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THE ROLE OF MODERN PLATFORMS IN TRAINING IT SPECIALISTS IN CORPORATE AND HIGHER EDUCATION INSTITUTIONS

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Abstract: This study analyzes the role of modern educational platforms in the training of IT specialists within corporate and higher education institutions. The research examines interactive and remote learning, adaptive educational systems, mentoring and feedback mechanisms, practical project-based exercises, as well as the use of VR/AR technologies and cloud-based laboratories to enhance IT professional training. The study highlights the platforms' capabilities in individualizing learning paths, developing competencies, assessment and skill advancement, and preparing specialists for the global labor market. The findings provide practical recommendations for improving the quality of IT education, optimizing the learning process, and implementing innovative pedagogical methods in both corporate and higher education settings.

Keywords: IT specialists, modern educational platforms, corporate training, higher education, remote learning, adaptive learning, mentoring, gamification, virtual and augmented reality (VR/AR), professional development, competency development, project-based learning, assessment system, artificial intelligence, digital transformation.

In the modern era, the rapid development of digital technologies and the increasing demand for IT specialists in the global labor market have fundamentally transformed the process of training IT professionals in corporate and higher education institutions. Traditional teaching methods and textbook-based approaches, when integrated with modern information and communication technologies, enable the creation of an effective learning process. From this perspective, modern educational platforms have become a central element in the preparation of IT personnel within corporate and higher education environments.

Firstly, educational platforms provide opportunities for interactive and remote learning. Methodologies such as remote education, blended learning, and gamification are effectively implemented through these platforms. For instance, higher education institutions utilize learning management systems like Moodle, Canvas, or Blackboard to offer students course materials, interactive exercises, assessments, and practical laboratory tasks. Similarly, in the corporate sector, platforms such as LinkedIn Learning, Coursera for Business, and Udemy Business allow employees to continuously enhance their competencies. These platforms also enable the creation of personalized learning strategies, monitoring of the learning process, and assessment of outcomes.

Secondly, modern platforms facilitate personalized skill development in the IT field. Artificial intelligence and adaptive learning technologies analyze students' knowledge levels and learning speeds, while simultaneously defining individualized learning paths. This maximizes the development of programmers' and IT specialists' capabilities. Platforms like CodeSignal or HackerRank provide interactive tasks in algorithms and programming that simulate real-world work conditions, offering learners practical experience.

Thirdly, educational platforms enable the integration of practical exercises with real-world projects. In corporate environments, companies can monitor and evaluate employee training

through platform-based project management. This methodology, based on Project-Based Learning (PBL) principles, helps students transition from theoretical knowledge to practical skills. Similarly, in higher education, students gain experience through real projects, increasing their adaptability to market demands.

Fourthly, platforms support mentoring and feedback systems within the learning process. Mentoring serves as an effective tool in training IT specialists in both corporate and higher education settings. Platforms allow mentors to track the development of students or employees, respond to their questions, and provide personalized guidance. Additionally, peer-to-peer learning through forums, chats, and interactive projects enhances the overall learning experience.

Fifthly, modern platforms advance assessment and monitoring systems. Online tests, certification systems, progress tracking, and analytical tools continuously monitor learners' knowledge levels. This not only ensures individual development but also optimizes the learning process and facilitates efficient allocation of resources.

Furthermore, educational platforms play a central role in applying innovative IT training methodologies. Virtual and augmented reality (VR/AR) technologies, simulations, coding environments, and interactive laboratories prepare learners for real work scenarios. For instance, virtual servers and cloud-based environments allow students to gain hands-on experience in system administration, cybersecurity, and cloud technologies.

Additionally, modern educational platforms promote the development of digital competencies. Competency modules based on international standards such as UNESCO and DigComp allow students to develop skills in algorithmic thinking, problem-solving, coding, system design, and software development. The TPACK model (Technological Pedagogical Content Knowledge) integrates pedagogical knowledge with technological skills, enhancing the quality of IT education.

The implementation of modern educational platforms in corporate and higher education institutions also enables an innovative and flexible learning process. The interactive features of platforms, individualized learning paths, project-based exercises, mentoring, and assessment systems significantly increase the effectiveness of IT specialist training. Moreover, platforms align educational outcomes with the demands of the global labor market, ensuring that students and employees acquire relevant modern IT competencies.

In conclusion, modern educational platforms are an indispensable component of the IT specialist training process in corporate and higher education. They combine interactive teaching, personalized learning, project-based practice, mentoring and feedback, assessment systems, innovative technologies, and digital competency development. As a result, these platforms serve to cultivate highly skilled, competitive, and industry-ready IT professionals.

The rapid advancement of information and communication technologies has fundamentally changed IT training in corporate and higher education systems. Digital transformation has not only altered the structural forms of education but has also fundamentally renewed learning resources, pedagogical approaches, and assessment systems. Consequently, modern educational platforms have become not just a teaching tool but a fully integrated component of the educational ecosystem.

Through these platforms, the learning process is organized as a dynamic and adaptive system. Students' and employees' learning activities are continuously monitored, identifying strengths and weaknesses and designing individualized learning paths. AI-powered systems, for instance, analyze learner errors, identify recurring challenges, and automatically suggest problem-solving guidance. This allows each learner to progress at their own pace and according to their needs, differing significantly from traditional group-based instruction.

Modern platforms also enable competency-based learning. During IT specialist training, learners develop skills that are directly applicable to real work environments, not limited to theoretical knowledge. Cloud environments and virtual laboratories simulate system architecture, databases, and software development processes. Additionally, real project tasks on platforms allow learners to apply knowledge, solve problems independently, and optimize their solutions.

Platforms provide multi-dimensional interactive resources, including text, video, simulations, 3D models, coding environments, and virtual lab exercises. For example, cybersecurity training enables students to perform tasks such as protecting and attacking real systems, improving their readiness for actual work conditions.

Platforms further expand mentoring and collaborative learning opportunities. In corporate and higher education settings, learners can exchange knowledge, create team projects, and engage in interactive communication. Platforms like GitHub or GitLab allow collaborative coding, analysis, and optimization of solutions, while chats, forums, and video conferencing enable real-time interaction with mentors and experts.

Additionally, platforms enhance the quality and effectiveness of learning assessment. Replacing traditional evaluation methods, platforms continuously analyze the learning process, identify achievements and challenges, and track progress through statistical data. Online tests, coding tasks, and interactive projects evaluate learners' knowledge levels, optimizing learning while allowing learners to identify and improve their weaknesses.

Modern platforms also facilitate the application of innovative technologies. VR/AR technologies allow students to engage in practical exercises in programming, system architecture, networking, and cybersecurity within virtual environments. Adaptive AI systems individualize the learning process, generating new tasks based on the learner's knowledge level and optimizing learning.

These platforms prepare IT specialists to be adaptable to the global labor market, enabling learners to acquire both local knowledge and international standards and practical experience. Platforms like Coursera, edX, and Udemy provide courses designed by international experts, covering modern programming languages, data analysis, AI, and cybersecurity, thus enhancing the competitiveness of IT specialists worldwide.

Furthermore, platforms cultivate learners' and employees' self-directed learning and development skills. Remote learning, adaptive systems, and project-based exercises encourage learners to independently solve problems, write code, and design systems. Certification systems within platforms validate acquired skills, supporting IT specialists' professional growth.

Modern platforms integrate scientific research and practical work, allowing students and employees to store, analyze, and evaluate academic articles, code samples, and laboratory

exercises in one place. This integration aligns theoretical knowledge with practical skills, enhancing IT specialists' problem-solving capabilities.

Platforms also create a sustainable learning environment. Cloud systems, virtual laboratories, online resources, and adaptive methodologies ensure continuity in the learning process, significantly increasing the effectiveness of IT training in corporate and higher education institutions.

In summary, modern educational platforms make IT training practical, interactive, and personalized while integrating the demands of the global labor market, scientific research, innovative technologies, and sustainable learning environments. They improve pedagogical approaches, competency development, and professional skill enhancement. Consequently, in corporate and higher education institutions, modern platforms serve as an essential tool for developing competitive, skilled, and work-ready IT specialists.

Modern educational platforms have fundamentally transformed the process of training IT specialists in corporate and higher education institutions. They not only provide opportunities for interactive and remote learning but also analyze students' individual learning styles and automatically develop personalized learning strategies. Through cloud technologies and virtual laboratories, students independently carry out IT projects that meet global standards, while simultaneously gaining practical experience close to real working conditions.

Analytical tools integrated into these platforms enable statistical monitoring of the learning process and help optimize pedagogical decisions. Artificial intelligence algorithms analyze students' errors in programming and system design in real time, accelerating the individual development process. Modern platforms also facilitate transnational scientific and practical collaborations between students and specialists, creating opportunities for global knowledge exchange.

Adaptive learning systems generate interactive exercises tailored to each student's strengths and weaknesses, maximizing the individualization of the learning process. Platforms provide simulated practical training in cybersecurity and data protection, allowing students to practice defending real systems and performing risk assessments. Real-time assessment systems

Conclusion Modern educational platforms play a central role in the training of IT specialists in corporate and higher education institutions. They integrate interactive teaching, personalized learning, project-based practice, mentoring and feedback, assessment systems, innovative technologies, and digital competency development, contributing to the formation of effective and competitive IT professionals. Additionally, these platforms align the learning process with global labor market demands, optimize the individual growth rate of students and employees, integrate theoretical and practical skills, and create a sustainable learning environment. Consequently, modern platforms are an indispensable tool for enhancing the quality of IT education and preparing skilled, competitive IT specialists.

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