

8. Policy Recommendations

8.1 Strengthening Digital Infrastructure

Investment in high-speed internet and data centers is essential to support digital services.

8.2 Enhancing Digital Literacy

Education systems should integrate digital skills training to prepare the workforce for future demands.

8.3 Supporting Startups and SMEs

Providing financial incentives, incubation programs, and access to global markets can accelerate innovation.

8.4 Promoting Public-Private Partnerships

Collaboration between government and private sector can drive large-scale digital initiatives.

8.5 Ensuring Cybersecurity

Developing robust cybersecurity frameworks is crucial to protect digital assets and build trust.

9. Discussion. Beyond statistics and policies, digital transformation in Uzbekistan is about people. It is about a farmer using a smartphone to check market prices, a student accessing global education online, and an entrepreneur launching a startup from a small town.

The digital economy is not just technology—it is empowerment. It bridges gaps, creates opportunities, and gives individuals the tools to shape their own futures. Uzbekistan stands at a turning point where technology can transform lives, not just industries.

10. Conclusion. Uzbekistan's journey toward a digital economy presents immense opportunities for sustainable growth and global integration. By leveraging IT platforms, adopting emerging technologies, and embracing innovative business models, the country can accelerate its development trajectory. However, success depends on inclusive policies, strong infrastructure, and continuous innovation. A human-centered approach to digital transformation will ensure that the benefits of technology reach all segments of society.

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USING ARTIFICIAL INTELLIGENCE IN TEACHING ENGLISH

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Abstract: The current globalization era discusses the use of artificial intelligence in language learning and teaching for primary school students and its importance. In addition, it examines the advantages of personalized learning, pronunciation analysis, and automatic assessment mechanisms using modern platforms. It also highlights the advantages and disadvantages of artificial intelligence in teaching elementary

school students in schools. The final part also presents promising future areas.

Keywords: English, artificial intelligence, primary school, personalized learning, digital platform, pronunciation analysis, speech analysis, automatic assessment, virtual reality, globalization.

INGLIZ TILI O'QITISHDA SUN'IY INTELLEKTDAN FOYDALANISH

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Annotatsiya: hozirgi globallashuv davrda til o'rganish va boshlang'ich ta'lim o'quvchilari uchun o'qitish jarayonida Sun'iy intellektdan foydalanish va uning ahamiyati haqida so'z boradi. Bunga qo'shimcha tarzda shaxsiylashtirilgan ta'lim, talaffuzni tahlil qilish va avtomatik baholash mexanizmlarining ustunliklarini zamonaviy platformalar misolida ko'rib chiqadi. Shuningdek, maktablarda boshlang'ich sinf o'quvchilariga o'qitish jarayonida Sun'iy intellektning afzalliklari va kamchiliklari yoritilgan. Yakuniy qismda esa kelajakdagi istiqbolli sohalar ham keltirilgan.

Kalit so'zlar: ingliz tili, boshlang'ich ta'lim o'quvchilari, Sun'iy intellekt, shaxsiylashtirilgan ta'lim, Sun'iy intellekt algoritmlari, raqamli platforma, talaffuz tahlili, nutq tahlili, avtomatik baholash, virtual reallik, globallashuv.

ИСПОЛЬЗОВАНИЕ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА В ПРЕПОДАВАНИИ АНГЛИЙСКОГО ЯЗЫКА

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Аннотация: В дополнение к этому рассматриваются преимущества персонализированного обучения, анализа произношения и механизмов автоматической оценки на примере современных платформ. Также рассматриваются преимущества и недостатки искусственного интеллекта в образовательном процессе. В заключительной части также перечислены перспективные области будущего и преимущества и недостатки искусственного интеллекта в образовательном процессе. В заключительной части также перечислены перспективные области будущего.

Ключевые слова: английский язык, искусственный интеллект, персонализированное обучение, алгоритмы искусственного интеллекта, цифровая платформа, анализ произношения, анализ речи, автоматическая оценка, виртуальная реальность, глобализация.

Introduction. In the era of globalization, global language: English is becoming the "common language" of international communication, culture, education, and technology. Therefore, the thorough study of this language, its effective teaching, and the improvement of the teaching process, especially for primary school students, have become important issues. In recent years, the rapid development of artificial intelligence technologies has opened up new opportunities in English language education, especially at the primary education stage. A particularly noteworthy aspect is that artificial intelligence not only simplifies the work of the teacher, but also creates an interesting, interactive and motivating learning environment for the student, awakening interest in a new foreign language and developing the ability to think independently.

MAIN PART. According to recent statistics, more than 1.5 billion people worldwide are learning English, with nearly half of them using digital platforms. Most of these platforms — Duolingo, ELSA Speak, ChatGPT, Grammarly — are powered by artificial intelligence algorithms. Artificial intelligence technologies are enriching the learning process in the following areas: 1) Personalized learning: Artificial

intelligence identifies a student's mistakes, vocabulary, and grammar level and provides appropriate exercises. For example, Duolingo analyzes your difficulties in past lessons and offers exercises that are specifically tailored to you. 2) Improve pronunciation and speaking: The programs automatically analyze speech and compare the student's pronunciation with that of a native English speaker. ELSA Speak's artificial intelligence can even detect syllable stress and intonation errors in your pronunciation. 3) Automatic grading systems: artificial intelligence analyzes text or oral assignments and provides an unbiased assessment from a grammatical, stylistic, and semantic perspective. This provides not only speed, but also accuracy that is independent of human judgment.

Interesting facts.

1. Grammarly analyzes over 700 million words every day and uses a sophisticated linguistic model of artificial intelligence to detect errors in users' writing.

2. In 2023, users on the Duolingo platform learned 15 billion words — that's a hundred times more than the number of words in the Oxford Dictionary!

3. According to research, students learning with artificial intelligence memorize words 35% faster than those in traditional classes.

4. Some artificial intelligence systems (such as those from OpenAI or Google DeepMind) are developing models that can detect a learner's emotional state through voice tone and generate appropriate motivational responses.

In today's era of advanced information technology, using artificial intelligence to teach English, a foreign language, to primary school students is considered a very effective, modern, and fast method. The approach of using artificial intelligence helps make lessons more interactive and engaging. Examples include:

- Teaching through interactive games: There are language learning apps like Lingokids, Duolingo, Mondly Kids, and Quizlet for elementary school students.

- Pronunciation development: use of the “Shadowing” method with artificial intelligence, i.e. listening to a short audio and immediately repeating the same audio after it, or using pronunciation apps (Elsa Speak, Speechling). Use for 5 or 10 minutes every day.

- Creating audiomaterials: short dialogues, various poems, songs, playful questions and answers

- Chatting with chatbots: speaks English, repeats new words, corrects the child's mistakes, teaches new words

- Creating various tests and exercises

Strengths of Artificial Intelligence	Weaknesses of Artificial Intelligence
1. Instant response	No guarantee of accurate results
2. Development of speaking, listening, writing, and reading skills	Technical problem
3. Individual approach	Increased dependence on ideas
4. Ability to engage at any time (24/7)	No emotional connection
5. Continuous exercise	Decreased activity
6. Electronic tutor	Decreased human involvement

The advantage of artificial intelligence is quick feedback. With it, the student or teacher can quickly receive a response. This increases rapid thinking and perception of information in a person. Another benefit is that it develops important skills in the language learning process: speaking, writing, listening, and reading. Using artificial intelligence, it allows you to improve your speaking skills by chatting with a virtual friend, improving your pronunciation, and practicing dialogues. To improve listening skills, it creates various audio materials to help students learn independently. To improve reading skills, artificial intelligence prepares the text to match the student's level during the writing process. This skill is developed through unfamiliar words

and question-and-answer exercises. Writing skills are also improved by identifying grammatical errors, constructing correct sentences, and writing stories and texts. Another important advantage of artificial intelligence is that it allows students to study at any time they want. With artificial intelligence, a student can learn at a time that is convenient for them, in a state of gratitude. Contrary to the above idea, artificial intelligence also has its drawbacks. As they say, five hands are not the same, so using it does not always guarantee a 100% correct answer or result. Incorrect understanding of the context or technical errors in the system may also result in incorrect results. An approach that uses only artificial intelligence or only traditional teaching methods to teach English to elementary school students may not be as complete and effective. The most effective, interactive, and engaging approach is to combine both styles. Incorporating the support and interactive capabilities of artificial intelligence into traditional teaching, along with communication and teacher-led instruction, into collaborative learning activities makes the learning process more effective.

Questions sometimes arise as to whether artificial intelligence replaces a teacher. In fact, artificial intelligence replaces an assistant, not a teacher. It saves the teacher's time, monitors student activity, and complements human creative, emotional, and empathetic abilities. For example, while artificial intelligence can automatically detect a student's mistakes, a teacher can explain exactly why the mistake occurred, revealing the cultural and social context. In this case, artificial intelligence is a teacher's assistant, but not a human replacement. In the coming years, the following changes are expected: 1) Learning English in virtual reality (VR) and augmented reality (AR) environments: the student will converse as if they were floating down the streets of London with the help of artificial intelligence. 2) AI Tutors: A digital tutor with a unique voice, personality, and learning style for each student. 3) Cultural Intelligence: Artificial intelligence teaches not only language, but also English culture, etiquette, and social skills in an interactive way.

Conclusion. Artificial intelligence has ushered in a new stage in English language education. He makes the learning process not only convenient, but also interesting, personalized and inspiring. Most importantly, in this process, Man and technology are not competing — they are cooperating. Language learning is a bridge that connects a person with the world. Artificial intelligence, on the other hand, is a modern engineer who is making this bridge more robust.

In conclusion, it is more effective to combine artificial intelligence and traditional methods in teaching English in primary education than to use them separately. This approach increases student interest, makes the learning process interactive, and improves the quality of language learning.

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ВЛИЯНИЕ РЕКОМЕНДАТЕЛЬНЫХ ИИ-АЛГОРИТМОВ НА КОГНИТИВНЫЕ ПРОЦЕССЫ И ФОРМИРОВАНИЕ ЦЕННОСТЕЙ В ПОДРОСТКОВОЙ СРЕДЕ

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Аннотация: В статье рассматривается скрытое воздействие интеллектуальных рекомендательных систем (на базе алгоритмов машинного обучения в социальных медиа) на когнитивное и психологическое развитие подростков. Анализируются механизмы формирования «клипового мышления», снижения концентрации внимания и создания «информационных пузырей». Предлагаются пути перехода от метрик коммерческого удержания внимания к алгоритмам, учитывающим цифровое благополучие уязвимых пользователей.

Ключевые слова: рекомендательные системы, искусственный интеллект, машинное обучение, клиповое мышление, когнитивные искажения, информационный пузырь, психология внимания, цифровое поколение.

O'SMIRLAR MUHITIDA SUN'IY INTELLEKT TAVSIYA ALGORITMLARINING KOGNITIV JARAYONLAR VA QADRIYATLAR SHAKLLANISHIGA TA'SIRI

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Annotatsiya: Maqolada o'smirlarning kognitiv va psixologik rivojlanishiga aqlli tavsiya tizimlarining (ijtimoiy tarmoqlardagi mashinali o'qitish algoritmlariga asoslangan) yashirin ta'siri ko'rib chiqiladi. "Klip tafakkuri"ning shakllanish mexanizmlari, diqqatni jamlash qobiliyatining pasayishi va "axborot pufaklari"ning yaratilishi tahlil qilinadi. E'tiborni tijorat maqsadida ushlab turish ko'rsatkichlaridan zaif foydalanuvchilarning raqamli farovonligini hisobga oluvchi algoritmlarga o'tish yo'llari taklif etiladi.

Kalit so'zlar: tavsiya tizimlari, Sun'iy intellekt, mashinali o'qitish, klip tafakkuri, kognitiv buzilishlar, axborot pufagi, diqqat psixologiyasi, raqamli avlod.

THE IMPACT OF AI RECOMMENDATION ALGORITHMS ON COGNITIVE PROCESSES AND VALUE FORMATION IN ADOLESCENTS

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Abstract: The article examines the hidden impact of intelligent recommendation systems (based on machine learning algorithms in social media) on the cognitive and psychological development of adolescents. It analyzes the mechanisms of "clip thinking" formation, decreased attention span, and the creation of "filter bubbles". The paper proposes ways to transition from commercial attention retention metrics to algorithms that consider the digital well-being of vulnerable users.

Keywords: recommendation systems, artificial intelligence, machine learning, clip thinking, cognitive biases, filter bubble, psychology of attention, digital generation.