

## EFFICIENT USE OF AI IN MODERN PHILOLOGICAL EDUCATION

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*In theses, the author investigated the effective use of artificial intelligence (AI) in modern philological education, which opens up new opportunities for teaching, research and study of languages, literature and linguistics. The conclusion that artificial intelligence can significantly increase the effectiveness of learning, personalize educational processes and improve the understanding of linguistic regularities, which allows students and researchers to achieve better results, is substantiated.*

The effective use of artificial intelligence (AI) in modern philological education significantly expands the possibilities for both teaching and research, creating new approaches to the study of languages and linguistic processes [1, 2]. AI contributes to the improvement of the quality of education, the personalization of the approach to each student, as well as the automation of routine processes.

*The main directions of using AI in philological education:*

### 1. Personalized language learning

AI makes it possible to create adaptive curricula that take into account the individual needs of students. Thanks to such technologies:

- Learning systems adapt to the student's level of knowledge and learning pace, offering personalized tasks and exercises.

- Students receive instant feedback on pronunciation, grammar, or style errors, which speeds up learning.

- AI-based language simulators are used to practice speaking skills.

### 2. Automated checking of written works and grammar:

With AI-powered tools like Grammarly, ProWritingAid or other linguistic platforms, teachers and students can:

- Automatically check grammatical, spelling and stylistic errors in texts.

- Get tips on how to improve your writing style.

- Reduce the time for checking written assignments by automating this process.

### 3. Speech recognition and pronunciation improvement:

AI speech recognition technologies assist in foreign language learning by providing students with feedback on their pronunciation. For example:

- Automatic recognition of spoken words with assessment of correct pronunciation.

- Simulation of real dialogues to improve speaking skills.

- Interactive simulators that allow you to train accents and intonations.

### 4. AI in translation activities:

Artificial intelligence significantly affects the translation activity, automating the translation of texts, which is useful in the educational process and research work. Use of AI-based machine translation technologies:

- Instantly translates texts into different languages, which makes it easier to work with multilingual sources.

- Provides grammatically correct and contextually adequate translations, which increases the quality of work with foreign language texts.

### 5. Analysis of texts and large data corpora:

AI allows you to efficiently process large volumes of textual information and analyze them from the point of view of linguistics. For example:

- In the study of language trends, AI is able to process millions of texts in a short time, identifying lexical, grammatical and semantic patterns.

- Semantic analysis allows researchers to study the themes and emotional shades of literary texts.

### 6. Corpus linguistics:

AI in corpus linguistics is used to analyze large language databases. This helps:

- Identify changes in the use of words and phrases in different historical periods.

- Investigate linguistic influences and their dynamics in the context of cross-linguistic contacts.
- Compare grammatical structures in different languages based on the processing of large volumes of texts.

#### 7. Natural Language and Text Processing (NLP):

Natural language processing (NLP) technologies are widely used in philological education to automate the processes of text analysis, keyword searches, and creation of text summaries [3]. The use of NLP in philology includes:

- Automatic summarization of large text data to facilitate work with literary or scientific sources [4].
- Search by topics and keywords for quick access to the necessary information in large corpora [5].

#### *Advantages of using AI in philological education:*

1. Increasing the effectiveness of training. AI makes the learning process more dynamic and interesting, allowing students to better learn the material in a shorter time.
2. Automation of routine tasks. Task proofing, text analysis, and translations can be automated, freeing up time for more creative and intellectually challenging tasks.
3. Inclusiveness. The use of AI allows more students to participate in educational processes, in particular, students with disabilities.
4. Access to large volumes of information. AI makes it possible to analyze large amounts of data faster than was previously possible, which contributes to the deepening of research activities.

#### *Challenges and limitations:*

- Data bias. AI can reproduce biases present in the raw data, which can lead to errors in the analysis results.
- Dependence on technologies. Excessive reliance on automated systems can reduce motivation to study fundamental aspects of language and philology.
- Ethical issues. The use of AI in education must be ethically justified, especially in the context of the use of student data and ensuring privacy.

#### **Conclusions.**

Artificial intelligence in modern philological education plays a key role in the modernization of the educational process and research [3]. The effective use of AI facilitates the automation of routine processes, personalized learning and the expansion of opportunities for researchers. Innovative solutions based on AI make philological education more accessible, inclusive and effective, while opening new perspectives for scientific research in linguistics.

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