THE IMPACT OF TECHNOLOGICAL ADVANCEMENTS ON THE CHANGING ROLE OF TEACHERS IN EDUCATION

Sevinch Boykhorozova
Student at the University of World Economy and Diplomacy.Faculty of International Relations,1st year student.
E-mail:sevinchboyxorozova777@gmail.com

Munirakhon Mukhitdinova Ravshanovna
University of World Economy Diplomacy,Doctor of Philosophy in Pedagogical Sciences,Associate Professor.
E-mail:mmuxitdinova@uwed.uz
ORCID https://orcid.org/0009-0005-3340-7231.
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ABSTRACT:
The article explores the integration of modern technology into education examining both their positive and negative aspects.While technology has provided students with access to an infinite array of virtual resources,the question of whether it can entirely replace teachers remains unanswered.The article discusses the role and impact of texnology in education,ultimately highlighting that teachers possess and equality that texnology can not replaced -human emotion.The aim of the study is to determine how far technology,including artificial intelligence can take over the functions of a teacher in the modern classroom.To achaieve this,the research following a structured and research followed a structured framework,from identifying the problem and reviewing the literature to collecting and analysing data.A survey of 20 respondents,both teachers and students,was conducted to find out their attitudes towards using technology in learing.

Maqolada zamonaviy texnologiyalarning ta'limga integratsiyalashuvi, ularning ijobiy va salbiy jihatlari o'rganiladi. Texnologiya o'quvchilarga cheksiz virtual resurslarga kirish imkonini bergan bo'lsa-da, u o'qituvchilarni butunlay o'rnini bosa oladimi degan savol javobsiz qolmoqda. Maqolada texnologiyaning ta'limdagi roli va ta'siri muhokama qilinadi, oxir-oqibat o'qituvchilarda texnologiya o'rnini bosa olmaydigan tenglik - insoniy hissiyotlar borligi ta'kidlanadi. Tadqiqotning maqsadi texnologiya, jumladan, sun'iy intellekt zamonaviy sinfda o'qituvchining funktsiyalarini qay darajada egallashi mumkinligini aniqlashdir. Bunga erishish uchun tizimli tadqiqotdan so'ng, muammoni aniqlash va adabiyotlarni ko'rib chiqishdan tortib, ma'lumotlarni to'plash va tahlil qilishgacha bo'lgan tizimli asosga amal qilindi. O'qituvchilar va talabalarning o'qishda texnologiyadan foydalanishga bo'lgan munosabatini aniqlash uchun 20 respondent orasida so'rovnoma o'tkazildi.

В статье рассматривается процесс внедрения современных технологий в сферу образования, при этом анализируются как положительные, так и отрицательные стороны этого явления. Несмотря на то что технологии открыли учащимся доступ к практически безграничному объему виртуальных ресурсов, вопрос о том, могут ли они полностью заменить педагогов, остается открытым. В статье обсуждаются роль и влияние технологий в образовании; особо подчеркивается, что учителя обладают качеством, которое невозможно заменить технологиями — человеческими

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эмоциями. Цель исследования — определить, в какой мере технологии, включая искусственный интеллект, способны взять на себя функции преподавателя в современных условиях обучения. Для достижения этой цели была использована структурированная методология: от постановки проблемы и обзора литературы до сбора и анализа данных. В рамках исследования был проведен опрос 20 респондентов — учителей и учащихся, — чтобы выяснить их отношение к использованию технологий в процессе обучения.

RESEARCH QUESTIONS

1.To what extent can technology replace human teachers in modern education systems?

2.What are the benefits and drawbacks of utilising AI in education?

3.Why is human interaction important in teaching?

4.How can technology and human teachers collaborate to create a more effective learning environment?

KEYWORDS:

Artificial intelligence,teachers,chatgpt,digital learning,teacher's role,human emotion,critical thinking,problem solving.

INTRODUCTION:

Nowadays, Articical Intelligence have been most important parts of education system. In the21st century,digital texnologies are devoloping at arapid pace and modern technology are increasingly being integrated into the field of education.This is due to the vast opportunities.They offer for teaching and learning for instance,through the use of interactive whiteboards automated test grating,remote class participation and even virtual tutoring.However,despite these extensive capabilities and advantancements it is important to emphasize that teachers possess qualities that can not be replaced by articial intelligence because education is not merely about imparting knowledge or conveying information: rather, It serves as foundation for building self-confidence, fostering independent thinking and a broad worldview and helping individuals find their place in society. No technology can ever replace the role of a teacher in shaping a person's capacity for thought, their character, their sense of compassion and the essential human qualities they possess.In this article we examine the implications of using digital technology and artificial intelligence in education, explore the difference between these technology and human education and explain why technology cannot replace teachers .Wayne Holmes acknowledges that AI can facilitate the learning process. However, he believes that AI should not replace the ability of humans to think independently. He emphasizes that students need to learn to critically analyze data generated by AI, rather than accepting it as ready-made truth.In a 2025 study published in the journal Educational Psychology Review, scientists analyzed the potential and limitations of artificial intelligence in education.They believe that artificial intelligence can:

Support students' learning;Make it easier to understand complex topics;Expand individual learning opportunities;Provide additional intellectual support during the learning process.UNESCO's Guidance for Generative AI in Education and Research, published in 2023, provides important recommendations on the use of artificial intelligence.The organization emphasizes the following:Artificial intelligence should not completely replace the teacher.Students' ability to think independently should be protected.Attention

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should be paid to the security of personal data.The accuracy of the information provided by AI should be verified.Ethical standards should be observed when using technologies.

LITERATURE REVIEW

Digital technologies provide information to students, facilitate instruction, administer tests and offer immediate feedback. Furthermore, they can quickly and easily explain complex or difficult-to-grasp topics through videos, 3D models and animations. This raises a practical question: will technology eventually replace teachers, or will it serve to expand the capabilities of educators? Can digital devices and robots truly handle all the responsibilities required, such as providing emotional support to young people or engaging with each student individually to ensure they grasp the core essence of a subject?In this study, we seek answers to questions such as whether modern technologies, specifically robots, can fully replace teachers or interact with students on an equal footing by conducting a survey.Artificial intelligence is playing an increasingly active role in the education system.Consequently, this research aims to address the following questions: Do members of society currently view modern technologies as fully capable of replacing teachers, or do they see them as resources that help improve the quality of education and assist teachers in making the learning process more engaging?The potential of technology in education is indeed an important research area.The Education Endowment Foundation (EEF), independently evaluated by the National Foundation for Educational Research (NFER), examined the use of GenAI among 259 teachers across 68 secondary schools in England. The randomised controlled trial revealed that teachers who used GenAI, supplemented by practical guidance, reduced their lesson and resource planning time by an average of 31 percent (Education Endowment Foundation [EEF], 2024; National Foundation for Educational Research [NFER], 2025).Neil Selwyn argues that the key question is what teachers must do to justify their professional existence in the era of AI,personalized learning and adaptive education.Brookings Institution article:Technology alone can improve student learing.The article states that technology can accelerate poor strategies as easily as effective ones and that the real promise lies in a well-trained teacher who uses technology effectively.Gary Bass(education Technology Solution,2017).He writes that AI can assist,supplement and enhance,but teaching and learing should be much more than simple algorithms.

METHODOLOGY

A large portion of digital information, particularly in fields like computer science and medicine, is in English language, and much of this content has not been translated into other languages. For instance, according to UNESCO data, 92% of open educational resources are in English (UNESCO, 2023). This poses a challenge for teachers who do not know English, as they may be unable to utilise these materials. However, for tools based on generative artificial intelligence, this is not an issue.The purpose of this study was to understand people's perspectives on integrating technology into education, to determine how they evaluate the use of technology in teaching methods, and to ascertain their views on the potential of technology within the educational system.We compared the opinions of both teachers and students. Our research indicates that the majority of participants view the use of technology in teaching and in the educational system as a whole as beneficial and advantageous. They emphasised that utilising technology can simplify the work of educators and help make the teaching process more engaging and creative.Paula Bliksteyn, an associate professor of communication, media, and learning technologies design, states: "We do not need more automation in education; on the contrary, we need less. The best way to use technology is not to replace teachers, but to creatively enrich and enhance what they are capable of doing."Sugata Mitra (2010) demonstrated that technology can encourage self-directed learning by allowing students to

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explore information independently and collaborate with their peers."UNESCO director-General Audrey Azoulay said,"Online connections are no substitute for human interaction".

RESULT

A total of 20 respondents, including both teachers and students, participated in the survey. The results show that 15 participants (75%) considered working with technology useful in education, while 5 participants (25%) expressed a negative attitude toward it. Thus, the majority of respondents viewed technology as a beneficial tool in the learning process. However, the fact that one in four participants held a negative view indicates that technology is not universally accepted and may not fully meet the needs of every learner or teacher.Response Number Percentage Positive (useful)15 ,75% Negative 5,25% Total 20,100%.A new study by a Dubai-based university has found that incorporating artificial intelligence (AI) and robotics into early years education can enhance learning outcomes by an average of eight per cent.Conducted by researchers at the Rochester Institute of Technology (RIT) in Dubai, the study revealed the positive effects of AI and robotics integration at the elementary school level.The project involved the use of a personalised, AI-powered robot that engaged directly with students, leading to an average academic performance improvement of eight per cent compared to traditional human-led teaching.

DISCUSSION:

The results of this study show that the majority of our participants found the use of technology useful.The numerical results we obtained showed thar technology is useful for teachers and students in improving the quality of education,and most importantly,we saw that people's attitudes towards technology are widespread and positive. At the same time,25%of people showed concerns about the future role of tecgnology.In other words,they said that people are becoming more introverted and that communication with the teacher is limited,which will lead to negative consequences.These results helped to understand that tecgnology is not a replacement for teachers,but rather a tool that supports them.Even those who rated tecgnology positively did not say that robots could completely replace teachers.

CONCLUSION:

This study aimed to examine whether technology can replace teachers

in education.The survey results showed that 75%of people found working with modern technology benifial,while 25%expressed negative views.These research show that modern technology,especially AI is widely valued as learning support tool,however it is more likely to complement teachersthan replacing them.Educational institutions should therefore focus on integrating technology into teaching rather than substituting it for teachers.Future studies with larger samples are needed to confirm these results.We are currently living in the era of technology,but we must not forget that the era of teachers never end. Because technology is a tool in the education system, and teachers are the force that educates the future. In order to achieve a great future and excellent teachers in all aspects, we should not replace teachers with technology, but rather expand their scope of possibilities with these devices. Because technology develops the future. But teachers educate the young and educated generation that will build it.

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