



AI IN LANGUAGE PROCESSING AND LITERARY ANALYSIS

DR SREEVIDHYA S

FACILITATOR

DEPARTMENT OF ENGLISH (SHIFT II)
AGURCHAND MANMULL JAIN COLLEGE
MEENAMBAKKAM, CHENNAI

DR HARI KUMAR T

ASSISTANT PROFESSOR

DEPARTMENT OF ENGLISH (SHIFT II)
AGURCHAND MANMULL JAIN COLLEGE
MEENAMBAKKAM, CHENNAI

Introduction

Artificial Intelligence (AI) has revolutionized the fields of language processing and literary analysis, providing sophisticated tools and techniques for the understanding, generation, and interpretation of text. Natural Language Processing (NLP) is a subfield within AI that enables machines to analyze and manipulate human language for application in sentiment analysis, text classification, machine translation, etc. Combine these advances in computational techniques with the nuances of language, and incredible strides can be made in the analytical scrutiny of literature.

AI tools in literary studies are employed to combine massive text corpora to uncover patterns, themes, and stylistic elements that would otherwise be difficult to discern manually. Techniques such as sentiment analysis can reveal emotional undertones, while topical modeling elucidates current themes across multiple works. AI has transformed authorship attribution, allowing the assignment of unknown or disputed works to specific authors with astonishing accuracy.

Midway analysis finds its way to creative writing: AI generates poetry, stories, and scripts. In something that would push the boundaries of creativity, machine learning models such as GPT show a near human quality of that writing. However, at this interface of AI and literature, new ethical questions regarding originality, authorship, and implications of machine-generated content arise. This paper, then, embarks on unpacking how AI has redefined language processing and literary analysis into platforms with much higher levels of intelligibility while also addressing its limitations and ethical issues. Through the fusion of computational strength and human creativity, AI has brought about profound changes in the way we interact with language and literature up to date.

In order to understand a literary text better, AI tools have come in handy. Using AI tools like Chat GPT helps generate chapter wise summaries easily. This will enable understanding the main points quickly, without having to read the whole text line by line. For thematic analysis, AI tools provide character analysis with a thematic application. In the recent past prior to the invention and usage of AI tools, a researcher had to use a library or search resources in the internet that matched his / her research area. Plot explanation and understanding the background was not easy for a researcher as they will have to apply particular themes. Whereas AI tools provide concise summaries for better understanding. Besides, the language of the writer and the reader's ability to understand that language might vary. In such cases AI tools serve the purpose of paraphrasing. The best blessing is uploading the image of the text and asking for a paraphrase. A full chapter's essence is conveyed in few lines while maintaining the emotional depth. It can explain in detail or provide deeper meanings.



For instance, in a novel titled *The Kite Runner*, Khaled Hosseini mentions a character named Amir's journey towards redemption in the lines, "there is way to be good again" If a reader does not understand the reason for the writer using such lines, AI helps to understand that Amir is wanting to find salvation for a certain act of his in the childhood. "Amir, now an adult, reflects on his childhood in Kabul. A call from Rahim Khan, an old family friend, reminds him that 'there is a way to be good again,' hinting at a past mistake and an opportunity for redemption."AI can further analyse themes and symbolism in the novel. It provides background information and cultural references that lead to the context of the situation in the novel. The use of AI in understanding the characters and their roles help understand the novel better. For instance below is the table of some characters that are crucial in the novel *The Kite Runner*. If the reader does not find tie to make a detailed analysis, he can utilise the AI tool inorder to understand the role of the characters.

If you find it hard to understand how two characters differ, AI can compare them side by side. For example:

Character	Personality	Role in Story	Key Trait
Amir	Privileged, insecure, later remorseful	Protagonist, seeks redemption	Struggles with guilt
Hassan	Loyal, kind, brave	Amir's childhood friend, later a victim of betrayal	Unwavering loyalty
Baba	Charismatic, strong-willed	Amir's father, hides a big secret	Struggles with morality
Assef	Cruel, sociopathic	Antagonist, later a Taliban leader	Represents evil

Courtesy CHATGPT

It even creates a relationship map to help the reader stay connected in place when the story moves. It tracks the growth of the characters throughout the novel by analysing key moments. Transformation of characters comparison of characters and similarities of them can be better understood with the use of AI. This enables character analysis, understanding motivations and relationships.

Any researcher does a study on the symbolism and themes represented by the author through the novels plot and characters. In *The Kite Runner*, Kite represents friendship, loyalty as well as redemption.

The kite in the beginning represents friendship of Amir and Hassan, later it represents loyalty that is broken by Amir when Hassan is in great trouble. Amir betrays Hassan. When the story evolves, we find Amir running for the kite, symbolising redemption, seeking forgiveness



for betrayal. The Pomegranate tree symbolises friendship of the two friends. Amir threw pomegranates on Hassan hoping retaliation but he doesn't retaliate. Years later he comes back to see the tree lifeless just as their broken bond, and then prays to be redeemed.

Identification of theme and application of various theories using critical analysis happens quickly using AI tools. For instance, if the detailed summary is sought using an AI tool, it is also possible to seek for thematic analysis through AI. In a broad study on *The Kite Runner*, AI provides a detailed layout of various themes that can possibly be dealt in detailed research. Some of them are "Father – Son relationships, Power and Oppression, Ethnicity and Subjugation". To enable more analysis, these words can be used to develop hints or ideas for elaborating on each of them. Even the hidden messages and themes can be better understood with the help of AI tools.

Reading a novel can be overwhelming especially if the reader does not understand the language proficiency of the writer. AI powered Text to Speech tools come in aid for easier paraphrasing. Novels become enjoyable and engaging with audiobooks.

Text-to- speech helps in adjusting the audio to our need. AI tools like Google Text-to-speech, Speechify help read the novel aloud, adjust the speed for better understanding. It can also help in re-reading of the text to help us ease from the struggle of reading the text several times.

Audiobooks help multitask because it is possible to listen while on a walk, lying on a couch, commuting, exercising or doing daily chores.

A movie can be explained in a few minutes in one's own language. Many young learners are finding it difficult to understand because of language complexity. Further advancements in textual analysis include sentiment analysis and authorial style identification. Sentiment analysis, applied to literary texts, uncovers the emotional tones underlying narratives, enhancing our understanding of character development and plot progression. Similarly, AI models trained on authorial styles can attribute anonymous or disputed works to specific authors with remarkable accuracy, providing valuable insights into literary history.

Language simplification and paraphrasing is possible through AI tools. It can help simplify difficult passages into simple terms without losing the meaning. Khaled Hosseini is known for using cultural descriptions and terms from his mother tongue. However, this might be difficult to understand. The use of AI in literary translation not only facilitates cross-cultural understanding but also enables real-time adaptations of texts for multimedia formats such as audiobooks and interactive narratives. These advancements extend the reach of literary works to broader audiences while preserving their artistic integrity

For instance,

"For you a thousand times over" is simplified by AI as "Hassan says that he is possible of doing anything for Amir".

"There is way to be good again" is simplified as "Amir has a chance to correct his past mistakes and redeem himself"

Cultural references and other vernaculars become easy with the help of AI tools. It provides synonyms for difficult words. Terms like Inshallah (God Willing), Agha (Sir), Hazara (an ethnic group) are clarified for easy understanding. The following are a few words that have been used by the author to bring the reader close to the Afghan environment.

"quwat (power), kaseef (dirty), tashakor (thanks), qurma (a meat preparation), tar (string), azan (the call to prayer), bakhshinda, (forgiven), salam (salutations), rakat (a unit of prayer),



bismillah (in the name of Allah), rafiq (a companion), wah wah (bravo!), bolani qabuli (food items), padar jan (dear father), khoda hafez (in God's protection), mohtaram (respected), ayena mashaf (a ritual associated with marriage), madar 181 (mother), zakat (alimony), nawasa (daughter's son), yar (a friend), ayatul kursi (an important prayer recitation),

tashweesh (anxiety), qaom (a nation), rasti (true), and jai namaz (the prayer rug)”. (quoted in Abdul Wadood Khan 2017 169)

Conclusion

AI is a powerful tool for deeper understanding of texts. AI can complement human creativity and analytical capabilities, reshaping our engagement with language and literature. However, there are limitations too. The authenticity cannot be relied to 100 percent. By combining personal efforts and AI tools, one can explore novels, analyse literary texts and enjoy reading. It is in the hands of the user to make the best of the technical tool for a resourceful experience.

References

1. Hosseini, Khaled. *The Kite Runner*. Riverhead Books, 2003.
2. Google Text-to-Speech. Google, play.google.com/store/apps/details?id=com.google.android.tts. Accessed 7 Feb. 2025.
3. Speechify. “Text to Speech for Better Reading.” Speechify, speechify.com. Accessed 7 Feb. 2025.