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CURRENT CHALLENGES OF DISTANCE EDUCATION: FOREIGN EXPERIENCE FOR UKRAINE

The paper is devoted to the analysis of remote technologies application in the education field, taking into account the experience gained during the COVID-19 pandemic in 2020–2022. The opportunities opened up by remote technologies in the context of access to more resources and reaching a wider audience are considered; the prerequisites for successful use of distance education and introduction of new approaches to the education process are determined; the best practices of using distance education in the world are analyzed.

In the context of educational resources availability, the use of Internet network, playing a special role in changing the education image and giving a wide range of opportunities has been studied. The virtual environment allows to carry out synchronous and asynchronous training of students, providing tools for creating and obtaining educational materials, assessing and feedback. Current trends for expanding access to the global network in various countries, which is one of the factors for the successful development of distance education, have been highlighted.

The experience of foreign education institutions in solving problems that arose during the COVID-19 pandemic has been considered. It has been noted that negative trends and disappointments from the use of distance learning are primarily related to the weak preparation of all education participants for the use of distance technologies. At the same time, the countries that were aware of distance education before the quarantine restrictions and had a higher level of digital literacy of the population made the transition to online education more effectively.

The negative effects of long-term use of only online technologies for all education process participants, including medical and psychological factors, have been investigated.

The need for mandatory feedback during online training, the absence of which turns this process into self-education has been noted. The important role of the teacher, who is not removed from the education process, but should acquire new skills necessary for the effective use of online technologies, has been emphasized.

Specific steps to increase the awareness of the teaching staff in the field of digital education technologies and directions for further distance education development in Ukraine have been outlined.

Key words: distance education, digital technologies, online learning, foreign experience, education process.

Problem formulation. Nowadays individual education schemes are in great demand in many countries of the world. Both universities and various training centres act as their providers. As a result, all areas of activity are covered – from a wide range of university specialties and programs to distance learning for managers, accountants, real estate agents, receptionists and other specialists.

This form of education has been developing in Ukraine for a long time, having become widely used in connection with quarantine restrictions during the COVID-19 pandemic. Russian aggression on February 24, 2022 also forced educational institutions to continue working remotely, at a time when most universities in the world returned to off-line learning. Considering the above, as well as taking into account dynamic development of information education tech-

nologies in the modern world, distance learning remains relevant for further systematic research.

Research and publications analysis. Over the past decades, distance learning has been reflected in numerous scientific works in Ukraine and abroad. In particular, its theoretical and practical aspects were studied by J. Adams, S. Bell, F. Bodendorf, I. Bouchrika, J. Kettunen, O. Hrytsenchuk, V. Kuharenko, O. Oliinyk, I. Postolenko, L. Romanenko, V. Romanyuk, O. Yankovets, and many others.

Purpose of the article is to analyse the foreign experience of using remote technologies in education activities taking into account recent challenges and identify trends that can be applied in Ukraine.

Main part. It should be taken into account that practices being successfully implemented in Europe or North America may not be compatible with our

national realities. Along with some general requirements, conditions and resources necessary for distance learning, there is a unique specificity due to geographical, historical, social and cultural traditions in each country influencing the main directions of its education policy. All this together affects the strategy for the education system development and study process implementation.

Distance learning universities would appear to have a potential to address a large population of students but this potential is vulnerable to the radical changes and disruptions evident in the application of digital technologies (e.g. Massive Open Online Courses). Also, higher education institutions face an unrelated but equally profound set of opportunities and disruptions related to innovations in the way we work, changes to the environment and the effects of globalization [8].

One of the prerequisites for the development of distance education technologies is the global trend for increasing computer literacy level. A university graduate is required not only professional competences, but also computer fluency. The distance form of education assumes either the presence of such knowledge at the time of admission, or mastering them within a short time. So, distance learning develops the skills of searching for the necessary information and working with it, thereby expanding the general intelligence and thinking.

The role of the worldwide Internet is growing significantly. Regions unfamiliar with the virtual network 10–15 years ago are now actively learning new IT and Internet opportunities, including the education ones. The expansion of the information space has led to a mass transfer of education to the Internet, the possibilities of which open up prospects for further professional and creative development. The Internet is changing the face of education, providing opportunities for synchronous and asynchronous learning, creating learning materials, evaluation and feedback. The global network contains free useful resource bases: textbooks, encyclopaedias, dictionaries, methodical developments etc.

However, despite considerable spread of Internet technologies, access to the global network is still limited in many parts of the world. The Internet Penetration Rate (percentage of the total population of a given country or region that uses the Internet) is the highest in North America (93,4%) and Europe (89,2%). At the same time, this index is 43,2% in Africa and 67,0% in Asia. In Europe the number of Internet users increased by 611% from 2000 to 2023. The same index for Africa is only 13,2% [9].

Distance technologies can create their own specific form of education only if there is an appropriate IT infrastructure, as well as methodological support in education institutions. Therefore, they were initially the most widespread in the countries having modern IT infrastructure and developed traditional education.

However, quarantine restrictions related to the coronavirus pandemic have posed global challenges to education on almost all continents. As with businesses, government institutions, and other organizations worldwide, education had to suspend physical classes beginning in March 2020 as part of international moves to deal with COVID-19. To ensure that students do not miss precious education time, academic institutions had to rush implementing online learning. According to UNESCO, the move affected more than 1.7 billion globally [5].

The widespread transition to online forms of education within a short time has revealed serious problems. On the other hand, the experience gained is extremely useful for further improvement of distance education in general.

According to the European University Association, 95% of universities switched to distance learning at some point during the pandemic. Teachers and students, taken by surprise, had to change and adapt to their learning environment. Solutions provided to teachers and students were more of an “emergency remote solution” rather than actual online learning facilities. According to UNESCO, only 20% of countries globally were equipped with online teaching devices and programs before the pandemic hit. Evidently, schooling systems were not digitally prepared, revealing the overall weakness of European digital learning. In fact, a survey published by HundrEd indicated only 6% of respondents evaluated their education system as being prepared for the pandemic [7].

However, some countries have been able to respond effectively to the challenges of the pandemic. In the UK, only one in five students was unable to access online learning. In Sweden the government had already developed remote and hybrid forms of education prior to the pandemic. Therefore, a lot of students were already familiar with online learning platforms [7].

Existing educational tools proved themselves very useful. Video Conference platforms, such as Zoom or Microsoft Teams, have been experiencing unprecedented exponential growth: between March and June 2020, Teams grew by 894%. A survey made by “Statista”, demonstrated that the most used platforms by students were the digital platform “Classroom” and “Zoom” [7].

It is noteworthy that relevant surveys were also carried out in Ukraine. According to the Academy of Pedagogical Sciences, during distance learning, the GoogleClassroom platform was used by 100% of educators to transmit information, check papers, conduct testing and evaluation. This is the platform that foreign language teachers liked the most. Teachers also conducted online lessons, video conferences and individual consultations via Skype (11.1%) and Zoom (44.4%) platforms [2].

Very often, low level of technical skills of students and teaching staff became the main factors for expe-

riencing difficulties during distance learning. It is obvious that a student or teacher with strong computer literacy will perceive a distance learning environment more positively.

A serious problem was the need for significant preparation for online lessons, because traditional classes cannot simply be transferred to a new form of learning. The educators had to make huge efforts to develop new approaches to teaching, which was done free of charge. They were expected to quickly become digital experts, psychologists, COVID-19 prevention experts. This was not easy to put into practice, especially for older teachers. Many of them complained that they did not go to education in order to spend hours in front of the monitor.

The important psychological aspects of teaching should be also mentioned. Probably, each of us knows professors whose lectures are especially interesting, non-standard and sometimes turn into a real performance. For such people, accustomed to live communication and direct contact with the audience, the transition to online was a shock. A lot of them never got used to the many months of communication through the monitor screen and left education. All these difficulties leading to professional burnout should be taken into account in the future.

In the EU countries, the digital competence of the teacher acquires special importance and is the main factor for carrying out educational reforms. According to the Digital Economy and Society Index 2018 (DESI), such countries as Denmark, Sweden, Finland, the Netherlands, the United Kingdom, Estonia are currently the most developed in the field of ICT use by their citizens [6].

These countries showed themselves the most experienced with online learning and even shared best practices to help other countries. Among Eastern Europe, the experience of the Baltic countries deserves attention. The increase in the level of teaching staff digital literacy in these states was largely due to the international projects related to information technologies.

Taking into account the importance of population awareness in the field of distance technologies, a special online platform for digital literacy "Diia. Digital Education" was developed in Ukraine. The web portal created by the Ministry of Digital Transformation of Ukraine in 2021, provides education series, electronic textbooks, multimedia materials and other resources free of charge.

Its main purpose is to realize everyone's right to quality and affordable education by providing the possibility of distance learning via the Internet. Among the main tasks of the portal there are: provision of access to educational materials; testing realisation, in particular testing of the digital literacy level (cypherograms); ensuring receipt of electronic documents confirming completion of training; formation

of an individual list of education materials; display of news and research results in the field of education; ensuring the possibility of providing suggestions (comments) regarding educational materials and distance learning processes; use of methods and mechanisms to improve learning outcomes, etc. [1].

After considerable period of remote education, conclusions can be drawn about its advantages and drawbacks both for teachers and students. Although, some teachers claimed the situation has encouraged them to become more creative and innovative most of them were deeply impacted by the sudden change of teaching habits.

In particular, online examinations constituted one of major challenges. Teachers had to find new ways of making their students pass exams, taking into account students would use their notes, while ensuring fairness and avoid cheating. As a result, remote exams have been focusing more on reasoning, analysis and argumentation, rather than on memorization of factual information. However, online exams are not of every student's liking. Some find it more difficult to have to type their answers rather than using a pencil and paper [7].

In our opinion, an effective mechanism for objective assessment of students in this situation is the rejection of test-type tasks and the use of tasks with "open" answers. If the task involves independent disclosure of a topic, writing a short essay, or expressing an opinion on a specific issue, students' answers cannot be 100% identical. Cheating or "teamwork" will be immediately detected by the teacher.

At the same time there are numerous examples of effective practices for distance learning development. Having reviewed the experience of European countries (Great Britain, Latvia, Lithuania, Estonia, Norway, the Netherlands, Slovenia), it should be recognized that in these countries there are a number of programs aimed at improving the qualifications of teachers in terms of digital competence. The main focus of these programs is on the self-development of teachers and the improvement of their practical professional activities through their use of digital tools and the creation of a digital learning environment for students. It is important that teacher training programs exist both as separate projects supported by international structures and as special courses that teachers take in the post-graduate education system [6].

The European Commission launched the new Digital Education Action Plan for the year 2021 to 2027. Through this plan, the Commission's objective is to "learn from the COVID-19 crisis and make education and training systems fit for the digital age". Ursula Von der Leyen expressed the plan's objective to "raise the quality and inclusiveness of education and training systems and the provision of digital skills for all during the digital and green transition". The COVID-19 crisis has triggered a challenging transformation of educational systems and has highlighted

the great importance of education. Indeed, recognising it is more than just grades and a diploma [7].

Ukraine has to learn from the difficulties of introducing online education as well. The most effective education could be developed taking into account the experience of teachers during the pandemic. When creating further policy for the online education implementation, the voice of teachers should be listened to. In particular, among the main problems there were low level of teachers' IT skills, lack of interest in ICT use in teaching process, as well as insufficient capabilities of their institutions to technically meet modern requirements and technological development.

Important conclusions were reached by researchers from the Massachusetts Institute of Technology (USA), after surveying American teachers. In April-May 2021, scientists interviewed 57 teachers representing different specializations and forms of education. All teachers complained that they were not valued as partners in the development of educational policy during the pandemic. When asked to describe their experience during the pandemic in one word, teachers chose "disappointment" [3].

We cannot ignore the disadvantages of distance education from a medical point of view. A study conducted by the Aix En Provence University for students between 18 and 25 years old, showed that 41,1% of the respondents have declared not being able to keep their concentration for more than 1 hour straight, while 28,1% found it difficult to remain focused for more than 2 hours. In fact, the remaining focus appeared to be more challenging during online classes, especially due to a lack of human interactions between the teacher and students and between students. Indeed, 74,5% of the respondents affirmed to be interacting way less with other students than during in-person sessions [7].

Staying in front of a computer or smartphone monitor for 5–6 hours a day contradicts the recommendations of ophthalmologists, who recommend using electronic gadgets for no more than 4 hours a day, and ideally the duration of stay in front of a monitor should not exceed 2 hours. Psycho-emotional and physical condition are important factors as well. During long quarantine the usual rhythm and mode of the day is broken. Students are deprived of live communication, which also affects their mood, perception of information and cognitive activity [4, p. 331].

The isolation of students is a major drawback that can affect the quality of education. Isolation creates certain problems in communication, makes it difficult to complete tasks that require group work, and to get feedback. Feedback is one of the means of learning, competent and effective organization of which should increase the influence of the teacher on the student. The teacher's work should eliminate the impact of this shortcoming and ensure the effective work online. Therefore, the most important conclusion, in our opinion, is the neces-

sity of educators training for the effective use of online learning tools, increasing their digital literacy in order to ensure quality learning in all conditions.

The role of the teacher still remains the key one for distance learning effectiveness. The technical competence of teachers and their attitude towards students can be critical factors in the success of distance education. The positive attitude of the teacher towards technology, the interactive style of learning when delivering lectures, to a large extent, influences the student's motivation within a distance course. That is why the characteristics of a teacher are largely determinative.

Conclusions. Both foreign and domestic experience has demonstrated the possibility for effective use of information technologies in the education process. Today, such technologies make it possible to quickly transfer information in any form and volume over any distance, provide access to various sources of information, organize joint telecommunications training projects that include developments from different countries, hold online conferences, etc.

One of major reasons for distance learning intensive development consists in its integrating ability. A University cannot concentrate all the world scientific and educational resources accumulated by mankind. Remote technologies allow providing access to information resources located in any region of the world. Thus, distance learning activates information resources distributed over different territories. This is the conceptual justification for distance learning development.

The other important advantage of distance education consists in the ability to reach a large number of people. During pandemic it gave an opportunity to organize study process while students had no possibilities to attend classes due to medical reasons. It also contributes to individualization of the educational process and professional training of specialists by drawing up individual plans for each student, systematic control and correction of the course of training is provided in all the leading educational institutions of the world.

It is important to note that the application of distance learning involves, first of all, a radical change in the types of communication and means of information transmission. There is a replacement of traditional interactions with telecommunication means, which deliver the bulk of the studied material to students and provide interactive communication between students and teachers in the educational process.

At the same time, the key factor, in our opinion, remains the provision of effective and prompt feedback, without which distance learning is transformed into a process of self-education. The teaching staff must have appropriate skills to implement remote technologies. The teacher does not withdraw from the educational process. On the contrary, the role of the teacher, the significance of his methodical preparation, is becoming crucially important.

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Маєв А. П., Насакіна С. В. Сучасні виклики дистанційної освіти: зарубіжний досвід для України

Статтю присвячено аналізу застосування дистанційних технологій у сфері освіти з урахуванням досвіду, отриманого під час пандемії COVID-19 у 2020–2022 роках. Розглянуто можливості, що відкриваються завдяки дистанційним технологіям в контексті доступу до більшої кількості ресурсів та охоплення більш широкою аудиторією; визначено передумови для успішного використання дистанційної освіти та запровадження нових підходів до організації навчального процесу; проаналізовано найкращі практики застосування дистанційної освіти в світі.

В контексті доступності освітніх ресурсів досліджено розвиток використання мережі Інтернет, яка відіграє особливу роль у зміні обліку освіти, надаючи широкий спектр можливостей. Віртуальне середовище дозволяє проводити синхронну та асинхронну підготовку студентів, надаючи інструменти для створення та отримання навчальних матеріалів, проведення оцінювання та зворотного зв'язку. Висвітлено сучасні тенденції розширення доступу до глобальної мережі у різних країнах, що є одним з факторів для успішного розвитку дистанційної освіти.

Розглянуто досвід іноземних закладів освіти щодо вирішення проблем, які виникли під час переходу до онлайн навчання в період пандемії COVID-19. Відзначено, що негативні тенденції та розчарування від використання дистанційного навчання пов'язані, насамперед, зі слабкою підготовкою усіх учасників навчального процесу для застосування дистанційних технологій. В той же час, країни, які розвивали дистанційні технології до карантинних обмежень та мали більш високий рівень цифрової грамотності населення, здійснили перехід на онлайн навчання більше ефективно.

Досліджено негативні наслідки тривалого використання винятково онлайн технологій для усіх учасників навчального процесу, зокрема, медичні та психологічні фактори.

Відзначено необхідність обов'язкового зворотного зв'язку під час здійснення онлайн навчання, відсутність якого перетворює цей процес на самоосвіту. Наголошено на важливій ролі викладача, який не відсторонюється від навчального процесу, а має опанувати нові навички необхідні для ефективного застосування онлайн технологій.

Окреслено конкретні кроки щодо підвищення обізнаності викладачів у сфері цифрових освітніх технологій та напями подальшого розвитку дистанційної освіти в Україні.

Ключові слова: дистанційна освіта, цифрові технології, онлайн навчання, зарубіжний досвід, освітній процес.