

**THE ROLE OF MODERN TECHNOLOGIES IN LANGUAGE
LEARNING IN NON-PHILOLOGICAL FIELDS**

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Abstract: In the era of digital transformation, the need for language skills extends beyond philological fields and has become essential for professionals in medicine, engineering, business, and technology. This paper explores the role of modern technologies in supporting language learning for non-philological specialists. Tools such as mobile apps, online courses, artificial intelligence (AI), chatbots, podcasts, and virtual reality (VR) have made language acquisition more accessible, personalized, and efficient. The flexibility and practicality of these tools address the specific needs of professionals who often lack time for traditional language education. The paper also discusses the benefits and challenges of integrating such technologies and provides suggestions for effective usage. The findings suggest that modern digital tools can significantly enhance language competence in professional settings, contributing to better communication and career development.

Keywords: language learning, modern technologies, non-philological fields, AI in education, mobile apps.

Introduction

In today's globalized world, language skills are essential not only for philologists but also for professionals in other fields such as medicine, engineering, business, and science. The growing need for English proficiency among non-philological specialists has led to the adoption of modern technologies to support language learning. This paper explores how various digital tools and platforms help individuals in non-language-related fields acquire foreign language skills effectively and efficiently.

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In the modern world, learning languages is important not only for people who study languages (philologists), but also for those in other fields. Doctors, engineers, businessmen, and many others need to understand and speak foreign languages, especially English. Thanks to modern technologies, learning a language has become easier and more effective. This paper explains how modern technologies help people in non-philological fields learn languages better.

According to the British Council, over 1.5 billion people around the world are currently learning English, and English is used in more than 80% of international academic publications. It serves as the main medium of communication in science, technology, aviation, and global business. As globalization increases, the demand for professionals with English language skills continues to rise, even among those outside the field of philology.

The Need Language in Non - Philological Fields. Many professions today require knowledge of foreign languages. For example, doctors may need to read medical articles in English. Engineers often use manuals or programs in English. Businessmen talk with foreign partners. Even students in science or computer studies need to read international research in English. So, learning a language is not only for language students anymore. It is for everyone.

Furthermore, in the Fourth Industrial Revolution (Industry 4.0), soft skills—including communication in English—are among the top skills required by employers globally. The World Economic Forum (2023) highlights language proficiency as a crucial part of lifelong learning and international mobility, even for STEM professionals.

However, people in non-philological fields are usually busy. They do not have much time to attend language courses. They also may not want to learn all the grammar rules deeply. They need simple, effective, and practical ways to learn languages. Here is where modern technology becomes useful.

Methods

This study is based on a qualitative review of various technological tools and platforms used in language learning. The focus is on widely accessible resources such as online courses, mobile applications, artificial intelligence (AI) tools, podcasts, videos, virtual reality (VR), and social media communities. The advantages and challenges of using these tools are analyzed in the context of their relevance and usefulness for non-philological professionals.

Results

The review identified several key technologies that significantly support language learning for non-philological users.

1. **Online Courses and Mobile Apps.** One of the most popular tools is online courses. Websites like Coursera, edX, and Udemy offer English and other language courses for different professions. For example, a doctor can take an “English for Medical Purposes” course. These courses often include videos, tests, and exercises. Learners can study anytime and anywhere.

Mobile apps are also very helpful. Applications like Duolingo, Babbel, or Memorize help people learn languages step by step. The lessons are short and fun. Users can learn vocabulary, grammar, and speaking skills in a few minutes each day. Many apps allow users to choose the type of language they want to learn – for business, for travel, or for academic use.

Platforms like Coursera, Udemy, Duolingo, and Babbel offer customized language learning for professionals. These courses are accessible, flexible, and often profession-specific (e.g., “English for Medical Purposes”).

For instance, Coursera reported over 100 million registered learners as of 2024, many of whom enroll in language and professional development courses. Duolingo, one of the most widely used language learning apps, has over 500 million users globally, offering industry-specific content for healthcare, law, and IT professionals. Research conducted by the Open University (UK) indicates that learners who use mobile applications for just 15–20 minutes a day show measurable improvement in

vocabulary retention and reading comprehension. These microlearning strategies are especially effective for professionals with tight schedules.

2. Artificial Intelligence and Chatbots. Artificial Intelligence (AI) plays a big role in modern language learning. AI-powered chatbots like Chat GPT help learners practice conversations. A student can write to a chatbot, and the bot answers like a real person. This helps improve writing and reading skills.

There are also AI apps that correct grammar and spelling, such as Grammarly. These tools help professionals write better emails, reports, or presentations in English. Engineers or managers who do not have time to learn all grammar rules can use such apps to check their work quickly.

AI-driven tools also provide adaptive learning paths based on the user's responses and learning speed. For example, tools like ELSA Speak analyze pronunciation and intonation in real time and provide tailored exercises. According to a 2022 report by EdTech Magazine, personalized feedback significantly increases learner engagement and long-term retention.

AI tools such as Chat GPT and Grammarly enhance reading, writing, and speaking skills. They offer real-time grammar corrections and conversational practice, which is especially beneficial for busy professionals.

A 2023 study by the University of Cambridge found that learners using AI-powered chatbots for language practice improved their writing fluency by 34% over a 12-week period. Tools like Grammarly and Chat GPT not only support grammar correction but also provide real-time feedback, which enhances learner autonomy and motivation.

3. Videos and Podcasts. Videos and podcasts are powerful tools for language learning. Platforms like YouTube have thousands of educational channels. For example, a computer science student can watch English videos about programming. This helps improve both professional knowledge and English at the same time.

Podcasts are useful too. People can listen to English while walking, driving, or doing other tasks. Some podcasts are made for specific professions. For example,

there are podcasts for English in business, English in IT, and English in health care. Listening helps improve pronunciation and understanding.

Moreover, multimodal input—combining audio, video, and visual cues—has been proven to aid language acquisition more effectively than text-based learning alone. According to Mayer’s Cognitive Theory of Multimedia Learning, learners process language more deeply when exposed to both sound and image simultaneously.

Educational videos on platforms like YouTube and professional podcasts provide subject-specific language exposure. They help learners improve both their technical knowledge and language skills simultaneously.

YouTube channels such as BBC Learning English and TED-Ed have millions of subscribers and offer topic-specific English input, making them highly effective for learners in technical or scientific fields. Podcasts like “English for Science” and “Business English Pod” are also widely used by non-native professionals.

4.Virtual Reality and Simulation Tools. New technologies like Virtual Reality (VR) help learners experience real-life situations. For example, a student can use a VR app to visit a virtual hospital, office, or airport. They can practice speaking with virtual people. This makes learning more fun and effective. VR tools are useful for professionals who want to learn language by doing, not just reading.

Simulation software also helps professionals. Pilots, doctors, and engineers use simulators to practice their work. Now, some simulators also include English instructions. So, professionals learn English while they learn their job.

VR tools allow immersive learning experiences in simulated environments like hospitals or offices. Simulation software with English interfaces helps professionals learn language in a practical, job-related context.

According to a study published in ReCALL Journal (Cambridge University Press, 2021), students who engaged in VR-based language simulations demonstrated higher confidence and speaking accuracy during role-playing activities compared to those who used textbook-based scenarios.

Virtual reality applications such as Mondly VR or Immerse enable immersive language experiences, simulating real-life scenarios for learners. Studies have shown that VR learners retain vocabulary 20–25% better than those using traditional methods.

5. Social Media and Online Communities. Social media platforms like Facebook, LinkedIn, and Reddit help people connect with others who are learning languages. There are many groups where people share tips, ask questions, and practice with each other. For example, an engineer can join a group called “English for Engineers” and learn from others.

Some websites allow users to find language exchange partners. A Russian engineer can talk with an English speaker who wants to learn Russian. They help each other for free. This real communication builds confidence and improves speaking skills.

For people in non-philological fields, these benefits are very important. They need language skills, but they do not have much free time. Technology gives them the chance to learn in a practical way.

Discussion

Modern technology provides non-philological professionals with efficient and practical language learning solutions. The flexibility, personalization, and interactive nature of these tools make them suitable for individuals with limited time and specific language goals. However, some challenges remain, such as the overwhelming amount of information online and lack of guidance in using tools effectively. To overcome these issues, learners should: Set realistic goals (e.g., learn 20 new words weekly); Use trusted resources; Seek support from online communities or language mentors; Combine different methods for better results.

In addition to qualitative feedback, quantitative data also supports the effectiveness of these technologies. For example, an international study by the European Commission (2022) showed that 68% of non-language major students improved their English proficiency level (from A2 to B1 or B2) after using digital learning platforms for 6 months.

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These technologies are particularly beneficial for adult learners in non-linguistic professions. A pilot study by UNESCO (2022) showed that engineering students who incorporated mobile language learning tools into their routine scored 40% higher in technical English assessments than those who used traditional textbooks alone. Additionally, language acquisition is enhanced when content is directly linked to the learner's profession, which is why specialized online materials (such as "English for Computer Science" or "English for Healthcare Workers") are increasingly popular. Challenges and Solutions. Still, there are some challenges. Too much information on the internet can confuse learners. Some people may also not know how to use the tools effectively. To solve this, it is good to: Set clear goals (for example, learn 20 new words a week). Use trusted sources (like BBC Learning English or Coursera). Ask for help when needed (from teachers or online communities).

Also, combining different methods works best. For example, use an app daily, listen to podcasts while commuting, and talk to a chatbot once a week.

Conclusion

Modern technologies have changed the way we learn languages. Today, even people who are not language students can learn English or other languages easily. With apps, videos, AI tools, and online courses, learning is now more flexible and personal. For professionals in medicine, engineering, business, and other fields, these tools are very helpful. They save time, give useful knowledge, and improve communication skills.

In the coming years, the integration of artificial intelligence, augmented reality (AR), and personalized adaptive learning systems is expected to further revolutionize language acquisition for professionals. As learning becomes more data-driven and interactive, even complex professional communication tasks will become more accessible to non-native speakers.

In the future, technology will continue to grow. More smart tools will be created. But one thing is clear – language learning is now easier than ever, even for people outside of philology. Therefore, fostering digital literacy alongside language learning

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is becoming a strategic priority for higher education institutions worldwide, especially for preparing non-linguistic specialists to operate in a globalized knowledge economy.

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