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EXPLICIT & IMPLICIT/TACIT KNOWLEDGE MANAGEMENT SYSTEMS IN PHILOLOGY

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Abstract. *Explicit and tacit knowledge play a key role in philology, and their effective management is possible thanks to modern knowledge management systems and artificial intelligence. While explicit knowledge is easily formalized and transferred through digital technologies, tacit knowledge requires an expert approach, intuitive understanding, and cognitive processes.*

Knowledge management systems help organize large text bases and automate analysis, and artificial intelligence expands the capabilities of philologists in processing and interpreting texts. However, despite the development of technology, human expertise remains indispensable. The optimal approach is the integration of digital technologies with traditional methods of analysis, which will achieve a new level of efficiency in philological research.

The purpose of this article is to analyze the current state of knowledge management in philology, review the main architectures & technologies of knowledge management systems and discuss the challenges and prospects for their further development.

Key words: *knowledge management, artificial intelligence, machine learning, knowledge representation models*

Introduction.

Knowledge management is one of the key aspects of modern humanities, in particular philology, as it ensures the effective preservation, transfer and use of information [1]. In the context of philology, knowledge can be divided into explicit and implicit/tacit [2]. Explicit knowledge is represented in the form of texts, dictionaries, databases, corpora and other formalized sources that can be stored and transferred in a structured form [3]. Implicit knowledge, on the contrary, is based on intuitive understanding, cultural context, cognitive processes and experience of researchers [4]. Modern technologies, including artificial intelligence, digital archives and computational linguistics, contribute to knowledge management in philology, but cannot completely replace the role of human intuition and expert skills [5]. Therefore, an important task is to find optimal approaches to managing both types of knowledge in order to achieve their harmonious interaction and effective application in scientific research.

Main text.

Let us consider the results of the analysis of the features of effective management of explicit knowledge in philology.

Explicit knowledge is information that has a clearly defined structure and can be formalized for further use. In philology, this includes:

1. Digital archives and text corpora:
   - Digitization of manuscripts and ancient texts (OCR technologies, creation of digital libraries, such as Perseus Digital Library, Project Gutenberg, National Library of Ukraine);
   - Linguistic corpora (for example, Thesaurus Linguae Graecae, Corpus Inscriptionum Latinarum), which allow automated text analysis;
   - Morphological and syntactic parsing of texts, which helps in the study of grammatical features of languages.
2. Knowledge bases and formalized data:
   - Lexicographic resources (dictionaries, encyclopedias, thesauri);
   - Ontological models that reflect the relationships between terms, texts and linguistic phenomena;
   - Philological databases (e.g., WordNet-type dictionary databases, electronic grammars).
3. Automated text analysis systems:
   - Stylometry for determining the authorship of texts;
   - Semantic analysis systems that identify the contextual meaning of words;
   - Machine learning for classifying texts by genre, style, or historical period.

Let us consider the results of the analysis of the features of effective knowledge management in philology.

Implicit/tacit knowledge is less formalized, as it is based on experience, cultural context, and intuition of researchers.

1. Linguistic and textual intuition:
   - The ability of philologists to interpret metaphors, allusions, and stylistic features;

- The use of contextual analysis to reconstruct fragmented texts;
- Experienced recognition of historical changes in language and style.

2. Informal methods of knowledge transfer:
   - Scientific conferences, seminars and workshops, where expert experience is transferred;
   - Comments and marginalia in manuscripts, which often contain valuable informal knowledge;
   - Philological discussion groups and scientific communities, which facilitate the exchange of ideas.
3. Using artificial intelligence to model implicit knowledge:
   - Neural networks for restoring lost fragments of texts;
   - Deep learning algorithms [6], which simulate expert recognition of stylistic features;
   - Artificial intelligence systems, which are trained on large corpora of texts, analyzing semantic connections between words and phrases.

Summary and conclusions.

Explicit and tacit knowledge management in philology is a key task of modern humanities. Explicit knowledge, such as digital archives, text corpora, ontological models and automated linguistic systems, significantly simplify access to information and its analysis. At the same time, tacit knowledge, which includes intuitive understanding of the text, cultural context and expert skills, remains indispensable in the process of deep understanding of philological data.

Modern technologies, in particular artificial intelligence, contribute to the formalization of some aspects of tacit knowledge, but they cannot completely replace human intuition and expertise. Therefore, the optimal approach to knowledge management in philology is to combine digital technologies with traditional methods of textual analysis. Further research in this area should be aimed at expanding the capabilities of AI tools, developing hybrid text analysis systems and improving methodologies for transmitting tacit knowledge in the digital environment.

Thus, the effective management of explicit and implicit knowledge is a

fundamental factor in the development of philology as a science that balances between formalized data and intuitive knowledge of texts.

Discussion.

As a promising direction of his future research, the author puts forward the following debatable thesis:

a) Knowledge management systems and artificial intelligence play a key role in modern philology. They allow for the automation of text analysis, provide structured access to information, and formalize tacit knowledge [7]. While knowledge management systems help organize large text databases, artificial intelligence expands the capabilities of analysis, translation, and stylometry.

b) However, despite the development of technology, human expertise remains critically important. AI and KMS can help formalize knowledge, but cannot completely replace intuitive understanding of texts, historical contexts, and cultural features. The optimal approach is to integrate digital technologies with traditional analysis methods, which will allow achieving a new level of efficiency in philological research.

c) Further research should be aimed at developing hybrid models [8] that combine automated systems with human expertise, expanding the capabilities of AI in stylometry, and improving algorithms for analyzing language changes.

It is this promising direction of the author's future scientific research that will be reflected in future publications.

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