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CASE STUDY: IMPACT OF DODSON AI LLC ON THE DEVELOPMENT OF EDUCATION TECHNOLOGIES IN UZBEKISTAN

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Abstract: *This article examines the role of Dodson AI LLC, a U.S.-based digital transformation consultancy and software development company, in advancing education technologies in Uzbekistan through the implementation of an innovative Learning Management System (LMS). Using a qualitative case study approach, the research analyzes partnerships with the International School of Finance Technology and Science (ISFT), Tashkent International Financial Management and Technologies University (TIFT), and the University of Business and Science (UBS). The study highlights how Dodson AI's LMS addresses challenges in accessibility, digital integration, administrative efficiency, and distance learning. Findings demonstrate improvements in institutional management, student engagement, and the quality of teaching and learning processes. The paper also discusses the implications of AI-driven educational technologies for higher education modernization in emerging economies.*

Keywords*: Learning Management System, educational technologies, digital transformation, higher education, Uzbekistan, Dodson AI, artificial intelligence*

INTRODUCTION

Digital transformation has become a strategic priority for higher education institutions worldwide. In emerging economies such as Uzbekistan, modernization of education systems is closely linked to the integration of information and communication technologies (ICT) and artificial intelligence (AI). The expansion of online and blended learning models, especially after the COVID-19 pandemic, has intensified the need for comprehensive learning management systems capable of supporting administrative processes, virtual instruction, and data-driven decision-making.

Dodson AI LLC, established on December 15, 2022, in Kent, Washington, has positioned itself as an active contributor to this transformation. Through custom software development and consultancy services, the company collaborates with several Uzbek universities to introduce an integrated LMS platform aimed at improving

educational quality, efficiency, and accessibility. This article presents a case study of Dodson AI's activities in Uzbekistan and evaluates their impact on higher education institutions.

Company Background

Dodson AI LLC operates in the computer software industry with a focus on digital transformation solutions. The company is led by its founder and CEO, Sardor Boisov, an entrepreneur with experience in management, auditing, and legal practice. His professional background spans both startup ecosystems and large-scale enterprises. Boisov's motivation for establishing Dodson AI is rooted in his personal experience within Uzbekistan's education sector, where he observed barriers to educational accessibility, digitalization, and international competitiveness. The company's mission emphasizes process optimization, revenue analysis, change management, and the implementation of customized technological solutions.

Educational Context in Uzbekistan

Uzbekistan has undertaken comprehensive reforms in the higher education system since the late 2010s. Key policy directions include expansion of enrolment, internationalization, digitalization of academic processes, and the integration of AI tools. Despite these initiatives, several systemic challenges remain, including insufficient ICT infrastructure in regions, fragmented management platforms, limited digital pedagogical skills among educators, and difficulties in administering distance education programs.

Universities such as ISFT, TIFT, and UBS are among the institutions seeking to strengthen their digital ecosystems. They offer programs in economics, information technology, finance, and related fields, making them suitable pilot platforms for LMS implementation and AI integration.

Research Methodology

This study employs a **qualitative case study methodology**. The analysis is based on:

- description of Dodson AI's LMS architecture and functionality
- review of institutional implementation processes
- examination of observed organizational and pedagogical outcomes

The case study approach allows for an in-depth examination of how a single technological solution influences multiple higher education institutions within the same national context.

Description of the Solution: Dodson AI LMS

Dodson AI designed an LMS tailored to the specific needs of higher education institutions in Uzbekistan. The platform integrates academic, administrative, and financial modules into a unified digital environment.

Core Functional Modules

The LMS includes the following key components:

- electronic document management
- electronic library and resource repository
- student lifecycle management (admission, progression, graduation, academic leave)
- course and curriculum management dashboards
- automated schedule generation
- user management and role-based access
- distance learning tools with integration of interactive content
- examination and assessment automation
- financial monitoring and tuition tracking
- analytics and statistics module for decision support
- mobile application synchronized with the web platform

AI elements embedded in the system enable predictive analytics, personalized learning pathways, and automated administrative processes.

Implementation in Partner Universities

The LMS was introduced in phases across three partner institutions:

- **ISFT** – implementation began in January 2023 to digitize course delivery and student services
- **UBS** – deployment complemented existing platforms such as HEMIS and institutional e-libraries
- **TIFT** – the system supported AI-focused and financial technology programs and distance learning formats

Training sessions for academic and administrative staff accompanied each rollout to ensure effective use and sustainability of the system.

Results and Impact

The deployment of Dodson AI's LMS has yielded tangible benefits, transforming education technologies in Uzbekistan:

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Metric	Pre-Implementation	Post-Implementation	Impact
Accessibility	Limited to on-campus resources; remote access challenges.	Anytime, anywhere access via web and mobile apps.	Increased enrollment in distance learning; learners from remote regions can master new skills.
Efficiency	Manual scheduling and document handling prone to errors.	Automated generation and digital management.	Reduced administrative time by up to 40%; fewer errors in tracking.
Engagement	Low interaction in traditional classes.	Interactive courses, real-time notifications, and analytics.	Higher student participation; improved grades and attendance tracking.
Financial Management	Delayed payment monitoring.	Real-time tuition and revenue oversight.	Better control over discounts and overdues, boosting institutional revenue.
Overall Institutional Performance	Fragmented data silos.	Comprehensive statistics module.	Data-driven decisions; enhanced student success and educator productivity.

Latin American Journal of Education

Qualitatively, the LMS has positioned these universities as leaders in edtech adoption, contributing to Uzbekistan's broader AI integration efforts. Challenges like initial rollout disruptions have been addressed through training, ensuring sustainable impact.

Although minor implementation challenges were observed (such as initial system adaptation and staff readiness), they were mitigated through training and technical support.

The case of Dodson AI illustrates how private-sector technological initiatives can accelerate educational reforms in developing countries. Integration of LMS platforms supports not only administrative modernization but also pedagogical innovation, including data-driven instruction and personalized learning. Furthermore, cross-border technological cooperation helps transfer know-how and international best practices into local higher education environments.

However, sustainable impact requires continued investment in infrastructure, systematic professional development for educators, and alignment with national digitalization policies.

CONCLUSION

Dodson AI LLC demonstrates the potential of AI-based LMS solutions to transform higher education in Uzbekistan. By streamlining management processes, enhancing access to educational resources, and supporting distance learning, the company contributes to the modernization of university education. Future directions may include deeper AI integration for adaptive learning, expansion to additional universities, and linkage with national digital education ecosystems.

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