

EDUCATIONAL OPPORTUNITIES OF MOBILE APPLICATIONS IN THE EDUCATIONAL PROCESS

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In today's information society, where global mass communication is pivotal, the informatization of education during the digital transformation era is particularly significant. Considerable attention is directed towards creating a digital educational environment and enhancing e-learning and distance learning technologies through the capabilities of information and communication technologies.

Transitioning from a traditional university to a digital one involves not only changes in teaching methods but also a transformation of the entire educational management system. This shift aims to train personnel equipped for the digital economy, supporting the growth of high-tech industries and the creation of innovative production facilities. Mobile applications play a key role in the digital transformation of education, providing students with an interactive and accessible learning format.

Designing mobile applications for educational purposes requires an in-depth analysis of user needs and current technological trends [1;2]. Emphasis should be placed on creating an intuitive interface that accommodates diverse user groups. With Android and iOS smartphones now integral to students' lives, mobile applications offer an effective tool for accessing educational content. In this context, cross-platform compatibility is essential to ensure seamless functionality across major operating systems.

A crucial aspect of mobile application development is creating an infrastructure that includes both client and server components. The mobile app should be available for download on popular platforms like the Apple App Store and Google Play, with its server side supporting authorization, data access, and integration with the university's information system. This setup enables students to access real-time information on schedules, instructors, classrooms, and other essential aspects of the educational process. Timetables are generated based on data entered by administrative staff, allowing for the automated creation of individualized schedules for each student.

Automatic schedule updates inform students via push notifications, allowing them to stay promptly informed about changes in the educational process. Additionally, the system enables students to submit electronic requests for certificates, streamlining interactions between students and administration. Electronic notifications are automatically generated with a consistent design and

are authenticated through a digital signature, which greatly simplifies administrative procedures and enhances the university's overall efficiency.

A key task in digital transformation is to design a user-friendly, intuitive interface [3;4]. The mobile application interface should be straightforward enough for inexperienced users, while still offering advanced functionality for in-depth engagement with educational content. In this context, digital avatars play a pivotal role in personalizing the learning experience. They help create a learning environment that adapts to the teaching style of each teacher, boosting student motivation and promoting engagement.

Thus, digital teacher profiles provide essential information about their experience, teaching methods, academic achievements, and other characteristics, enabling the creation of authentic learning experiences. These profiles support the quality of education by preserving each teacher's individual approach. In the context of digital transformation, universities should prioritize developing a flexible and adaptive educational system that accommodates individual student needs and provides access to high-quality educational resources.

The development of mobile applications that integrate digital avatars necessitates the creation of modern infrastructure capable of storing, processing, and analyzing large volumes of data. This involves organizing data warehouses and developing efficient processing algorithms. The incorporation of Big Data, machine learning, and artificial intelligence is crucial to achieving a high level of process automation, enabling universities to maintain competitiveness in the modern world [5, p.1224].

Many scholars note that mobile applications can significantly improve student interaction with universities by offering flexible access to educational resources [1;3;4]. Additionally, these applications can enhance the economic efficiency of universities by reducing administrative costs and improving resource management [2, p.50]. Successful implementation requires fostering collaboration between universities and businesses, which can create new funding sources and enhance the quality of education.

Thus, the use of mobile applications in university education facilitates continuous access to educational content, enhances student engagement, and fosters an interactive learning environment. These applications also contribute to the development of students' digital competencies, which is crucial for preparing them for the modern labor market. Innovative approaches based on digital technologies enable universities to train specialists who can adapt to changes in the digital economy and effectively manage large volumes of information.

References:

1. Bobro, N. *The concept of a digital university. Наукові інновації та передові технології.* 2024. 9(37), pp. 804-811. DOI: [https://doi.org/10.52058/2786-5274-2024-9\(37\)-804-811](https://doi.org/10.52058/2786-5274-2024-9(37)-804-811).
2. Lysenko, S., Bobro, N., Korsunova, K., Vasylchyshyn, O., Tatarchenko, Y. *The Role of Artificial Intelligence in Cybersecurity: Automation of Protection and Detection of Threats. Economic Affairs.* 2024. 69, pp. 43-51. DOI: <https://doi.org/10.46852/0424-2513.1.2024.6>.

3. Kubiv, S. I., Bobro, N. S., Lopushnyak, G. S., Lenher, Y. I., & Kozhyna, A. *Innovative potential in European countries: analytical and legal aspects. International Journal of Economics and Business Administration.* 2020. 8(2), p. 250-264. DOI: <https://doi.org/10.35808/ijeaba/457>.
4. Скляренко О.В., Ягодзінський С.М., Ніколаєвський О.Ю., Невзоров А.В. *Цифрові інтерактивні технології навчання як невід'ємна складова сучасного освітнього процесу. Інноваційна педагогіка.* 2024. 68 (2), с.51-55. DOI: <https://doi.org/10.32782/2663-6085/2024/68.2.51>.
5. Хоменко О. О., Паустовська М. В., Онищук І.А. *Вплив інтерактивних технологій на процес навчання і розвиток здобувачів вищої освіти. Наукові інновації та передові технології.* 2024. 5(33), с. 1222-1231. DOI: [https://doi.org/10.52058/2786-5274-2024-5\(33\)-1222-1231](https://doi.org/10.52058/2786-5274-2024-5(33)-1222-1231).

INNOVATIVE METHODS OF DIGITAL EDUCATION IN BUSINESS WITH A FOCUS ON CYBERSECURITY AND PHISHING SIMULATIONS

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In today's rapidly evolving business environment, organizations increasingly invest in employee training to address operational challenges and improve productivity. However, these investments come with the expectation of a quick return (ROI). Traditional training methods are no longer sufficient; businesses demand innovative learning platforms that seamlessly integrate with existing workflows, offering personalized and actionable content [1], [2]. These platforms not only facilitate knowledge acquisition but also track employees' performance to demonstrate tangible results and ensure continuous improvement.

The digital transformation of the workplace has led to a convergence between learning platforms and operational tools, creating a more immersive training experience. For example, when employees are trained in specific software systems, such as customer relationship management (CRM) tools, the platform may assign real-time tasks—like setting up campaigns or automating workflows—that are directly tied to their day-to-day activities. This ensures that training efforts translate into measurable outcomes. These learning systems also provide employers with detailed reports on employee engagement and competency, which helps optimize workforce development strategies [3].

Personalized Learning and Performance Tracking

Next-generation educational platforms offer dynamic personalization by tailoring content to each employee's role, skill level, and progress. The integration