

Платформа 5. ТЕХНОЛОГІЇ ВІРТУАЛЬНОГО ОБМІНУ ЯК ДІЄВИЙ ІНСТРУМЕНТ ЗАБЕЗПЕЧЕННЯ ДОСТУПУ ДО СУЧАСНОЇ ЄВРОПЕЙСЬКОЇ БІЗНЕС-ОСВІТИ У ПРОЄКТИ ERASMUS+ VEHUB4YOU

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**THE SOCIO-ECONOMIC IMPLICATIONS OF DIGITAL COMPETENCY
DEVELOPMENT IN THE EUROPEAN UNION**

A thorough analysis of the socio-economic implications of digital competence development in the European Union reveals a complex, yet critically important, interdependence between digital skills proficiency and the overall well-being of European society. Amidst the accelerating global digital transformation, which encompasses all spheres of life — from economic systems and labor markets to social interactions and models of public administration, the development of digital competence assumes central significance. The European Union, having defined a focused digitalization strategy as a key priority, strives to achieve the ambitious goals of its "Europe's Digital Decade," where the digital competence of the population serves as the cornerstone of these aspirations [2]. Digital competence, as a combination of knowledge, skills, and attitudes necessary for the safe, responsible, and effective use of digital technologies for learning, professional activity, and civic participation, is an indispensable asset in the modern century [3]. This work draws upon recent scholarly research, analytical reports from European institutions, and programmatic documents, integrating current empirical data to provide a well-founded and relevant perspective. Emphasis is placed on demonstrating the practical implementation of these concepts through the VEHUB4YOU project [8], which exemplifies effective approaches to digital skill development.

The theoretical understanding of the digital competence concept is fundamental to comprehending the dynamics of contemporary digital transformation. It extends beyond rudimentary technical proficiency, encompassing such critically important elements as critical thinking, the ability to effectively solve problems, collaboration skills, and a deep understanding of digital security and the ethical aspects of online interaction. In this context, the European Digital Competence Framework for Citizens (DigComp) emerges as a key instrument that structures this knowledge and these skills into five main areas: information and media literacy, communication and collaboration, digital content creation, safety, and problem-solving [1,2]. From a theoretical perspective, the development of digital competence can be interpreted through the lens of human capital theory, where the acquisition of digital skills is viewed as an investment in individual capabilities, enhancing their productivity and potential income. At the macro level, this process correlates with economic growth theory, where technological progress combined with human

capital accumulation acts as a defining driver. Simultaneously, sociological theories of stratification and inequality caution against the potential deepening of social divides due to the phenomenon of the digital gap, making the development of comprehensive digital competence a critical factor in ensuring social inclusion. Projects like VEHUB4YOU directly confirm these theoretical propositions, demonstrably illustrating how targeted interventions can shape human capital and contribute to reducing inequality.

The impact of digital competence development on the European labor market and employment is profound and multifaceted. Firstly, it substantially enhances the employability and competitiveness of individuals. Recent Eurostat data [7] indicate that in 2023, approximately 54% of adults in the EU possessed at least basic digital skills, bringing the EU closer to the "Digital Decade" target of 80% by 2030. However, it is important to note the significant variability of this indicator among member states, ranging from 29% in Romania to 84% in Finland, which points to substantial gaps in digital readiness. Workers with developed digital skills demonstrate higher employment opportunities, better salaries, and greater flexibility in choosing career paths. Secondly, digitalization causes a radical transformation of the professional landscape and the creation of fundamentally new jobs. According to European Commission estimates, by 2030, 90% of jobs will require some level of digital skills [2]. Research confirms that the shortage of IT specialists in the EU continues to worsen in 2022, 86% of companies that tried to hire IT specialists faced significant difficulties in finding qualified personnel [5]. This trend demands continuous reskilling and upskilling of the workforce [4].

The VEHUB4YOU project, by creating virtual hubs, can function as powerful platforms for cooperation among various actors: businesses, startups, research institutions, and individual developers [8]. This integrated environment fosters intensive idea exchange, the incubation of innovative projects, and the launch of new, competitive business models. This directly supports economic growth through the development of the digital economy and increased overall productivity, which is a key economic implication of digital competence. Digital competence radically transforms access to education and lifelong learning. Online courses, digital platforms, and electronic resources provide unprecedented opportunities for self-development, in both formal and informal education. The COVID-19 pandemic catalyzed accelerated digitalization of the educational sphere, clearly demonstrating both its significant advantages and the urgent need for continuous improvement of digital skills among both students and teachers [2]. VEHUB4YOU, being an educational and interactive platform, is a valuable tool for continuous learning. It can offer specialized modules for enhancing digital literacy, targeted courses, or webinars, directly addressing the urgent need for continuous adaptation to rapid technological changes and contributing to the realization of the lifelong learning concept.

Despite the obvious and significant advantages, the development of digital competence in the EU faces several substantial challenges. Firstly, uneven development persists there are significant differences in digital skill levels among member states, regions, age groups, and socio-economic strata, as clearly confirmed by Eurostat and DESI data. Secondly, the pace of technological change is extremely high: technologies, especially in the fields of artificial intelligence, quantum computing, and the metaverse, are developing at an unprecedented speed, requiring constant adaptation of training programs and continuous lifelong learning. Thirdly, the shortage of qualified IT specialists in the EU remains acute, posing a significant obstacle to full digital transformation and innovative development. Fourthly, ensuring the quality of education and

training in digital skills, as well as the availability of qualified teachers and trainers, is an ongoing task that requires a systemic solution. Fifthly, increasing reliance on digital technologies raises cybersecurity risks. Eurobarometer shows that a significant part of the EU population still does not feel sufficiently protected online [6], which requires citizens not only to be able to use technologies but also to have a deep understanding of safe practices and ethical aspects of digital behavior. Finally, the implementation of ambitious digital transformation goals requires significant investment in infrastructure, training programs, and research initiatives. At the same time, these challenges create numerous opportunities. Clearly defined EU policies and programs, such as "Europe's Digital Decade," "Digital Europe," and the "European Year of Skills 2023," provide a strong institutional framework for coordinated action and funding. Deepening cooperation among governments, educational institutions, the private sector, and civil organizations allows for the creation of effective and inclusive learning ecosystems.

Thus, the application of innovative teaching approaches, including the use of artificial intelligence and virtual reality, can significantly increase the effectiveness of learning and expand its reach. In this context, catalyst projects, similar to VEHUB4YOU, are vivid examples of how targeted investments and innovative approaches can accelerate the development of digital competence, providing specific tools and opportunities for learning, cooperation, and innovation. They contribute not only to individual growth but also to the systemic strengthening of the EU's digital ecosystem. Further efforts should focus on ensuring equal access to quality digital education for all citizens, on developing critical thinking and responsible behavior in the digital environment, and on supporting continuous lifelong learning.

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