

# Continuing Education: Global Practices and Implementation in Ukraine

Tetiana Zhyrova <sup>1\*</sup>, Iryna Chystiakova <sup>2</sup>, Mykola Moskalenko <sup>3</sup>,  
Nataliia Kotenko <sup>4</sup>, Mariia Aleksandrova <sup>5</sup>

<sup>1</sup> Department of Software Engineering and Cybersecurity, Faculty of Information Technology,  
State University of Trade and Economics, Kyiv, Ukraine.

<sup>2</sup> Postgraduate Studies Department,

Sumy State Pedagogical University named after A. S. Makarenko, Sumy, Ukraine.

<sup>3</sup> Department of Biology and Methods of Teaching Biology, Faculty of Natural Sciences and Geography,  
Sumy State Pedagogical University named after A. S. Makarenko, Sumy, Ukraine.

<sup>4</sup> Department of Software Engineering and Cybersecurity,  
State University of Trade and Economics, Kyiv, Ukraine.

<sup>5</sup> State Education Institution Education and Methodical Centre on Questions of Quality Education;  
Department of Public Administration, Interregional Academy of Personnel Management, Kyiv, Ukraine.

\* Corresponding author: E-mail: zhyrova@outlook.com

© Author(s)

OIDA International Journal of Sustainable Development, Ontario International Development Agency, Canada.

ISSN 1923-6654 (print) ISSN 1923-6662 (online) [www.oidaijsd.com](http://www.oidaijsd.com)

Also available at <https://www.ssm.com/index.cfm/en/oida-intl-journal-sustainable-dev/>

**Abstract:** In the context of global socio-political, economic, social, demographic, and cultural transformations both at the state and individual levels, the issue of adaptation to rapid changes is becoming urgent. The purpose of the article is to analyse the concepts of lifelong learning, their main ideas and practical implementation. It is also necessary to trace the transformation of the understanding of lifelong learning both at the level of legislative initiatives and the level of value orientations. The object of the study was the views of scientists on the role and significance of lifelong learning in the life of the state, as well as the format of lifelong learning in different countries of the world and the challenges and problems of this form of learning in Ukraine. The basis of the methodology of this study is the application of the principles of logical analysis, methods of analysis of literature and secondary sources, structural-functional and the method of generalization and comparison. Such an adaptation format as lifelong learning is currently recognized as one of the fundamental ones for the near future. Given the pace of globalization, regional threats to sustainability, climate change, and the development of technologies (artificial intelligence, digital media, digital economy), structural changes in the education system are strategically necessary. Urgent challenges for both developed economies and countries with economies catching up with modernization are ensuring digital competence, developing digital thinking, and access to technologies for the opportunity to obtain education, improve and change professional qualifications throughout life, have the opportunity for professional and creative self-realization through learning, and also build one's own educational trajectory for one's own and social good. Lifelong learning as a basic paradigm for the development of modern education is based on several concepts: the theory of transformational learning, the model of empirical learning and critical pedagogy. Today, lifelong learning involves not only obtaining a new profession or improving qualifications, but we also observe a shift in attention to personal motivation, to the possibilities of self-development and the formation of one's own personal educational trajectory for economic success and psycho-emotional satisfaction. The most successful model of lifelong learning is the example of Sweden. Countries such as Germany and the United Kingdom also demonstrate serious achievements in the effectiveness of their lifelong learning system.

**Keywords:** Human Development Index, educational concepts, lifelong learning, Russian-Ukrainian war, Ukraine, digital economy, digital competence.

## Introduction

In 1990 The Human Development Index (HDI) was developed by economist Mahbub ul Haq. Until 2013, the term Human Development Index (HDI) was used as a synonym. Mahbub ul Haq based his approaches in developing the HDI on the research of Nobel laureate Amartya Sen [1]. Amartya Sen's theoretical developments in economic development, dedicated to the well-being of humanity, the problems of uneven distribution of economic benefits, and a system of poverty and well-being assessments using moral and ethical approaches in considering economic problems [2, 3], became the foundation for Mahbub ul Haq, who proposed new approaches to understanding human development through the prism of humanization, shifting attention from mainly economic indicators. His approaches are focused on people, their potential and choices [4, 5, 6].

In 1989, Mahbub Ul Haq was offered a job at the UN. While working at the UN Development Program, the scientist began to implement his long-standing ideas on the problems of sustainable human development, based on overcoming poverty, hunger, and illiteracy [4, p. 65]. The developed HDI takes into account three basic indicators: "life expectancy; literacy rate of the country's population (average number of years spent on education) and expected duration of education; standard of living, estimated through GNI per capita" [7], that is, it is about health, education, and standard of living. In 2010 and 2014, the methodology for calculating the HDI was revised. An important aspect is the possibility of adapting HDI calculations to a specific region or country, taking into account the local specifics of the level of development. In the context of our study, it is noteworthy that an important indicator of HDI is not only the level of education of the population, but also the number of years devoted to education and various levels and areas of education [8].

The dynamics of social and socio-political development of humanity, the digitalization of the economy and all spheres of life in general, determine the need for a person to master new professions, form new skills and abilities, develop digital thinking, creativity, adaptability, as well as emotional intelligence and critical thinking. In the conditions of Ukraine, all of the above-mentioned aspects of education, in addition to global development trends, have their own specifics, caused by the Russian-Ukrainian war. Ukrainians faced, among other things, such challenges of the war as the need to master a new profession or improve their skills; job loss and the need to acquire new hard and soft skills; demographic trends (aging population, mass emigration of people abroad, losses of military and civilian personnel as a result of hostilities, declining birth rates); the need to master foreign languages and increase the level of digital competence. Many Ukrainians have also begun to pay more attention to studying the history and culture of Ukraine and the Ukrainian language, which is due to the desire to find or affirm their identity in the face of Russian aggression [9].

In the 1970s and 1980s, lifelong learning was seen as an opportunity for socially and economically vulnerable segments of society to improve their material and social status through education. In the early 2000s, the prevailing view of lifelong learning was as an opportunity for continuous economic growth and acceleration. Currently, the vision of this format of education as an opportunity for personal self-realization is relevant.

Given the demographic changes in the world (aging population, life expectancy, migration processes), the reformatting of economic foundations of development, and in the context of Ukraine - the ongoing Russian-Ukrainian war, the experience of different countries in solving the problems of lifelong learning is important both from a theoretical and applied point of view. This process is dynamic, mobile, therefore it requires constant monitoring and comparative analysis.

## Literature review

The importance and necessity of lifelong learning were discussed in the 1960s. Since then, we have had a number of scientific studies in which scientists, using the results of various surveys, questionnaires, and observations, have formulated the advantages of such a learning strategy, primarily in the context of rapid changes in the development of society and technology, as well as under the influence of the COVID-19 pandemic. The studies concern both a general vision of the benefits and challenges of lifelong learning and cover specific countries [10, 11, 12, 13, 14, 15]. The impact of globalization and surges of interest in lifelong learning (1970s, 1990s) was studied by Hager [16].

The most attention was paid by scientists to lifelong learning skills, its competence components and types of learning – formal, non-formal and informal [17, 18, 19, 20]. Organizational and conceptual models of lifelong university education in Europe have become the subject of research for Dinevski and Vesenjask-Dinevski [21]. Based on a comparative analysis, the researchers found that the main concepts of the EU member states differ significantly. However, a common problem for all is the effective implementation of distance learning and digital technologies as a foundation for further economically sound lifelong learning [21].

Among the main trends in research on this issue, we can highlight: concepts of lifelong learning and policies in this area [22; 23, 24]; factors that influence lifelong learning and, in general, the ability to engage in this form of learning [25, 26, 27]; skills needed for lifelong learning [28, 29].

Given the prospects for the development of globalization in the coming decades, as well as regional threats to sustainability, climate change, the development of technologies such as Artificial Intelligence (AI) and digital data analytics, serious structural changes in the education system are evident. The urgent challenge is to ensure digital competence, access to digital technologies and the formation of appropriate learning skills in order to remain in demand in one's profession throughout one's career or to be able to retrain or acquire a new profession. In addition, the social opportunities that lifelong learning provides are no less important. All of the above factors are already the subject of scientific and practical research [30, 31, 32, 33]. Fundamental, conceptual, are the works of Jack Mezirow on transformative learning [34], experiential adult learning by Peter Jarvis [35], interactive methods of pedagogy and the goals and value of education from the philosophical perspective of Paulo Freire [36].

## Methods

In preparation for writing the article, we used the method of literature analysis and the method of critical analysis of secondary sources, which allowed us to conduct a panoramic review of scientific and journalistic literature related to the topic of the study. Indeed, given the territorial and chronological framework of the study, taking into account the diversity of views on the issue of lifelong learning, tactical and strategic approaches in understanding the goals and objectives of this format of education, taking into account its specifics in different countries and in different time periods, as well as studying the experience of international structures related to humanitarian problems of humanity (UN, UNESCO), is a necessary condition for a panoramic review of the formation and transformation of lifelong learning as one of the fundamental principles of sustainable development and overcoming challenges today. For a more accurate study of this topic, we used the method of analysis and synthesis, structural-functional, generalization method and comparative method of the information received. The structural-functional method was useful in forming the logic of the presentation of the material, formulating the main didactic models and ideas of lifelong learning and the use of lifelong learning opportunities in different countries. Analysis and synthesis helped to focus, firstly, on various conceptual ideas related to lifelong learning, and to highlight, in our opinion, the key ones; secondly, to consider the approaches and implementation of the lifelong learning format in different countries and understand their potential for Ukraine. Logical analysis, the transition from the general to the specific, helped to consider the history of the formation of lifelong learning ideas and their practical implementation both in international legislation and at the level of specific countries, as well as to formulate conclusions for our study.

In the process of preparing the article, the method of literature analysis and critical analysis of secondary sources was used, which allowed for a comprehensive review of scientific and journalistic literature related to the topic of the study. Given the territorial and chronological framework of the analysis, as well as the diversity of opinions on lifelong learning, tactical and strategic approaches to understanding this format of education, its specifics in different countries at different times, as well as the experience of international organizations such as the UN or UNESCO, this review was key to forming a comprehensive vision of the evolution of the concept of "lifelong learning". As a result, the format of lifelong education was considered as one of the fundamental principles of sustainable development, which contributes to solving the global challenges of our time.

For a detailed analysis, a toolkit was used, which included methods of analysis and synthesis, a structural-functional method, as well as generalization and comparison of the information obtained. The structural-functional approach was especially useful for building the logic of presenting the material, determining the main didactic models of learning and analyzing the practical implementation of the education format in different countries. The method of analysis and synthesis helped to systematize conceptual ideas and identify the main directions in the issue of lifelong learning - both at the level of general theory and in aspects of integrating the education model in specific educational systems. A consistent logical approach ensured the transition from the analysis of general concepts to their specific implementation, which made it possible to assess the history of the formation of lifelong learning ideas, as well as their integration into international legislation and practices of individual states.

A sample of 69 materials was selected for the implementation of the panoramic review: 60 scientific articles and 9 journalistic texts. Scientific literature was selected through academic databases using combinations of keywords such as "lifelong learning", "continuing education", "digital competence" and "Ukraine". The main inclusion criteria were peer-reviewed articles, reviews and meta-analyses published over the past ten years, which specifically addressed the concepts of lifelong learning and its implementation. Journalistic materials were selected based on their relevance, audience reach, and publication on reputable platforms. Particular attention was paid to articles that covered key events

or new approaches in the implementation of learning formats. At the stage of source analysis, significant attention was paid to reducing the influence of internal biases. In the case of journalistic literature, a balance was ensured between sources with different regional and political positions. The emphasis was on factual information, and sensational or overly biased materials were either excluded from the review or evaluated with caution. In addition, journalistic sources were compared with conclusions drawn from the scientific literature to identify obvious discrepancies or confirmation of the information. Articles were critically assessed for the level of sensationalism, the presence of unsubstantiated claims, or excessively obvious editorial bias. Preference was given to materials that emphasized factuality and contained references to reliable sources. The collected information was cross-checked with conclusions from the scientific literature. Potentially contradictory data or overly biased material was flagged and either excluded from the analysis or interpreted cautiously, mostly as indicators of public discourse. This approach ensured that the results were based on verified and comprehensively assessed information.

## **Research results**

Over the past few decades, there have been significant changes in the understanding of lifelong learning and the practical implementation of its tasks and goals. In the 1970s and 1980s, lifelong learning was focused on the underprivileged classes of society in order to provide them with the opportunity to improve their educational level and socio-economic status. In particular, this was the theoretical and practical work of Paulo Freire in Brazil [36]. At the beginning of the 21st century, this format of education was seen as an opportunity to adapt to rapid technological changes. Today, in approaches to understanding lifelong learning, we observe a shift in attention to personal motivation, to the possibilities of self-development and the formation of one's own personal educational trajectory for the sake of economic success and psycho-emotional satisfaction [37].

In March 2000, the Lisbon Summit adopted the "Memorandum on Lifelong Learning" [38], in which lifelong education is defined as the basis of civil society and the principles of such education are outlined: accessibility of basic knowledge and skills, increased investment in human resources, innovations in teaching, changes in the assessment of educational activities and their results, the development of consulting and mentoring activities, bringing education closer to the place of residence [39, pp. 120–121]. In general, today, at the legislative level, both international and national, many relevant legislative initiatives have been developed, designed to develop and regulate lifelong learning. The relevant legislative framework is dynamic and is formed and transformed in accordance with needs, however, as is often the case, has a catch-up nature.

Lifelong learning is a set of educational activities that encompass not only structured or formal learning in relevant educational institutions and the socialization of individuals. The concept of lifelong learning also involves the broad involvement of such areas as sports, hobbies, leisure, cultural activities, volunteer activities. Places for such learning are also diverse: schools, colleges, universities, libraries, museums, concert halls, stadiums, sports grounds, office premises, etc. Lifelong learning is the acquisition, skills, competencies, knowledge, and interests of a person from preschool age to retirement. Such education contributes to the development of knowledge and competencies and allows the individual to adapt to society and changes in this society [40]. People who are interested in their own education throughout their lives participate in various socio-political, economic, and social activities, thus taking control of their own professional fulfilment and social adaptation and comfort [28, p. 938].

There are specifics of the organization of lifelong learning in different countries. In particular, in Germany, France and Sweden, a unitary general education system of adult education centres has been created. Both specialists and the unemployed receive education there. In Germany, the average unemployment rate is 5%. This is one of the lowest rates in Europe. An important role in this belongs to folk universities – adult education institutions, of which there are about 900 in Germany. Such universities were founded 100 years ago. In the German Constitution of 1919, the development of adult education is defined as the responsibility of the state and federal states. Today in Germany, such universities are “community schools” and “workshops of democracy”, which are designed to provide people with the opportunity to develop flexibility and adaptability during radical socio-economic and political transformations. Every year, more than 6.5 million people receive education in such universities on various courses and trainings. Monitoring the quality of education is regulated at the legislative level. Universities receive funding from the state, federal state, and city governments [41]. In the USA and Canada, adult education is strictly regulated by orders for training from labour departments. Japan and South Korea practice this form of training on the basis of firms and corporations, since the practice of lifelong employment is widespread there [42, p. 53]. In Hungary, lifelong learning is legally divided into “adult learning” and “adult education”. “Adult learning” is related to the school education system and covers general school subjects, while “adult education” presupposes knowledge of a special nature related to the professional environment. “Education for the labour market” is also provided for – for the purpose of improving qualifications and

maintaining a job [43, p. 18]. A comprehensive and balanced system of lifelong learning has been formed in the UK. Its institutionalization is embedded in the national education system and provides for broad powers of local authorities in the organization and direct implementation of the tasks of this form of education. In particular, this includes holding various cultural and socially significant events; developing recommendations and programs for professional training of specialists and the unemployed; modernizing training in accordance with the vectors of needs; focusing on the needs of customers (state employers, private entrepreneurs); structural transparency and multi-channel financing [42, p. 52].

Lifelong learning, as has been repeatedly noted, has a solid theoretical basis, based on many years of empirical experience of educators, psychologists, and sociologists (see Table 1).

**Table 1.** Concepts of lifelong learning: basic models

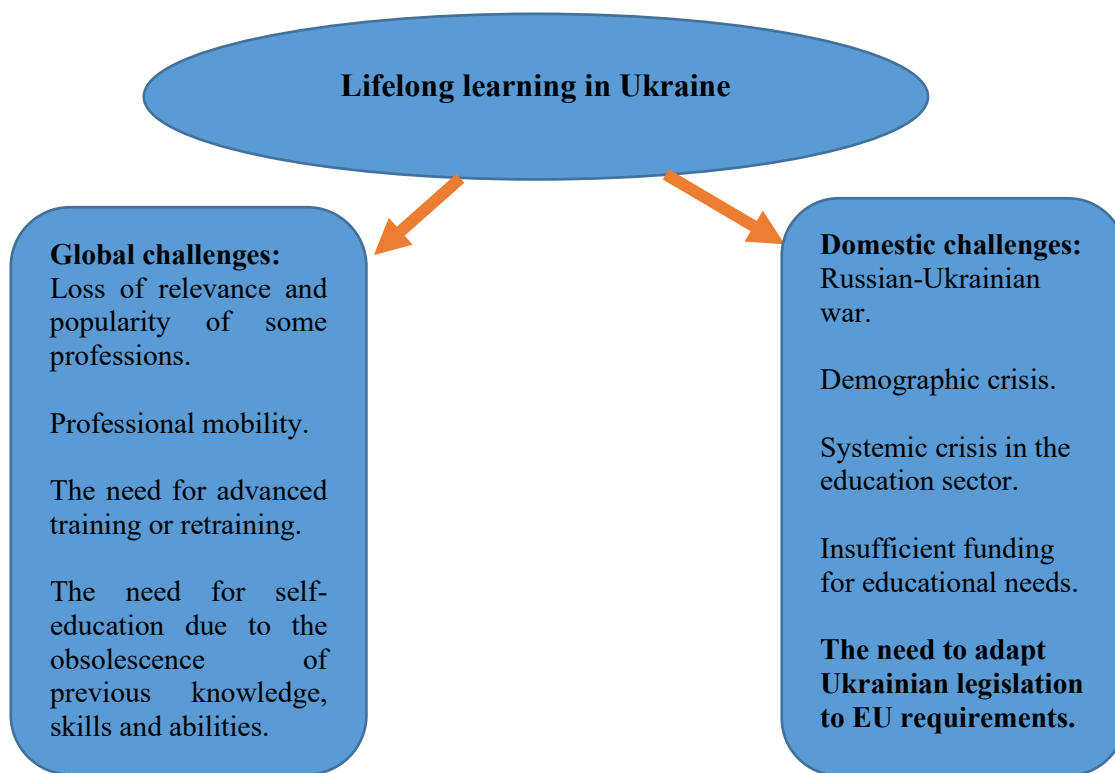
<b>Educational concept</b>	<b>Author-developer</b>	<b>Main ideas</b>	<b>Possibilities of practical implementation</b>
Transformational Learning Theory (1978)	Mezirow Jack	Mezirow's theory is based on the theoretical developments of Jürgen Habermas on the communicative actions of the subject. Transformative learning is based on the understanding of the acquired experience by acquiring new knowledge and its interpretation in new circumstances. It directs from the system of landmarks that has lost its relevance (outdated experience, knowledge, etc.) to the system of new value and professional landmarks that help integrate new experience. That is, learning is a process of change under the influence of critical understanding of the acquired previous experience (previous knowledge and experience + new knowledge + new interpretations and application of the acquired knowledge based on previous experience and knowledge)	Development and implementation of adult education programs aimed at self-reflection and the development of critical thinking
A continuous process of learning throughout life; a model of experiential learning (1980s). Based on David Kolb's model of the stages of learning	Peter Jarvis	Learning is life; learning is integrated into all areas of human life. The emphasis is on the student's personality, the importance of previous life experience; the socially oriented nature of learning and communication as key conditions for acquiring new knowledge, skills and abilities and using the potential of new experience for further learning	Public initiatives aimed at increasing the social activity of citizens by involving them in various activities
Critical pedagogy (1970s): problem-oriented education, anthropological interpretation of culture (recognition of the uniqueness and unrepeatable of all forms of cultural existence), humanistic orientation of	Paulo Freire	Education as a process of accumulating information (memorizing, remembering) is proposed as a process of problematization, student-teacher interaction; awareness of the information received and its transformation into knowledge and transformation of oneself and the world around oneself.	Multicultural curricula, research and action orientation, social engagement orientation.

education, ideal of the teacher; practice of freedom based on awareness and critical thinking.			
--	--	--	--

Source: compiled based on [34, 35, 36, 44, 45, 46, 47]

Tactics and strategies for the formation and development of lifelong learning are actually a product of the 20th century and have especially loudly declared themselves in the 21st century. The main conceptual approaches were formed by theorists and practitioners of didactics, politics, economics, and demography. This process is dynamic and is in constant transformation, in accordance with the needs and pace of development of humanity [48, 49].

In Ukraine, lifelong learning is also currently a relevant issue, with global trends and its own local specifics (see Figure 1).



**Figure 1.** Lifelong learning in Ukraine: problems and challenges

Source: compiled based on [50, 51]

For Ukraine, like the rest of the world, the challenges related to lifelong learning [52] and involving professional training (vocational training, retraining, advanced training or job qualification), as well as general cultural additional education, which is not related to work activity, but rather can be considered as satisfying a person's psycho-emotional needs, their desire to remain in the active phase of life, despite any circumstances (life qualification).

In our opinion, countries such as the United Kingdom, Germany, and Sweden have demonstrated effective solutions to problems related to lifelong learning.

Let us focus more specifically on Sweden. Since, in our opinion, it is this country that demonstrates the most practically implemented democratic principles and personal orientation in the lifelong learning system, which is its fundamental task today in a world striving for sustainable development.

In Sweden, The Folkbildning network (popular education) has been formed. It includes various courses, clubs, and cultural events within adult education schools (folkhogskola) and educational associations (studieförbund). This type of education is an informal part of the Swedish education system, which is attended by several million Swedish citizens every year. Folkbildning is available to all citizens of the country. People have different motivations: getting a new profession, a desire to develop, communicate, and be active socially. The format and methodology are quite diverse, from small interest groups where people gather for a few hours on a weekend to multi-year, large-scale courses. The need for such education in Sweden began to be considered at the beginning of the 20th century, when the general education level of the country's population was low, and the majority did not have access to higher education. Today, the Folkbildning system is free from state influence and planning. The ideological basis of the Folkbildning system: voluntary participation in education; the possibility of influencing the content of the course; a combination of education and social relations, taking into account the previous experience and development prerequisites of each participant in the educational process; close cooperation with stakeholders from various fields. The coordinating body for lifelong learning is the Swedish Council for Public Education, which supports 10 public education associations in various areas of activity. There are more than 150 schools in Sweden for the education of people over 18 years of age. Some of them work under the leadership of various public associations; others have a geographical link. Education is free and has state financial support [53, 54].

In general, the Swedish education system is distinguished by its universality, continuity, accessibility, and involvement of a large number of citizens precisely due to lifelong learning as a universal way to remain a socially active individual and be a physically and mentally healthy person at different stages of life.

As an example of the focus of lifelong learning in the field of advanced training and retraining for the purpose of professional growth, we can turn to the experience of Australia. The purposeful formation of the legislative framework of "adult education" in this country began in the 1980s, although its origins date back to the beginning of the 19th century. In general, Australia has a high percentage of the population with higher or vocational education, therefore, according to Australian scientists, there is no need for an extensive network of institutions offering lifelong learning services [55, 56]. The way Australia runs its economy encourages its population to learn throughout their lives, but it is focused on the needs of the labour market, rather than on satisfying their personal needs and desires, as we can see in the example of Sweden.

Singapore is known for its national initiative in the field of education – the SkillsFuture movement. Traditionally, for this country, the following are important, firstly, in the socio-cultural sense, the dominance of academic education over vocational education; secondly, the dominance of pragmatism over creativity and flexibility of the mind, which modern approaches to education imply; thirdly, conservative views on many things, which are due to the historical and cultural features of development. At the beginning of the 21st century, the efforts of the country's government were directed at investing in and supporting programs that provided for training workers to improve their professional skills and increase employment opportunities. Currently, an ambitious and heavily funded project is being implemented at the state level, known as the SkillsFuture movement, open to all Singaporeans. The essence of the movement, as the name implies, is the formation and development of skills aimed at the future. First of all, it is about the ability to apply theoretical knowledge in practice, in the context of a constantly changing world, to cooperate effectively in a team, to find and solve a problem, as well as self-knowledge and self-development. At the state level, the SkillsFuture movement is designed to solve the following problems:

1. Helping people make informed choices about education and career.
2. Development of an integrated high-quality education and training system in accordance with modern needs.
3. To assist employers in supporting people's career development based on their skills and experience.
4. Promote a culture of lifelong learning [57].

However, the historical, cultural and social characteristics of Singaporean society are certain obstacles to the rapid and effective implementation of lifelong learning.

## Discussion

At the current stage of the development of education in Ukraine, researchers note an increase in the number of educational courses on global online platforms, which is due to both global trends and the country's internal needs. However, a strong system of distance education and a conscious understanding and movement towards lifelong learning have not yet taken shape in Ukraine. Despite this, Ukraine, both at the state level and at the level of citizens, is still moving in this direction, in particular, within the framework of fulfilling the requirements for joining the EU. The main factors inhibiting the organic and systemic development of lifelong learning are the Russian-Ukrainian war,

which causes, among other things, serious underfunding of the education sector, risks for stakeholders, and a general educational crisis within the country [32]. Verkhovna Rada of Ukraine of January 12, 2023 adopted as a basis the draft Law of Ukraine "On Adults Education": "The state promotes, provides support and encourages continuous personal development, in particular continuous learning throughout life. The formation of a conscious need for continuous learning and a culture of non-formal and informal education in adults is a strategic task for achieving the goals of sustainable development of the state" (Article 3, paragraph 2) [58].

Lifelong learning is now considered one of the basic factors and targets of human development. In the UNESCO report "Education: The Hidden Treasure" by Jacques Delors (International Commission on Education for the 21st Century), lifelong learning is defined as a central problem of society [59, p. 18]. Particular attention is paid to four fundamental principles of education:

- Learn to live together (developing knowledge about others, their history, traditions, way of thinking, which involves creative approaches to education);
- Learn to receive, acquire knowledge (in modern conditions it is necessary to combine broad cultural knowledge with the possibility of deep immersion in a limited number of disciplines); the general cultural level is considered a kind of "pass" to lifelong learning, as it forms the desire to learn and an understanding of this necessity;
- It is necessary to learn how to work (to improve in one's profession, acquiring competencies and qualifications that will allow one to overcome various challenges);
- It is necessary to learn to live (independence and the ability to evaluate, increasing personal responsibility within the team) [59, p. 18–20].

The unprecedented speed of development of human society, technological achievements, virtualization, digitalization require a person to constantly "keep their finger on the pulse" in order to stay in the flow of rapid changes, especially when it comes to professional growth. In particular, Italian legislation stipulates that "Lifelong learning consists of any activity undertaken by people in a formal or informal manner throughout the different stages of life with the aim of improving their knowledge, skills and abilities from a personal, civic, social and professional perspective" (Italian Law 92 of 28.06.2012, article 4, paragraph 51) [60].

Modern economies of the most developed countries are currently driven by globalization and knowledge. This significantly distinguishes them from the economic philosophy of the 20th century, when the driving force was the need to industrialize production processes. Such forms of economy required functional workers and an appropriate education system that created uniformly educated workers in large quantities. With the increasing automation of production processes, the emergence and widespread introduction of computer technologies and communications, virtual media and social networks into all spheres of life, as well as the improvement and reduction of the cost of logistics and transport routes, there was an urgent need to change the economic system, approaches to its functioning and development. Computerization has accelerated the work process many times over [26, 61]. The reduction in the cost of transport and logistics has contributed to the increase in the internationalization of the workforce, which, in turn, has become one of the factors in the transition from an industrialized economy to a knowledge economy. At the same time, in the modern world there are trends, primarily in developed economies, towards an increase in life expectancy, a rapid aging of the population and a decrease in the number of children born. Therefore, in order to maintain the pace of economic development, it is necessary to constantly replenish and maintain one's knowledge, skills and abilities and adapt them to current needs: "The world is experiencing a unique demographic transformation: by 2050, the number of elderly people will increase from 600 million to 2 billion. In less than 50 years, for the first time in history, the number of people over 60 will exceed the number of people under 15 years old" [62, p. 5].

At the same time, lifelong learning is not limited exclusively to the sphere of work, profession. It is also about the formation, through learning, of new social connections. Lifelong learning affects the quality of life, filling it with various activities (travel, sports, mastering various hobbies, etc.) [10]. In addition, this form of learning allows the individual to independently determine the form and dynamics of own educational process. The change of generations over several decades has radically affected the system of knowledge transfer and the amount of accumulated information [63]. Currently, within a few years it is practically impossible to prepare a person for professional activity that will be relevant throughout life, because about 5% of theoretical knowledge and 20% of professional skills are updated annually. In many professions, the loss of competence by specialists due to the emergence of new information reaches 50% within 5 years. That is, the knowledge obtained during university studies may no longer be relevant for a particular profession by the time of completion of studies [60]. This problem can be solved by lifelong learning,



when basic education is supplemented over a certain number of years with additional education programs (courses, seminars, virtual educational platforms and applications, etc.). A commitment to lifelong education requires developing communication skills, adaptability, self-discipline, and an attitude towards individual and team work from school years [64, 65].

M. Laal systematizes the advantages of this form of education in three points:

1. Adapting to a rapidly changing world.
2. More earnings due to expanded opportunities.
3. Enrichment and fulfilment of life [10, p. 4268].

In general, education is one of the basic components of the digital economy ecosystem, into which humanity is increasingly integrated.

Currently, we can talk about two main approaches to understanding the essence of lifelong learning:

- Pragmatic approach: as a key factor in preparing employees to compete in a global and digital economy [66];
- Humanistic approach: attention to the specific individual, to his or her comprehensive development and a view of education as the basis for professional and personal realization at the current stage of human development. This vision was recorded in the UN documents in 2015 [67].

In general, two basic approaches have been developed to the formation of state policy in the field of lifelong learning:

1. A holistic approach based on the relevant established legislative framework (Austria, Greece, Norway, Finland, USA, Hungary);
2. Diffusion approach: presentation of individual aspects of lifelong learning in state legislation and their adjustment to specific needs and programs (Australia, Denmark, China, South Korea, Poland, Sweden) [43, p. 554].

In many countries, traditions of lifelong learning were formed even before the relevant international legislative framework was developed or the relevant pedagogical and didactic approaches and strategies were formed. Mostly, this format of education was based on local traditions and needs. For example, in the UK, since the beginning of the 20th century, several adult education associations have been operating, uniting educational institutions, employers, and employment providers. Geographical and climatic factors that affect the specifics of management and economic development can also significantly influence state strategies regarding lifelong learning policies. In particular, in Italy, there is a noticeable difference in social and economic development between the south and north of the country, as well as the influence of modern migration processes. All these factors cause special attention to the problems of adult education [68, pp. 156–159].

Lifelong learning is usually provided both through traditional forms and methods of learning (lectures, seminars, practical classes, workshops), and using brainstorming, interviews, training, coaching, project tasks. A necessary component of modern lifelong learning is the digitalization of the process, personal motivation, and creativity and adaptability [69]. Monitoring and evaluating the quality of education, as well as feedback between participants in the educational process, is important. A prerequisite for the quality of education in digital format is its accessibility and inclusiveness for all participants in the educational process.

For Ukraine, lifelong learning is currently one of the most pressing problems in the field of education. After all, the challenges of the Russian-Ukrainian war require a quick and effective response to economic, demographic, and social changes in society. In our opinion, the combination of successful cases of Sweden (in orientation to the individual), Australia (emphasis on professional growth and transformation), Singapore (attention to traditions combined with progressive approaches in mastering the skills of the future) are good examples of adapting lifelong learning to the needs of the state and the individual.

## Conclusions

Lifelong learning is already an important component of the socio-political, economic, and cultural development of humanity. Ensuring the accessibility and continuity of education throughout life is declared as one of the development priorities both in international legislative acts and in many national legislations, including in Ukraine. At present, the Law of Ukraine "On Adults Education" of 2023 has been adopted in the first reading in Ukraine. However, a holistic state approach to overcoming challenges in lifelong learning, which have both global and domestic specifics, has not yet been developed. However, for Ukraine, this issue is one of the strategically important ones, as it is related not only

to the problem of joining the EU, but also to a number of extremely difficult internal problems caused by the Russian-Ukrainian war: the destruction of the economy, disruption of transport and logistics links, mass emigration of the population, underfunding of the education sector, adaptation of veterans and the civilian population to life in war conditions and, in the future, post-war reconstruction.

Many countries have formed a lifelong learning system even before it became a global trend caused by the rapid technological development of the second half of the 20th and the beginning of the 21st centuries. Among such countries, we will name, first of all, Germany and the United Kingdom. In them, the lifelong learning system is based on an extensive network of relevant educational institutions, courses, trainings, social and cultural activities, and also has multi-vector forms of financing, a transparent management structure and strong motivation of participants in the educational process. Countries such as Hungary and Greece are oriented towards the demand from employers, and based on the real figures of the necessary specialists, they adapt the forms and methods of lifelong learning. A fairly common form of lifelong learning is advanced training or retraining at various firms and enterprises. This format is inherent in countries where lifelong employment of employees has traditionally been formed (South Korea, Japan).

Over several decades, the format of lifelong education has gone from overcoming illiteracy and poverty among socially vulnerable segments of society to qualitatively new approaches and visions of lifelong learning as a necessary skill of the 21st century in the context of digitalization of all spheres of life. For Ukraine, the experience of different countries is important in terms of finding the most acceptable format of such education, but, in our opinion, no country in the world currently has such experience as Ukraine, when cardinal changes are taking place practically on the fly, including in education.

## References

1. Sen, A. (2025). *Publications*. Thomas W. Lamont University Professor, and Professor of Economics and Philosophy. Harvard University. <https://scholar.harvard.edu/sen/publications?page=1>
2. The Editors of Encyclopaedia Britannica (2025). *Amartya Sen. Indian economist*. <https://www.britannica.com/money/Amartya-Sen>
3. Sen, A. (2006). *Critical Assessments of Contemporary Economists*. Taylor & Francis.
4. Ali, M. (2024). *The legacy of Mahbub ul Haq: Exploring human development and economic rights at the United Nations. International Organizations and Global Development*. Edited by Nicholas Ferns and Angela Villani. (pp. 43–71). Berlin, Boston: De Gruyter Oldenbourg. <https://doi.org/10.1515/9783111280356-003>
5. Baru, S. (1998). Mahbub ul Haq and Human Development: A Tribute. *Economic and Political Weekly*, 33(35), 2275–2279. <https://www.jstor.org/stable/4407121>
6. Haq, M. Ul. (1995). *Reflections on Human Development*. Oxford University Press. <https://doi.org/10.1093/oso/9780195101911.001.0001>
7. Karpenko, M. (2015). *Lifelong Education as a Factor of Human Development. Analytical Note*. National Institute for Strategic Studies, July 14. <https://niss.gov.ua/doslidzhennya/gumanitarniy-rozvitok/osvita-protyagom-zhittya-yak-chinnik-lyudskogo-rozvitku>
8. Training Material for Producing National Human Development Reports (2015). *UNDP Human Development Report Office*. <https://hdr.undp.org/system/files/documents/hditraining.pdf>
9. Anishchenko, O. (2022). Non-formal adult education in the context of the Russian-Ukrainian war: status, problems and prospects for development. *Adult Education: Theory, Experience, Perspectives*, 1(21), 18–34. [https://doi.org/10.35387/od.1\(21\).2022.18-34](https://doi.org/10.35387/od.1(21).2022.18-34)
10. Laal, M. (2012). Benefits of Lifelong Learning. *Procedia – Social and Behavioral Sciences*, 46, 4268–4272. <https://doi.org/10.1016/j.sbspro.2012.06.239>
11. Mantie, R. (2012). Learners or participants? The pros and cons of "lifelong learning". *International Journal of Community Music*, 5(3), 217–235. [https://doi.org/10.1386/ijcm.5.3.217\\_1](https://doi.org/10.1386/ijcm.5.3.217_1)
12. McMahon, W. W. (1998). Conceptual Framework for the Analysis of the Social Benefits of Lifelong Learning. *Educational Economics*, 6(3), 309–346. <https://doi.org/10.1080/09645299800000022>
13. Narushima, M. (2008). More than nickels and dimes: the health benefits of a community-based lifelong learning program for older adults. *International Journal of Lifelong Education*, 27(6), 673–692. <https://doi.org/10.1080/02601370802408332>
14. Meyer, A. N. D., & Logan, J. M. (2013). Taking the Testing Effect Beyond the College Freshman: Benefits for Lifelong Learning. *Psychology and Aging*, 28(1), 142–147. <https://doi.org/10.1037/a0030890.supp>
15. Waller, R., Hodge, S., Holford, J., Milana, M., & Webb, S. (2021). Reassessing the social benefits of lifelong learning in light of the COVID pandemic. *International Journal of Lifelong Education*, 40(5-6), 435–438. <https://doi.org/10.1080/02601370.2021.2017219>

16. Hager, P. (2012). *Concepts and Definitions of Lifelong Learning*. The Oxford Handbook of Lifelong Learning. <https://doi.org/10.1093/oxfordhb/9780195390483.013.0015>
17. Debbarma, S., & Kumar Shivam, P. (2024). Effect of Lifelong Learning among Students and Teachers: A Literature Review. *Online International Interdisciplinary Research Journal*, 14(4), 39–47. [https://www.researchgate.net/publication/383430783\\_Effect\\_of\\_Lifelong\\_Learning\\_among\\_Students\\_and\\_Teachers\\_A\\_Literature\\_Review](https://www.researchgate.net/publication/383430783_Effect_of_Lifelong_Learning_among_Students_and_Teachers_A_Literature_Review)
18. Elice, D., Maselena, A., & Pahrudin, A. (2023–2024). Formal, Informal and Non-Formal Education Systems. *Journal of Learning and Educational Policy*, 4(1), 30–35. <https://doi.org/10.55529/jlep.41.30.35>
19. Johnson, M., & Majewska, D. (2022). *Formal, non-formal, and informal learning: What are they, and how can we research them?* Cambridge University Press & Assessment Research Report. <https://www.cambridgeassessment.org.uk/Images/665425-formal-non-formal-and-informal-learning-what-are-they-and-how-can-we-research-them-.pdf>
20. Tudor, S. L. (2013). Formal – Non-formal – Informal in Education. In: *Procedia – Social and Behavioral Sciences: 5th International Conference EDU-WORLD 2012 – Education Facing Contemporary World*, 76, 821–926. <https://core.ac.uk/reader/82530500>
21. Dinevski, D., & Vesenjak Dinevski, I. (2004). The Concepts of University Lifelong Learning Provision in Europe. *Transition Studies Review*, 11, 227–235. <https://doi.org/10.1007/s11300-004-0014-z>
22. Evans, K., Lee, W. O., Markowitsch, J., & Zukas, M. (2022). Advancing Research and Collecting Evidence on Lifelong Learning Globally. In: Evans, K., Lee, W. O., Markowitsch, J., Zukas, M. (Eds.), *Third International Handbook of Lifelong Learning*. Springer International Handbooks of Education. (pp. 1–19). Springer. [https://doi.org/10.1007/978-3-030-67930-9\\_69-1](https://doi.org/10.1007/978-3-030-67930-9_69-1)
23. Dede, C., & Richards, J. (Eds.). (2020). *The 60-year curriculum: New models for lifelong learning in the digital economy*. Routledge. <https://doi.org/10.4324/9781003013617>
24. Aspin, D. N. (Ed.). (2007). *Philosophical Perspectives on Lifelong Learning*. Springer. <https://doi.org/10.1007/978-1-4020-6193-6>
25. Becirovic, S., & Sinanovic, J. (2016). The Determinants of Lifelong Learning. *European Researcher*, 103(2), 107–118. [https://www.researchgate.net/publication/298215074\\_The\\_Determinants\\_of\\_Lifelong\\_Learning](https://www.researchgate.net/publication/298215074_The_Determinants_of_Lifelong_Learning)
26. Pilat, D. (2004). *The Economic Impacts of ICT–What Have We Learned Thus Far*. In: *4th ZEW conference on the economics of information and communication technologies (Mannheim, July 2-3, 2004)*. P. 1–33. [https://www.researchgate.net/publication/228767621\\_The\\_Economic\\_Impacts\\_of\\_ICT-What\\_Have\\_We\\_Learned\\_Thus\\_Far](https://www.researchgate.net/publication/228767621_The_Economic_Impacts_of_ICT-What_Have_We_Learned_Thus_Far)
27. Latif, L. A., Fadzil, M., & Goolamally, N. (2012). Factors influencing the development of lifelong learning skills: oum tracer study. *The 40th Anniversary of KNOU Future of ODL for 'Knowledge Network Society' Korea National Open University*. September 17–18. ID: 73691560. <https://www.semanticscholar.org/paper/Factors-Influencing-The-DevelopmentOfLifelongOUMLatifFadzil/f2e8bccc9aee7a631b78b4200dd42b5caad0736>
28. Laal, M. (2013). Key Necessities for Lifelong Learning. *Procedia – Social and Behavioral Sciences*, 83, 937–941. <https://doi.org/10.1016/j.sbspro.2013.06.175>
29. Monaghan, C. H. (2007). Communities of Practice: Modelling Lifelong Learning Skills. *The Journal of Continuing Higher Education*, 55(2), 10–16. <https://doi.org/10.1080/07377366.2007.10400116>
30. Borgwardt, A. (2023). *Digitalization in Studium und Lehre*. Bonn: Friedrich-Ebert-Stiftung, 2023. *Politologist & Publicist*. <https://angela-borgwardt.de/digitalisierung-in-studium-und-lehre>
31. Chakraborty, T., Natarajan, A., Mishra, N., & Ganguly, M. (2024). *Digitalization of Higher Education: Opportunities and Threats*. Apple Academic Press. <https://doi.org/10.1201/9781003412151>
32. Shcherbachenko, V., & Sluisarenko, A. D. (2023). Prospects and challenges of online education development in Ukraine. *Socio-Economic Relations in the Digital Society*, 2(48), 84–92. <https://doi.org/10.55643/ser.2.48.2023.496>
33. Zorn, I. (2018). *Inklusive Digitalisierung in der Hochschulbildung. Eine Handreichung für Lehrende an Hochschulen*. Publisher: TH Köln. [https://www.researchgate.net/publication/343080753\\_Inklusive\\_Digitalisierung\\_in\\_der\\_Hochschulbildung\\_Eine\\_Handreichung\\_fur\\_Lehrende\\_an\\_Hochschulen](https://www.researchgate.net/publication/343080753_Inklusive_Digitalisierung_in_der_Hochschulbildung_Eine_Handreichung_fur_Lehrende_an_Hochschulen)
34. Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass.
35. Jarvis, P. (2004). *Adult Education and Lifelong Learning. Theory and Practice*. Routledge. <https://doi.org/10.4324/9780203561560>
36. Freire, P. (2005). *Pedagogy of the oppressed*. (30th anniversary edition). Continuum.

37. FLLLEX Project (2012). Towards an institutional strategy for lifelong learning in higher professional education: FLLLEX project results and recommendations. European Association of Institutions in Higher Education (EURASHE).
38. Commission of the European Communities (2000). *A Memorandum on Lifelong Learning*. [http://arhiv.acs.si/dokumenti/Memorandum\\_on\\_Lifelong\\_Learning.pdf](http://arhiv.acs.si/dokumenti/Memorandum_on_Lifelong_Learning.pdf)
39. Gapon, L. (2024). *The role of lifelong education in ensuring the national interests of the European Union member states*. In: *VII International Scientific Conference "Pedagogical Comparative Studies and International Education: Integration Processes in Education in Scientific Discourse"*. (pp. 119–123). Kyiv. <https://www.researchgate.net/publication/384833372>
40. Bakhmat, N., Sydoruk, L., Poberezhets, H., Misenyova, V., Boyarova, O., & Mazur, Yu. (2023). Features of using the opportunities of the digital environment of the higher educational institution for the development of future economists' professional competence. *Economic Affairs (New Delhi)*, 68(1), 43–50. <https://doi.org/10.46852/0424-2513.1s.2023.6>
41. Kiselyova, K. (2019). How universities for adults work in Germany. *Osvitoria. Media*. <https://osvitoria.media/experience/yak-pratsyuyut-universytety-dlya-doroslyh-u-nimechchyni/>
42. Volyarska, O., & Pastushok, O. (2016). Peculiarities of the development of adult education in European countries. *Scientific Journal "ScienceRise: Pedagogical Education"*, 7(3), 51–54. <https://www.neliti.com/publications/311675>
43. Avsheniuk, N., Ohienko, O., Postrygach, N., Marusynets, M., Kotun, K., Dyachenko, L., & Godlevska, K. (2020). *Trends in the development of adult education in developed countries world*. Ivan Zyazyun Institute of Physical Education and Sports of the National Academy of Sciences of Ukraine. Kropyvnytskyi: Imeks-LTD.
44. Fleming, T. (2018). Mezirow and the Theory of Transformative Learning. In: V. Wang (Ed.), *Critical Theory and Transformative Learning*. (pp. 120–136). <https://doi.org/10.4018/978-1-5225-6086-9.ch009>
45. Gaidenko, V. (2006). Philosophy of Education in Brazil: Paulo Freire's Critical Pedagogy. *Philosophy of Education*, 2(4), 91–99.
46. Goruk, N. (2015). *Key ideas of Peter Jarvis's theory of empirical adult learning*. *Comparative Pedagogical Studies*, 2-3(24-25), 51–56. [https://library.udpu.edu.ua/library\\_files/poriv\\_ped\\_stydii/2015/02\\_03/7.pdf](https://library.udpu.edu.ua/library_files/poriv_ped_stydii/2015/02_03/7.pdf)
47. Pukhovska, L. (2021). European strategies, approaches and models of adult education development. *Adult Education: Theory, Experience, Prospects*, 2(20), 51–62. <https://surl.gd/xofxtb>
48. Semenets-Orlova, I., Klochko, A., Tereshchuk, O., Denisova, L., Nestor, V., & Sadovyi, S. (2022). Special aspects of educational managers' administrative activity under conditions of distance learning. *Journal of Curriculum and Teaching*, 11(1), 286–297. <https://doi.org/10.5430/jct.v11n1p286>
49. Smolinska, O., Koval, I., Pavliuk, M., & Shulha, D. (2024). Research of assertiveness in organization of the time perspective of degree-seeking students in higher education. *Insight: The Psychological Dimensions of Society*, 11, 222–237. <https://doi.org/10.32999/2663-970X/2024-11-12>
50. Alekseeva, O. (2023). The phenomenon of "lifelong learning" in the conditions of modern cataclysms in Ukraine. *Social and humanitarian studies: innovations, challenges and prospects (April 27-28, 2023): Proceedings of the First International Scientific Conference*. Zhytomyr: State University "Zhytomyr Polytechnic". <https://conf.ztu.edu.ua/wp-content/uploads/2023/06/307.pdf>
51. Golovnya, Y., Dobrostan, O., & Irkha, A. (2023). *The impact of digitalization on teaching activities in higher education institutions of Ukraine: a review of key problems and ways to overcome them*. *Academic Visions*, 19, 1–9. <http://dx.doi.org/10.5281/zenodo.7954515>
52. *Key Competences for Lifelong Learning* (2021). Kyiv: EU Delegation to Ukraine. [https://euroquiz.org.ua/data/blog\\_dwnl/JA0321508UKN\\_Key\\_Competences\\_2021\\_UKR\\_FINAL\\_web.pdf](https://euroquiz.org.ua/data/blog_dwnl/JA0321508UKN_Key_Competences_2021_UKR_FINAL_web.pdf)
53. Johansson, B. O. (2014). Swedish public education – lifelong learning! *Gurt*, April 7. <https://gurt.org.ua/articles/21728/>
54. Studieförbunden i samverkan är bransch- och intresseorganisation för de åtta studieförbunden. *Studieförbunden* (n.d.). <https://studieforbunden.se/>
55. Karmel, T. (2004). *Australia's approach to lifelong learning*. Paper presented to UNESCO International Expert Meeting on TVET (Learning for Work Citizenship and Sustainability) 25-28th October 2004 at Hotel Bristol, Bonn. National Centre for Vocational Education Research Ltd. [https://ncver.edu.au/\\_data/assets/file/0028/7498/lifelongunesco\\_oct04.pdf](https://ncver.edu.au/_data/assets/file/0028/7498/lifelongunesco_oct04.pdf)
56. Brown, T. (2018). Lifelong learning: An organizing principle for reform. *Australian Journal of Adult Learning*, 58(3), 312–335. <https://files.eric.ed.gov/fulltext/EJ1199967.pdf>
57. Tan, C. (2016). Lifelong learning through the SkillsFuture movement in Singapore: challenges and prospects. *International Journal of Lifelong Education*, 36(3), 1–14. <https://doi.org/10.1080/02601370.2016.1241833>

58. Resolution of the Verkhovna Rada of Ukraine "On Adoption as a Basis of the Draft Law of Ukraine "On Adults Education" No. 2874-IX of January 12, 2023". (2023). *Legislation of Ukraine*. <https://zakon.rada.gov.ua/laws/show/2874-IX#Text>
59. Delors, J. (1996). Learning: the treasure within; report to UNESCO of the International Commission on Education for the Twenty-first Century (highlights). *UNESCO. Digital Library*. <https://unesdoc.unesco.org/ark:/48223/pf0000109590>
60. Randstad, M. (2024, July 23). Lifelong Learning: a multi-faceted concept. *Angelini Academy*. <https://www.angeliniacademy.com/en/blog/lifelong-learning-a-multi-faceted-concept/>
61. ResearchFDI (2023, May 24). How technology is changing the landscape of economic development. *ResearchFDI. News & Media*. <https://researchfdi.com/how-technology-is-changing-the-landscape-of-economic-development/>
62. Karkach, A., & Semighina, T. (2024). *Digital Competence of Older People*. Tallinn: Theadmus. <https://www.researchgate.net/publication/377029914>
63. Farsani, D. (2022). The problem with the generation gap in education: A two-way approach. *Unipluriversidad*, 22(1), 1–3. <https://doi.org/10.17533/udea.unipluri.351805>
64. Alenezi, M., Wardat, S., & Akour, M. (2023). The Need of Integrating Digital Education in Higher Education: Challenges and Opportunities. *Sustainability*, 15(6), 47–82. <https://doi.org/10.3390/su15064782>
65. Rosak-Szyrocka, J. (2024). The era of digitalization in education: where do universities 4.0 go? *Management Systems in Production Engineering*, 32(1), 54–66. <https://doi.org/10.2478/mspe-2024-0006>
66. Kuzior, A., Krawczyk, D., Onopriienko, K., Petrushenko, Y., Onopriienko, I., & Onopriienko, V. (2023). Lifelong Learning as a Factor in the Country's Competitiveness and Innovative Potential within the Framework of Sustainable Development. *Sustainability*, 15(13), 9968. <https://doi.org/10.3390/su15139968>
67. Transforming our world: the 2030 Agenda for Sustainable Development. (2015). *United Nations*. Department of Economic and Social Affairs Sustainable Development. <https://sdgs.un.org/2030agenda>
68. Lukianova, L. (2020). *Adult Education: Modern Strategies and Practices in Ukraine and Abroad*. Kyiv: LLC "Yurka Lyubchenko".
69. *How to develop digital thinking from the question "Why?" to "How?"* (2021, January 11). Institute of Sociocultural Management. <https://iscm.org.ua/uk/2021/01/11/yak-rozvyynyty-tsyfrovo-myslennya-vid-pytannya-chomu-na-yak/>

