

## **Using Distance EdTech for Remote Foreign Language Teaching During the COVID-19 Lockdown in Ukraine**

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### **Abstract**

The situation with a coronavirus challenged the education system and forced educators to shift to a fully E-learning. Many academic institutions were not ready for such a rapid change. The remote learning of foreign languages during the COVID-19 lockdown caused modern teaching technologies to expand the scope of the educational process, broaden its practical orientation, contribute to the intensification of students' independent work, increasing their cognitive activity. The goals of the article include: to define types and specifics of modern edTech for the educational process on the way of transition from no E-Learning to fully E-Learning; to eliminate the role of the Internet as means of information and communication edTech in teaching foreign languages at higher education establishments; to find out the ways of improving students' learning at higher educational establishments, the importance of using distance edTechs and Strengths, Weaknesses, Opportunities, & Challenges (SWOC) analysis of E-learning techniques during the pandemic lockdown. This article also provides the examples of usage of different edTechs in Ukrainian higher education establishments in general. Drohobych Ivan Franko State Pedagogical University, Lviv State University of Life Safety, Odesa National Maritime University in particular.

**Keywords:** distance edTech, E-Learning, foreign language teaching, remote learning, SWOC analysis, the COVID-19 lockdown, Ukraine

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## Introduction

Speaking about the role of new technologies in education worldwide, one can distinguish two opposite poles in the discussions, at one end of the continuum – transforming the current system of education, like the National Education Technology Plan of the United States. It calls for "applying the advanced technologies used in our daily personal and professional lives to our entire education system to improve student learning, accelerate and scale up the adoption of effective practices, and use data and information for continuous improvement" (United States Department of Education: *Transforming American Education: Learning Powered by Technology*, 2016, <https://tech.ed.gov/>). It is not a secret that in a predominantly "developed" country, new technologies and approaches are layered upon older ones. Still, the education system works at least from a global perspective. On the other side of the pole, one can see teachers and students of "less developed" countries that would happily switch places. So, the conclusion is that contemporary education depends on our perspective: one country's education crisis may be another country's aspiration.

Traditionally the primary purpose of teaching foreign languages in Higher Education Institutions (HEIs) is the formation of core communicative skills and practical mastery of at least two foreign languages. Not so long ago, the major restructuring program at most HEIs was conducted, emphasising on professional skills only. It aims to enable graduates to use global resources and international talent to answer future challenges (UNESCO, 2010). Similarly, the essential eight skills university graduates should possess are: (1) Character Development, (2) Self-Management Skills, (3) Social and Cooperative Skills, (4) Communication Skills, (5) Literacy and Numeracy, (6) Thinking Skills and Creativity, (7) Knowledge Application Skills, and (8) Information Skills.

Character Development and Self-Management Skills are vitally important as they enable graduates to deliver their idea as an individual or a group member and comprise a diversity of backgrounds to come out with a right decision, solution, and negotiations (Morreale, Osborn & Pearson, 2000). Communication skills traditionally are considered to be of priority as they refer to the ability to use active listening, writing skills, oral communication, presentation skills, questioning, and feedback skills to establish successful communication (QCA, 2000; SQA, 2003; Washer, 2007; Jones, 2009). Under such conditions, the teacher's task is to administrate the learning process, to enhance the students' cognitive activity, and choose appropriate teaching methods that would allow each student to reveal his creativity. But at the present stage of rapid information development, knowledge becomes obsolete very quickly. Educators are continually looking for new approaches to make the organization of a learning process more effective.

That is why HEIs in Europe and Ukraine as well are turning a university curriculum from the outdated conventional objective (no E-Learning form) to new high-tech contexts of global changes (fully E-Learning), which we are witnessing now in the world's remote learning caused by the pandemic COVID-19 lockdown. Another important aspect of this problem is the modern employment settings. It is now generally accepted that the current changes in the global economy and job market require graduates to have initiative skills, be adaptable to rapidly changing situations, and work well in teams and different multicultural environments. All mentioned above trigger significant changes in the way universities train their undergraduates and increases

emphasis on graduates' continuing lifelong education. In these circumstances, a personality-oriented, differentiated approach to the very process of teaching, this for sure will contribute to improving the quality of the educational process. As a result, a new curriculum is being worked out by HEIs that is not only focused on the development of professional students' knowledge but also on their core competencies, such as communication and IT skills, emotional intelligence, ability to lifelong learning.

However, nowadays, many HEIs are still based mainly on obsolete concepts and focused on content learning. When many existing-working activities are taken over by AI-based machines and robots, our education is still based on traditional skills and competencies. It is interesting to know that since the middle of the 20th century, a notion of "learning technology" was associated with the technical usage of training tools only. At the end of the 20th century, a different meaning appeared in the concept of "learning technology". Under this term, one can understand the most rational ways of achieving learning goals (Babelyuk, 2019).

### **Objectives of the Study**

1. To investigate, analyze, and characterize the types and specifics of modern EdTechs for remote foreign language teaching.
2. To conduct the level of usage of the provided EdTechs during the pandemic in Ukraine.
3. To provide Strengths, Weaknesses, Opportunities, & Challenges (SWOC) analysis of remote foreign language teaching during the coronavirus pandemic in Ukraine.

### **Literature Review**

At the beginning of the XXI century, in the dictionary of terms on general and social pedagogy, "learning technology" is described as "a set of forms, methods, techniques, and means of transmitting social experience, as well as technical equipment of this process" (Воронин, 2006, p. 113). Different interpretations of this notion can be adhered to the following definition of "learning technology," which is relevant for our research: learning technology is a sequence of procedures and operations that make up an integrated didactic system, the implementation of which leads to the achievement of guaranteed goals for training and education. But this definition seems rather general, as it does not reveal the importance of technical components in the current educational process.

One of the first recorded uses of the Internet for teaching is Computer-Mediated Communication Systems (CMCS) at the New Jersey Institute of Technology in the 1970s (Hiltz & Tutoff, 1978; Hiltz, 1986). That was a "blended" learning model (the combination of classroom teaching with the online discussion between students and a teacher). The model is brought into a variety of software programs to support Computer-Mediated Communication (CMC). One of the most popular was CoSy, developed by the University of Guelph in Canada. A particularity of CoSy was that it enabled threaded discussions (postings were linked directly to a specific previous posting). This type of teaching was provided mainly through specially designed printed material, audiocassettes, and broadcast television programs.

Up until 1990, educational applications of the Internet were limited (email, discussion forms, including CoSy and such like types) due to the limitation of storing or sending large

amounts of content (the narrow bandwidth (56Kbps)). The limit has been removed by the development of the World Wide Web (WWW).

The introduction of WWW gave a push to the bringing in commercial products, providing teachers with online learning environments that included "pages" for online course materials, tests and assignments, discussion forums, and access to other web-based resources, now called learning management systems (LMSs). In response to commercial LMSs, large research universities and some government agencies worked out and used open sources of LMSs, such as Moodle and Sakai.

### **Methodology**

The study is descriptive and provides the necessity of transference from no E-Learning to fully E-Learning during the COVID-19 lockdown. The problems associated with remote foreign languages teaching in Ukraine and possible solutions were also identified. The SWOC analysis was provided to single out numerous strengths, weaknesses, opportunities, and challenges associated with the online mode of teaching during this pandemic. The research tool used for analyzing the data of this research is a content analysis. The research method is descriptive research. The qualitative aspects have been taken into consideration in the research study. This study is entirely based on secondary data. A systematic review was done in detail for the collected literature.

Secondary sources of data used are (a) journals, (b) reports, (c) search engines, (d) company websites and scholarly articles, (e) research papers, and other academic publications.

### **Data Collection Procedure**

The primary purpose of teaching foreign languages today is students' skills in foreign language acquisition and general communicative skills. Different modern teaching technologies help to realize a student-centric, personality-oriented, differentiated approaches to teaching and contribute to improving the quality of the educational process in general.

But in the 1970-1980s new edTech were created and put into practice. Among the scholars involved in the theoretical generalization of the latest pedagogical researches in the frame of HEIs, one can name Klarin, Fomenko, Markova. They have worked out the key edTechs to increase the effectiveness of the educational process when conducting foreign language lessons.

### *The Technology of Communicative Teaching*

This technique presupposes the formation of general foreign language competencies/skills at a communicatively optimal level. It is aimed at the simultaneous development of necessary language skills (oral and written speech, grammar structures, reading, listening) is alive, accessible communication. It is essential to fulfill some tasks to achieve this goal: to develop linguistic, intellectual, and creative skills of students, which subsequently will satisfy the need for independent knowledge acquisition; to create favorable educational conditions for the free development of an individual as an equal part of an active joint educational activity. In implementing this technology, such practices of teaching foreign languages as grammar drills, audio-lingual, and video-lingual comprehension turned out to be effective and appropriate. A significant advantage of this technology is its reliance on a factual psychological, pedagogical, and methodological basis. Among them, one cannot but mention the growing popularity of e-resources,

such as electronic dictionaries and other e-books and textbooks, which turned out to be particularly useful during the COVID-19 lockdown.

Besides, during the pandemic lockdown in Ukrainian HEIs, the special attention was paid to webinars, using ZOOM meetings. These are online seminars that provide a teacher with the opportunity to transmit information simultaneously to all his/her remote participants – to receive new knowledge using a virtual classroom in which they can hear and see the teacher and each other from anywhere in the world. The benefits of webinars are apparent: 1) all participants are involved in the learning process, they can ask questions and instantly receive answers to them; 2) the educational process is exciting and alive: audio and video recordings received during a webinar are replaced with text transcripts that make it easy to work on the text; 3) it presupposes a minimum set of necessary tools for training: a computer, speakers with a microphone or headphones and access to the Internet; 4) webinars significantly save time, because participants do not need to be at the venue of the webinar.

This technology can be introduced into the educational process in HEIs through the Internet and social networks. As indicated above, the technology of communicative learning involves teaching foreign languages based on communication (oral and written). Due to the specific communicative nature of social networks, all participants of the educational process have the opportunity to speak the language they are learning not only with teachers but with acquaintances from other countries and native speakers. That makes it possible to practice not only writing in a foreign language but also speaking.

### *The Technology of Modular Teaching*

It is the implementation of a teaching process by dividing it into professionally significant actions and operations that allow students to achieve their learning goals independently and stimulate their cognitive activities. It originated in the late 60s and, at the beginning, was spread in English-speaking countries, such as the USA, England, and Canada. Modular education in its modern form was proposed by American educators Russell and Postletway (1974). Its purpose is "to create special conditions of choice for the complete mastery of the content of the educational program in a different sequence, volume and pace through separate and independent training modules, taking into account students' interests and capabilities" (Современные образовательные технологии, 2011, p. 432). The advantages of this edTech are creating favorable conditions for students' motivated study of foreign languages, mutual participants' interaction in the educational process due to the implementation of an individual approach to a learning process, the possibility of multilevel training in the process of foreign language learning.

During the COVID-19 lockdown in Ukrainian HEIs, this technology is implemented with the help of the Internet and social networks through one of the most popular educational systems Modular Object-Oriented Dynamic Learning Environment (MOODLE). This system is widely used not only by universities, schools, language schools but also by independent tutors in more than 100 countries. It has a broad range of opportunities to fully implement of the learning process into the electronic environment, including various options for formation and presentation language material, knowledge testing, monitoring of students' academic performance, communication, and organization of their community. It is also worth noting that the main options of e-environment

are developed with a focus on the pedagogy of social constructivism, which presupposes an active, communicative involvement of students in the process of language knowledge, skills and abilities formation, and their interaction, which is, to our minds, vitally crucial during the COVID-19 lockdown.

#### *The Technology of Individualization of Learning*

It is the implementation of a process of teaching foreign language independent students' learning programs. The essential component of which is their specific psychological characteristics. The idea of an individual approach to students' learning in a class or a team belongs to Comenius (1592-1670). Since now, problems of personal practice in education in general, and in HEIs, in particular, received a scientific background in studies on the following topics: ways of increasing cognitive activity and independent activity of schoolchildren in learning; principles of organization of group and individual work.

Hence, the edTech of individualization of learning is designed to eliminate discrepancies between the real educational capabilities of each student and the level of their educational activity according to their learning program. Thus, it is worth noticing that this technology can serve not for individual purposes only, but also group tasks. But in both cases, it is essential to take into account the personality traits of each student within his psychological aspect, which include: student's interest in the process of learning, the degree of confidence in his capabilities, cultural characteristics, motivation to learn a foreign language, willingness to make one's own decisions.

Under the complicated conditions of the COVID-19 lockdown, the edTech of individualization of learning provides an excellent opportunity for self-study, mainly while using some means of distance education (the Internet). Via the Internet, students can independently find the necessary information they need, related training materials, and practical educational resources in the shortest possible time. Besides, as far as we can assume from our practice, students' motivation for learning is continuously growing due to the Internet and social networks. It can be explained by the fact that the Internet is the most familiar environment for contemporary learners, where they can communicate easily, consult their teachers or native speakers.

#### *The Technology of Multilevel (differentiated) Training*

It is the implementation of teaching foreign languages some educational devices when consolidating new material, some assimilation occurs, or review of the covered material. It can be used at any stage of the lesson.

Differentiated multilevel training provides students' cognitive motivation and stimulation of their mental activity; voluntary choice by each student of the level of assimilation of educational material; organization of independent work of students at various levels; full assimilation of the primary component of the content of education; paired, group and teamwork as forms of organization of educational process; ongoing monitoring of learning material; introductory or final control for each unit of mastering educational material (for students who still have not completed the essential tasks, correction work is necessary until complete mastery). This technology allows students to evaluate their capabilities of learning a foreign language, needs, and interests during the educational process objectively.

### *Testing Educational Technology*

It is one of the most effective means of controlling students' acquired knowledge. For the first time, testing was applied by Fisher in 1864 in the United Kingdom. He created a book that presented questions and a series of answers to each of them. In Ukraine, testing appeared later and was proposed by the Ukrainian scholar of Greek origin Rossolimo (1910).

The benefits of this technology are obvious: with the help of testing, a teacher can check the progress of all students in the group simultaneously, because it takes a short period to complete the test, which, accordingly, makes it possible to conduct it in almost any class. Another advantage of this edTech is that all students are placed on an equal footing. So, testing takes place in the same environment, with the same volume and complexity of tasks. The above advantages of testing technology indicate the appropriateness of its use in the educational process in general and in teaching foreign languages.

Due to popular social networks, which are significantly often used in the educational process of HEIs during COVID-19 lockdown, students do not leave their comfort zone for the implementation of classroom educational activities (including testing as well). For example, through surveys on Instagram, a teacher can identify the level of learned material (conducting testing) by students being in their familiar environment. By the way, this test option will not cause stress for students, but only favorably affect the results.

### *Project Educational Technology*

It presupposes almost any technological innovation in the new educational process, which positively affects foreign language learning outcomes and increases students' motivation.

Currently, one of the most popular devices in teaching foreign languages is project technology. Since it presupposes the fulfillment of the following tasks: a) to develop students' language skills; b) to navigate independently in the information space; c) to construct their knowledge and apply it to solve various problems alone; d) to analyze the information received; e) to develop students' creative abilities. So, as we can see from the above statements, the use of modern information technologies in general, and project technology can both diversify the educational process and provide excellent opportunities for expanding the educational framework, which, of course, involves increasing students' motivation. It contributes to the individualization of foreign language learning. Due to project technology, students can learn to work independently, show their educational capabilities, and language abilities to the full, actively engaging in real activities. Besides, it is necessary to stress that project technology provides teachers with a chance to realize their students' creative abilities, the results of which can significantly improve and optimize any learning process as a whole. Sometimes, they are not applicable in the classroom because of a lack of time, equipment, or other resources.

### *The Technology of Distance Education*

It presupposes that students are provided with all the necessary textbooks, e-dictionaries, and teaching aids, which they need in foreign language learning. It is aimed at cooperation between participants of the educational process. Today, in contemporary HEIs, it is necessary to provide students with a perfect opportunity for continuous training. They will have access to world

information and appropriate educational resources, improve their professional language skills, and activate their creative development.

The main element of edTech distance education is a specially worked out distance education course, presented in an *electronic* form. The basic requirements for its formation can be formulated as follows: a) distance education course should be built on a modular basis; b) distance education modules are based on a single model; c) module information elements are focused on independent learning; d) the content of modules should include various contexts, taking into account students' academic language level; e) each module has components intended for input and output control of the learner's knowledge; f) assessment procedures should be classified according to the levels of material assimilation; g) the modules and information elements of the distance course should include sets of expert rules that determine the path of the module (Кларин, 1995).

Also, it should be noted that many students and educators do not have full-time training and special courses for retraining in the frame of distance learning. That is closely related to information and communication technologies, which provide the possibility of implementing online training and quick access to the necessary e-resources, putting into life the principle of "long-life learning."

#### *Information and Communication Technologies (ICT)*

ICT creates appropriate educational information and communication environment of foreign languages teaching in HEIs. The educational information environment is a set of conditions providing unified approaches to the implementation of information activities and information interaction when using a distributed information resource in education, science, and culture.

New information and communication edTech have selected didactic properties and functions. Their essential features are quite clearly described in the works of Polat (Полат, 2002). ICTs are effective means of teaching not only necessary language skills but also modern ways of presenting cultural peculiarities of the countries. But the primary goal of this edTech is to prepare students to live in a modern, rapidly changing information society, in a world where there is a constant need for new professions, new knowledge and discoveries, and continuous training. Hence, to the most commonly used ICT tools used in the educational process, we can include electronic textbooks and manuals demonstrated with the help of a computer or a multimedia projector; electronic dictionaries, encyclopedias, and reference books; simulators and testing programs; educational resources of the Internet; DVD and CDs with pictures and illustrations; video and audio equipment.

At present, all the abovementioned ICTs for teaching foreign languages are closely connected with the Internet and social networks; that's why they are frequently used during the COVID-19 lockdown. Due to these ICT tools, standard educational methods and technologies are being modernized, thereby meeting the modern needs of high-tech society and improving the quality of the educational process in general.

## Discussion

The condition of the COVID-19 lockdown in Ukraine turned out to be a challenge for the national education system. Educators had to move to fully E-learning form of teaching using distance edTechs at remote learning: edTechs of communicative teaching; modular instruction, individualization of learning multilevel (differentiated) training, testing, project, distance education, information, and communication, selecting co-features which are most appropriate for different types of teaching material.

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The departments organize the courses into three levels: master's degree, bachelor's degree, and continuing education levels in learning foreign languages. Due to the COVID-19 lockdown, they have devised a multi-media distance education enabling students to study independently without having a conventional classroom. Universities have developed and integrated various instructional media (ITT) into a distance teaching/learning system. These media help students study independently without having to enter a conventional classroom to prevent spreading the virus. The instructional media comprises *main media* (textbooks and workbooks mailed to students) and *supporting media* (audio with scripts, recorded radio and television programs accompanied with printed course materials and other audio-visual aids).

The websites of these universities contain full details of activities. They include a development fund (including support for small projects); an inquiry service that links the departments; the programs of online conferences, workshops; online projects looking at aspects of teaching and learning.

During the COVID-19 lockdown, fully web-based courses in the abovementioned universities were organized with all material and interaction solely via the web (ZOOM platform). The main aim was to exclude contact teaching where the web is used as a support to facilitate access to study guides and prescribed material according to the curriculum, and online communication between lecturers and students. Many departments at the Universities must follow the latter model to prevent the spread of the coronavirus.

The definite positive changes which facilitate the development of edTechs in Ukrainian universities can be viewed. The Ministry of Education and Science of Ukraine provided the access to the international scientometric databases of Scopus and the Web of Science and now has extended it until February 28, 2021, and May 31, 2021, for all state and municipal universities and research institutions of Ukraine at the expense of the budget. Many institutions have also gained access to new analytical tools.

The Universities provided access to different web sites, courses, and media to increase the research activity of students and teachers of their universities, i.e., Courséra (a technological company) that provides the publication of educational materials on the Internet in the form of a set of online courses (<https://www.coursera.org/promo/free-courses-college-students?>)

Web pages of the universities provide helpful tips and links to resources by category. Using these Web pages during lockdown training sessions makes it easier for lecturers to teach and students to study.

Distance education during the COVID-19 lockdown showed *some concerns* about essential directions, which should be improved. They are the curriculum, evaluation, academic planning and management, guidance and counseling, the use of edTechs.

### Conclusion

"The key lesson for others may be to embrace e-learning technology before disaster strikes!" (Todorova & Bjorn-Andersen, 2011, p. 598). Online teaching is no more an option. It is already a necessity. The spread of the virus has accelerated the process of online learning in the world, particularly in Ukraine. Disasters will continue to occur, and technologies will help us cope with them. A high level of readiness to react to the changes in the environment and adjust ourselves to different modes (remote learning/ online learning during the COVID-19 lockdown) is of high importance. HEIs should prepare contingency plans to cope with challenges, pandemics, and natural disasters. Sufficient availability of ICT, different edTechs, digital learning resources in the form of Massive Open Online Courses, e-books, e-notes, and so on are of high importance (Huang et al., 2020). Instruction, content, motivation, relationships, and mental health are the five essential things for an educator providing online education (Martin, 2020).

The research allows drawing some theoretical assumptions (SWOC) of using distance edTechs for remote foreign language teaching during the COVID-19 lockdown in Ukraine. Time and location flexibility, covering a broad audience, immediate feedback is among strengths. Technical disabilities, learners' level of technological awareness, stress, and lack of eye contact are among weakness. EdTechs development, academic flexibility – opportunities. The absence of technical aids, quality of education, digital illiteracy is among challenges.

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