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THE ROLE OF DIGITAL EDUCATIONAL PLATFORMS IN SHAPING NEW MODELS OF ECONOMIC DEVELOPMENT

РОЛЬ ЦИФРОВИХ ОСВІТНІХ ПЛАТФОРМ У ФОРМУВАННІ НОВИХ МОДЕЛЕЙ ЕКОНОМІЧНОГО РОЗВИТКУ

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The article explores the role of digital educational platforms in shaping new economic development models, addressing the current challenges in the global economy. The study aims to analyze how these platforms impact human capital development and innovation ecosystems. Using analysis, modeling, and comparative methods, the research examines the interactions among participants in the educational process and their effects on economic growth. The findings reveal that digital educational platforms facilitate the creation of integrated ecosystems that bring together businesses, educational institutions, and regulators, thereby fostering economic activity driven by knowledge and innovation. The study illustrates the system of interaction between participants within a digital educational, highlighting how these platforms streamline and integrate educational processes into modern society, where universities are evolving into centers not only for knowledge accumulation and transfer but also for its commercialization. In this context, two global information systems are increasingly in demand: digital educational platforms and an innovation ecosystem organized by industry or region. The article characterizes key aspects of human capital development and the enhancement of economic competitiveness through the use of digital platforms. It offers recommendations for integrating these technologies into global educational processes and assesses their potential impact on sustainable economic development. The practical value of the study lies in its potential to guide the development of strategies for advancing digital education. The originality of the research is highlighted by its identification of new forms of economic activities emerging from interactions within digital educational platforms. Future research prospects include examining how digital educational platforms affect various socio-economic groups. Type of article: theoretical.
Key words: *digital educational platforms; economic development; human capital; innovation ecosystems; digital education.*

Стаття присвячена дослідженню ролі цифрових освітніх платформ у формуванні нових моделей економічного розвитку, що є актуальною темою у контексті сучасних викликів глобальної економіки. Метою дослідження є аналіз впливу цифрових освітніх платформ на розвиток людського капіталу та інноваційних екосистем. Використано методи аналізу, моделювання та порівняльного аналізу для дослідження взаємодії учасників освітнього процесу та їхнього впливу на економічний розвиток. Встановлено, що цифрові освітні платформи сприяють створенню інтегрованих екосистем, що об'єднують бізнес, освітні установи та регуляторів, стимулюючи економічну активність на основі знань та інновацій. Відображено систему взаємодії між учасниками в рамках цифрової освітньої платформи, яка показує, що перехід на цифрові освітні платформи дозволяє впорядкувати цю систему взаємодії, інтегруючи її в сучасне суспільство, де університети стають не лише центрами акумуляції та передачі знань, але й інститутами їх комерціалізації. У цьому контексті затребуваними стають дві глобальні інформаційні системи: цифрова освітня платформа та інноваційна екосистема, організована за галузевим або регіональним принципом. Охарактеризовано ключові аспекти розвитку людського капіталу та підвищення конкурентоспроможності економік завдяки використанню цифрових платформ. Запропоновано рекомендації щодо інтеграції цих технологій у глобальні освітні процеси та їх впливу на стійкий економічний розвиток. Практична цінність дослідження полягає в можливості застосування результатів для розробки стратегій розвитку цифрової осві-

ти. Оригінальність дослідження полягає у виявленні нових форм економічної активності, що виникають завдяки взаємодії в межах цифрових освітніх платформ. Перспективи подальших досліджень включають аналіз впливу цифрових освітніх платформ на різні соціально-економічні групи. Тип статті: теоретична.
Ключові слова: *цифрові освітні платформи; економічний розвиток; людський капітал; інноваційні екосистеми; цифрова освіта.*

INTRODUCTION

The evolution of digital technologies, such as cloud computing and mobile devices, has become a powerful catalyst for transforming traditional education systems. The transfer of innovations originally developed for business to the educational environment has led to the creation of new digital platforms. These platforms have evolved beyond simple data repositories into interactive ecosystems that enhance active engagement among participants in the educational process. This transformation is the result of the synergy between advancements in information technology and the increasing demand of modern society for quality, accessible and personalized education.

Digital educational platforms initiate a paradigm shift in the knowledge economy, where the emphasis is not just on transferring, but also on interaction and cooperation [1, p.1223]. By creating integrated ecosystems that unite diverse participants in the educational process, these platforms stimulate the emergence of new forms of economic activity centered around knowledge and innovation. This approach not only enhances the quality of education, but also contributes to the development of human capital essential for advancing an innovative economy.

These platforms not only transform the educational landscape but also act as catalysts for innovation across the economy. The ecosystems created on the basis of these platforms foster the creation of new business models, products, and services, which, in turn, drive economic growth and enhance the competitiveness of national economies [2;3]. By investing in the development of digital education, countries cultivate a favorable environment for developing human capital, a crucial factor for long-term development.

Thus, the role of digital educational platforms in shaping new models of economic development is crucial today. They not only modernize traditional educational practices, but also drive the transition to a more flexible, adaptive, and innovative economy, where knowledge and skills become the primary assets. In this context, digital education platforms are essential for ensuring sustainable economic development, reducing social inequality, and enhancing human capital. Given these factors, investments in digital education are becoming strategically important for both governments and the private sector, as they lay the groundwork for long-term economic prosperity and global competitiveness.

LITERATURE REVIEW

The analysis of scientific literature confirms that digital educational platforms are pivotal in transforming both the educational process and economic systems. A study conducted by T. Wambsganss et al. illustrates how integrating machine learning into digital educational enhances students' argumentation skills. This highlights the importance of adaptive technologies in education, which are instrumental in developing critical thinking and other essential skills vital to the modern knowledge economy [4].

The research of Ukrainian scientists also focuses on the practical applications of digital technologies in fostering new business ideas and enhancing economic efficiency. In particular, Y. Kolodinska et al. explore how digital services can be utilized to generate innovative business concepts, underscoring the role of digital tools in stimulating entrepreneurship and developing innovative economic models [5]. In addition, O. Skliarenko et al. examine the integration of digital interactive technologies into the educational process, emphasizing their significance in improving education quality and developing competencies essential for economic growth [6].

The literature review confirms that digital educational platforms are crucial not only for enhancing educational processes but also for driving innovation and economic development. However, several unresolved issues remain that warrant further investigation Specifically, there is a need to explore the systemic integration of these technologies into the global educational framework and their effects on various socioeconomic groups Therefore, a more in-depth analysis is required to address these issues and ensure sustainable and inclusive economic development.

AIMS AND OBJECTIVES

The purpose of this study is to examine the role of digital educational platforms in shaping new models of economic development. The focus is on analyzing how these platforms drive innovation, foster human capital development, and transform both educational and economic systems. To achieve this purpose, the study addresses the following objectives:

- identify the key characteristics of digital educational platforms that affect the development of economic models;
- to analyze how digital educational platforms affect the interaction between participants in the educational process and their role in fostering innovative ecosystems;

- to assess the impact of digital educational platforms on the development of human capital and its role in ensuring economic growth;

- Identify potential risks and challenges associated with the implementation of digital educational platforms and propose recommendations for addressing these issues.

METHODOLOGY AND RESEARCH METHODS

The study employed several methods to achieve its objectives. Analysis, systematization, and generalization were used to identify the main research areas concerning digital educational platforms and to uncover unresolved problems. The modeling method was applied to construct and evaluate models of interaction between participants within these platforms, assessing their effectiveness. Comparative analysis was used to evaluate different models of digital educational platforms and their impact on economic development.

DATA ANALYSIS AND RESULTS

The emergence and rapid development of digital educational platforms are closely tied to advancements in global communications and the Internet [8;7]. Initially, these new information technologies were predominantly used in the business sector. However, with the development of cloud technologies and the proliferation of mobile devices they have become accessible to a broader audience. Automation of processes has further popularized various information services, evolving them from simple data repositories into interactive tools for user engagement [9]. This evolution has significantly lowered costs and enhanced the efficiency and transparency of numerous processes, including educational ones.

It is important to highlight that digital educational platforms are pivotal in developing new economic models, distinctly different from traditional information systems [10]. The primary distinction between digital educational platforms lies in the creation of new value through interactions among economic entities. This value underpins the function of digital educational platforms as cohesive ecosystems that integrate businesses, educational institutions, students, educational content developers, and regulators.

Figures 1 and 2 illustrate the differences in the existing methods of interaction among participants, including educational organizations, students, and industry companies.

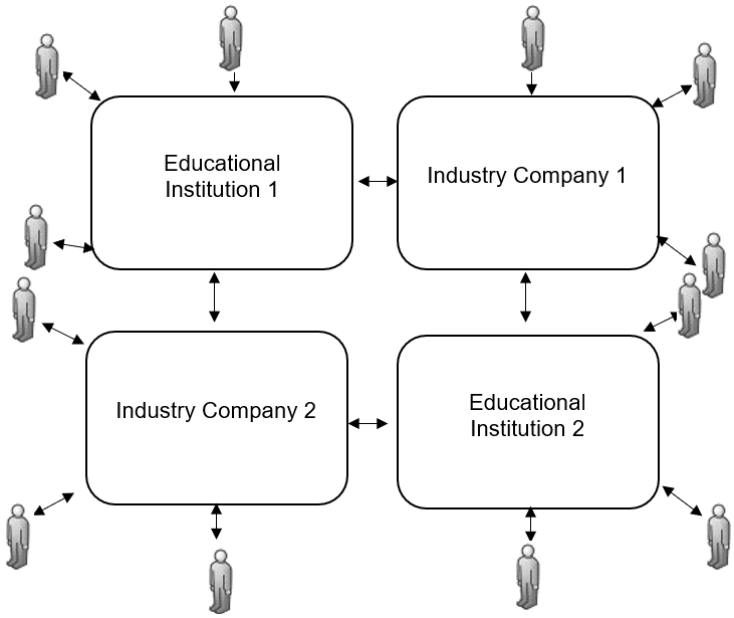


Fig. 1. The existing system of relationships among participants

Source: created by the author

As illustrated in the figure 1, the current system of interaction is characterized by a highly heterogeneous structure. It includes various forms of relationships such as contractual agreements between businesses and educational institutions, trilateral and bilateral training contracts, and government orders. The complex system of interaction among participants is influenced by numerous factors, making it challenging to manage and regulate as it has many contradictions. The main contradiction within this system is the disparity between the demand from businesses for high-quality education and the capabilities of educational organizations to meet this demand.

Fig. 2 illustrates that transitioning to digital educational platforms streamlines the system of interaction among participants, integrating it into the modern society, where universities are evolving into centers not only for knowledge accumulation and transfer, but also for its commercialization. In this context, two global information systems are becoming in demand: digital educational platforms

and innovation ecosystems organized by industry or region. These platforms support sustainable industry development by fostering innovation through the ecosystem and aiding in career development for both future and current employees through the educational platform.

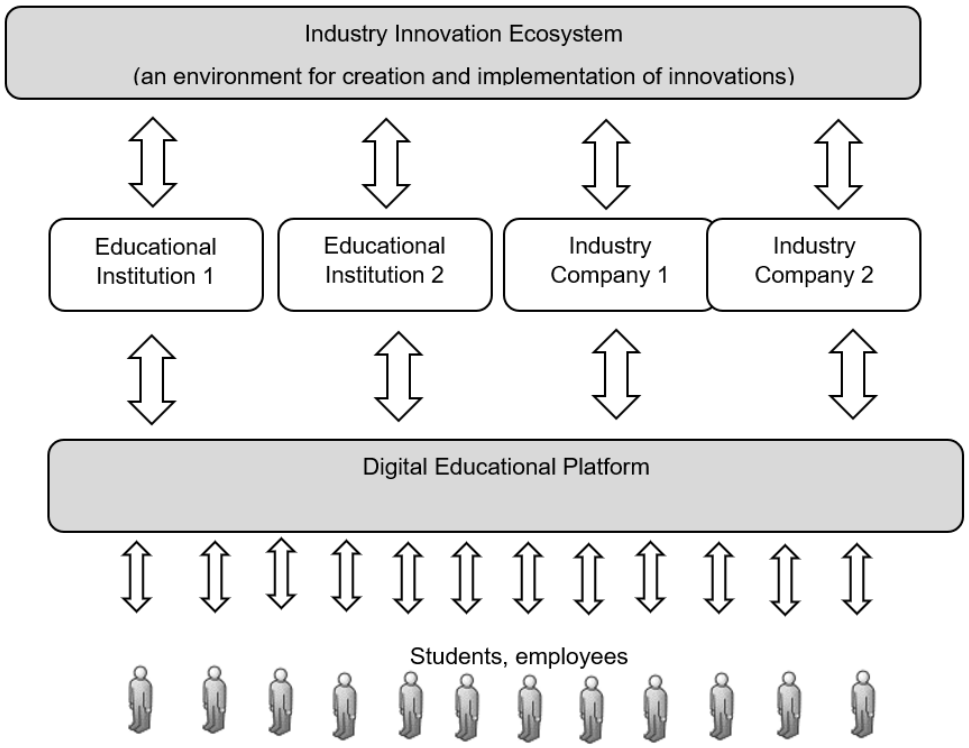


Fig. 2: System of interaction among participants within the digital educational platform

Source: created by the author

The creation of new value in digital educational platforms involves three main aspects: simplifying internal interaction within the organization, facilitating interactions with end users, and eliminating the human factor. Unlike traditional information systems, which are limited to addressing the internal needs of a single organization, digital educational platforms encompass the entire ecosystem of participants. This includes communication channels and systems for interacting with the external environment (see Fig. 3).

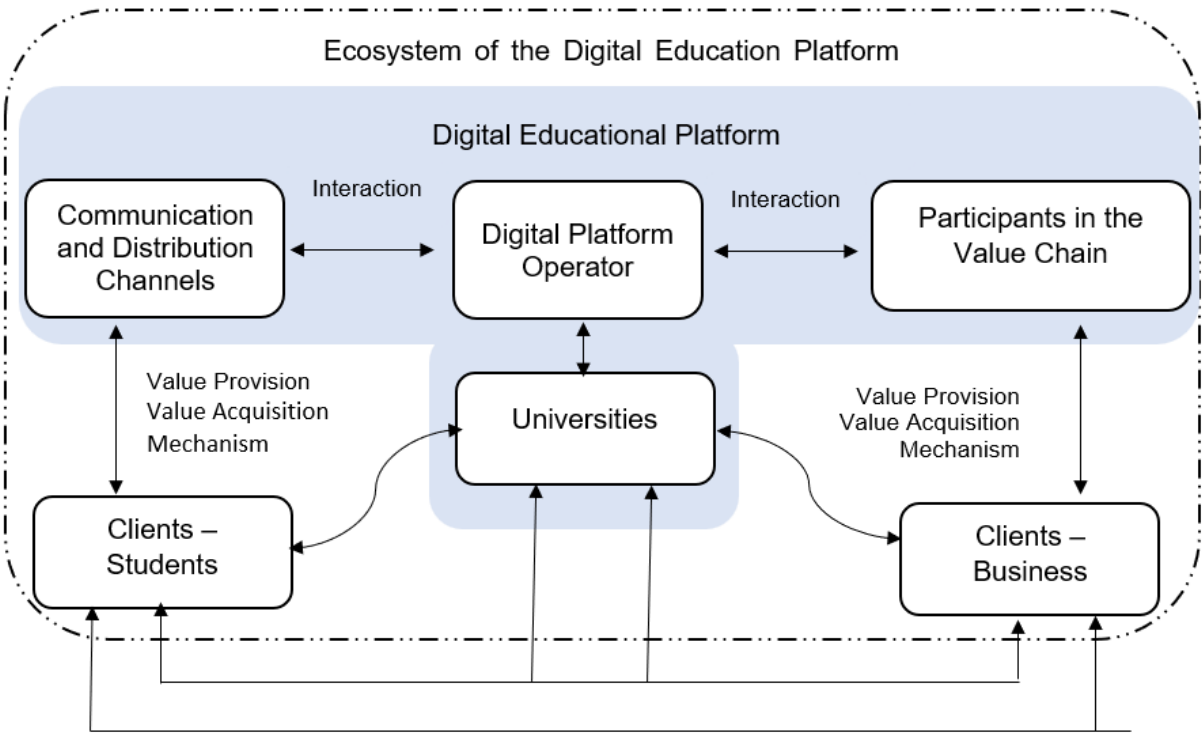


Fig. 3: Ecosystem of the digital education platform

Source: created by the author

A key element in the development of digital educational platforms is the possibility of commercialization of the data generated in the process of their operation. In conditions of growing importance of human capital as the main source of economic development, digital educational platforms can accumulate important data about the competencies of employees, their career preferences, and personal characteristics.

Thus, a digital educational platform can be defined as a complex information system designed to facilitate the development of competencies of education seekers. It is accessible to a range of interested parties, including educational content developers, administrators of educational institutions, education seekers and businesses.

The methodology for building a digital educational platform involves a service-oriented architecture that facilitates rapid expansion of the platform's functionality while minimizing transaction costs. The core of the platform includes of digital services, cloud-based data processing architectures and a security system, which form its competitive advantages.

The platform-agnostic development environment drives value creation, while the educational content database and API library form the foundation of the platform's capitalization. At the upper levels, the design and enhancement of services, collaboration among participants and interactions through social networks take place, shaping the vision of the university of the future and delivering value for the end user.

DISCUSSION

Modern digital educational platforms initiate a paradigm shift in the field of education, transforming it from passive knowledge consumption to an active process of knowledge construction. The platforms' interactive capabilities enable the development of personalized learning trajectories that align with both the students' personal interests and the dynamic demands of the labor market. This approach not only enhances the effectiveness of learning, but also fosters the formation of fosters essential skills such as self-directed learning, critical thinking and adaptability – competencies crucial for success in today's digital world.

Another crucial aspect is that integrating digital educational platforms into the economic environment transforms traditional educational models, turning them into dynamic ecosystems for cooperation among educational institutions, businesses, content developers and government regulators. Such collaboration drives the creation of innovative educational products and services tailored to the needs of the modern labor market. As a result, conditions are created for continuous professional development, a vital factor in enhancing the competitiveness of the national economy.

However, despite their potential, digital educational platforms can have both positive and negative social consequences. On the one hand, they promote the democratization of access to education and the development of the individual potential of students. Conversely, they may exacerbate the digital divide, lead to social isolation, and diminish the quality of interpersonal interactions. Additionally, concerns about the effectiveness of online learning persist, particularly for students with special needs. Therefore, implementing digital technologies in education requires careful consideration of not only economic, but also social aspects to ensure a balanced development of digital education.

CONCLUSIONS

The results of the study confirm the significant role of digital educational platforms in shaping new economic development models that align with contemporary societal and labor market demands. In accordance with the tasks set, the findings establish that digital educational platforms can significantly increase the efficiency of the educational process, contributing to the development of innovative ecosystems that integrate educational institutions, businesses, content developers and government regulators. This integration facilitates the creation of new economic activities centered around knowledge, innovation and interactive collaboration among all participants in the educational process.

Digital educational platforms play a key role in developing human capital, a fundamental factor in economic growth. They facilitate not only the transfer of knowledge, but also the cultivation of critical thinking, independent learning and adaptation to constant changes, which are important competencies for success in the modern economy. Thus, these platforms contribute to sustainable economic development, bolster national economic competitiveness, and reduce social inequality.

At the same time, the research results emphasize the necessity of a comprehensive approach to implementing digital educational platforms, addressing both economic and social factors. Attention must be given to potential negative consequences, such as the risks of digital divide, social isolation, and diminished quality of interpersonal interactions. This requires the development of targeted policies and measures that ensure inclusive access to digital education and provide support for students with special needs.

Therefore, digital educational platforms hold significant potential to transform both the educational sector and the broader economy. To fully leverage this potential, however, further research is needed to thoroughly analyze the impact of digital educational technologies on various socio-economic groups and to develop strategies that ensure sustainable

and balanced development of digital education. Special emphasis should be placed on the systemic integration of digital platforms into the global educational process and the evaluation of their effects on long-term economic growth and the advancement of the innovative economy.

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