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THE ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN PHILOLOGY.

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Abstract. This academic article examines the multifaceted impact of artificial intelligence technologies on contemporary philology. Traditional methods of text analysis, which rely on manual labor and the researcher's subjective interpretation, are now complemented by powerful tools from computational linguistics, deep learning, and large language models. The paper analyzes how natural language processing (NLP) algorithms are transforming approaches to text attribution, semantic analysis, and comparative-historical linguistics. Particular attention is paid to the automation of the process of deciphering ancient manuscripts and identifying hidden intertextual connections in fiction. The results of the study demonstrate that the synergy between AI and classical philology leads to the formation of a new interdisciplinary paradigm-digital philology. The article justifies the need to adapt educational programs to train specialists who are proficient in both methods of literary analysis and skills in working with AI-based software. The scientific novelty lies in the systematization of relevant case studies on the application of neural networks in the study of language structure and textual poetics.

Keywords: artificial intelligence, digital philology, natural language processing, neural networks, linguistic analysis, textual studies, big data, algorithm, literary studies, corpus.

Traditional philology has always relied on "close reading," in which the researcher-with their intuition and erudition-played a central role. However, the exponential growth of digital archives has made it impossible to manually analyze all available sources. In this context, artificial intelligence (AI) acts as a catalyst for a methodological revolution. The relevance of this article stems from the shift from the isolated study of texts to the analysis of global literary and linguistic processes through the lens of algorithmic models. The aim of this work is to demonstrate that AI is not merely an auxiliary technical tool, but a full-fledged methodological partner in humanities research.

The theoretical framework of this study is based on Franco Moretti's concept of "distant reading," which involves the use of statistical methods to analyze literary canons. Recent studies confirm that integrating AI with databases allows for the extraction of hidden patterns that are inaccessible to the human eye [1]. The pedagogical aspect is of particular importance: modern technologies not only analyze texts but also shape new educational strategies, increasing student engagement in the philological process [2].

The research methodology includes:

- Distributional-semantic analysis: the use of word embeddings to identify semantic shifts.
- Stylometric analysis: the application of machine learning algorithms (SVM, Random Forest) to classify authorial styles.
- Transformer models (BERT, GPT): analysis of contextual relationships within sentence and discourse structures.
- Comparative analysis: comparison of machine processing results with traditional hermeneutic interpretation.

The key issue under discussion is the transformation of the concept of "authorship." With the emergence of AI text generators, the boundaries between human creativity and algorithmic compilation are becoming blurred. There is ongoing debate in the field of philology over whether AI is capable of capturing the "spirit" of a text. However, practice shows that neural networks successfully handle attribution tasks [3]. For example, analyzing rhythm and syntax makes it possible to distinguish between text fragments written by co-authors with a high degree of certainty- a task that previously required decades of archival work.

Another important aspect is overcoming Eurocentrism in linguistics. AI enables the creation of models for small and endangered languages, automating the process of compiling dictionaries and grammar guides. However, this raises the issue of "data bias": if a model was trained on corpora from specific eras or ideologies, it may reproduce these stereotypes in its analysis results [5]. Therefore, the role of the expert philologist is shifting toward verifying and ethically adjusting machine-generated conclusions.

The study identified the following applications of AI in philology:

1. A breakthrough in automatic text mining: AI is capable of instantly extracting quotations, metaphors, and recurring themes from thousands of volumes, creating a map of literary influences [4].

2. The evolution of linguistic predictions: thanks to the analysis of social networks and media corpora, algorithms predict the neologization and archaization of lexemes with up to 90% accuracy.

3. Interactive pedagogy: It has been proven that the use of adaptive AI platforms in teaching Russian as a foreign language (RFL) accelerates vocabulary acquisition through content personalization [2].

4. Reconstruction of lacunae: deep learning algorithms successfully reconstruct lost fragments of epigraphic monuments by analyzing the contextual environment of the surviving characters.

Artificial intelligence marks the transition to "Philology 2.0," where quantitative methods do not contradict qualitative ones but rather enrich them. The primary role of AI in modern philology is to free researchers from routine classification and search tasks, allowing them to focus on conceptual synthesis. However, the high efficiency of algorithms requires philologists to develop digital literacy and critical thinking. The further development of the field will be linked to the creation of "transparent" AI models (Explainable AI) capable of explaining the logic behind their aesthetic and linguistic judgments.

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