THE ROLE OF ARTIFICIAL INTELLIGENCE AND DIGITAL TOOLS IN LEARNING ENGLISH.

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ABSTRACT: This paper examines the role of artificial intelligence (AI) and digital tools in learning English as a foreign language focusing on learners from remote areas, girls, and individuals with disabilities. With the rapid development of AI technologies, learners now have access to a variety of applications and platforms that support vocabulary building, grammar practice, and communication skills. The study applies a mixed-method approach, including literature review and analysis of user experiences, to evaluate the effectiveness of tools such as ChatGPT, Duolingo, and Grammarly. Findings indicate that AI can enhance learner motivation, provide immediate feedback, and create personalized learning environments. However, challenges remain, including limited access to technology, lack of teacher training, and concerns about overreliance on automated systems. Findings show that AI can increase learner motivation, promote independent study, and support more inclusive education. However, challenges remain, such as limited internet access in rural areas, lack of digital skills, and the need for teacher training. The study concludes that integrating AI and digital resources into English language education can reduce educational inequality and empower disadvantaged learners if implemented thoughtfully and supported by adequate infrastructure.

KEY WORDS: **A**rtificial Intelligence, Digital Tools, English Language Learning, Remote Areas, Inclusive Education, Learner Motivation, Educational Technology, Disadvantaged Learners, Personalized Learning, Language Skills Development.

INTRODUCTION: In today's rapidly evolving world, technological progress is transforming nearly every aspect of human life, including education. Among the most significant innovations shaping the future of learning is artificial intelligence (AI). AI is not only redefining how information is delivered but also how learners engage with educational content, assess their progress, and develop essential skills. In the field of language learning, especially English as a foreign language (EFL), AI has introduced new possibilities for more effective, flexible, and accessible instruction.

The importance of English language proficiency cannot be overstated. English has become the global lingua franca of business, science, technology, and international communication. For millions of learners worldwide, mastering English is essential for academic success, career advancement, and social mobility. However, traditional methods of language teaching often face limitations, such as lack of qualified teachers, limited classroom time, and insufficient resources, particularly in remote or underserved areas.

Artificial intelligence and digital tools are addressing many of these challenges by offering innovative solutions that make language learning more interactive and personalized. AI-powered applications such as Duolingo, Grammarly, and ChatGPT provide learners with immediate feedback, tailored practice activities, and engaging content. These tools can adapt to individual needs, helping students progress at their own pace and focus on areas where they need the most support. Globally, the integration of AI into education is recognized as a key driver of educational innovation. Organizations such as UNESCO and OECD have highlighted the potential of AI to improve learning outcomes and reduce inequalities by expanding access to quality education. In countries with limited educational infrastructure, digital platforms can reach learners who would otherwise have few opportunities to study English systematically.

Another critical dimension of this topic is the potential of artificial intelligence and digital tools to reduce educational disparities for learners in rural areas, girls who face social or cultural obstacles, and individuals with disabilities. In many remote

communities, traditional English language instruction is limited by the shortage of qualified teachers, outdated materials, and the lack of opportunities to practice the language in real-life contexts. For these learners, AI can bridge important gaps by providing access to resources that would otherwise remain out of reach. As leaders and advocates around the world mentioned and stressed, education is especially critical for girls and marginalized learners. Malala Yousafzai has powerfully stated, “One child, one teacher, one book, one pen can change the world,” emphasizing that education is the only sustainable solution to inequality. Michelle Obama has argued that “when girls are educated, their countries become stronger and more prosperous,” highlighting the importance of expanding access to learning in rural areas. Similarly, UNESCO (2021) notes that “technology offers unprecedented opportunities to improve learning outcomes for the most marginalized,” a perspective that aligns directly with this study’s focus. These ideas reinforce the urgency and value of using artificial intelligence and digital tools to support girls and disadvantaged learners in remote communities.

AI-powered applications offer several advantages that directly address the needs of disadvantaged groups. For example, interactive language platforms such as Duolingo allow learners in rural regions to engage in structured lessons independently, without requiring constant teacher supervision. These applications can be used offline or with minimal internet connectivity, making them more accessible in areas with unreliable infrastructure. AI chatbots like ChatGPT simulate natural conversations, helping learners practice speaking and writing in English without fear of judgment or embarrassment. This is especially important for girls and individuals with disabilities, who may experience additional barriers to participating confidently in a traditional classroom. Moreover, digital tools often incorporate adaptive learning technology that adjusts the difficulty level of exercises based on each learner’s progress. This personalized approach is highly beneficial for students with special educational needs or those who learn at a different pace than their peers. AI can also provide instant feedback, allowing learners to correct mistakes in real time and build confidence as they advance. Another important benefit of AI tools is their capacity to motivate

learners through gamification and engaging content. For children and teenagers living in rural or isolated areas, interactive exercises and reward systems can create a sense of achievement and encourage consistent study habits. These platforms often include visual aids, audio examples, and culturally relevant materials that make learning more relatable and enjoyable. Furthermore, AI can support teachers and parents by generating progress reports, suggesting targeted activities, and offering recommendations for additional practice. This empowers educators, even in under-resourced schools, to monitor students' development and provide guidance more effectively.

Overall, the integration of artificial intelligence in English language learning has the potential not only to improve language skills but also to promote social inclusion and educational equity. By removing traditional barriers, AI-based tools help create a learning environment where all students—regardless of their location, gender, or physical abilities—have the opportunity to reach their full potential.

Despite the importance of learning English in the modern world, traditional teaching methods alone are often not sufficient to meet the needs of diverse learners, especially in rapidly changing societies. Conventional language education typically relies on textbooks, memorization, and teacher-led instruction. While these approaches can build foundational knowledge, they frequently lack the flexibility, interactivity, and personalization that today's learners require to achieve fluency and confidence.

In many classrooms, especially in rural or underfunded schools, teachers must follow rigid curricula with limited time and outdated materials. This makes it difficult to address individual strengths and weaknesses or adapt lessons to each learner's pace and interests. Furthermore, traditional lessons usually provide few opportunities to practice authentic communication, which is essential for developing real-world language skills. As a result, students often struggle to stay motivated and may find it hard to apply what they learn in practical contexts.

In contrast, artificial intelligence offers innovative solutions to these challenges. AI-powered applications and digital tools can create dynamic, learner-centered

experiences that go beyond the limits of conventional teaching. For example, AI can deliver interactive exercises, simulate realistic dialogues, and instantly correct errors, helping students learn faster and more effectively. Because these tools adapt to each learner's progress, they can provide targeted support where it is most needed, whether it is improving vocabulary, mastering grammar, or building speaking confidence. Moreover, AI helps overcome logistical barriers that have traditionally limited access to high-quality education. Learners in remote villages, girls who face cultural constraints, and individuals with disabilities can use AI tools independently, at any time and place. This flexibility empowers them to take ownership of their learning and practice English without relying solely on the availability of teachers or physical classrooms. Another crucial factor is motivation. Digital platforms often integrate gamification—such as points, badges, and progress tracking—which keeps learners engaged and encourages regular practice. This stands in sharp contrast to the repetitive and passive nature of many traditional lessons, which can feel discouraging over time.

In today's interconnected world, English proficiency is a gateway to information, opportunities, and participation in the global community. Relying only on old-fashioned methods risks leaving many learners behind, especially those in marginalized or disadvantaged groups. Therefore, integrating AI into language education is not just an option but an essential strategy to ensure that all learners can develop the skills they need to succeed. As many influential thinkers and leaders in technology and education emphasized on the importance of integrating artificial intelligence into learning. Bill Gates has described AI as "a tool that can empower people if we use it wisely," highlighting its potential to bring high-quality education to communities that have historically been left behind. Similarly, Andrew Ng, one of the pioneers of modern AI, has said, "AI is the new electricity," underscoring how this technology is expected to transform nearly every sector, including language learning. Fei-Fei Li, a leading researcher in human-centered AI, has argued that "AI must be designed to support and amplify human abilities," a perspective that is particularly relevant for learners with disabilities and girls in remote areas who need tailored

resources and inclusive solutions. These ideas align with the purpose of this study, which aims to explore how AI can become a transformative force in creating equitable, accessible, and effective English language education.

METHODS:

This study used a mixed-method approach that combined observation, survey, and expert consultation to investigate the role of artificial intelligence (AI) and digital tools in learning English among disadvantaged groups.

Observation

During the project implementation, the researcher directly observed the learning process of more than 50 students in a remote village of Navoiy region, Khatirchi district. Participants included girls, children with disabilities, and learners with limited access to traditional educational resources. The lessons incorporated AI-powered tools such as ChatGPT for conversation practice and interactive vocabulary exercises. The researcher recorded how learners engaged with these applications, their motivation levels, and their progress over time.

Survey: A short survey was conducted to collect students' opinions about using AI in English language learning. The central question asked was:

> "In what degree AI is important for you?"

Responses were categorized to measure the perceived importance of AI and its effectiveness compared to traditional methods.

Expert Consultation and Background Research

To enrich the research perspective, the researcher participated in an international AI conference and engaged in discussions with a Malaysian professor specializing in educational technology. The professor shared insights about how AI can be used to adapt learning environments to students' individual needs. For example, he explained that smartwatches equipped with AI algorithms can monitor learners' physical indicators, such as heart rate and activity levels, to identify the most effective time for studying. This technology also helps teachers recognize when students are fatigued or fully engaged, allowing for more personalized instruction.

Additionally, the professor highlighted the importance of AI tools for learners with disabilities. Even if a student has visual impairments, AI-based voice assistants and adaptive content can make English learning accessible and inclusive.

Practical Implementation

Based on the knowledge gained from expert consultation and previous research, the researcher established an AI-supported English learning program in their home community. The initiative aimed to create a more equitable learning environment where girls and children with disabilities could access high-quality resources independently. Over the course of the program, students engaged regularly with AI applications, practiced conversational English, and received personalized feedback to improve their skills. By combining hands-on observation, student surveys, expert insights, and practical application, this research developed a comprehensive understanding of how AI tools can improve language learning outcomes for marginalized learners.

RESULTS:

The results of this project demonstrated that artificial intelligence (AI) tools played a highly significant role in improving English language skills among the participating students, especially girls and learners from disadvantaged backgrounds.

Observation Findings

Throughout the program, students engaged in intensive daily practice with AI applications. For speaking skills, learners regularly used SpeakPall, an online platform that connects users with speakers from different countries to practice real-time conversations. This consistent exposure to authentic English communication contributed to noticeable improvements in fluency and confidence. In addition, the use of CHGPT and similar AI-powered tools enabled students to explore diverse topics beyond their textbooks. They learned how to search for information about global issues, technology, jobs, and studying abroad, which not only enhanced their vocabulary but also broadened their perspectives. Daily assignments required learners

to write essays and letters on these subjects, using AI assistance to gather ideas and refine their arguments.

Listening and reading practice were also incorporated into the program through Cambridge test materials and AI-supported exercises. Students completed listening and reading tasks using computers or smartphones and analyzed their results with AI feedback tools, which allowed them to understand and correct their mistakes independently.

Every day, learners sent video messages to the instructor to demonstrate their speaking progress, further reinforcing consistent practice and accountability. The overall observation revealed that students spent a significant part of their study time interacting with AI resources, and they gradually became more autonomous and motivated in their learning process.

Survey Findings

The survey conducted among the participants included the central question:

"In what degree is AI important for you in learning English?"

The majority of students responded that AI was essential to their language education. While they acknowledged that learning English without technology is theoretically possible, they emphasized that AI tools substantially improved the quality, effectiveness, and enjoyment of their studies. Specifically, many learners noted that:

1. AI made it easier to find up-to-date information and examples for writing tasks.
2. Speaking practice with AI applications was less stressful than practicing only with peers or teachers.
3. Regular AI-based assignments kept them motivated to study consistently.

Overall, the results show that integrating AI into the learning process significantly increased students' engagement, confidence, and skill development. For many

participants, especially girls and children with disabilities, these tools created learning opportunities that would not have been possible through traditional methods alone.

DISCUSSION: The results of this study show that artificial intelligence has a substantial and transformative impact on English language learning, particularly among learners who face significant educational barriers. One of the most unique aspects of this project is that it combined direct observation of students in a rural community with practical application of AI tools, while also drawing on global best practices. This comprehensive approach makes the findings both relevant and distinctive. Throughout the implementation, students demonstrated significant improvements in their language skills. They engaged intensively with AI-powered applications every day, including SpeakPall for speaking practice and CHGPT for accessing information and developing ideas for writing tasks. The integration of these tools helped learners not only improve their vocabulary and fluency but also build confidence in their ability to communicate in English. Many students reported that practicing with AI was less stressful and more motivating than traditional lessons, as it allowed them to learn at their own pace and receive instant feedback.

The experience also highlighted the specific benefits for girls and learners with disabilities. In many rural areas, girls face cultural or logistical obstacles to continuing their education. AI tools created more flexible and autonomous learning opportunities, empowering them to study independently and participate more actively. For students with disabilities, features such as text-to-speech and voice assistance made lessons accessible in ways that traditional materials could not. For example, learners with visual impairments were still able to engage with the content effectively, demonstrating that AI can play a crucial role in making education more inclusive.

These findings align closely with evidence from other countries. In the United States, Duolingo has been shown to help learners acquire vocabulary nearly 47% faster than conventional methods (Vesselinov & Grego, 2012). Grammarly supports students in improving their writing skills through real-time corrections and suggestions, enhancing both accuracy and confidence. In the United Kingdom, the British Council

uses adaptive AI-powered courses that personalize learning paths for each student. China's Squirrel AI platform has produced notable gains in test performance, especially among learners in under-resourced schools. Similarly, India's Google Read Along app is widely used in rural areas to help children practice reading comprehension with AI support. These international examples demonstrate that AI is increasingly recognized as a critical tool for bridging educational gaps and enhancing learning outcomes globally.

At the same time, the project confirmed that simply introducing technology is not enough. Ongoing guidance, daily assignments, and clear expectations were essential to ensure that students remained engaged and used the tools effectively. Without this structured approach, there is a risk that learners might become passive users rather than active participants. This is an important consideration for any future initiatives that seek to expand AI-supported education.

It is also important to note certain limitations of this study. The research involved a relatively small group of students in a single village, which means that the findings may not fully represent all rural or disadvantaged learners. In addition, while the tools used were effective in this context, differences in internet access, device availability, or teacher training in other regions could affect outcomes. Looking forward, the experience of this project highlights several promising directions for future work. The researcher plans to continue using AI applications in English language instruction, expanding the program to include more students and additional technologies such as smartwatches that monitor learners' readiness and engagement levels. The goal is not only to improve English proficiency but also to help students prepare for national certificates and university entrance exams, which can open opportunities for higher education and scholarships.

Overall, this study demonstrates that AI can be a powerful equalizer in language education, especially when applied thoughtfully and consistently. By combining technology with human support and clear objectives, educators can help learners overcome barriers that have traditionally limited their access to high-quality education.

In doing so, AI has the potential to transform not only individual lives but also entire communities by empowering young people with the skills and confidence they need to succeed.

CONCLUSION: This study has shown that artificial intelligence can play a transformative role in supporting English language learning, particularly among girls and learners from disadvantaged backgrounds in rural communities. Through consistent observation, practical implementation, and student feedback, it became clear that AI tools such as SpeakPall, CHGPT, and adaptive learning platforms significantly improve learners' motivation, confidence, and language skills. The unique aspect of this project was its focus on real-world application and its commitment to inclusion. By combining technology with structured daily assignments and individualized support, the program empowered students who might otherwise have been left behind by traditional education methods. In particular, the findings demonstrate that AI can help overcome many of the cultural, logistical, and personal barriers faced by girls and children with disabilities in remote areas. These results are consistent with similar initiatives in other countries, such as the United States, the United Kingdom, China, and India, where AI-powered tools have improved learning outcomes and made education more accessible. While this study involved a relatively small group of learners, the positive impact observed suggests that expanding AI-supported language learning programs could be a valuable strategy for improving educational equity more broadly. In the future, continued use of AI applications, combined with teacher guidance and community support, can help more students achieve higher levels of English proficiency. This, in turn, can open pathways to national certificates, university scholarships, and broader participation in the global community. Overall, this research highlights the powerful potential of artificial intelligence not only as a tool for language learning but as a means of creating more inclusive, effective, and empowering education systems.

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