MODERN EDUCATIONAL CHALLENGES

Abstract. The article is devoted to the analysis and identification of the main challenges of modern education, including: lifelong learning, educational technologies and online education, changing of key competences, transformation of the role of the teacher. The author analyses the above trends that are inherent in modern education. Lifelong learning is defined as one that goes through the entire life cycle from early childhood to old age and includes formal, non-formal and informal/social/spontaneous forms of learning. It has been proven that the use of online education and the latest educational technologies have become very rapidly growing industries and as technology continues to evolve, we will soon see more and more innovative approaches, AR/VR solutions, personalisation and the use of artificial intelligence to create online learning in the future. The author characterises such educational technologies as hybrid learning, microlearning, personalised learning, gamification and adaptive learning. The basic competencies that all students must acquire to fully realise their personal and social needs are flexibility, adaptability, continuity of all stages of education and the unity of all its forms, the ability to respond quickly to the demands of time, the transformation of the learning process into a continuous process of human self-improvement, the active and creative nature of learning, the formation of cooperative relations between all participants in the pedagogical process, the development of a new pedagogical system in which the teacher is required to carry out pedagogical research and
development. The emergence of the profession of pedagogical designers or producers of online educational products is actualised.

Keywords: lifelong learning, educational technologies, online education, producer of online educational products, learning paradigm, challenges.

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СУЧАСНІ ОСВІТНІ ВИКЛИКИ

Анотація. Стаття присвячена аналізу та виокремленню основних викликів сучасної освіти, серед яких: навчання протягом життя, освітні технології та онлайн освіта, зміна ключових компетентностей, трансформація ролі викладача. Здійснено аналіз перелічених тенденцій, що притаманні сучасній освіті. Навчання протягом життя визначене як таке, що проходить через весь життєвий цикл із раннього дитинства до глибокої старості та включає формальну, неформальну та інформальну/ соціально-побутову/ спонтанну форми навчання. Доведено, що використання онлайн освіти та новітніх освітніх технологій стали дуже стрімко зрослими галузями і оскільки технології продовжують розвиватися, найближчим часом ми будемо бачити все більше інноваційних підходів, AR/VR-рішення, персоналізацію та використання штучного інтелекту для створення онлайн-навчання в майбутньому. Схарактеризовано такі освітні технології, як гібридне навчання, мікронавчання, персоналізоване навчання, гейміфікація та адаптивне. Базовими компетенціями, яких повинні набути всі учні для повноцінної реалізації своїх особистих і соціальних потреб, стають гнучкість, адаптивність, наступність усіх етапів освіти та єдність всіх її форм, здатність швидко реагувати на запити часу, перетворення процесу навчання в
безперервний процес самовдосконалення людини, діяльнісний і творчий характер навчання, формування відносин співробітництва між усіма учасниками педагогічного процесу, розвиток нової педагогічної системи, у рамках якої від педагога вимагається здійснення педагогічного супроводу і допомоги в організації індивідуальної навчальної діяльності. Актуалізовано появу професії педагогічних дизайнерів або продюсерів освітніх онлайн продуктів.

**Ключові слова:** навчання протягом життя, освітні технології, онлайн освіта, продюсер освітніх онлайн продуктів, парадигма навчання, виклики.

**Introduction.** Sociological research shows that in today's environment, the number of people continuing their education and acquiring new professions and qualifications is constantly growing. This is due to several important reasons: professional knowledge becomes outdated quite quickly; professions that were popular in the past become uninteresting and unclaimed in the labour market; a person begins to lose interest in his or her profession or faces professional burnout; a specialist tries to improve his or her professional knowledge and manage his or her own career; a person tries to make himself or herself more competitive in the labour market by obtaining an additional speciality or specialisation, and improving his or her qualifications.

Experience shows that in today's world, we cannot get an education once and for all, as was the case with previous generations; even in 5 years, it is impossible to prepare a person for professional activities without updating knowledge or undergoing lifelong professional development. The number of people continuing their education or learning new professions is constantly growing. This is due to the following reasons: existing professional knowledge is gradually becoming outdated; previously popular professions are no longer competitive in the labour market; a person may also lose interest in the profession they were engaged in, or there is a need to improve the quality of professional knowledge.

In order to make a successful career, a person should start defining goals, values, qualities, knowledge, skills and abilities that will determine his or her future success. In addition, an important prerequisite for achieving life success is the development of a flexible, emotional intelligence that will not only allow you to adequately perceive the changing world, but also to form the framework for future interactions, to feel how the world will change and what you need to do today to be successful tomorrow. This will help a person to go beyond standard knowledge and established truths and create something new. In today's information society, achieving life success is impossible without constant replenishment of educational capital. Continuous acquisition of new knowledge and skills will contribute to the formation of a creative personality that can effectively adapt to new conditions of
life, is able to think critically, set and achieve life goals independently and effectively.

The purpose of the article is to analyse the current state of education and identify its most significant challenges, with further study.

Findings of the Study. The main challenges of modern education are the following:

1) Promote lifelong learning.

The concept of lifelong learning encompasses learning that takes place throughout the life cycle from early childhood to old age. It includes formal education (primary, general secondary education, secondary vocational education, higher education, postgraduate education), non-formal education (planned learning activities of a general cultural and professional nature outside formal educational institutions) and informal/social/spontaneous learning (individual cognitive activities that accompany everyday life, realised through the individual's own activity in the surrounding cultural and educational environment).

Education systems can no longer focus on the skills of performing certain tasks, but must focus on developing students' decision-making and problem-solving skills, as well as teaching them to learn independently and together with others. Successful activity in modern society requires the acquisition of new knowledge and the development of new competences that become tools for effective self-development of citizens and their inclusion in social and professional activities, as well as beneficial for the whole society. Thus, one of the social studies on this topic in the EU countries showed that "among the citizens of the EU countries, 70% of the surveyed people expressed a desire to learn, while 80% believe that education should improve their professional life, and 72% - their personal life" [1; C. 1228].

Educating people requires a new education system. Most existing educational systems do not provide students with the necessary competences to a sufficient
extent. Learning based on memorisation of large amounts of information, in which the teacher is the central figure and the entire learning process is carried out in strict accordance with rigid official directives, must give way to a new type of learning, focused on the individual needs of each student. This type of learning is centred on creativity, practice, analysis and synthesis of knowledge, with an emphasis on learning by doing, teamwork and creative thinking. Such learning is based on the equal cooperation of all participants in the process.

The basis of lifelong learning is the basic competences that all learners need to acquire in order to fully realise their personal and social needs. Schools and higher education institutions play a key role in the acquisition of basic competences.

2) In recent years, educational technologies (EdTech) and online education have become very rapidly growing industries. In 2022, the global EdTech market was estimated at $123 billion. The projected revenue for 2030 is already estimated at $348 billion [2]. Online education has experienced explosive growth in recent years. The COVID-19 pandemic and the full-scale war in Ukraine have accelerated this trend, as many educational institutions have switched to online learning. Here are some of the trends in the online education market that teachers are using in their work:

- Hybrid learning: combines online learning and independent work, which allows students to have more flexibility in their learning.
- Microlearning: involves teaching and delivering content in short, bite-sized chunks that users can easily digest and remember.
- Personalised learning: Online learning platforms can use data to personalise each user's learning experience by providing personalised content, recommendations and assessments based on their strengths and weaknesses.
- Gamification: involves the use of game elements such as points, badges, and leaderboards. Any tools that make the learning process more engaging and fun for the user.
- Adaptive learning: Adaptive learning platforms use artificial intelligence to adjust the learning process based on the student's progress and performance.

These are just a few examples of online education trends. As technology continues to evolve, I think in the near future we will see more and more innovative approaches, AR/VR solutions (augmented or virtual reality), personalisation and the use of artificial intelligence to create online learning in the future.

The process of creating an educational product may vary, depending on the field and type of product and the company that produces it. However, most educational products go through standard stages. The process of developing any product always starts with customer and market research. The first step is to identify the target audience, their learning needs, and any gaps in the market. Competitors, both direct and indirect, are also analysed.
For benchmarking (competitor analysis), you look at their advertising, creatives, positioning, success, and all available metrics to see what others are offering. To do this, you can use tools such as Similar Web, Facebook Ads Library, Google Trends. Based on this analysis, we are already forming a unique selling proposition and the value of our product. In addition, customer feedback is collected to ensure that the product meets their needs. To analyse the target audience, all possible thematic forums, customer reviews on competitors' platforms, in-depth interviews with users, user-testing, etc. are also researched. All this helps to create a quality product that meets customer needs and stands out in the market.

Based on the results of the research, we move on to developing a prototype of the training product. At this stage, we search for and work with experts, the content team, designers of learning experiences and visual materials. The main thing is to do everything possible to make the design of the learning product accessible and easy to use and interesting for users. The work of the content team and learning experience designers plays a special role at this stage, as the design of the learning process will determine how successful the programme and the learning product itself will be in the future.

After the design is approved, the product is developed. At this stage, all the elements are brought together, including content and multimedia, graphics, illustrations, scripts, and technical specifications for video or audio recording, presentations, knowledge tests, etc. Special attention is paid to the development and filming of the training content itself. In the case of our product, a full cycle of video lesson production is organised with local experts and film crews. Finally, all the finished content, all the training materials and multimedia are integrated into the learning platform to ensure ease of use. This stage requires a lot of attention, control and collaboration between different teams to ensure that all project tasks are completed consistently. Depending on the size and complexity of the project, the development phase can last from several weeks to several months. Once the product has been developed and uploaded to the learning platform, it is ready for testing and launch.

After development, the product goes through the testing phase. At this stage, it is very important to check all the information for accuracy and quality. For this purpose, a separate team of experts and certified specialists is dedicated to checking the content for compliance with all regulatory requirements. After the expert review of the product, the product is reviewed again and any possible errors or problems are looked for. The developer goes through the programme himself, and also asks a focus group, friends, colleagues, and potential users to test the product.

And finally, the product is launched!

3) National lifelong learning systems should be comparable on the basis of common, recognised standards. Key competences are the measuring units for
defining lifelong learning outcomes against which all learning can be assessed. Research shows that at the present stage, about 5% of theoretical and more than 20% of professional knowledge is updated annually. For example, the unit of measurement for the aging of specialist knowledge adopted in the United States defines the so-called half-life of competencies.

For example, the unit of measurement for the aging of a specialist's knowledge, which is adopted in the United States, defines the so-called competence half-life, which can be interpreted as a 50% reduction in competence due to the updating of information on professional activities as one of the manifestations of the information society, and this applies to many professions and this period is less than 5 years. Thus, in relation to our higher education system, competence becomes irrelevant often before the end of training. So, in essence, we are talking about the formation of a new educational paradigm, the main characteristics of which are flexibility, adaptability, continuity of all stages of education and unity of all its forms; equipping all students with a set of competencies that will ensure their readiness to function fully in today's rapidly changing world, the ability to respond quickly to the demands of time, expand the opportunities for citizens to participate in the cultural, social and political activities of the country; humanisation of education, which consists in affirming the human being as the highest social value [2].

4) The teacher training system requires a significant transformation.

The new concept of education implies a new role for teachers, who themselves need to acquire new skills and become lifelong learners to absorb new knowledge, pedagogical ideas and technologies. As learning becomes more collaborative, teacher professional development should facilitate the development of professional networks and the transformation of schools into learning organisations.

In our opinion, the professions of pedagogical designers or methodologists or producers of online educational products or e-learning expert or Instructional Designer are becoming relevant.

Think back to your favourite learning experience. Everyone will say: "I had a great teacher". Your answer will revolve around the teacher's personality. Hardly anyone will remember a cool textbook read on the Internet or a Power Point presentation. The conclusion is that your success depends on the teacher and their ability to present information.

How does such a guide differ from an ordinary teacher?

1) They create the ideal conditions for a student to have a positive learning experience that will give them a specific skill or knowledge.

2) They develop the learning component of the course/programme/product - the structure, learning objectives and textual materials of the course.

3) They use different approaches and practices to create a learning environment. The cognitive approach is the active involvement of memory and reason in the acquisition of knowledge or skills and appeals to "learning to think".
What is the role of a producer in EdTech? They create and scale learning products. Online learning is primarily a business project. And in order for a business to generate income, you need to: come up with an idea; test hypotheses; plan the product in detail; determine the product's relevance to the market; set up all the operational processes of the team involved in the launch; and actually create the product itself, which are the main tasks of a producer.

In the online education market, a producer can work in several formats: as an independent entrepreneur, as a partner, and as a hired specialist. I will focus on the work of a hired producer, as it seems that most often, production specialists start their careers in this role.

A producer can launch an online product from scratch, for example, in partnership with an expert. Or they can join an existing online school or project to develop it. Launching an online course consists of the five main stages I described above. The functions at each of these stages may vary depending on the format in which the producer works - as an independent specialist or as an employee of a large company where it is possible to delegate some tasks.

A large project may have entire departments of marketers, methodologists, coordinators, and video production. Whatever the case, the producer should be well versed and ideally able to work independently with tasks at every stage. Because the producer is fully responsible for the product that goes to market and, if necessary, must be able to form a strong team from scratch.

In the case of independent work with experts, it is the producer's extensive experience in leading and managing all stages of product production, as well as in managing the team and all operational processes that is important. In fact, when working with an expert, as a specialist in their niche and topic, a producer can play many roles simultaneously, both as a methodologist and designer of the learning process, and as a manager and person responsible for the full cycle of product production, its successful launch, marketing, sales, and training itself.

When creating each training product, a person becomes a kind of "mini-expert" in the topic with which they work. In production, you are constantly learning, mastering new topics and areas for yourself. This, in turn, keeps me constantly engaged in my work and helps me avoid burnout and overwork. The EdTech industry is developing rapidly, and therefore everything has been, is and will be fine with the demand for the profession. It is important to understand that there is a need for training everywhere - both within any company, for employees or clients, and in a broader sense, for people to master new skills of the present. By choosing to work with learning products, you will be able to work in the field that interests you, constantly learn and make a significant contribution to both education and improving the lives of others [3].

Conclusions. Thus, lifelong education, based on creativity, practice, analysis and synthesis of knowledge, learning through practical actions, teamwork, creative
thinking, and parity cooperation of all participants in the process, remains a relevant topic. Educational technologies (EdTech) and online education with their own challenges should take a leading role these days. Lifelong learning is based on basic competences, such as those that all students need to acquire to fully realise their personal and social needs. Skills such as critical thinking, analytical thinking, problem solving, creativity, teamwork, communication and negotiation skills, decision-making, self-regulation, resilience, empathy, participation, respect for diversity are taken into account in all key competences. Schools and higher education institutions play a key role in teaching basic competences. The emergence of new teaching professions such as EdTech producer, pedagogical designer or methodologist, producer of online educational products or e-learning expert or Instructional Designer is also one of the major challenges of modern education. Representatives of these professions need to acquire new skills themselves, to become lifelong learners in order to master new knowledge, pedagogical ideas and technologies.

References: