philosophers, teachers, sociologists, economists, etc. Research on this problem is widely presented in scientific papers - monographs, conferences, educational and methodological

manuals, and scientific articles. Under the modernization of various spheres of society, informatization and digitalization are taking place, including in one of the most important parts, the education system. The relevance of distance learning is associated with periodic outbreaks of new strains of ‘the COVID-19 virus’ complicating our life for the second year, and it is also associated with distance learning opportunities. Digitalization penetrates all spheres of society, including the education system. E-learning is associated with many problems of a global, regional, national and mental nature. Nevertheless, most experts recognize the promise of this format of education and the need to solve problems to make the education system and in particular higher education highly effective, accessible and attractive.

The problem of education is relevant in modern pedagogy under changed conditions and the requirements of society for the process and results of training. The extraordinary transition of the educational process in Uzbekistan, as in many other countries in connection with the COVID-19 pandemic, has aroused scientific and pedagogical interest in distance and electronic learning. This format of training is available in foreign pedagogy and is presented in scientific research and published works. The role of e-learning as a leading educational service is being investigated.

Materials and Methods. An important change is also noted in the direction of ‘educational services’, for example, Vietnamese scientists write about ‘e-learning services’. (Long Pham, Yam B. Limbu, Trung K. Bui, Hien T. Nguyen, Huong T. Pham 2019) In domestic science, education as a service has not yet been studied, although it is it. However, as experience shows, the attitude in education as a service encourages institutions of higher education to modernize and transform in competition with other universities. Additionally, researchers are examining the prospects for the development of Piña and the development of analytics to improve e-learning (Sabine Seufert, Christoph Meier, Matthias Soellner, Roman Reitze 2019) as well as the possibility of replacing public education with the electronic tool (Thomson S. H. Teo, Sojung Lucia Kim, Li Jiang 2020). The role of the internet in online training (Maite Fernandez-Ferrez, Elena Cano 2016) as well as the types of e-learning and its possibilities are also explored (Paulson 2017). The work uses the dialectical method, methods of scientific abstraction, analysis and synthesis, analogies and scientific generalizations.

The usefulness and simplicity of e-learning, as noted by the following authors, depend on the high quality of educational content and effective online provision. ‘For this perspective, we defined the effectiveness of e-learning as the technologically favorable elements, such as the quality of service and its accessibility, which may induce potential users to actually utilize e-learning systems’ (Thomson S. H. Teo, Sojung Lucia Kim, Li Jiang 2020). It is believed that surprise and unexpected design are a way to attract the attention of students. ‘The different design of e-learning in surprise can stimulate learners’ fresh, special, and unique psychological state in the learning process. Service quality refers to the importance of providing good service to learners. However, the different design of e-learning to attract learners is still a challenge’ (Chen 2020). E-learning for blind students is explored in an article and the need for three components is noted: content, pedagogy and technology (Lay Wah Lee, Abdul Rashid

Mohamed, Ahmed. A. Altamimi 2015). This means that it is necessary for various specialists to work together in their activities.

The main part. One of the important components of the social sphere of modern society is the education system, which, in addition to teaching various disciplines, seeks to educate people to have extraordinarily flexible thinking, and the ability to make non-standard decisions. A feature of modern social reality is the dynamism, swiftness and variability with which society develops, including science and technology, informatization processes, and the development of information technologies, which on the one hand simplify the life of people and, on the other hand, complicate since they require us to master new technologies and knowledge.

Therefore, in a detailed analysis of modern higher education, E.N. Nikolaeva and M.D. Shchelkunov noted that 'Modern higher education is becoming more and more technological, that is, it acquires the features of normality, standards, regulation, instrumentality. Modular organization of educational programs, a rating system, control and rating tools for testing knowledge, computer technologies are just some expressions of this trend, which is ultimately generated by the general technology of the life of modern society' (Nikolaeva E.M., Shklykunov M.D. 2015). In a subsequent analysis, positive and negative aspects of the technological nature of higher education are noted. On the one hand, the efficiency, effectiveness, and profitability of the modular system and its flexibility are noted and aren't linear, individualized and arranged under the requirements of a concrete subject. On the other hand, scientists note that the technologization of the educational process leads to the formation of a trained style of thought and actions oriented towards norms and standards, which is the opposite of creative, critical, independent thinking.

In general, innovative pedagogical technologies developed at prestigious global universities and actively introduced into modern domestic pedagogy are one of the manifestations of the domestic education system, and in particular, higher education is the desire to meet world advanced educational standards. 'Traditional institutions will increasingly be removed from academicism and acquired the form characteristic of entrepreneurial structures, operating both within and outside the country, on an international scale. Therefore, classical academic disciplines and research (in most cases of a fundamental nature) will begin to be replaced over time by market-driven activities that can attract the necessary resources...' (Diusebinova R.K., Maudarbekova B.K. 2015). The global trend towards a decrease in the social sciences and an increase in narrow professional sciences may lead to an insufficient global vision, to a general cultural base, and ultimately to a decrease and decline in spirituality. Globalization in education seeks uniformity, general quality standards, and evaluation criteria. Unfortunately, in an effort to meet global standards, philosophy is referred to as a discipline that is not appropriate in the training of specialists.

N.N. Pluzhnikova writes about changing spiritual values but in connection with the process of total digitalization. 'Digitalization is aimed at replacing reality in which a person creates only an illusion of knowledge, spirituality, intrinsic significance and uniqueness' (Pluzhnikova 2021). What is the problem here? It is the fact that in the modern educational process, the content and subjects of education, the author believes, cease to be the main content and subject:

‘...formalizes the approach to education and learning, which is expressed in the improvement of educational technologies, and not the content of the educational process and educational materials’ (Pluzhnikova 2021).

The problem of losing, transforming or rethinking spiritual values has been explored by many scientists. The issue of values is important for our society, with traditional values being prioritized. We strive for innovative transformations, which, of course, leads to a clash, a conflict of new and old, traditions and innovations. Nevertheless, the trend towards the removal of this conflict and their joint coexistence will continue. What are the possible solutions? N.N. Pluzhnikova sees the need to focus education and training on basic spiritual values and human needs, through the development of creativity, innovation and human thinking, as well as training in problematic thinking and the formation of individual responsibility.

Among innovative pedagogical technologies, one of their possible forms of education, modern pedagogy is distance learning, which makes it possible to unite educational subjects in various parts of the world. ‘In the age of information technology, it became possible to combine disjointed islands of knowledge into an effective multidimensional structure of distance education. With its introduction, talented teachers will be able to convey their ideas to talented students, and those at home will decide for themselves what to study and choose ways and time to learn’ (Lopukhina E., Merenkov D. 2003). Distance learning makes it possible to integrate into the modern world educational system, to receive highly professional training. ‘Digital technologies were usually seen as an opportunity to ensure equal access to learning -at the same time, the term ‘digital inequality’ appeared...’ (Dautova 2020), which refers to technical and technological inequalities as well as different levels of knowledge and skills in the use of technology.

As a form of the continuing education system, distance education makes it possible ‘to give equal opportunities in the training of schoolchildren, students, civilian and military specialists, unemployed in any part of the country and abroad through increased use of the scientific and educational potential of leading universities, academies, institutes, various sectoral training and retraining centers, as well as centers for advanced training and other educational institutions’ (Bulanova-Toporkina M. V., Dukhavneva A.V, Stoliarenko L.D. 2002). As seen in the quote above, the possibilities of distance education are presented in a rather wide range and, most importantly, meet the requirements of our time.

The works of foreign researchers also note the positive, strengths of e-learning, for example, flexibility in relation to time, place, etc. ‘E-learning is flexible when considering time, location, and health issues. It increases the effectiveness of knowledge and skills by enabling access to a massive amount of data, and enhances collaboration, and also strengthens learning sustaining relationships’ (Abdelsalam M. Maatukm Ebitisam K. Elberkawi, Shadi Aljawarneh, Hasan Rashaideh, Hadeel Alharbi 2021).

Distance education is a collection of educational technologies used in pedagogical activities using telecommunications, television and the internet. A.A. Andreev highlights the following technologies of remote education: ‘case (portfolio) technology, Internet technology, television and satellite technology. A combination of technology is allowed’ (Andreev 2002). That is,

remote education technologies allow independent education but are controlled and directed by the teacher in the educational process. 'During such communication, students can consult with teachers, discuss projects, decisions, assessments with them. It also allows educators to observe the progress of material assimilation and organize learning based on an individual approach' (Bulanova-Toporkina M. V., Dukhavneva A.V, Stoliarenko L.D. 2002). A discussion about the obvious advantages of the educational process, based on the principles of personalization and individualization, has been ongoing in our country for three decades, but no practical steps have been taken to implement distance education.

However, with obvious advantages, it is necessary to take into account the features of distance education, which sometimes requires a revision of generally accepted methods and approaches. 'The peculiarity is, in particular, that the student in the process of cognition is liberated and more free in choosing the schedule of classes, their duration and in applying efforts to absorb material' (Stepanov 2019). Such features require detailed study, taking into account the specifics of domestic educational institutions, since it is impossible to mechanically transfer the experience of Western educational institutions.

Distance learning is analysed in an article by V.I. Blinova, I.S. Sergeev and E.Yu. Yesenina (Blinov V.I., Sergeev I.S., Esenina E. Yu. 2020). The authors note many problems and shortcomings of the actual transition to distance learning. One of the problems of distance education in the study is industrial practice. 'A full-fledged production practice cannot be organized even if each student is provided at home with an extensive complex of professional simulators and simulators.' (Blinov V.I, Sergeev I.S. 2021)

Based on the results of the survey, the following obstacles to switching to distance learning were identified:

- '- technical problems (weak Internet, overload of server and/or online learning platforms, etc.) -7% of respondents;
- total time deficit -7%;
- shortage of material and technical base -5%.'

The sudden transition to online learning was accompanied by nervous tension caused by a lack of information and competencies in the use of information platforms among both teachers and students. The preparation of online courses is a time-consuming process related to the competence of the teacher, not only as a specialist in the discipline but also as a professional with skills in information technology. 'The absence of pre-prepared online courses in the subjects of general professional and professional cycles. And this is the most serious issue, the resolution of which is necessary for a high-quality and full-fledged transition to distance learning...' (Blinov V.I., Sergeev I.S., Esenina E. Yu. 2020).

Additionally, problems related to distance learning are noted: "psychological lack of readiness for this model of education on the part of teachers; lack of motivational mechanisms for distance learning in the youth environment; lack of specifics of total digitalization of education by teachers" (Pluzhnikova 2021). 'Loss of basic cognitive competencies (writing, calculation, reading, logic), decline in learning quality,' are noted not as flaws but as changes in the education system (Strekalova 2019)/

Despite the identification of many difficulties and problems, many researchers note the promise of distance learning with its various variations: mixed learning and hybrid learning (Strekalova 2019). That is, such a format of training consists of online and in-person training in various proportions. The same view is shared by other authors 'one of the possible and most acceptable development scenarios of mass education of different levels, indicating a movement in the direction of changing and transforming pedagogical practice, is mixed learning' (Dautova 2020).

The 'mixed curriculum model' offers some general and vocational subjects to teach online, for example, 'Fundamentals of Philosophy'. One cannot fail to recognize this advantage for general disciplines. In the 2020-2021 academic year, a number of faculties or even directions of Tashkent State Pedagogical University named after Nizamy switched to online training for a week or two. It was somewhat problematic to conduct classes, one after the other online and life mode. Among the advantages, the authors include unloading the audit fund, reducing the risk of infection during the pandemic, etc. In addition, the following didactic effects are noted: the formation of independence and responsibility among students, digital competencies, and an individual pace of study. The 'mixed IUE' model is designed for students with disabilities combining study with work, gifted students, athletes, and foreign students. The advantages of this model include the individual pace of learning, as well as accessibility for students who are not able to physically stay in the classroom. The complexity of this model is that the teacher deals with some of the students online and other students in-person. Bracketing the issue of payment mentioned by researchers, one cannot disagree with the increase in workload for the teacher. In addition, if one can hold lecture classes for students with or without an audience, then seminar classes, no doubt, lose their effectiveness.

The 'study menu' model is used in foreign universities, where students choose one of two formats for each discipline: in-person or online. This model has a number of difficulties, including the inability of students to design their curriculum, and the readiness of teachers and educational institutions. The ability of students to design their individual educational routes should be formed at school.

The 'face-to-face session' model involves training online, and it controls the in-person format. Online learning can alternate with in-person learning. Theoretical classes can be conducted online, but practical courses can be conducted in the in-person mode or vice versa. The 'mixed educational subject,' 'explanatory class,' 'inverted class' etc., are different variations of the partial alternation of the two learning modes, which can be applied taking into account the discipline, section or topic. These models demonstrate the perspective of distance learning, and its variability -the possibility of its introduction with the specifics of the subject or direction of training.

The quarantine associated with the Covid-19 pandemic forced higher education in Uzbekistan, as in many countries around the world, to translate into a distance learning format, an innovation mastered by many under extreme conditions. Despite some difficulties in mastering this complex process for everyone, to one degree or another, a new format for us, it cannot but be understood that in the future this will be one of the common forms of training. TSPU named

after Nizamy with two universities in Uzbekistan was transferred to online training. Lecture and practical classes and circle work with students at our university were carried out on the Zoom platform. In addition, communication was maintained through the Telegram messenger. This experience demonstrated the possibilities of distance learning under the conditions of modernization, informatization, technologization and the need to develop its methods, which will increase the effectiveness of this form of education, as well as some difficulties. One of the problems of distance education is the lack of 'live communication' among students, as well as students and teachers. The training process is impersonal, as if students are receiving information in a number of centres.

Results and Discussion. E-learning requires not only a change in the format of training, methods, forms, etc. but also, a technological aspect that will contribute to improving the quality of educational services. Intellectual knowledge services from the point of view of the team of authors require systematization. 'It becomes urgent to transfer the digital educational resources into a consistent knowledge system and services' (Feng Tian, Qinnghua Zheng, Kuo-Ming Chao 2020). Online educational resources will become relevant, virtual physical or chemical experiments will be conducted, and projects largely aimed at individual educational needs will be created. Perhaps it is such an electronic resource that will remove the problem of the practical training of trainees, which today is especially acute in the domestic education system.

In the process of learning in the online format, many teachers faced difficulties in evaluating students' knowledge. When switching to e-learning, it is necessary to develop an evaluation system. 'It will be important to develop an assessment technology of making all different assessment types work together to capture and analyse e-learner's abilities and e-learning environments in consideration of complete validity, reliability, fairness, and privacy protection, establish a feedback mechanism and emotional communication between learners and teachers, and then implement refined and scientific assessment' (Feng Tian, Qinnghua Zheng, Kuo-Ming Chao 2020). Regarding the importance of emotional communication and feed, one cannot disagree with the authors.

Conclusion. Thus, distance learning provides quality in mass and individualized education. Today, when quarantine is in place in many countries, including ours, the need for distance learning and the opportunity to continue training without exposing oneself to infection is obvious. Reforms in the field of education in Uzbekistan are aimed at providing wide opportunities for obtaining educational services, which are in high demand among the citizens of Uzbekistan. Distance learning will solve the problem with classrooms and will provide an opportunity to receive education and improve qualifications, for example, for people with disabilities, people caring for young children or the elderly individuals, etc. This problem is investigated by specialists and online programmes are being developed that are uploaded to information platforms that are gaining popularity among modern youth.

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