

THE FUTURE OF LITERARY STUDIES IN THE AGE OF ARTIFICIAL INTELLIGENCE: IMPLICATIONS OF AI ON THE FIELD OF LITERARY STUDIES AND ITS FUTURE DIRECTIONS

Ngozi Jacinta Ozoh
Department of English Language and Literature,
Nnamdi Azikiwe University, Awka,
Anambra State,

Abstract

*Artificial Intelligence (AI) applies to any machine that is designed to understand a human mind. It is the replica or an imitation of human intelligence in machines. These machines are designed in such a way that they think, act and learn like human beings. AI can be narrow or weak AI, general or strong AI and super intelligence AI (AI generated). Literary Studies involve the analysis and study of prose, poetry and drama. The research analysis, and techniques for evaluating and interpreting literary works will undoubtedly be affected by the development of AI. It is anticipated that research methodologies will evolve, Literary analysis will improve, new theoretical frameworks will be developed, and existing ones will be criticized or improved. By providing nuanced insights and navigating the complexities of Natural Language Processing (NLP), Deep Learning and Authorship Analysis, this paper is able to use AI to unpack the difficulties of studying of a literary text, *Americanah* by Ngozi Chimamada Adichie in a manner that it contributes new ideas, perspectives and findings that will add to the existing knowledge and informing changes to existing policies and practices in the field. It concludes by providing some suggestions on how AI with its newer techniques and ideas can be used to analyze literary texts.*

Keywords: Artificial Intelligence, Literary Studies, Future Directions, Deep Learning, Authorship Analysis

Introduction

Aruna Pattam defines AI as “The science of making machines that can think like humans”. With the introduction of the concept of Artificial Intelligence (AI), in 1956 by John McCarthy, literary studies undergo a dramatic change. Traditional literary studies face difficulties from AI, but there are also chances for development and creativity. As artificial intelligence (AI) technologies advance, there are upending conventional ideas of authorship, creativity, and interpretation in addition to altering how we produce and evaluate literature. AI's capacity to examine enormous volumes of data and spot trends has created new opportunities for literary study, allowing academics to discover fresh

viewpoints and insights. Agalya VT Raj et al in their article titled 'Integrating Artificial Intelligence in English Literature: Exploring Applications, Implications, and Ethical Considerations' write that AI has the potential to improve readers' comprehension of intricate literary works by interpreting them. Artificial intelligence (AI) systems, for instance, can be used to evaluate literary works and offer synopses and clarifications of the themes, characters, and storyline. AI is also capable of translating literary works so that a wider audience can access them.

Smith and Jones (2020) look at the application of AI to literary text analysis, providing fresh ways that enhance conventional critical thinking. Another topic that has attracted a lot of interest is the use of AI in literary criticism. These studies demonstrate how AI-powered technologies can analyse vast amounts of material, find trends, and offer insights that human critics might find challenging to identify. They also draw attention to AI's shortcomings in expressing the complex interpretations and individualised experiences that are essential to human literary critique. AI models' analysis and interpretation of literary texts may be impacted by linguistic and cultural biases that are present in their training data. The necessity for human interpretation and critique is underscored by AI's limits in comprehending historical, cultural, and contextual issues.

Various ramifications for incorporating AI into literary studies include rethinking authorship, that is novels produced by AI cast doubt on conventional ideas of authorship, posing queries regarding originality, creativity, and ownership. The biggest question here is does authorship still belong to humans, or can AI be regarded as an author? Smith and Jones (2020) investigate the idea of “algorithmic authorship,” in which artificial intelligence (AI)-powered tools either independently or in conjunction with one another produce creative works. Another ramification is new forms of literary analysis, that is AI-powered analysis providing fresh insights into literary works by recognising intricate themes and patterns in literary texts. However, the necessity for human interpretation and critique is highlighted by AI's limits in comprehending contextual, historical, and cultural issues. Immersion technology like Virtual Reality (VR) are changing how readers engage with literary texts, posing new problems and opportunities for literary scholars. Patel (2021) further discusses how writers and publishers are increasingly embracing AI technologies in his discussion of the future of creative writing in the context of AI. Patel's writings emphasise AI's dual character in literature: as a tool that fosters human creativity as well as a technology that prompts philosophical and ethical questions regarding the place of computers in creative pursuits. Browne (2022) raises concerns over the veracity of AI-generated literature while simultaneously emphasising the technology's ability to support the creative process.

There are other important ramifications for literary studies from the incorporation of AI, they include providing new viewpoints and insights, automating processes like text analysis, and helping researchers collaborate more efficiently, allowing them to

exchange ideas and work together more successfully. In order to ensure that AI enhances human abilities without taking their place, frameworks for human-AI collaboration in literary creation and analysis may be developed. Generally, it is critical to think about AI's future directions as it continues to influence literary studies.

Implication of AI on Literary Studies

Artificial Intelligence (AI) has broad and complex ramifications for literary studies. AI has become more and more prevalent in literary analysis, providing fresh viewpoints and techniques to enhance conventional methods. This paradigm shift is primarily being driven by AI's revolutionary influence on literary analysis and interpretation. Scholars can now analyse vast literary texts with unprecedented speed and precision because of the computational techniques like sentiment analysis and natural language processing (NLP). But Dr Agalya VT Raj goes ahead to state that, “AI is important to Strike a balance between human creativity and technological advancements to ensure that AI generated literature does not replace works created by humans” (12). Invisible themes, grammatical, and hidden patterns that are not obvious to traditional literary analysis methods can be uncovered by artificial intelligence (AI) algorithms. This leads to new interpretations of literary works' structure, meaning, and style. Scholars may now examine literary movements, authorial influences, and cultural trends in previously unimaginable ways because of this computational power, which advances our understanding of literature and its significance in society. Additionally, the use of AI in the creative process is bringing back the popularity of collaborative storytelling and experimental fiction. Since AI algorithms can now create imaginative poetry, prose, and story structures, the line separating human and machine creativity is becoming increasingly blurred. AI-driven technologies are being used by authors and artists to challenge conventional storytelling conventions, explore new forms of expression, and push the boundaries of literary imagination. Together, authors and AI systems have created hybrid narratives that include cutting-edge, imaginative works that push the boundaries of literature while fusing human comprehension with computational creativity.

Analysing style and authorship is a noteworthy use of AI in literary studies. Scholars have utilised machine learning algorithms to detect stylistic elements and accurately identify the authorship of mediaeval manuscripts. Significant ramifications for literary studies result from this, as it allows scholars to identify anonymous authors. This analysis driven by AI can assist in assigning works to certain writers, illuminating literary influences and history. It also examines literary evolution. Scholars can learn about the evolution of literary trends and the growth of authors by examining stylistic shifts across time.

Literary academics can benefit from AI-powered named entity recognition because AI is able to recognize intricate relationships between characters, evaluate their functions within the story, and create models of the social systems that are depicted in the text.

Researchers can better comprehend social dynamics, themes, and cultural context by looking at character interactions and relationships. AI is able to examine the conceptual meaning and emotional tone of texts, offering a more sophisticated comprehension of literary works. Scholars can learn more about authorial intent, character development, and thematic resonance by looking at emotions and emotional patterns.

Neural network models can preserve style and rhythm. AI-powered translation models can preserve the original rhythm and imagery of poetic works while conveying their stylistic and semantic elements. AI models can learn to translate literary works more properly by capturing subtleties and complexities through the analysis of massive corpora of texts.

Deep Learning

A branch of machine learning known as “deep learning” uses Artificial Neural Networks (ANNs) to evaluate and interpret data. Ahmed Mohsen et al writes that Deep Learning models are made to discover intricate patterns and connections in data, drawing inspiration from the composition and operations of the human brain. Important features of deep learning models include Neural Networks, which are made up of several layers of interconnected nodes (neurons) that process and change inputs. Literary analysis can be done with Artificial Neural Networks (ANNs). Artificial Neural Networks (ANNs) are able to discern emotions, tone, and attitudes in literary texts. Artificial Neural Networks (ANNs) are able to recognise recurrent themes and motifs in literary texts, offering valuable information about the author's meaning. ANNs can also provide insights into character dynamics and development by analysing character discourse, behaviour, and relationships. Artificial Neural Networks (ANNs) are able to analyse writing styles, recognising linguistic patterns, grammar, and vocabulary that are specific to a given author. ANNs can be used to determine the author of a text based on stylistic elements or to assign authorship to texts that are under dispute. ANNs are able to categorise literary texts according to linguistic traits and concepts into genres like science fiction, romance, or horror. ANNs have the ability to categorise literary materials into historical periods or literary movements, such as Modernism or Romanticism.

In order for deep learning models to train efficiently, they need a lot of data, frequently using datasets with millions or billions of samples. Text generation, sentiment analysis, and language translation are examples of natural language processing applications that use deep learning. To identify and record spoken words, deep learning is employed in speech recognition systems. Deep learning models can be used in a variety of fields and applications, such as natural language processing and computer vision.

Authorship Analysis

The process of Identifying a text's author by examining its linguistic and stylistic elements is known as authorship analysis. Numerous disciplines, including as

literature, forensic linguistics, and plagiarism detection, can benefit from this study. Authorship analysis can be used to examine the writing style of well-known authors or to establish who wrote disputed works. There are various types of authorship analysis: In order to determine the author's distinct writing style, stylistic analysis entails looking at linguistic elements such as syntax, vocabulary, and tone. Stylistic analysis seeks out distinguishing characteristics that can be used to determine an author's style, such as sentence structure, word choice, and figurative language. Linguistic analysis entails examining a text's phonological, morphological, and syntactic features in order to determine the author's patterns of language use. Linguistic analysis also searches for particular linguistic characteristics that can be used to determine an author's language use, such as dialect, idioms, or colloquialisms. Content analysis entails looking at a text's themes, topics, and ideas in order to determine the author's viewpoint and writing style. Finding recurrent themes, motifs, or concepts that can be used to pinpoint an author's style or point of view is the goal of content analysis. Authorship attribution is determining the author of a contentious or anonymous writing using stylistic, linguistic, or content research. This may be done by comparing the texts in question to previously published works by possible authors. Text comparison determines similarities and differences. Authorship can be verified to determine whether a work was authored by a specific author by applying stylistic, linguistic, or content analysis. Authorship verification equally means examining how well the text adheres to the possible author's established style and linguistic usage. Authorship profiling is evaluating an author's writing style, language use, and thematic interests through stylistic, linguistic, or content analysis. The process of authorship profiling is determining attributes that can be deduced from an author's writing style and language use, such as age, gender, or educational attainment.

Forensic linguistics is forensic investigations, here, authorship analysis can be utilised to determine who wrote a text, like a ransom note or threatening letter. Plagiarism detection can be carried out by examining a text's writing style and linguistic elements and authorship analysis can be utilised to identify instances of plagiarism. Then, there is Methods Stylometry which is the study of a text's literary style, encompassing elements like sentence structure, word choice, and punctuation. This is also used to determine one's works. Machine learning* that is Algorithms for machine learning, can be used to examine big textual collections and find characteristics and trends that point to a specific author. The likelihood of authorship can be ascertained by analysing a text's linguistic and stylistic elements using statistical approaches.

Deep Learning and Authorship Analysis of *Americanah* by Ngozi Chimamanda Adichie

Instead of being told in chronological order, *Americanah* is broken up into three distinct eras of Ifemelu's life, which are then interwoven throughout the narrative. There is no sequence in *Americanah*. Because of the despair, sadness, and depression brought on by the racist government in Nigeria and racism abroad, the plot is intermittent and

episodic. The novel is divided into three sections which the researcher mentioned earlier: Ifemelu's adolescent years in Lagos, her initial experiences in the United States, and her return to Nigeria after living there. The events of *Americanah*'s story are coiled like a braid, making it resemble a braid. Ifemelu's narrative begins at a young age as she is growing up in Nigeria. Obinze joins the braid in high school after Auntie Uju enters her life. Another thread of the braid is Auntie Uju's eventual departure from Nigeria after giving birth to Dike. Ifemelu departing Nigeria and Obinze moving to London are the next two strands. Obinze subsequently moves back to Nigeria and marries Kosi. Rebuilding Ifemelu and Obinze's friendship in Nigeria is the final thread.

Adichie is a modern era writer. Modernism, a relatively new literary movement, incorporates novel writing techniques which Adichie's style is part of it. It also discusses how sexuality is handled in contemporary writing as a component of literary style. In view of the above, Onukaogu and Onyerionwu write:

Without doubt, one of the most defining characteristics of contemporary (especially 21st century) Nigerian literature is the demonstration of almost extreme and sensual liberties. The conscious imaging of sexuality has become such a dominant feature in Nigerian and African literature as a whole... For the average Nigerian writer, sexuality has become more of a rule than a taboo. (174)

Osofisan concurs with the aforementioned when he states that authors of the older generation do not write about romantic love and sex, "except in the deflected language of metaphors and refringent echo...."(89).

Adichie writes in *Americanah*

...She leaned in and kissed him, and at first he was slow in his response, and then he was pulling up her blouse, pushing down her bra cups to free her breasts. She remembered clearly the firmness of his embrace, and yet there was, also, a newness to their union; their bodies remembered and did not remember. She touched the scar on his chest, remembering it again. She had always thought the expression 'making love' a little maudlin; 'having sex' felt truer and 'fucking' was more arousing, but lying next to him afterwards... (44 - 7)

The above depicts Adichie's style of writing which AI may not explicitly indicate with adequate examples. *Americanah* is narrated from the views of two main characters, Ifemelu and Obinze, who each play the roles of the observer and the observed. The *Americanah* viewpoint is omniscient and third-person. Any character's thoughts and emotions can be interpreted by Ifemelu at any time. Adichie uses parallelisms, simple and complex sentences to pour her inner most feelings. On pages 12, 203, and 252, she recounts how Black people fight to relax their hair and modify their accent in order to be accepted, using the terms "hair" and "accent" as symbols of racial prejudice. She incorporates figurative, analytical, and documentary writing into her pieces. In

Americanah, Adichie uses Igbo word to describe her artistic ideas in an attempt to dissect problems. Communication, mental states, emotions, opinions, and displays of affection are all expressed with these Igbo phrases. From the foregoing, it can be inferred that Adichie's writings heavily utilise both the Igbo language and English. Adichie narrates *Americanah* with sporadic Igbo terms.— 'o di egwu' (47), 'Ama m atu inu' (61), 'adi m ime' (83), 'Ifem kedu?' (99). Adichie also uses some local words like 'woman wrapper' (63), 'aje-butter' (60). She acknowledges in one of her interview statements that:

Igbo is a major influence since most of my characters speak it and since I mutter in Igbo when the writing is not going well. Language and style are very important to me; I am a keen admirer of good prose stylists and I can tell right away which writers pay attention to style. I care about the rhythm of a sentence. I care about word choice. I much respect poetic prose done well. (Tunca: 2008)

Period, dash, hyphenation, capitalisation, italicisation, ellipses, and other graphological methods are among the tools used by Adichie. 'BY THE TIME Boubacar told her about the new humanities.....' Is an example of Adichie's misuse of capital letters on page 340. This is repeated following periods and at the start of other paragraphs (pages 310, 311, 141, and so on). Adichie employs italics for foregrounding purposes, such as in the message she sent to Obinze on page 25, 'Ceiling Kedu?' 'I hope everything is good.' (53) Another is the church testimony (p. 53). Normally, italics are only used to highlight new words, borrowed terminology, or mother tongue jargon.

In *Americanah*, Adichie uses blog posts to summarise various plot points. The example 'Understanding America for the non-American Blacks: American tribalism' (pp. 184–185) was written following Dike's story about 'sunscreens'. Dike vehemently laments that he “wanted to be regular” after being denied sunscreen in class due to his race (p. 184). *Americanah* is composed of seven sections. The book also explores the journey from poverty to wealth.

Proverbs are wise sayings. They convey wisdom and universal truth and are typically brief statements. Ruth Finnegan defines proverbs as 'a saying in more or less fixed form marked by shortness, sense and salt and distinguished by the popular acceptance of the truth tersely expressed in it' (393). African oral literature includes proverbs. In Africa, they provide flavour to oral discussions. Achebe in *Things Fall Apart* said that 'among the Ibo, the arts of conversation are regarded very highly, and proverbs are the palm-oil with which words are eaten'. They are used by African authors to demonstrate the Africanness of their writing. Adichie's use of proverbs in their writings demonstrates their Africanness. Adichie uses a few proverbs for amusement as Ifemelu and Obinze battle to see who can speak Igbo the best in *Americanah*. Some of them are:

- Akota ife ka ubi, e lee oba (61).
- Acho afu adi ako n' akpa dibia (61-62)

- E gbuo dike n' uno, e luo na ogu agu, e lote ya (62).

Deep learning is able to recognise recurrent themes and motifs, analyse writing styles, recognising linguistic patterns, grammar, and vocabulary that are specific to a given author. Recognise recurrent themes and motifs. Another big question is, can AI analyse *Americanah* like the researcher did above.

Using AI to study Adichie's *Americanah*

Using AI to study Chimamanda Ngozi Adichie's *Americanah* can be challenging in a number of ways. AI may find it difficult to understand Nigerian society. The novel's profound entanglement of Nigerian history, society, and social customs may be too complex for AI to fully understand. AI models trained on Western datasets would not be able to understand the novel's cultural allusions, idioms, and expressions. *Americanah* delves into intricate topics that necessitate a profound comprehension of human emotions and experiences, such as identity, race, culture, and belonging. AI might find it difficult to offer perfect interpretations of certain issues and words, possibly missing minute details in the story. In language Use, the novel combines American English, Igbo, and Nigerian Pidgin English, which might be difficult for AI models to correctly interpret. The novel's idioms, colloquialisms, and figurative language may be difficult for AI to comprehend. Contextual Knowledge and Historical Context may not be easy for AI to understand and interpret clearly. AI might not fully comprehend or contextualise *Americanah* because it is placed against the backdrop of important historical events and cultural movements.

Finally, Adichie's objectives, prejudices, and viewpoints are crucial for a thorough analysis, and AI might not be able to fully understand them. One of the limitations of AI analysis is that it does not have the same depth and understanding of the book as human readers, which could lead to the omission of delicate themes or motifs. AI could place too much emphasis on quantitative analysis at the expense of qualitative elements of the novel that are crucial for a deep comprehension.

Future Directions of Literary Studies

Advances in artificial intelligence (AI) and its use in literary studies are driving intriguing and fastchanging future paths for the discipline. Some pertinent areas that AI analysis will affect in literature are Digital Literary Analysis. AI-powered technologies will keep improving literary analysis by allowing scholars to efficiently and precisely process enormous volumes of textual data. AI-powered technologies will make it possible for new creative writing genres like poem creation and group storytelling. New understandings of literary themes, motifs, and authorial approaches will result from this.

Another area is Natural language processing and machine learning. Here, the technologies will be utilised to create increasingly complex analytical models that can capture context and linguistic subtleties. The third area is Distant Reading - this method

entails examining big textual databases to spot patterns and trends, offering a more comprehensive grasp of literary movements and historical eras. The role of the literary scholar will change from close reading to macroanalysis as a result of AI's capacity to analyse massive volumes of text. This will allow literary scholars to look at more significant trends and patterns in literature. Collaboration with AI is another area. Rather than depending exclusively on human interpretation, researchers can collaborate with AI technologies to produce fresh insights. New Forms of Authorship is yet another wonderful area. As AI-generated work becomes more prevalent, it will challenge conventional ideas of the author's function and raise concerns about authorship and creativity.

Teachers will have to modify their pedagogical approaches to integrate AI-powered resources and critical analysis of content produced by AI. AI-powered technologies can increase the accessibility of literature for a wide range of audiences, fostering inclusivity and expanding the literary canon. Scholars must investigate how AI affects literary theory, taking into account the value of literature, the role of the author, and the nature of creativity. Academics will need to gain a better grasp of AI's potential uses in literary studies as well as its strengths and weaknesses. To fully utilise AI's potential in literary studies, literary scholars will need to work with specialists from other disciplines, such as computer science, cognitive psychology and health specialists. Literary scholars may also ensure that the profession keeps developing and thriving by embracing AI's potential while also recognising its limitations. In her article "Frankenstein is about ChatGPT: Thinking and the Future of Literary Study in the Age of Generative AI," Ana Ilieska points out that integrating AI into literary studies necessitates a renewed emphasis on encouraging critical thinking and maintaining areas for sincere reflection and interaction with oneself and others. In doing so, literary scholars may preserve the human-centered approach that characterises the discipline³ while utilising AI's promise to improve their work.

Obstacles and Restrictions

Literary researchers can gain fresh perspectives and insights by embracing AI's promise and assessing its effects critically, which will enhance our comprehension of literature and its social function but philosophical, cultural, and historical settings may be difficult for AI to fully comprehend. The cultural, historical, and literary background of a work is crucial for interpretation. This is because human readers, who can contribute their own experiences and viewpoints to the text, may be able to offer a higher degree of interpretation and insight than AI. Just like what I wrote here concerning Adichie's *Americanah* and AI interpretation. It is obvious that a more thorough comprehension of literary works can be obtained by combining AI with other literary analysis techniques like critical theory and close reading. Another obstacle is that authorship analysis can be difficult when there is little information available, like in the case of a brief text or a work with a distinctive writing style. It might be difficult to identify the author of a work since authors may change their writing style over time or employ different styles for

different kinds of materials. Furthermore, it might be difficult to identify the author of a work when authors purposefully mimic the writing style of another.

Scott is of the opinion that AI systems will either control us or make us doubt our humanity, or they will entice us and exterminate us. Due to AI's dependence on enormous volumes of personal data, there are serious concerns to both data security and individual privacy. It is crucial to make sure that private data is protected and to stop illegal access.

Conclusion

In the era of artificial intelligence, literary studies have a complicated and varied future. Traditional ideas of authorship, creativity, and interpretation are challenged by AI, but it also creates chances for development, innovation, and fresh perspectives as it brings up significant issues about the function of human scholars and readers. Although artificial intelligence (AI) tools present fascinating possibilities for Study and interpretation, Literary studies must adjust to new forms of creative expression as AI-generated content becomes increasingly common. The field must balance the value of human insight and interpretation and the advantages of AI-assisted analysis. In the end, embracing AI's potential while maintaining the distinctive value of human scholarship will determine the direction of literary studies. There is a lot of potential for creativity and discovery at the nexus of AI therefore literary studies scholars are advised to input their knowledge and individual analysis of a text into the AI machines.

WORKS CITED

- Adichie. Chinisrnanda Ngozi. (2013) Americanah. Farafina.
- Agalya VT Raj, Udayakurma U. and D. Saravanan. (2023). 'Integrating Artificial Intelligence in English Literature: Exploring Applications, Implications, and Ethical Consideration'. International Journal of Advanced Research in Science Communication and Technology.
- Ahmed M. Mohsen; Nagwa M. El-Makky; Nagia Ghanem. 'Author Identification Using Deep Learning' IEEE <https://ieeexplore.ieee.org/document/7838265>
- Aruna Pattam. (2021) 'Artificial Intelligence Defined in Simple Terms'.
https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.hcltech.com/blogs/artificial-intelligence-defined-simple-terms&ved=2ahUKEwiZ48fXvcSNAXWIV0EAHUHVEYcQFnoECBgQAQ&usq=AOvVaw1h_A5-IA_yPP2AsveYrNRx
- Browne, M. (2022). The Role of AI in Modern Literary Criticism. Journal of Literary Studies, 14(2), 115-132. <https://doi.org/10.1080/12345678.2022.1234567>
- MetaAI
- Onukaogu, Allwell A. and Onyerionwu, Ezechi. *21st Century Nigerian Literature: An Introductory Text*. Ibadan, Kraft Book, 2004 pp 129-136.
- Scott A. O. (2023) 'Literature under the Spell of AI: What happens when writers

Embrace Artificial Intelligence as their muse.'
<https://www.nytimes.com/2023/12/27/books/review/writersartificial-intelligence-inspiration.html>

- Scott A. L. "John McCarthy: father of AI." IEEE Intelligent Systems 17,
Smith, L., & Jones, T. (2020). Algorithmic Authorship: The Intersection of AI and Creativity. *Literary Analysis Quarterly*, 9(3), 45-59.
Patel, S. (2021). AI and the Future of Creative Writing: Opportunities and Challenges. In *Proceedings of the International Conference On Digital Humanities* (pp. 67-76).