

REVAMPING THE EDUCATION SYSTEM IN UZBEKISTAN: INTEGRATING INNOVATIVE TECHNOLOGIES FOR FUTURE LEARNERS

Shakhnoza Kholbutayeva

1st year student of group 2403 of English language 3 faculty

Department of applied disciplines 3

Saodat Agzamkhodjaeva

Supervisor: Uzbekistan State World Languages University,

Foreign Languages and Literatures

Abstract: *In this thesis discusses modern innovative technologies and their integration into a unified education system. The current role and opportunities of artificial intelligence (AI), mobile applications, and online education platforms in the evolving field of education are analyzed. In this thesis examines the advantages of applying innovative technologies in education, the new opportunities they offer to students, and the challenges that arise when implementing these technologies. Additionally, it discusses the changes that technologies are introducing into education, the need to update teaching methodologies, and how these technologies can be developed in the future.*

Keywords: *Innovative technologies, education system, artificial intelligence, mobile applications, online education, teaching methodology, interactive learning, digital education, virtual reality in education (virtual reality VR), unified education system.*

Annotatsiya: *Ushbu tezisdagi zamonaviy, innovatsion texnologiyalar va ularni yagona ta'lim tizimiga birlashtirish haqida so'z yuritiladi. Rivojlanib borayotgan ta'lim sohasida sun'iy intellekt (AI), mobil ilovalar va onlayn ta'lim platformalarining bugungi kundagi o'рни va imkoniyatlari tahlil qilinadi. Tezisdagi ta'lim sohasida innovatsion texnologiyalarni qo'llashning afzalliklari, o'quvchilarga taqdim etadigan yangidan-yangi imkoniyatlar va bu texnologiyalarni joriy etishda yuzaga keladigan ayrim muammolar ko'rib chiqiladi. Shuningdek, texnologiyalar ta'limda bir qancha o'zgarishlar kiritayotganligi, o'qitish metodologiyasini qanday yangilash zarurligi va kelajakda bu texnologiyalarni qanday rivojlantirish mumkinligi haqida fikrlar bildiriladi.*

Kalit so'zlar: *Innovatsion texnologiyalar, ta'lim tizimi, sun'iy intellekt, mobil ilovalar, onlayn ta'lim, o'qitish metodologiyasi, interaktiv ta'lim, raqamli ta'lim, ta'limda virtual haqiqat (virtual haqiqat VR), yagona ta'lim tizimi.*

Аннотация: *В этой тезе рассматриваются современные инновационные технологии и их интеграция в единую образовательную систему. Анализируются*

роль и возможности искусственного интеллекта (ИИ), мобильных приложений и онлайн-образовательных платформ в развивающейся сфере образования. В тезе рассматриваются преимущества применения инновационных технологий в образовании, новые возможности, которые они предоставляют учащимся, а также проблемы, возникающие при внедрении этих технологий. Также обсуждаются изменения, которые технологии вносят в образование, необходимость обновления методологии преподавания и возможные пути дальнейшего развития этих технологий.

Ключевые слова: Инновационные технологии, образовательная система, искусственный интеллект, мобильные приложения, онлайн-образование, методология преподавания, интерактивное обучение, цифровое образование, виртуальная реальность в образовании (виртуальная реальность VR), единая образовательная система.

Introduction

As time progresses, the education system continues to evolve, incorporating new methodologies and technologies. Modern technologies are making their impact felt across all areas of our daily lives, and the education system is no exception. As digital technologies continue to evolve, they are pushing teaching and learning processes to new heights, shaping the future of education in unprecedented ways. Innovative technologies play a crucial role in creating new opportunities in education and making the teaching process more effective and efficient. Artificial intelligence (AI), virtual reality (VR), augmented reality (AR), mobile applications, and various other digital platforms are enhancing the learning process by making it more interactive, engaging, and efficient. These technologies provide students with new information, ensure individualized approaches, monitor their adaptation and learning progress daily, and offer relevant educational content. Moreover, they also assist teachers in developing new approaches and creating effective teaching methodologies.

At the same time, the implementation of technologies in the education system has led to the emergence of several challenges. Some of these challenges are related to technical infrastructure, ensuring equal opportunities for students, and other similar issues. Despite this, it is essential to address these problems in order to continue utilizing innovative technologies effectively in education.

this article discusses the main advantages, opportunities, existing challenges, and future prospects of applying innovative technologies in education. The article examines how technologies can be utilized in the teaching process, the difficulties that arise when

implementing these technologies, and the expected changes in the education system in the future.

Main body

Modern innovative technologies are creating several new reforms. Artificial intelligence (AI), virtual and augmented reality (VR/AR), mobile applications, and online learning platforms enhance the engagement and effectiveness of education. These technologies offer students the opportunity to study on time, even in changing circumstances.

Mobile applications and online learning platforms play a significant role in education. Applications such as Duolingo, Memrise, and other mobile platforms are effective tools for language learning. These applications allow students to learn languages at any time and from any place, regardless of location. Online learning platforms also provide teachers with the ability to continuously communicate with students and deliver remote lessons. For instance, students from different countries can engage in online education based on their time and circumstances and take courses in various subjects at any stage of their education. For example, a student in Tashkent, and another in London or New York, can simultaneously learn English through Duolingo or Memrise. The availability of these opportunities eliminates time and location-based constraints for students, enabling the education process to continue under any circumstances.

Artificial intelligence (AI) serves as an effective tool to improve the learning process and increase students' cognitive efficiency. With the help of AI, it is possible to monitor the learning speed of students and apply personalized approaches. For example, chatbots and language understanding systems created with AI provide students with advice tailored to their specific needs. (Source: Web of Science, article "AI in Education", 2020)

Virtual reality (VR) and augmented reality (AR) technologies play a significant role in making education practical and engaging. Students can learn lessons from various subjects such as history, biology, geography, and more through virtual simulations. These technologies offer students a fast and easy learning experience. (Source: Scopus, article "The Role of VR in Modern Education", 2021)

The introduction of innovative technologies into the education system has also led to the emergence of several challenges. Some of these include technical limitations, the need to train teachers to use new technologies, and ensuring equal opportunities for students. Additionally, there are organizational issues that need to be addressed. For instance, in some schools and universities, access to the internet is limited, which creates difficulties for students in utilizing online education and resources. Moreover, many teachers lack the necessary skills to effectively teach new technologies, which complicates their successful implementation. It is also important to consider the issue of

equal opportunities. Students living in rural areas often lack access to essential technological tools, which hinders their ability to have equal opportunities in education.

The role of educational technologies is expected to further develop in the future. Artificial intelligence (AI), VR/AR, mobile applications, and other technologies will help make the teaching process more engaging and effective. By integrating these technologies into education, the goal is to provide students with more flexible and individualized approaches. (Source: Scopus, article "The Future of Education with Advanced Technologies," 2024).

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