



Artificial Intelligence and Literary Studies: Redefining Textual Analysis in the Digital Humanities

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Abstract: *The fast evolution of artificial intelligence (AI) has considerably affected research methodology in various disciplines, including the humanities. Artificial intelligence became a useful approach for literary critics, which allows studying texts using computational analysis, data interpretation, and other innovative methods. The current paper will consider the function of artificial intelligence in the field of literary criticism in terms of its contribution to the development of methods of textual analysis. Thus, the following topics will be discussed: natural language processing; theme and motif detection, sentiment analysis, computational stylistics, and interpretation facilitated by AI. Although artificial intelligence is often considered a substitute for literary criticism in the field of humanities, one should note that the emergence of this research method has expanded the possibilities for scholarly activities. Therefore, this paper will demonstrate that AI serves as an interdisciplinary tool, which has contributed to distant and machine reading of texts and interpretative modelling. Moreover, several aspects related to AI, such as theory, methodology, and ethics will be discussed. Finally, it will be shown that AI became an inseparable part of modern humanities as it helps people archive, analyse, interpret, and teach literature. Recent research in digital humanities confirms this claim.*

Keywords: *Artificial Intelligence, Digital Humanities, Literary Studies, Textual Analysis, Sentiment Analysis, Computational Criticism, Humanities Research*

Introduction

In the twenty-first century, there has been an increased interconnection of technology with nearly all realms of human understanding. One of the most impressive aspects of this connection is the increasing use of artificial intelligence in research and academic pursuits. Although AI has always been known to be a field that belongs to science and engineering, its increasing significance in the humanities cannot be ignored. Literary studies, which have

always been based on reading texts carefully and interpreting them, are located precisely where technology meets humanism.

The digital humanities constitute a paradigm change in the study, interpretation, and preservation of literary texts. They involve the use of computing technologies in combination with humanistic research practices, enabling researchers to study the texts without being bound by the constraints of conventional reading. Here, artificial intelligence serves as an advanced tool for analysis that can detect patterns of language, themes, emotional development, and style in large corpora of literature. The recent trends in the digital humanities emphasize computational textual analysis, network analysis, and data visualization.

AI is relevant in literary theory in the sense that it creates room for further interpretation. The traditional modes of literary theory have been characterized by methods such as formalism, structuralism, psychoanalytic criticism, feminist criticism, Marxist criticism, and postcolonial criticism. This method has been quite beneficial. Nevertheless, AI offers a further dimension in methodology in the sense that it allows literary scholars to work with big data sets, analyzing several texts at once and identifying themes in the process.

The objective of this paper is to explore the impact of artificial intelligence on the practice of textual analysis in digital humanities. Instead of selecting any one literary writer or literary genre, the theoretical approach taken by this paper has a general nature and can be applied to a conference talk of multidisciplinary character.

Artificial Intelligence as a Methodological Framework in Humanities Research

Artificial intelligence is one of the methodological innovations that have had the greatest impact on modern humanities scholarship. From the perspective of literary scholarship, artificial intelligence functions mainly by means of natural language processing, machine learning, neural networks, and semantic modelling. Through these means, literary texts can be understood both as works of art and as linguistic data.

NLP becomes particularly important in the analysis of texts. With NLP, computers can analyse human language through understanding of its syntax, semantics, lexical use, and context. In the study of literature, it becomes possible to analyse repeated phrases, major semantic domains, and syntax in many texts.

For instance, if we apply such technologies to a database of modernist novels, the artificial intelligence will be able to recognize such features as fragmentation, stream-of-consciousness narration, and the recurrent presence of lexical devices associated with psychological interiority.

The other key contribution made by Artificial Intelligence is through machine learning. Machine learning techniques have been used to develop algorithms that help identify the styles of writing employed by authors as well as certain features like the type of genre. This technique is useful when undertaking research into identifying writers.

However, AI's importance in humanities is not limited to literature alone; there are several other aspects of humanities research where AI plays a vital role, including digital archives,

manuscript conservation, editing texts, and analysing corpora through time. Researchers working in digital humanities frequently employ applications like Voyant Tools and CATMA.

These developments indicate that AI is not merely a technological add-on but a methodological framework that reshapes the epistemology of humanities research itself.

AI and Textual Analysis: From Close Reading to Distant Reading

The shift towards distant reading has been one of the greatest impacts brought about by artificial intelligence. Literary criticism traditionally favours close reading, which entails the careful analysis of language, imagery, symbolism, and narrative structures within a particular text.

Though close reading is still very important in the study of English literature, artificial intelligence allows for distant reading. This technique uses computers to analyse a number of texts at once, often an entire era or genre.

By employing distant reading, researchers are able to study many texts at once. Consequently, they are able to trace general trends in literature including:

- changes in gender discourse
- depiction of wars
- history of emotions through centuries
- structures of narration in genre fiction
- colonial/post-colonial language patterns

For example, AI could chart the development of language associated with femininity and domesticity from Victorian novels to contemporary women's literature. It will not displace close readings but rather foster a constructive interaction between broad computational trends and detailed textual interpretations.

Theme and Motif Detection Through AI

The use of artificial intelligence to detect themes and motifs can be regarded as among the greatest gifts that artificial intelligence has given to literary studies. This is because topic modelling programs are used to spot the patterns of commonly used words that signify the main themes in the texts being studied. Examples of such themes include identity, alienation, memory, power, and gender.

Topic modelling with artificial intelligence techniques has gained much significance in terms of digital literary criticism as well as the study of global literature. For instance, when scholars analyse texts in postcolonial literature. AI techniques will be able to detect patterns concerning semantic concepts like migration, exile, identity, language, and nationalism.

Sentiment Analysis and Emotional Architecture of Texts

Another important AI-based technique employed in literary analysis is that of sentiment analysis. Sentiment analysis refers to the computerized examination of emotions within texts. Using sentiment analysis, researchers can analyse the progression of emotions within a narrative. Literary texts such as novels, poetry, and drama usually exhibit a particular emotional

trajectory, and AI aids in analysing these trajectories. For instance, tragedies exhibit a declining emotional trajectory, whereas the Bildungsroman shows an alternating emotional trajectory leading to conclusion.

This approach is especially useful in studying:

- Character psychology
- Reader response
- Narrative tension
- Emotional climax
- Plot resolution

Recent scholarship confirms that sentiment analysis has become central to computational literary studies.

Ethical and Theoretical Challenges

Despite its benefits, AI in literary studies raises important concerns.

These include:

- Algorithmic bias
- Interpretative reductionism
- Loss of contextual nuance
- Ethical concerns in digitization
- Dependence on machine outputs

Literature often relies on irony, ambiguity, symbolism, and cultural context, which machines may misinterpret.

Therefore, AI must be understood as an assistant rather than an authoritative critic.

Conclusion

AI has transformed textual analysis within digital humanities by integrating computational techniques into literary scholarship, thereby opening up new doors of opportunities. It enhances thematic and sentiment analysis, literary styles analysis, as well as large scale textual analysis but always depends upon human intelligence to interpret data. In the coming years, literary analysis will depend upon the fusion of critical theory and computation.

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