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# THE DIGITAL AND ONLINE LEARNING DEVELOPMENT FOR THE UKRAINIAN ECONOMY RECOVERY

It's wide understood that that the use of information and communication technologies (ICT) in educational processes contributes to increasing both the internal efficiency and the external economic and social efficiency of training and education.

The prevalence of digital devices and the Internet have created new opportunities for the application of personalized teaching and learning strategies that based on student-centered approaches.

It should be noted that there are certain disagreements on the interpretation of the degree of ICT use in education – from the point of view of content, purpose, definition, implementation, prerequisites, etc. The term «electronic learning» («e-learning») is often used for describing the ICT use in education.

The European Commission introduced the broader term «digital and online learning» («DOL») in 2014, as part of Education and Training 2020 (ET 2020). This emphasized two main components of modern «electronic learning» («e-learning»), in particular:

- «digital learning» is a form of teaching and learning supported by ICT. It covers several formats and hybrid methods, including the use of locally installed software;
- «online learning» is a modern widespread form of distance learning, distributed mainly through the Internet. It includes social media and Web 2.0 services for collaborative and personalized learning anywhere and anytime using computer and mobile computing devices; it may also involve the use of open educational resources [1, p. 30].

It is important to note that in Ukraine attention is paid to the improvement of tools for the implementation of digital and online learning at all levels of education. It is important for Ukraine to maximize the accumulation and more effective human capital use in order to promote the economyfunctioning in current economic and geopolitical conditions. Therefore, it is important to provide opportunities for training and obtaining the actual knowledge for all categories of the population for the professional training of workers that needed on the national labor market.

Advisory group of The European Qualifications Framework (EQF) choose Ukraine as one of the pilot countries in the project of comparison its national and European Qualifications Frameworks. This pilot project aims to contribute to the further harmonization of the EU and Ukraine regarding qualifications. In addition, the Directorate of Digital Transformation of Education was established in 2021 within the Ministry of Education and Science of Ukraine to support further efforts in digitalization of education [2, p. 3].

The National Qualifications Framework is intended for use by public authorities and local governments, institutions and organizations, educational institutions, employers, other legal entities and individuals for the development, identification, correlation, recognition, planning and development of qualifications [2, p. 3].

The model of digital and online learning is an effective tool for progressive changes to high-quality, innovative and individualized training of students (pupils) of any age, including those with disabilities, as well as ensuring the overcoming of the educational path that begins at birth and will last throughout life.

It is important that the implementation and use of digital and online learning stimulates the appropriate awareness of teachers (trainers), increases potential interest of modern educational technologies' pedagogical use, and improve their own understanding of ICT. The direct practical activity of teachers within the framework of digital and online education contributes to personal professional self-development, improvement of online technologies' qualifications, use of open and creation of own educational resources, etc. Teachers (trainers), who are more confident in ICT, use it more during teaching, even in those educational institutions that are insufficiently equipped [1, p. 31].

In case digital and online learning system effectively constructed and used, it can provide both students, teachers, and trainers with exciting opportunities to find and use multimedia information, as well as apply academic and professional skills to real-world work-related situations, simulated or expressed as virtual reality in an educational institution (educational platform).

ICT allows the teacher (trainer) to automate most of work, freeing up human resources for searching, communication, individual work with students, makes it possible to receive instant feedback, and improves the effectiveness of managing the

educational process and education as a whole. Digital technologies make it possible to make the learning process mobile, differentiated and individual [3, p. 23–24].

It is also necessary to keep in mind some risks and challenges associated with digital and online learning, in particular for the individual who carries out the training, in terms of his objective performance of tasks and evaluation of results. Increasingly, fingerprint identification technologies and facial or retina recognition software are expected to be used directly in education.

The formation of a digital-oriented innovative educational system, which has signs of stability and flexibility at the same time, requires important «analog» components.

Firstly, it requires «digitally competent and ready» educational organisations that are able to provide an adequate digital and online learning infrastructure, which will facilitate its effective use and create a platform for certain educational experiments.

Secondly, it needs digitally competent teachers and trainers who are confident users of digital tools, such as smartboards, and know how to implement group work, personalise learning and blend traditional and innovative pedagogy through DOL [1, p. 31].

And last but not least, a digitally-oriented education system requires state educational policy and the educational institutions to create an enabling environment. Digital and online learning (DOL) should be provided with proper system-wide governance, oversight of quality, investments and aimed at supporting modern reforms in education, and available to all citizens of Ukraine. Such an opportunity for development and professional improvement, provided at the state level for any member of society, is one of the stages for Ukraine's economy recovery after the war finished.

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## ПОБУДОВА СУЧАСНОЇ КОМУНІКАЦІЙНОЇ СИСТЕМИ ВЗАКЛАДІ ВИЩОЇ ОСВІТИ

На етапі становлення інформаційної цивілізації та побудови новітніх технологій неможливо уявити сучасну організацію без комунікаційних зв'язків, інформаційно-комунікаційних технологій, які здатні кардинально змінити способи