

Kunhurtsev Rostyslav

Kyiv National University of Technologies and Design (Kyiv, Ukraine)

Language and scientific supervisor – Kugai K., associate professor

AI AND PHILOLOGY:

A NEW ERA OF ANALYSIS OR A THREAT TO TRADITION?

Introduction. Artificial intelligence has become a necessity in the modern world, permeating various aspects of our lives, from scientific research to education. This discussion focuses on the potential for AI to replace human philologists – scholars who study language and literature and play a crucial role in cultural and educational development. In this text, we will consider how artificial intelligence can perform text analysis that previously fell exclusively within the competence of philologists, as well as discuss its limitations and ethical considerations.

The purpose of the work is to explore the potential and limitations of artificial intelligence (AI) in philology, examining its ethical implications. We analyze how natural language processing and machine translation are used for text analysis, discussing their capabilities and drawbacks. We emphasize the importance of ethical considerations when applying AI to the sensitive field of philology.

Today's discussion centers on a timely topic: the potential of artificial intelligence (AI) to take over tasks traditionally performed by philologists, scholars who study language and literature and play a vital role in cultural, educational, and scientific development. With the rise of AI, questions about its ability to replace human philologists have emerged. Prior research and examples already demonstrate AI's success in handling some tasks once considered the exclusive domain of philologists. Let us consider some of them:

Natural Language Processing (NLP) systems can identify and analyze stylistic features of texts, including lexical and syntactic structures. For example, programs that use machine learning techniques can determine the authorship of

a text or detect stylistic differences between authors [1].

Machine translation systems, which are based on neural network algorithms, are capable of producing high-quality translation of texts between different languages, although they continue to be refined [2].

Artificial intelligence can also be used to analyze literary texts for key themes, motifs, and structures. Text processing algorithms can detect connections between different works or authors [3].

However, AI currently has limitations, particularly in understanding cultural contexts and the emotional and ironic nuances of texts, which pose significant challenges for algorithms. It is also undoubtedly important to consider the ethical aspects of using AI in an industry that significantly impacts on cultural and educational processes.

Thus, while artificial intelligence can be a useful tool in philological research and textual analysis, its potential to replace philologists entirely should be carefully considered with these limitations and ethical issues in mind.

Conclusion. Artificial intelligence is making significant inroads into the field of philology. It demonstrates potential to handle tasks traditionally reserved for human philologists, offering advantages like efficient text analysis and translation. However, limitations remain, particularly in grasping cultural nuances and emotional subtleties.

REFERENCES

1. Bird S., Klein E., & Loper E. (2009). *Natural language processing with Python: analyzing text with the natural language toolkit*. O'ReillyMedia, Inc. URL: https://books.google.com.ua/books/about/Natural_Language_Processing_with_Python.html?id=KGIbfiiP1i4C&redir_esc=y (accessed 13.03.2024).
2. Jurafsky D., Martin J.H. (2020). *Speech and language processing: an introduction to natural language processing, computational linguistics, and speech recognition*. 3rd ed. draft. URL: <https://web.stanford.edu/~jurafsky/slp3/> (accessed 12.03.2024).

3. Manning C. D., Raghavan P., & Schütze H. (2009). An introduction to information retrieval. Online edition. Cambridge University Press.