

## A Constructive Use of Generative Artificial Intelligence (AI) in Literature and Education

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### Abstract:

Ever since from inception in the 1950s, The word Artificial Intelligence (AI) has become an undistinguished part of our academics with unprecedented capabilities. AI algorithms have been trained to portray animated things which will react like human beings, so the usage of AI has significantly surged after the pandemic. AI has worked positively through literary writings and educational fields. Many authors have used AI in novel writing for Science fiction and it has become the reference point in Science-fiction writings. The AI natural language process of machine learning is pivotal in fictional writings. The AI models are being trained to do so and we get output by providing situational and constructive analysis of the social behaviour of a character through the gradual process of deep-machine learning. The neural learning of AI machines is profoundly capable of generating new realms of social bondage with cultural empathy. However, there are some flaws with the usage of generative AI while writing for human consciousness, because it may project a distorted image of society due to the unrealistic emotions of machines. AI fiction may have some basic concerns related to authorship, originality and biases. The current study projects a critical analysis of the use of AI in the literary and educational domains. It presents the study of the AI model for inclusive and diverse usage in academics and literature.

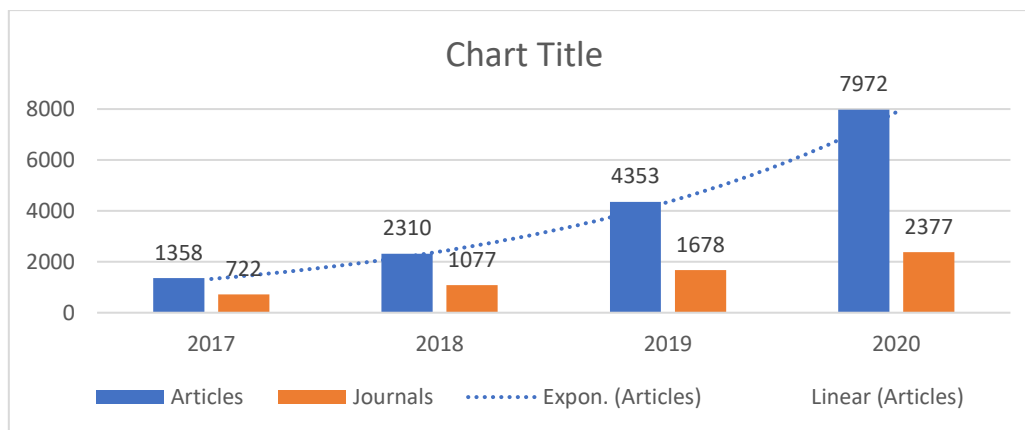
**Keywords:** Artificial Intelligence, machine learning, literature, AI survey, education

### Introduction:

The human race has always been ambitious and curious to know about its surroundings. We have always craved to dominate society to conquer the environment. Humans have also thought to utilise all the available resources for the welfare of our race. We have been food-gatherers and scattered down at different places for more livelihood possibilities. Around two million years ago, they started to use stone tools and fire. They progressively used copper the first metal ever used by men for the tools, weapons, coins and ornaments. They slowly and gradually started to use metals such as gold and they used mercury for the extraction of Gold. But mercury was not easily available in the world rather “the mercury was first produced in Spain” (Derry & Williams, 1960). They drew mercury for the extraction of Gold and kept developing new and more reliable materials and technologies. Now humans have come a long way in the field of technology and development. We have made software and tools to ease our work. We have trained our machine to work certain types of activity with high precision. Nowadays we have robots and humanoid robots, these are seen working in many marketplaces such as in coffee houses and billing counters. That’s pretty common in Japan and China. They are even used to detect any suspicious activity such as stealing and hiding any dangerous weapons. But now we have heard a word and some phrases related to AI and machine learning. During 1950-1956, Alan Turing published his work “Computer Machinery

and Intelligence”. Due to his work, the term artificial intelligence became popular. However, John McCarthy held a workshop on “Artificial Intelligence”, and thereafter the word became into popular use.

For the current research, we have taken data from the last four years, which significantly tell us about the AI articles and Journal demand.



(Gupta et al., 2024)

Solanki Gupta's research article told the high demand of AI in futuristic models but he also concluded that we need more sophisticated of incorporating AI in research and mining of data. So that we save manual labour in the analysis of data. But we can not deny that AI has given us new dimensions to look through and ease our work culture. AI revolutionizes the way we see and perceive the world around us. AI has taken a big leap of new possibilities in the fields of technology, medicine, education and research. AI has been integrated into every field like home devices, phones, cars, laptops and the treatment of disease. Human beings have always been very enthusiastic and focused on progress. The new technological update and success have always helped us to push forward ourselves for the betterment of society. Novel Software and Hardware are day by day increasing and providing better platforms for new-generation learners. That has been largely inculcated in modern-day life. These new tech devices have made our work easy, novel and delightful. It reduces our efforts and mental agony which were caused due to work from designing and preparing assignments, but now by using AI tools, we can easily complete our tasks without any hiccups. The new technological growth has always been men's cravings therefore new and more refined technological advancements have been in the picture lately. The rapid growth of AI sectors and much-explored AI generative apps have now become part of students' lives. Creating design and critical tasks now became one click away. More and more innovative technologies have been emerging due to the need for the expansion of society. New AI tech tools have come into the market to help us out in the field of research and imagination. AI Tools such as CHAT-GPT4, Gemini, BERT and Google Bard etc. These tools are continuously trained while working on a task and collect data for future betterment in the field of research. There can be a language barrier to the global use of AI bots. However, these AI tools can be trained to be useful for natural language learning and sentimental analysis in the context of modern paradigms. AI can be very helpful in various fields and can be incorporated for understanding new

phenomena. Nowadays, system tools are trained for any language translation and linguistic features of a language. For example, Google Translator can easily translate a word, a phrase, and a full sentence. But with the implementation of AI directly in electronic devices, we can talk live with a person having a different linguistic background. There are many earbuds/gadgets available in the market which can live translate the language into our native language and vice versa. Nowadays this feature is been integrated into the phones so that we have a smoother experience. AI learning can be more useful for analyzing the data and providing simulation results. AI tools are very useful for the interpretation of data and providing results very soon. There have been many new technological ideas in recent trends such as Artificial Learning and machine learning, 5G, Quantum computing, Edge Computing and AI-Augmented Development etc. AI can be useful for learning new codes and languages. AI in literature, especially in fiction, became popular when a Japanese author (Rie Kudon) won a prize despite using AI in her writings. Many authors are using AI to learn new literary dimensions. AI has enhanced new capabilities in the field of creativity and imagination. It creates footsteps towards the forward way of thinking in the new era of modernity. AI tools are helpful in the field of literature and language due to their vast size. It will be more helpful to verify new literary theories and connect with different genres.

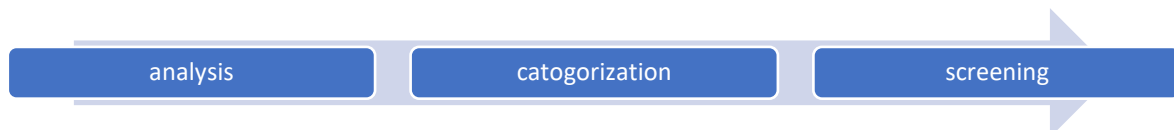
### **Use of AI in English Language and Literature**

Once in an interview, Elon Musk said that excessive use of AI can be dangerous for mankind. It will create chaos in humanity. It will not only steal jobs but also our identity. The power and intelligence of AI can be seen in online gaming and tools. AI has been used in many gaming platforms they doing better in online games even in face matches in chess and pseudo-sudoku. The software *Alpha Go* defeated the world champion Lee Sedol in board games (Hermann, 2023). Deep Blue defeated the chess world champion in the chess battle. AI has been widely used in science fiction in today's discourse. AI is rapidly changing the perception of the world and providing new hands to promote industrial and literary growth. The great leap happened when the first humanoid robot came into existence. Hansons Robotics made the first humanoid robot in 2016 named *Sophia*. *Sophia* became a citizen of Saudi Arabia. The use of AI can be very generative for new ideas related to human feelings and emotions because AI has been trained to do so. AI can provide the automation facility for literature writings. AI nowadays has been reducing the line between men vs machines. AI models are becoming more and more sound in humanizing things and tasks without errors. AI not only related to text generation but also it is related to editing and enhancing literary texts. AI is becoming more capable of processing and analyzing large amounts of data which has implications for the literary world (Dr. Agalya VT Raj et al., 2023). For learning a language (English) we need an AI-powered assistant which is perfect for learning a new language. It can make us more succinct, coherent and clear. There are some tools like Grammarly, ProWritingAid and Quillbot, available for us to use and correct our writing (Jebaselvi, 2024). AI-powered tools can be very helpful in research work for future scope. Scientific advancements in the field of AI are making machines that can behave and think like humans. These humanoids can be used in war, natural calamities and deep-down missions processed underwater. The use of Natural Language Processing is a very effective and time-saving

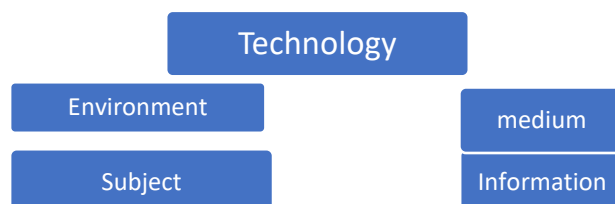
method for humans. The implementation of AI in research and training helping us to be future-proof. AI is trained to scrutinize the task very easily and without hiccups. It processes large amounts of data very easily just in one direction. AI can follow directions and remember the patterns which were earlier given to him to edit and enhance (Selvi & Ramya, n.d.). AI has some notable features such as efficiency, accessibility and creativity for the given task and feed program. AI algorithms can easily trace the motifs, themes and patterns in a literary work, which will be tedious for humans to do. AI can easily comment, summarize large amounts of data and critique.

### **Controlled dominance and superior reliability of AI in Literary work**

With the growing demand for AI, we must have seen Chatbot in our usage because it is a new way of learning and teaching. With the integration of Artificial intelligence in education, we have tried to use a conceptual framework for our research. The education system has five basic parameters— subject, medium, information, technology and environment. Subjects are usually related to the instructor and student. Information is knowledge which is spread through the constrictive system. Medium is probably the tools which are used in learning and sharing knowledge. Medium is combined with the necessity of technology to work smoothly for the education to reach out to learners. Whereas, the environment behaves as the context of all the factors working in unidirectional with result-oriented (Xu & Ouyang, 2022). Our research was projected to study the impacts of AI in language and literature but we cannot overlook the impacts of artificial Chatbots in education system. They are modelled and trained to work according to the needs of learners. Students can take knowledge and consolidate themselves but there are plenty of new ideas they would be missing out. We used three methods to analyse the impacts of AI in literary works.



AI models are trained to work on the given data but we have to work on discoveries. We see five main elements of the education system where technology is supreme and methodologies. We analyse the domain and categorise the data, hence we follow the screening process to cancel out unnecessary data. This is how we use Artificial tools for sorting out data according to prescribed features.



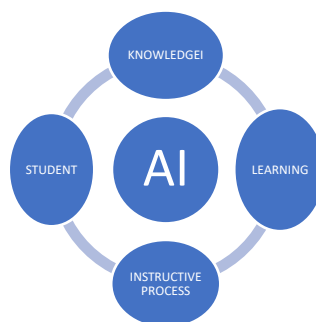
(Xu & Ouyang, 2022)

There are many chatbots available in the market for use—ChatGPT and Google Bard are very popular among them. The use of AI and chatbots has significantly influenced the target area of literary texts and linguistic research. The AI is further trained to interpret and analyse the

texts to create its algorithms. The use of AI has been beneficial for saving time and energy because AI uses its trained algorithms to determine the flaws in the texts and interpret them accordingly. Because AI works on larger data sets, it uses all the possible outcomes available through the online data (*Benefits, Limitations and Suggestions - Using AI-Powered Tools for Literature Reviews - Subject and Research Guides at Macquarie University*, n.d.). ChatGPT is an OpenAI chatbot which is available worldwide since 2022 but Google Bard came much later in 2023. Chatbots are used to save time and improve pedagogy (Labadze et al., 2023). Learning new things needs some seriousness in the subject, the integration of digital twins of physical identities can be helpful and more convenient. The digital twins can provide real-livesituations in the simulator and we can easily learn even the movement of excavators through online mode. It saves time and money and probably makes learning exciting through online platforms (Rathore et al., 2021). Artificial intelligence can read and scan our data. It can easily reply for itself and summarize the data for us. Recently every smartphone has started to use AI technology in the camera and User Interface. Apple has announced their AI in iPhones termed as ‘Apple Intelligence’.

### **Implications related to the use of AI in Literature and language**

AI tools are very helpful in research, especially in doing the literature survey. Because it is a very advanced method to find the research gap for further improvement in the technological field. It helps us to spend more time on creative work rather than doing repetitive and boring tasks (Wagner et al., 2022). The AI tools can be very helpful in learning a new language by introspection of two similar languages and finding the best ways for easy learning of languages and traditional speech. According to Franantz (2003), AI can be used in the fields of economics, psychology, cognitive science, and decision theory (Simon & Frantz, 2003). Further, it was elaborated by Simon’s work that the belief that human thinking and decision-making are mysterious is based upon analytical thinking (Oke, 2008). Many scholars and writers have started to use Chat GPT since the introduction of the 3.5 version. The authors and scholars have started to use the powerful capabilities of AI in literature and language. It became easy to analyse the style and other features of the text. AI-powered devices are used to instruct the students and eventually get knowledge through a wide variety of processes.



(the learning process starts with the student through the constructive and instructive process and thereafter Collaborative Process (Xu & Ouyang, 2022))

There are some lapses in the usage of AI in education or the literariness of the texts. It lacks humane sensitivity and emotions. All the chatbots are trained with some pre-existing data,

therefore it lacks the novelty of thoughts and in research, the results are found to be biased due to training. Using them in the medical field becomes crucial due to the excessive load on doctors. The ideas and emotions it projects, are based upon trained situations and data. The field needs reliability and accuracy. It may lack the originality of the texts and there might be some ethical concerns on the texts. The literature constructed by generative AI, may not have uniqueness. Further, we can elucidate AI, which is particularly related to computational technology. However, machine learning is assisted by human thought, deep learning, and adaptation of sensory understanding. Some trained AI devices can execute the role of a human and somewhere like decision-making (Secinaro et al., 2021). Technology can create ‘Creative Destruction’ in the field of literature. AI-driven language models can disrupt traditional literary practices, due to the automation of some aspects. AI-generated texts are ‘tailor-made’ rather than related to epistemology and ontology. AI can not write with the same feelings of the era and time, automation can be good for reading but lacks literariness—the usual style of writing (Hu, 2023). The unnecessary use of AI in language and literature is critically dangerous for moral principles and societal ramifications. It will create authenticity and authorship issues. The use of AI for the benefit of human interest should be done in proactive measures of human influences.

### Conclusion

Every new learner and educator is pretty excited about the use of AI in their field. The adoption of AI worldwide has sparked debate and discussion amongst many scholars minds. It almost creates the huge confusion in the mind of educator. Many new minds are in favour of using AI chatbots in research and literary texts. However, many educators have a different and critical outlook towards the use of AI in the education. They are in favour of using AI in the influence of humans so that our new minds don’t restrict themselves. Using AI in fiction can have a fictitious effect on the general public and it can mislead the public. AI is built by humans and trained with human-driven data. AI outcomes can be biased, “for example discrimination against women, institutional racism, or degradation of poor and marginalized people (Hermann, 2023).” For better functioning of AI tools for humans’ use, we need to have “ [a] thoughtful, balanced, integrated combinations of AI and human support can develop comprehensive support across systems that benefit researchers, educators, and students across various domains (Alqahtani et al., 2023).” AI can be useful in research, writing and language but it needs human supervision to ensure future generations’ productivity. We should not be puppets in the hands of technology and we must have our own identity.

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