Character and Complexity of Literary Works Based on Artificial Intelligence

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Abstract. The technological disruption that permeates all parts of human life now forces people to rethink culture and civilization. Artificial intelligence-based technology has accelerated the revolution of civilization on a massive scale that was previously only present in plans and shadows. Many people think that humans will still be able to maintain their existence with various instruments of civilization and culture that already exist. At the same time, few people have begun to be realistic about the power of artificial intelligence machines that can no longer be blocked. This article endeavors to be a 'silent' witness in revealing the potential competition between humans and the products of their creation, Artificial Intelligence machines. The article that we offer has the pretension of making a record in the world of literature and culture by setting two goals: (1) to compare in detail literary works created by humans and machines, how they intersect and overlap, and (2) to analyze the weaknesses and potential superiority of machines in creating literary works. The researchers argue that literary works produced by AI machines will be able to become a new entity that must be taken into account in human culture and civilization in the future.

Keywords: technology, artificial intelligence, literary works, machines

1   Introduction

The background of this research is the increasingly strong role of artificial intelligence (AI) technology in helping human life. This increasingly sophisticated artificial intelligence-based technology can even allegedly replace various jobs that humans have done. Due to the 'finesse' and 'intelligence' of AI machines that seem to have no 'memory' capacity limit, as well as artificial intelligence technology that is always in 'active mode to absorb all aspects of information and knowledge,' the movement of AI seems to be increasingly 'unstoppable.' In the field of literature, a domain that has been considered the exclusive domain of humans due to two key aspects of humans: 'creativity' and 'imagination,' the generative AI platform is able to penetrate and provide a 'challenge' to the claim of human exclusivity.

Artificial intelligence is assuming an increasingly significant role in our world, with applications spanning across virtually every industry. It's not merely a passing fad; AI is a permanent fixture in our future. Ponteves (2019) in his book stated that AI can be applied in various fields, one of which is in the field of entertainment. However, in his explanation, Pontaves did not mention the use of AI in the creation of literary works. He also stated that AI is similar to how the industrial revolution revolutionized livelihoods and employment in the 19th century, AI is poised to bring about similar transformations in the 21st century.

A few decades ago, we would have never thought that there would be literary works written by machines. A decade ago, we even arrogantly said that AI machines might be able to write anything, but not to create literary works. However, the presence of the latest version of ChatGPT released in November 2022 or Bard developed by Google can shatter the assumption that literary works can only be written by humans. In fact, AI machines can also write literary works, whether it is poetry, prose, drama/film scripts, just as these machines can also paint pictures like an artist/painter, or create photographic works like photographers and graphic designers.

A few decades ago, most people would never have thought that smart machines could become 'assistants' or even 'rivals' of humans. Especially in the context of humanities disciplines, or the focus of this research is the discipline of literature and culture, we would never have thought that artificial intelligence would be able to share the role or even replace humans in creating literary works, poetry, prose, or other imaginative works. Considering that so far we consider imaginative works or fiction to be the 'exclusive' domain of humans, which even smart machines will not be able to compete with. Imagination and fiction are believed to be something inherent and exclusive to humans, which makes humans' human'. Throughout the history of human existence, imagination and fiction have accompanied and helped humans develop and progress as a whole. Literature is no different. As a tangible manifestation of human imagination, literature is created by humans to be attached to humans themselves. However, the presence of artificial intelligence (AI) capable of creating literary works overturns the construction and constellation that imagination and fiction are the exclusive right and prerogative of humans. AI machines can even produce literary works in a short amount of time, far beyond the speed of human writing and thinking. However, questions still demand to be concretized, and we formulate them as follows:

1. What are the characteristics and complexities of literary works produced by artificial intelligence (AI) platforms?
2. What is the aesthetic model offered by AI machines and how does it compare to the aesthetic model produced by humans?
3. What is the acceptability of AI-generated literary works for readers?

Currently, not many studies have delved deeper into the characteristics and aesthetics of literary works produced by Artificial Intelligence engines. Nonetheless, this review aims to provide an initial exploration of the topic by utilizing available sources related to the field of humanities studies. The literature we have listed is organized from 2017 to 2023. This is because no research in the literature on Artificial Intelligence has been conducted recently.

On the other hand, there has been a lot of research on the use of AI in several fields. The impact of artificial intelligence (AI) on work, including professional work, is still being debated, but it seems that all sectors of work will eventually be affected by AI. The use of AI has penetrated aspects of life such as law, healthcare, education, and academic library work (Colonna, L. (2021), Hamet, P., & Tremblay, J. (2017), Nehete, P. J. & Das, S. (2022), Cox, A. (2022)).

In the field of law, research by Colonna (2021) suggests that Artificial Intelligence (AI) can be used to support or even replace legal work and legal reasoning. The research also explores AI in the legal domain and provides critical reflections on the use of AI in the legal context.

In medicine, AI can be applied to things like robotics, medical diagnosis, medical statistics, and human biology. AI in this field includes informatics approaches from deep learning information management to control of health management systems, including electronic health records, and active guidance of physicians in their treatment decisions. In addition, AI can also be used as robots to assist elderly patients or the attending surgeon as well as nanorobots, a unique new drug delivery system. (Hamet, P., & Tremblay, J. (2017)).

In the field of education, artificial intelligence helps in educational innovation with the goal of multidisciplinary integration, so that teachers and students can interact more effectively than ever before. (Nehete, P. J. & Das, S. (2022). Then according to Cox, A. (2022) artificial intelligence has the possibility of changing the work of academic libraries. The paper considers the possible application of various approaches to AI in academic libraries and the application of AI for knowledge discovery.

2   Research Method

This research explains in a descriptive about the characteristics and complexity of literary works based on artificial intelligence. Data collection was conducted through in-depth interviews through Focus Group Discussions (FGDs) with three literary works writers, three literary works readers, and three ordinary people who seldom read literary works. The participants were taken based on their activity on literary work. The selection of participants was performed according to the following criteria.

1. People that use AI, especially ChatGPT, within five months.
2. People who understand English.
3. Writer of literary works that published their works either through online media or physical books and studying literature.
4. Readers of literary works that are interested in literary works for >3 months.
5. People who seldom read literary works but are familiar with prose and read the last prose <3 months.

Participants were asked questions about the characteristics and complexities of literary works produced by artificial intelligence (AI) platforms and compared with literary works by humans. The data collection instrument used a video and audio recorder of the FGD discussion. In-depth interviews were conducted by providing analysis to obtain significant findings. FGD was attended by a moderator and a note-taker. FGD discussion session uses Indonesian, while the prose made by AI and human uses English. Participants were explained about the process of the FGD, the background, aims and objectives of the research, and informed that the FGD would be recorded.

The first session of the FGD started with the participants' collaboration with Artificial Intelligence, here ChatGPT, in creating prose. In the text creation, the participants instructed the machine to create a literary work with various variants of rules and elements. Then, the discussion was conducted through in-depth interviews with the informants. Informants can express their opinions directly regarding the characteristics and complexity of literary works produced by Artificial Intelligence. The data collection instrument used was a video and audio recorder of the FGD discussion. The transcript of the recording was compared with the note taker's notes and then the transcript was translated into English for the article purpose.

3   Result and Discussion

Artificial Intelligence, shortly known as AI, has reached its best performance by being able to produce something that is artistic; something that is closely related to a human's sincere and subjective mind. The human brain has a very complicated system, that even we, as a human, have not yet discovered exactly how it works. It is, of course, different from AI. In the FGD, we input six prompts to the AI, for it to generate a short story with the same genre as the human-made one, which was a thriller. There were some interesting phenomena happening during the story-making with AI. Here are the main points to discuss based on the discussion conducted.

3.1   The Complexity Characteristic

Based on in-depth discussion, we can learn that AI-made short stories have these following characteristics: skippy plot, low tension, straightforward dictionary, and descriptive expression. "Even, I think, (story made by) AI does not have any specific style. It is just following the prompt we input so that it is too descriptive and monotonous." (Interview with Athayu, 16 September 2023).

There is an interesting phenomenon happening during the story-making. When we input a prompt of asking AI to generate a story with more tension, instead of increasing the actual tension we can feel, AI puts the word 'tension' in the middle of the story. "I saw that the 'tension' we meant was intended to build the atmosphere to be more tense. However, AI just merely put the word 'tension' to the story." (Interview with Rian, 16 September 2023). "I also specifically asked AI to make the story take place in the 1800s era; but it turns out it was only mentioned literally at the beginning of the newly generated story. Like, it was in the 1800s. Just like that." (Interview with Bagus, 16 September 2023).

There was also a challenge input in the prompt. One of the FGD participants asked AI to change the point of view into the first person from Lily's character. At first, AI succeeded in processing the prompt and turned it into Lily's point of view. However, nearing the end of the story, the point of view changed again into the third person point of view. AI failed to retell the story from another character's perspective because the expected POV was from a character who died in the story (Lily died in the story). "One of those things that AI fails to maintain is the consistency of POV. (Although we have already prompted AI to change the POV to Lily's perspective) The POV changes again to the third-person perspective. AI fails to be someone we expected to take a role in the story. But again, the perspective changes into the third person perspective." (Interview with Rian, 16 September 2023).

The complexity of the story made by AI seems to lack in many aspects. Looking at how AI learns things and responds to any prompts we input, we can conclude that the complexity of a fictional story or narrative literary work has not been perfectly broken down by AI's understanding. It can only apply the general form of a narrative story, where there is an opening/introduction, showing the problem, climax, and then resolution. Instead of being a writer who owns and controls the whole story, AI tends to merely retell the story it heard from other sources. In line with this statement study that was conducted by Olasik (2023) also found the same result in her research on Getting Acquainted with Open AI ChatGPT, he found out that the flow of information or response that AI made were intense but it was repetitive and lacked academic input.

3.2   Aesthetic Model

The aesthetic model that the AI-made story offers a different type of reading experience to the readers. "(Story by) AI tends to use odd dictions to build the story. I feel like I am reading a paper (rather than a narrative work)." (Interview with Rian, 16 September 2023). This argument is also supported by Farhan's opinion. "I agree with him. Maybe, because AI is a machine, it tends to be objective when it comes to problem-solving. So, it feels like nothing 'human' happens in the story." (Interview with Farhan, 16 September).

Aesthetic also deals with how the story gives 'chills' to the readers or how the tension from the story affects the reader's subjective feelings. "The tension here (in the AI-made story) is forced to be something distinct, which leads the AI to use odd dictions instead; like what's been mentioned before." (Interview with Rian, 16 September 2023). As we know from how AI works, The aesthetic offered by AI as a machine, at some points, has not reached the expected quality of a literary work by humans.

AI has learned in depth to achieve a human-like intelligence level by gathering the existing data about anything; and in this case, a lot of writings including literary works. However, it is still noticeable to point out whether a literary product is made by an AI or a human. "As we know, AI is a machine, not a human; the writing it makes just feels like 'machine'. Wanda's version, the human creation (story-made by human), has non-sensical phrases like: 'ladida and ladadoo', yet, we can still associate it to something we know, something that is common to our (human) sense." (Interview with Alim, 16 September 2023).

Among those opinions raised in the forum, there was one unique aspect pointed out related to the aesthetic of a story. "The structure of the language made by AI is too perfect. It tried to build world-building or verbal words that were too distinctive or strange; this is too perfect. As for the aesthetic, it (AI) fails to create the overall impression. Human's creation is a mixture of poetic diction and imperfection, while AI attempts to perform a perfect work all the time. It is stiff; it is flat; everything is too perfect." (Interview with Tiara, 16 September 2023). We as humans, with our mind, oftentimes pursue perfection while we create anything, especially a fictional story in this case. However, there may be flaws still; yet it is proven to be an aesthetic aspect from the reader's perspective.

Looking at the points highlighted above, it is evident that the aesthetic model of a story is not determined by how perfectly it is built. A perfect resolution, perfect word choice, and perfect world-building are not the things readers seek in a story. Above them all, a human experience, like flaws, fails, something that is not repetitively mentioned, is what makes a story close to the readers; which means it is beautifully accepted by humans. Diva stated, "Our (FGD) friends have mentioned before about how we cannot truly get the 'feels' from AI's story. As a common person (someone who does not compose and read a lot of literary works), AI's diction is hard to digest; I even need some time to understand what is goin on (in the story), unlike the human's version." (Interview with Diva, 16 September). Juhdan, wrapped up this session by stating a remarkable conclusion, "When I read the human's story, I feel like I was drawn into it and somehow, I could feel the plot directly; like it was flowing."

The aesthetic works of AI were also conducted in the research by Thomas Matthews (2023) in his thesis titled the Recreating Literary Works Using ChatGPT3 and Evaluating Result Using Natural Process Language Processing Analysis. In that thesis Matthews found out that in the creation of recreating literary works ChatGPT3 were successful in producing various different styles of writing, but the actual recreation results were found out so silly and turns out funny to read. On one of the recreation titles, ChatGPT3 was not successful in gaining the right data, what the writers wanted were different from what it served by AI. Other perspectives that gained from the research were: The AI can deviate and take on the other styles and tones: it is not always accurate, and contextually it can be way off point, but it is an exciting feature of the chatbot. And that is exactly the same problem that we still have till today.

3.3   Acceptability

After discussing the first two questions, the people in the forum were given the last question about the acceptability of the story generated by AI. In this part, our moderator asked the participants to highlight the acceptability of the AI's story as it has been slightly discussed in the previous key questions. There was only one person raising an opinion. Farhan stated, "AI made the story just like a textbook. The way the story runs feels like the existing theory (about literary works), without any specific human-like style of writing. There is no significant mark which differs the story generated (by AI) with what other people have made." (Interview with Farhan, 16 September 2023). After several discussions with previous questions, all the FGD participants nodded, and seemed not to have anything to say more as they agree with what Farhan said.

Acceptability deals with how a human's mind works, together with related experience and the familiarity of any phenomena we face. A story is something people tell, something that is often taken from personal experience, personal hope, personal trauma, and any other personal reasons. AI's work is considered to be like a textbook, which is far from the reader's expectation of a story.

From the data that conducted in the FGD session show how AI in Chat GPT failed in developing literary works. It was hard for AI to meet human expectations in sense of feelings, imagination, and the beauty of literary works itself. It also stated on the study conducted by Biswas (2023) on his study about Potential Use of Chat GPT in Global Warming, ChatGPT can be used in a variety of ways to aid climate research, including in model parameterization, data analysis and interpretation, scenario generation, and model evaluation. It relied on the amount of data that they were input. Which means that the use of ChatGPT can meet the expectations of users if there was an exact amount of data given and the output were expected to be something that exact. The ability of ChatGPT were also tested in the research that conducted by Kocon et al. (2023) that research on the performance of the ChatGPT in analyzing 25 Natural Language Processing (NLP) task, resulting in the performance of ChatGPT were lost in analyzing pragmatic tasks, especially when evaluating emotional texts. Both sources strengthen our finding of how ChatGPT failed to develop literary works, although it was just in short paragraphs.

4   Conclusion

From the discussion above, the response of the participant led us to conclude that artificial intelligence, especially ChatGPT, failed to create a perfect literary work. Artificial intelligence presents theoretical stories without any human style of writing. It can be seen that artificial intelligence only creates narrative stories in a fixed order and retells existing stories. The complexity characteristic was lacking in many aspects, the aesthetic model did not meet reader expectation, although the acceptability still can be felt as literary works that are readable. All aspects mentioned are different from a human mind that can control the whole story—artificial intelligence attempts to produce a perfect narrative story to impress the reader. However, the story produced by artificial

intelligence fails to be well accepted by the readers. The loss of readers' expectations signifies the failure of the narrative story presented by artificial intelligence.

5   References

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