SECTION 3. INNOVATIVE TECHNOLOGIES IN THE STUDY AND TEACHING OF FOREIGN LANGUAGES

3.1 STATE-OF-THE-ART DIGITAL ENHANCEMENTS IN MASTERING FOREIGN LANGUAGE SKILLS SUFFICIENT FOR MODERN UNIVERSITY STUDENTS

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Abstract. Digitalization is transforming all facets of society, not just work environments, and in terms of educational contexts, the transformation is occurring with or without strategic initiatives that ensure ongoing quality of teaching and learning environments. Integration of technology into teaching and learning is not new, but the rapid rate and pace of technological advancement is new, especially regarding new Internet, ICT and digital technologies. The field of education is mainly reactive, as new disruptive technologies develop in other industries and are then applied and accommodated into existing educational cultures and systems. This chapter provides an overview of technology integration in education from computers to other more advanced forms of digital technologies. The transformative potential of digitalization in education is exciting and presents many opportunities and challenges, given new trends and developments in digital education. The relevance of this study is that in Ukraine, foreign language education acquires a special status, which is argued by the fact that language creates an effective basis for international and intercultural understanding. However, the problem of implementing intercultural foreign language education in higher education institutions needs further comprehensive analysis and solution. This is evidenced by the analysis of the state of intercultural foreign language education in the works of national and foreign scholars, which demonstrated the numerous views and scientific achievements on the successful implementation of foreign language education in Ukraine. The study of foreign languages in higher education institutions of Ukraine is an indisputable positive feature of curricula, based on the recognition that the study of languages along with significant practical, educational, educational and developmental potential is a necessary condition for the education of modern specialists in international relations. On the other hand, today it is an urgent need in terms of the chosen socio-economic vector of development of our state, as the implementation of the concept of "learning languages during life" is impossible without careful study of languages by future experts in international relations. The reasons for writing the paper are grounded on the basis that the integration of the methodological basis of the study is demonstrated by the operational and methodological tools of foreign language education of future professionals. Based on this, the components of this toolkit were

such as: principles – the principle of unity of theory and practice; the principle of certainty; the principle of specificity; the principle of cognition; the principle of objectivity; the principle of causality; the principle of general development; principle of general communication; the principle of dialectical contradiction; the principle of dialectical negation; the principle of historicity; the principle of systematics; the principle of unity of analysis and synthesis; the principle of unity of historical and logical; the principle of ascent from the abstract to the concrete; provisions and requirements – determinism and historicism; objectivity; approaches – systemic, activity, personal, synergetic, competence, culturological. Outcomes of the survey witnessed that the main advantages and disadvantages of digital technologies application in the English teaching process. Although the education system has always been strongly influenced by innovations, the explosion of new technologies caused tectonic shifts in the way the teaching process is carried out at universities. Looking back over the last hundred years, introducing technology into the classroom has been a blessing only for younger students and teachers. In other words, with a sudden introduction of a wide range of devices and the Internet, students got the opportunity to make the learning process much easier and more interesting. It is great to be optimistic and believe in the continuous advancement of technology, however, it is equally important to not lose sight of the negative sides of technology in education, and how it can cause long-term problems for young people. Namely, many sceptics from the domain of social sciences and humanities often point out several potential disadvantages of technology in education, and how it can negatively affect certain aspects, and the quality of children's life and development. Finally, in our research we have concluded that a continuous insistence on disadvantages should not be seen as a desire to return to traditional education, but as a reason for caution and the possibility to better see the holes in the technologies and methods used in education. It is up to educational institutions and teachers to analyze the disadvantages in the next revision, and improve the quality of teaching both in their digital and physical classrooms. One of the key indicators of education reform is the study of foreign languages as a priority of Ukraine's domestic policy on EU integration. One of the tasks in the program is "ensuring the increase and optimization of Ukraine's presence at international events and platforms, presence in the international academic, cultural and social environment". The implementation of this task requires a qualitatively new level of teaching foreign languages at universities, in particular English as the language of international communication.

1. Introduction

The scale, scope and power of digital transformation as evidenced by phenomena such as connectivity, platforms, algorithmic power, and big data is vigorous. The strong interconnectedness and interdependence between technologies and markets are key features of this transformation. In only a few months, the pandemic upended the daily lives of people around the world.

Public education was among the sectors most affected as pedagogy went digital.

For millions of university students, education became based on digital platforms and digital communication.

Examples of early comments, referring to the demand side, about this disruption of an already started and ongoing digital transformation were: "the coronavirus pandemic is reshaping education", "real change takes place in deep crisis", "you will not stop the momentum (in the digital transformation of education) that will build from the crisis".

There were also early comments about the effects on the supply side, such as "expansion of the emerging edtech market" and "entry of new suppliers".

Edtech is the term used to describe the fairly new industry that combines education and technological advances that allow educational institutions to serve a larger and more diverse audience and to enable teachers, students and others to foster relationships in an interactive fashion [1; 3; 6].

Consequently, *digitization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized*." Moreover, digitization is the trending term, describing the 21st century in the most precise manner as possible. We are in the era where unprecedented ideas are unfolding in our education industry and creating the advancement that can't be matched by lagging behind in terms of technology [5].

The new phase of foreign language learning has begun and involves various advanced techniques like:

Online courses. Want to learn a new language or maybe to get trained in some specific course, but have no time to cover the distance? Online courses are developed by experts who have unmatched proficiency in their specific field and can give you the experience of real-time learning by designing their own online course.

Online exams. Digitization gave way to the online exam, making the examination process convenient for both teachers and students.

Digital textbooks. Also prevalent with other names like e-textbooks and e-texts, digital textbooks provide an interactive interface in which the students have access to multimedia content such as videos, interactive presentations, and hyperlinks.

Animation. This is a captivating approach in which students learn in a better manner. By offering a visual representation of the topic, students grasp the concept in a more understandable manner. Even the toughest topics can be presented in a simplified way with the help of animation [6; 8; 11].

Digital technology is considered to be one of the most important drivers of linguistic change in a modern period. Over the last decade with its' remarkable entry as an educational device, the tradition of English Language teaching has drastically changed. *Graddol* claims: "Technology lies at the heart of the globalization process; affecting education, work and culture. The use of English language has increased rapidly after 1960. At present the role and status of English is that it is the language of social context, political, sociocultural, business, education, industries, media, library, communication across [21; 24].

Nowadays, many studies have been implemented to find out the answer to this key issue, and most of them have proved the importance of the usage of digital technology in EFL classes. For example, according to the results of the research conducted by teachers Mollaei & Riasati, they had positive attitudes regarding the use of technology in their classrooms [18].

Researcher from Saudi, Alshumaimeri also reached the same conclusion that there is a positive correlation between a teacher's presence during a computer use and a Computer Assisted Language Learning (CALL) training and a positive attitude toward the use of Information and Communication Technologies (ICT), methodologies in learning [8].

Moreover, Korean EFL teachers found out computer technology as a useful teaching tool that could easily support teaching methods by providing students with a variety of language inputs and increasing students' learning capabilities in real-life contexts [9]. According to Chong the advantages of using the Internet in the EFL classroom were listed as providing authentic materials for learners, making students meet native friends online, and assisting teacher-student communication [11].

Digital education is essentially a product of the past several years, although in different forms it already existed slightly earlier. It is evident, however, that modern devices and means of information transfer are necessary for its development. This type of education would not be therefore possible without rapid development of computers and the Internet. In fact, it can be concluded that they were primary in relation to digital education and somehow they forced its emegrence1 because the prevalence of computers and broadband Internet has given a very strong impulse to use them also in the educational activity.

As a consequence, today 'virtual lectures, modern e-learning courses, educational games, electronic tests, portals with educational resources as well as digital school registers and monitoring systems of the learning process'2 have entered everyday reality. This article aims to show the speciicity of digital education, the current state of its implementation, the expected results and concerns in this respect. The presentation of the perspectives for digital course books will be the culmination of the relection undertaken here [16; 19].

2. Advantages of technology in the process of teaching English

Key benefits of technology in education include: Provides a better interactive experience during the learning and teaching process. With the introduction of mobile phones, tablets and computers, students are now able to do something they should have been able to do long ago – to learn actively and productively.

For the first time, students can access a subject/teaching unit with enthusiasm thanks to applications, videos, simulations and digital books that make the learning process much more engaging. Moreover, having the opportunity to dig deeper into an area that interests them allows them to potentially recognize their interests and talents, and maybe even their future profession [15].

Provides access to an unlimited amount of current information and data from a variety of sources. In addition to the fact that students approach learning with more enthusiasm and productivity, they also have the opportunity to access the most current topics and research, which is something their ancestors could only dream about. Instead of going from library to library, dragging a pile of books with them, they are just a few clicks and well-defined queries away from accessing information that can give them additional insight into the topics they are covering at school. So, this practice not only enables students to have a modern education, but it also teaches them how to approach the search for information and read complex professional literature [14].

Teaches them digital literacy. We all know that young people cannot acquire the level of skill demanded by today's corporate world in computer science classes. By implementing technology as an integral part of education, students are given the opportunity to keep up with learning trends and *acquire technological/digital skills that are highly sought after in the 21st century*. *This form* of learning is most helpful for students who don't have access to modern technology at home, which could also potentially reduce the social gap between digitally literate and illiterate people [19].

Reduces educational costs. With the introduction of technology in education, resources have become more accessible, which resulted in declining tuition fees, the need for books and their price, as well as the reduced need for school supplies. The introduction of e-books has made things easier for low-income families, and helped students to approach learning on equal terms with their peers, without parental pressure for high performance arising from large investments into their child's education.

In addition, another positive side-effect of using e-books in education is the fact that they indirectly contribute to the reduction of deforestation, which is one of the major environmental problems [16].

Provides better insight into student performance thanks to metrics. In the past, teachers had to spend considerable time evaluating the overall academic performance of each student, which proved to be very impractical, especially in large classes with over 20 students. Unfortunately, many students never succeed in correcting the wrong steps in learning that can help them improve their performance, and potentially discover their talents of affinities [12; 18].

However, with the introduction of digital technologies and the Internet in the classrooms, a teachers' job of analyzing student performance and providing guidelines and advice has become much easier, which is a win-win situation both for teachers and students. Specifically, thanks to platforms that collect data on student performance in class, tests, and assignments, teachers have clear insight into the areas students struggle with, or excel at.

Moreover, teachers are now able to modify lessons based on insights into the performance of individual students, or class as a whole.

They can choose between real-time learning or learning at their own pace. Technology in education has allowed students to gain control over their learning, but it also provided flexibility to teachers in transferring knowledge to students. Namely, this practice is only possible in schools that support hybrid (blended) learning, i.e. a combination of synchronous real-time learning, and asynchronous learning where students can listen to a lecture when they choose. Listening to a teacher giving a lesson in real time provides students with a stronger sense of belonging, and allows them to socialize with their peers, same as face-to-face interaction with the teacher. On the other hand, more independent students who are confident in their own time management and commitment management skills can learn whenever they feel like it [5; 9; 11].

3. Disadvantages of technology in the process of teaching English

It is distracting both in the classroom and outside of it. Proponents of technology in education often forget that students continue to use their mobile phones and tablets throughout the day, long after they've completed their school activities. Namely, with the daily dosage of social media and video games, children's brains are accustomed to entertaining, intensive, and short-term content that can quickly stimulate their dopamine system [13].

The biggest problem here is the fact that daily interaction with technological devices reduces attention span, and research shows that the attention span of children from *Generation Z* is about 8 seconds. Although teachers may have good intentions, the use of applications that have nothing to do with the teaching process itself should be restricted, and technology should be used in class only when absolutely necessary [13; 17].

Potentially diminishes cognitive development and reduces problem-solving skills. Technology always has a good intention, to reduce the time and make it easier to perform certain mechanical activities. However, technology has automated almost all school activities. So, what was originally a positive intention has led to the situation that new generations will be unable to perform everyday cognitive activities without technology. In addition, it should be noted that when children use technology to solve every problems at school, they gradually lose their problem-solving abilities, which is a highly sought-after set of skills. The only solution to this problem is to have teachers and educational institutions as a whole impose restrictions on the use of technology in education [20; 22].

Reduces direct peer interaction. Although digital technologies have been shown to improve student advancement, and project collaboration, they, however, disregard our biological need for interaction in real time. Namely, we have lived as social beings for over tens of thousands of years, and we now think that we can trick our genetic predisposition so easily. Although young people interact with their parents, teachers and peers, the percentage of adolescents with a diagnosis of some form of depression has been growing, and has now reached a staggering

20%. The only solution that teachers and educational institutions can offer is to encourage young people to engage in face-to-face interaction with others [23; 25].

Maintaining modern technology is very expensive. The cost of upgrading or maintaining technology is often overlooked. In a world where new innovations in the field of digital technologies appear almost every month, and where upgrading software and applications continuously requires more powerful devices, relying on the belief that technology in education is the only solution sounds overly confident. Namely, teaching and learning can be done without technology, but the question is – how useful the acquired specific skills will be after a few generations of technological backwardness. So, in order to not regret the purchase of new technology, educational institutions are obligated to estimate the actual long-term costs of that investment, and how it will reflect on tuition fees that students and their parents need to pay [21; 24].

It is easier to cheat in exams. A huge problem that teachers face is cheating on exams, and not having an insight into student knowledge of a lesson. This is also the biggest problem with online tests, because teachers often don't know if students have access to another device while taking the test. This problem could have long-term consequences, primarily due to the inability of educational institutions to guarantee that the student actually possesses the knowledge needed for higher levels of education, or to do their job [21].

Reduced number of teachers due to automation and reduced salaries. With the introduction of technology in the curriculum, the role of the teacher as an authority figure and mediator is slowly fading. It should be noted that automation in education and the introduction of certain applications has led to a decrease in the number of teachers in modern schools. However, the remaining teachers have even more responsibilities than before, and their income is not increasing in proportion with their responsibilities, so many have had to give up their job.

As we said earlier, describing the advantages of technology in education, children have the opportunity to access a wide spectrum of information that makes lessons more engaging, but the question is, how long does it take to prepare and integrate that content into a meaningful whole? So, increased responsibilities mostly refer to the preparations for class, the importance and complexity of which are underestimated by many, primarily because it is not visible to parents [11].

The problem that needs to be addressed is that educational institutions should stop approaching teachers as manual laborers, and the first step toward that goal is increasing their salary and treating them with the respect they deserve, otherwise, we will have unmotivated teachers who don't care about transferring knowledge to their students, and the consequence is a generation of individuals incapable of becoming useful members of society [24; 25].

4. Conclusions

Digitization has no doubt changed our education system, but we cannot say that it has diminished the value of our old time classroom learning. Neither do we want something so priceless to turn into dust. The best part about the digitization of education in the 21-st century is that it is combined with the aspects of both; classroom learning and online learning methods. Walking hand in hand both act as a support system to each other, which gives a stronghold to our modern students. Digitization in education has also proved to be the right method for saving resources. Online examination platforms have restricted the frivolous usage of paper, directly confining the cutting down of trees. This way the digitization of education industry in the 21st century proves to be a boon to our society.

Many technology enthusiasts believe that changes in the education system can only go forward due to an incredible growth in the number of inventions that are continuously changing the description of existing professions. In this regard, many believe that abandoning traditional classroom education altogether is almost certain in the near future, noting that traditional education will not be able to adequately prepare students for the new challenges and demands of the real world.

However, sceptics often argue that we should be careful with the immediate implementation of modern technologies in the classroom, primarily because of the potential consequences, such as widening of an existing social gap, an increased number of individuals who suffer from mental illness, and the regression of children's cognitive and academic development that may prove irreversible.

Future prospects of our research will be grounded on the development of modern methods with the application of technology, that is also changing the classroom experience. We can make out that the information and communication technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning. In the new paradigm of learning, the role of student is more important than teachers. The concepts of paperless and pen less classroom are emerging as an alternative to the old teaching learning method. Nowadays there is democratization of knowledge and the role of the teacher is changing to that of facilitator. We need to have interactive teaching and this changing role of education is inevitable with the introduction of multimedia technology and the spawning of a technologically-savvy generation of youths.

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