

THE USE OF DIGITAL TOOLS AND AI IN LEARNING GERMAN AS A SECOND FOREIGN LANGUAGE

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Abstract: This article examines the integration of artificial intelligence (AI) technologies into the modern educational space. It explores the potential of neural networks for learning various aspects of a foreign language. The article describes the advantages of using this service and emphasizes the need to validate generated materials, taking into account the service's limitations.

Keywords: artificial intelligence, educational technologies, digital competence, neural network, education, foreign language teaching, learning platforms, generation tools.

In today's rapidly changing world, learning a new language like German is more than just a passion for many people - it's a professional necessity, a cultural bridge, and a mental advantage. Learning German used to mean endless grammar exercises, thick textbooks, and countless hours in the classroom. But with the rise of artificial intelligence (AI), we're witnessing revolutionary changes. AI-powered learning tools are redefining language acquisition - faster, more personalized, and surprisingly engaging.

Today, we live in a world of constantly evolving high technology. Digital solutions are finding application in all areas of human life. Artificial intelligence (AI) is one of the innovative technologies used not only in entertainment, economics, and industry, but also in education. The introduction of AI into the educational process is an inevitable consequence of the digitalization of education.

Artificial intelligence plays a vital role in education, helping to improve the quality of learning and the effectiveness of the educational process. It can be used

to personalize education, adapting learning materials to the individual needs of each student. Artificial intelligence can also assist in the creation of interactive educational materials, educational apps, and online courses.

Artificial intelligence is a technology that enables creative work to be performed by computer algorithms. Artificial intelligence includes not only neural networks but also other information processing methods, including expert and logical programs.

Neural networks are a powerful tool that can be used in teaching German and open up new possibilities for improving the learning process. There are a wide variety of programs powered by artificial intelligence.

For example, ChatGPT is a chatbot that can:

➤ Learn grammar.

You can assign a specific grammar topic to the neural network and, using correctly asked questions (prompts) and practice exercises, learn it.

➤ Artificial self-study.

Have the neural network give you a task and check it – you can practice with articles or endings. You can also choose any difficulty level you prefer and ask for an explanation of the solution.

➤ Abundance of examples.

A huge advantage of neural networks is that they can generate texts endlessly.

➤ Translator.

Neural networks make it possible to create effective machine translation systems, making learning German more accessible. However, we still recommend being very careful to avoid translation errors.

➤ Checking texts in German.

This feature can be useful both for self-checking and for preparing homework.

Prompt is a kind of "command" that we give to artificial intelligence. It's important to note that if this "prompt" (command) is phrased incorrectly, we may receive insufficiently relevant and necessary information in response. A correctly and competently constructed "prompt" command guarantees that the responses received from neural networks are relevant and provide complete information.

Overall, the use of neural networks in teaching German promises to improve teaching methods and make the learning process more accessible. However, it's important to remember that they can only serve as a supporting tool, while personal communication and practice will remain the key elements of successful foreign language learning.

Vocabulary is a key part of language acquisition, and the best apps go beyond memorization. Look for AI-powered features like spaced repetition (to help you remember words for the long term), contextual learning (where you study vocabulary in sentences or real-world situations), and game elements that make the process of learning words enjoyable.

AI apps that let you create personalized word lists and review them at your own pace provide a more personalized approach to vocabulary learning.

Best AI Apps:

Heylama. Comprehensive and flexible, with a strong focus on speaking practice, customizable role-play scenarios, and personalized vocabulary learning. Ideal for intermediate and advanced learners who need individualized practice.

Babbel. Structured, real-world-focused, combining grammar, vocabulary, and conversation with an adaptive review system. Suitable for those seeking a comprehensive, practical foundation of language skills.

Duolingo. A fun course for beginners with game-based exercises and spaced repetition of vocabulary.

TalkPal. Features a library of role-playing scenarios that provide flexible conversational practice. Effective for developing speaking skills.

MakesYouFluent. Offers level-based dialogue games and vocabulary lists, well-suited for everyday conversation practice.

Lingvist. Focuses on rapid vocabulary acquisition through spaced repetition. Suitable for those who need a basic vocabulary.

EWA. Focuses on reading and listening skills using material from books and films. Strength: vocabulary familiarization.

LangAI. Includes pre-prepared role-playing scenarios for speaking practice. Useful for beginners.

The results showed that using AI in German language teaching significantly improves learning quality, particularly in the areas of independent learning and practice. Students report high levels of engagement and motivation, as AI allows for immediate feedback and automatically adapts assignments based on their level.

Chatbots, which can interact with students, check their pronunciation and grammar errors, and provide recommendations, have proven to be particularly effective.

Systems that analyze student errors and suggest customized exercises for correction have also been found to be highly effective.

Furthermore, using AI helps teachers reduce the time spent preparing materials and marking assignments, freeing them to focus on more complex aspects of learning, such as speaking practice and understanding complex grammar structures.

Despite the positive results, the use of AI in teaching also has its drawbacks. Key challenges include technical limitations, such as the need to constantly update AI algorithms and the high costs of developing high-quality systems. Furthermore, it is important to consider ethical issues related to the personalization of student data and the protection of their privacy.

However, despite these shortcomings, the prospects for using AI in German language teaching represent a significant step forward in online education. AI

technologies are expected to be integrated even more deeply into educational platforms in the future, offering new and improved ways to teach and interact with students.

The use of artificial intelligence in German language teaching opens up new opportunities for teachers and students. AI can significantly improve the quality of instruction, increase student motivation, and reduce the workload of teachers.

In the future, AI technologies can be expected to play an even more important role in the educational process, providing more effective, personalized, and accessible learning.

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