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BIG Data in modern literary studies

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Introduction. Big Data is a multifaceted phenomenon that encompasses enormous, diverse, and rapidly changing information arrays that are beyond the capabilities of traditional data processing approaches [1], [2]. Its main characteristics are described through the concept of "5V": volume, velocity, variety, veracity, and value [3].

Big Data can be defined as:

- a technological trend based on distributed computing, cloud services, and artificial intelligence algorithms [4];
- an analytical platform that allows you to discover hidden patterns, trends, and correlations in information flows [5];
- a valuable strategic resource that creates new opportunities for forecasting, process optimization, and management decision support [6];
- a scientific and practical category that integrates methods from computer science, statistics, social and humanities, and applied research.

In this sense, Big Data acts as a universal tool for transforming science, education, economics, and social practices, as it is capable of transforming large and diverse arrays of information into structured knowledge and innovative solutions.

Main Part. Modern philology has entered a period of digital modernization, driven by the rapid spread of Big Data analysis technologies. Classical methods of literary research, based primarily on the interpretation and qualitative analysis of literary texts, are gradually being supplemented by new approaches that allow for working with vast corpora of works. This opens new horizons for the objective study of literary processes, identifying hidden trends, and modeling the development of literary movements.

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The application of Big Data in the humanities has become a response to the challenges of the digital age: the dramatic growth of electronic archives, the widespread availability of online libraries, and the development of classical machine learning algorithms [7], neural network machine learning [8], [9], deep machine learning [10], and artificial intelligence [11]. In literary studies, this has led to the emergence of a new research paradigm—digital philology. We will detail the main scientific and practical conclusions on this topic:

1. The Importance of Big Data for Literary Studies. Big data analysis makes it possible to study millions of texts simultaneously, identifying patterns at the level of vocabulary, style, composition, and genre structure. Unlike the analysis of individual works, this approach ensures large-scale, representative, and systematic results.

2. Practical Applications:

2.1. Linguistic and Stylistic Analysis: Identifying trends in the language and style of different eras and authors;

2.2. Author Attribution: Using machine learning to establish the authorship of disputed and anonymous texts;

2.3. Automated Classification: Classifying works by genre, theme, and plot pattern;

2.4. Intertextual Connections: Discovering quotations, reminiscences, and allusions between literary texts;

2.5. Historical and Literary Dynamics: Tracking the evolution of schools, movements, and literary traditions;

3. New Research Horizons: Big Data is Changing the Conventional Understanding of Literary Studies. Researchers are now focusing not only on the "canon" but also on popular literature, digital texts, and media sources. This expands the scope of analysis and makes literary studies more comprehensive and interdisciplinary.

4. Limitations and Challenges. Despite its advantages, working with Big Data is fraught with certain difficulties:

- the need for meaningful interpretation of quantitative results;
- the risk of losing the humanities context with excessive statistical focus;
- technical difficulties in processing and storing large data sets.

Conclusions. The digital age has radically changed approaches to scientific research, and the humanities, in particular literary studies, have not been left aside. If

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earlier scientists focused on the in-depth study of individual texts or a limited group of works, then with the advent of big data (Big Data) it became possible to analyze literature at a qualitatively new level – at the macro level. This allows you to identify patterns, trends and relationships that were invisible with the traditional approach.

Big Data forms new approaches in literary studies, allowing you to combine traditional methods of the humanities with digital tools. Large-scale analysis of texts contributes to a deeper understanding of the literary process, the identification of non-obvious patterns and the creation of a holistic picture of the evolution of literature.

Thus, Big Data technologies become not only an analytical tool, but also a factor in the renewal of literary studies as a science, paving the way for a new level of digital humanities. Further development of this field is associated with the introduction of artificial intelligence, cognitive models, and intelligent systems, which will provide even greater accuracy, interdisciplinarity, and predictive potential of literary research.

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