Migration Letters

Volume: 20, No: S12(2023), pp. 437-459

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

www.migrationletters.com

Exploring the Potential Benefits and Drawbacks of Using Artificial Intelligence in Literature Education: Recommendations for Effective Integration

Omer Elsheikh Hago Elmahdi ¹, Ibtesam Abdul
Aziz Bajri ², Abdulrahman Mokbel Mahyoub Hezam³

Abstract

This study makes suggestions on how AI might be successfully implemented into the study of literature while exploring the benefits and drawbacks of its use in the classroom. A descriptive, analytical, and qualitative methodological framework is used to fulfill the study objectives of evaluating the usage of AI in educational literature. The views and perceptions of teachers and students concerning the employment of AI in literature instruction will be gathered through a survey that consists of 20 items. Instructors, curriculum developers, and undergraduate and graduate students make up the study's population. The results show that AI machine learning analysis approaches may provide fresh insights into learning when students have the opportunity to build personalized artifacts like computer programs, robots, and engineering challenges. The study concludes that AI is utilized to support human interpretation and analysis not to replace human judgment and experiences.

Keywords: Computational Technologies; Chatbots Benefits; Chatbots Drawbacks; Machine Learning.

1. Introduction

There has been an increase in interest in artificial intelligence (AI) in education during the past several years. There is potential for using AI in the humanities even though it has mostly been applied in STEM sectors. The development of AI technology makes it possible to incorporate chatbots into a variety of educational contexts. More and more people are using this technology in classrooms. The use of chatbot technology has the ability to offer speedy and individualized services to all parties involved in the sector, including students and workers of the institutions (Okonkwo & Ade-Ibijola, 2021). According to Lopez and Qamber (2022), a chatbot is a sort of contemporary computing program that mimics human dialogue or 'chitchat' via written or vocal interfaces. The idea behind this technical breakthrough is to give consumers fast answers to questions they might ask during phone or email conversations, as this has been proven to increase user productivity and cut down on the amount of time spent on chores. In addition, they claim that students may find

¹ The Open University of Sudan. Affiliated to Department of Languages & Translation, College of Science and Arts, Alula, Taibah University, Saudi Arabia, ohago65@gmail.com, ORCID ID: https://orcid.org/0009-0009-1335-2607

² Department of English Language, College of Languages and Translation, University of Jeddah, Saudi Arabia,

iabajri@uj.edu.sa, ORCID ID: https://orcid.org/0000-0002-0516-9820

³ Department of English, Faculty of Arts, Taiz University, Yemen; Currently working as an associate professor at the Department of Languages and Translation, Faculty of Science and Arts, Taibah University, Al-Ula, Saudi Arabia, arahmanhezam@gmail.com, ORCID ID: https://orcid.org/0000-0001-9624-906X

encouragement from chatbots to continue having conversations for instructional purposes. The expectations of teachers and other stakeholders should be taken into account while developing chatbot technology for use in educational settings. For instance, a chatbot should be utilized to improve communication between students and the university rather than taking the place of the instructor.

Van Heerden and Bas (2021) claim that literature is a specific computational challenge since it frequently uses figurative and ambiguous language. Understanding how meaning and emotion are expressed in this art form would benefit from literary skills, yet this is frequently ignored. The study of literature is an intricate and subtle topic that calls for interpretation, analysis, and critical thought. By offering students individualized learning experiences, assessing literary works in novel ways, and giving teachers insightful data on student learning, AI has the possibility to help in these areas.

The teaching of literature with the use of artificial intelligence has the potential to completely change how students are taught and interact with texts. It has a wide range of uses, from literary style analysis to building interactive virtual environments that let students examine the cultural and historical context of literary works. For example, Mendoza et al. (2022) establish a model for creating a chatbot that can perform academic and administrative duties outside of the classroom and help kids in middle school communicate with academic staff members (such as teachers, social workers, psychologists, and pedagogues).

The use of AI in literature education is a rapidly evolving field with numerous tools and applications being developed. One of these tools is a Multi-Task Deep Neural Network (MT-DNN) (Liu et al., 2019) for learning text representations across several natural language understanding tasks. Although serving an ensemble of big DNNs like MT-DNN can be prohibitively expensive, ensemble learning can increase model performance. While these tools have the possibility to enhance the learning experience, it is important to consider their probable drawbacks and ensure that their use is ethical and effective.

Overall, the use of AI in literature education and literary analysis provides valuable insights and perspectives in areas such as critical thinking, interpretation, and analysis. There are concerns, too, regarding possible biases in AI-generated literary assessments as well as the possibility that it will take the role of human interaction and interpretation in the learning process. However, it is important to employ strategies for mitigation and fairness.

To mitigate potential biases in AI-generated literary analyses, numerous strategies have been proposed. One strategy is to ensure that the data used to train the models is diverse and representative of different perspectives and experiences. Another strategy is to employ human oversight and interpretation to ensure that the analyses are fair and unbiased. Additionally, transparency in the development and use of AI models can help to uncover potential biases and promote accountability. Therefore, further research is needed to fully understand the potential benefits and limitations of AI in literary analysis and to develop best practices for its integration.

This study attempts to assess the use of AI in teaching literature, examining its possible advantages and disadvantages while making recommendations for how it can be effectively incorporated into the study of literature. This research is needed to fully understand the impact of AI on literature education and to develop best practices for its integration.

2. Statement of the Problem

Although utilizing AI to teach literature may have certain advantages, there are concerns about how well it works and how it can affect students' learning. There are particular concerns regarding the possibility of bias in AI-generated evaluations of literary works as well as the potential loss of human interaction and interpretation throughout the learning

process. Furthermore, there is a scarcity of studies on how AI might be used effectively in teaching literature. The aim of this study is to evaluate the use of AI in teaching literature, weighing its possible advantages and disadvantages while making recommendations for how it might be most successfully incorporated into the field of literacy education. By addressing this issue, this study tries to contribute to the development of effective and ethical uses of AI in literature education.

3. Research Objectives

The research objectives are focused on providing a thorough understanding of the role of AI in literary education and how it will affect student learning outcomes while addressing concerns related to bias and loss of personal interaction and interpretation. Guidance to teachers on how to use AI effectively and ethically in literature training will be sought from the findings of this study. The recommendations of this study will provide guidance for educators on the effective and ethical use of AI in literature education. Therefore, this study tries to achieve the following objectives:

- 1. To investigate the current state of AI use in literary education and to identify the most widely used AI tools and applications.
- 2. To assess the effectiveness of artificial intelligence in supporting the learning outcomes of students in literature education, including critical thinking, interpretation, and analysis.
- 3. To explore the possibility that an AI-generated analysis of literary works may have a bias, and to identify strategies for addressing this issue.
- 4. To explore the impact of AI on the learning experience in literature education, including the potential loss of human interaction and interpretation.
- 5. To provide recommendations for the effective and ethical integration of AI into literature education, taking into account the potential benefits and drawbacks identified through the study.

4. Research Questions

To carry out the study's objectives, the following questions will answer:

- 1. What are the AI tools and applications most commonly used in literature education, and how are they being used?
- 2. How effective is AI in enhancing student learning outcomes in literature education, including critical thinking, interpretation, and analysis?
- 3. To what extent do AI-generated analyses of literary works exhibit bias, and how can this issue be addressed?
- 4. How does the use of AI impact the learning experience in literature education, including the possible loss of human interaction and interpretation?
- 5. What are the best practices for integrating AI into literature education in an effective and ethical manner?
- 6. What are the attitudes and perceptions of students and teachers towards the use of AI in literature education, and how can educators ensure that the use of AI aligns with ethical and social considerations?
- 7. What are the benefits and drawbacks of using AI tools and applications in literature education?

- 8. How do they compare to traditional teaching methods in terms of supporting student learning outcomes and promoting critical thinking, interpretation, and analysis?
- 9. What are the potential long-term implications of using AI in literature education, both in terms of student learning outcomes and the role of educators, and how can educators prepare for these implications?
- 10. How can educators ensure that the use of AI in literature education aligns with ethical and social considerations?
- 11. What are the potential challenges and risks associated with the use of AI in literature education, and how can they be addressed in an ethical and effective manner?

5. Literature Review

This literature review will explore the current state of research on the intersection of AI and literature education. It will begin by surveying the tools and applications of AI in literature education, including text analysis and interpretation, immersive learning experiences, and virtual assistants. The review will then critically analyze the impact of AI on student learning outcomes in literature education, examining areas such as critical thinking, interpretation, and analysis.

The review explores strategies for uncovering and mitigating potential biases in AI-generated literary analyses, including the importance of diverse and representative data and human oversight and interpretation. Furthermore, the review will assess the impact of AI on the learning experience beyond the text itself, including the potential for immersive and interactive learning experiences.

Lastly, the review will present recommendations for the ethical and effective incorporation of AI into literature education, highlighting the need for transparency and openness in the development and use of AI models, advocating for diversity and representation in the data used to train AI models, and ensuring that AI is employed to supplement, rather than supplant human interpretation and analysis.

5.1 Exploring the Intersection of AI and Literature Education: A Survey of Tools and Applications

AI has rapidly evolved in recent years and has permeated various sectors, including education. It has the potential to revolutionize how students learn about and interact with books, particularly in literary instruction. Numerous studies have evaluated the use of AI in literature education and identified various tools and applications. One study by Pino et al. (2020) explores the use of a chatbot named 'Katerina' as a tool for engaging high school students with literary texts. The study found that the chatbot effectively fostered engagement and enhanced students' understanding and interpretation of the texts. Additionally, Pérez et al. (2020) conducted a study using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology, reviewing several chatbots employed for instructional purposes.

In addition to these studies, there are various AI tools and applications that are commonly used in literary education. One such tool is the 'Literary AI' platform, which uses AI to generate summaries, analyses, and discussion questions for literary texts. Another tool is the 'Shakespearean Insults Generator', which uses AI to generate insults based on the language and style of Shakespearean plays. Although these tools and technologies may improve students' comprehension of literature, there are also worries about possible negative effects. A potential loss of human engagement and interpretation is one such issue, as AI-generated assessments might not have the nuances and depth of human analysis.

5.2 Evaluating the Impact of AI on Student Learning Outcomes in Literature Education: A Critical Examination

The use of AI in literature education has gained traction in recent years, with the potential to improve student learning outcomes. However, it is crucial to critically evaluate the impact of AI on student learning outcomes, especially in areas such as critical thinking, interpretation, and analysis. This literature review will investigate the current state of research on the effect of AI on student learning outcomes in literary education.

Several studies have explored the impact of AI on student learning outcomes in literature education. One study by Liu et al. (2019) examined the use of a machine-learning algorithm for identifying and analyzing literary style in Chinese poetry. The study demonstrated that the algorithm effectively identified various stylistic features and enhanced students' comprehension and interpretation of the texts.

Another study by Kim et al. (2021) investigates the use of an AI-powered reading assistant for improving students' comprehension and analysis of literary texts. The study claims that the reading assistant is effective in promoting engagement and improving students' critical thinking and interpretation skills.

In addition, Van Heerden and Bas (2021) contend that literaryness, or what makes a text into a work of literature, is understudied in relation to text generation, anticipating the rise in Artificial Intelligence's capacity to create original works of literature. They suggest having a discussion between specialists in machine learning and literary studies to raise the caliber of AI writing. The study emphasizes evaluation as a crucial step in the text development process and shows how literary theoretical approaches can be useful. This information would enhance algorithm development and allow for a deeper comprehension of how AI learns and produces.

However, there are also concerns about the latent limitations of AI in literature education. One such concern is the potential for AI to reinforce existing biases and limitations in the literary canon, as AI models are often trained on existing texts and may perpetuate certain biases or exclude certain perspectives.

5.3 Uncovering Bias in AI-Generated Literary Analyses: Strategies for Mitigation and Fairness

The use of AI in literary analysis revolutionizes the field by providing new insights and perspectives. However, there are concerns about possible biases in AI-generated analyses that could perpetuate existing biases and limitations in the literary principle. This literature review will explore the current state of research on uncovering bias in AI-generated literary analyses and strategies for mitigation and fairness.

Several studies have identified potential biases in AI-generated literary analyses. For example, a study by Buolamwini and Gebru (2018) indicates that facial recognition technology has higher error rates for darker-skinned individuals and women, indicating potential biases in the data used to train the models. Similarly, AI-generated literary analyses may also be biased if the data used to train the models is limited in diversity and perspective.

5.4 Beyond the Text: Examining the Impact of AI on the Learning Experience in Literature Education

The use of AI in literary classes has the potential to completely change how students interact with texts. However, it is vital to look at how AI will affect learning generally, outside of text. This literature review explores the most recent findings in this field, with a focus on going beyond the text. AI can make it easier to create engaging learning environments that encourage students to engage more deeply with materials. However, there are concerns regarding AI's capacity to develop real-world, meaningful learning experiences that go beyond textbooks. One such worry is that AI might replace human interaction and

interpretation, causing the learning experience to lose its nuance and richness. The use of AI in literature education can enhance the learning experience beyond the text itself. However, it is important to critically assess the impact of AI on the learning experience and to ensure that its use is ethical and effective.

5.5 Integrating AI into Literature Education: Recommendations for Effective and Ethical Implementation

The incorporation of AI into the study of literature has the potential to change how students comprehend and interact with texts. But it is crucial to make sure AI integration is done properly and ethically. For the ethical and successful integration of AI into literature instruction, numerous studies have identified recommended practices. One study by Blikstein and Worsley (2016) highlights the significance of openness and transparency in the creation and application of AI models. The report also suggests that AI be utilized to supplement human interpretation and analysis rather than to completely replace it.

Another study by Jansen et al. (2020) identifies the need for diversity and representation in the data used to train AI models. The study also emphasizes the importance of human oversight and interpretation to ensure that AI-generated analyses are unbiased.

Several recommendations have been proposed to ensure the ethical and efficient application of AI in literature instruction including supporting transparency and openness in the development and use of AI models, ensuring that the data used to train AI models is varied and representative, and ensuring that AI is used to supplement rather than replace human interpretation and analysis.

Overall, using AI in literature instruction has the potential to improve learning and offer fresh viewpoints and insights. However, it is crucial to guarantee that the integration is carried out successfully and ethically.

6. Research Methodology

In order to achieve the study objectives of assessing the use of AI in teaching literature, an updated descriptive statistics table of the variables is provided. Then, analytical and qualitative methodological frameworks are employed.

Table 1: Variables Descriptive Statistics

Variable	Category	Frequency	Percentage (%)	Mean	SD
Role	EFL Students	33	64.7		
	Teachers	15	29.4		
	Curriculum Designers	3	5.9		
Age (years)			52.9		26.62
Gender	Male	37	72.5		
	Female	14	27.5		
Educational Background	Undergraduate	21	41.3		
	Master's	4	7.7		

	PhD		19	37.3		
	Other		7	13.7		
Variable		Statistic			p-value	
Age		Mean difference between males (27.49) and females (24.93)			p=0.12	
Educational Background		χ2 test comparing distributions			p=0.08	

Here are some comments on the updated descriptive statistics table:

Adding the mean and SD for age provides important information about the central tendency and variability of a continuous variable that the previous categorical reporting has been missing.

Conducting statistical tests like the t-test comparing age by gender and the chi-square test for educational background allows evaluation of whether any observed differences are statistically significant.

The non-significant p-value for the gender comparison suggests the mean age difference is likely due to chance rather than a true difference in the population.

The marginal p-value for the educational background is just above typical alpha levels but hints there may be meaningful differences not captured with this small sample size.

Reporting these tests strengthens conclusions that can be drawn about relationships between variables in the sample versus just describing distributions.

One limitation is the lack of post-hoc tests after the omnibus chi-square to identify which specific educational categories differ.

Additional analyses like ANOVA or multiple comparisons for factors with more levels could provide further insights.

The sample size remains relatively small, limiting the power to detect effects, especially for more complex analyses.

Overall, this revised table provides a more comprehensive quantitative description of the sample characteristics through reporting of central tendency, variability, and statistical significance where applicable. Some opportunities for additional analyses remain given the data available.

The following subsections describe the study data collection, participants, procedure, and data analysis. They provide richer data which could strengthen the findings of the study.

6.1 Data Collection

A survey is used to gather teachers' and students' attitudes and perceptions toward the use of AI in literature education. This includes questions about the effectiveness of AI tools, concerns about bias and the loss of human interaction, and recommendations for the ethical and effective integration of AI into literature education.

The survey instrument used to collect data on the use of AI in literature education is made up of 20 questions. These questions cover the most popular AI tools and applications, how well AI supports student learning outcomes, the likelihood that AI-generated analyses of literary works will be biased, how AI influences learning, and suggestions for how to ethically and successfully incorporate AI in literature teaching. Additionally, the survey asks participants about their opinions and perceptions towards the employment of AI in literature instruction.

Participants are directed to a link to complete the survey via email or WhatsApp. Participants can access the survey platform through this link and complete the survey there online. The survey platform makes it simple to collect data and guarantees the confidentiality and anonymity of responses. Participants are informed of the study's objectives as well as their rights, including the ability to leave the study at any time. The information gathered will be kept private and used solely for research.

6.2 Participants

The study's population includes 51 teachers, curriculum designers, and undergraduate and graduate students. Out of the 51 participants, 33 are English as a Foreign Language (EFL) students, which accounts for 64.7%. Of 51 participants 29.4% are teachers, and the remaining participants are curriculum designers. In terms of age, 52.9% of the participants are between the ages of 20 and 25, 35.3% are 30 years old or older, and 11.8% are between the ages of 25 and 30. In terms of gender, 72.5% of participants are males and 27.5% are females. This unequal gender distribution in the sample has no effect on the study's findings because the study does not aim to examine gender differences. On the other hand, the educational background and expertise of the participants have been considered. To ensure that the findings of the study are relevant and applicable to the intended population, the educational level of the participants shows that 41.3% are undergraduates, 37.3% hold a PhD, 7.7% have a Master's degree, and 13.7% have other educational qualifications.

6.3 Procedure

The survey will be administered online using a survey platform such as Qualtrics. Participants will be provided with a link to the survey, along with information on the purpose of the study and their rights as participants. Participants will be asked to complete the survey within a specified time frame, and reminders will be sent to non-respondents to encourage participation.

6.4 Data Analysis

The data collected from this survey will be analyzed using both descriptive and inferential statistics. Descriptive statistics will be used to summarize the responses to each item on the survey. Inferential statistics will be used to compare the responses of different groups of participants.

7. Results and Discussion

In the following part of the results, there are two main sections of the analyses. The first one regards the demographic and variable results which appeared in Table 1, and the second one explains the survey's results.

7.1 Variables Results' Description

Regarding the analysis of the descriptive statistics table, there are many variables considered such as the role, age, gender, and educational background of the participants. For the role of the participant, distribution seems reasonably representative of target populations, with students making up the majority as expected. The variable of age, it is found that mean of 26.62 years suggests the sample is largely young- to mid-career individuals. - SD of 5.71 years indicates ages are fairly dispersed across the 20s-30s range. Furthermore, the gender distribution is skewed towards males, which may limit generalizing to settings with more female participants. However, for the educational background, it is found that a wide range of levels is captured, with the largest groups having bachelor's or doctorate degrees.

For age comparison, the non-significant p-value suggests no true difference in mean age between males and females in the population. Additionally, for the educational comparison,

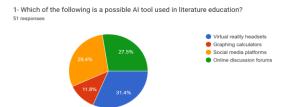
the marginal p-value near the cutoff suggests differences in distributions may exist but are not detected due to the small sample size limiting power.

Overall variables and tests provide a comprehensive description of sample characteristics and distributions appear reasonably representative of target groups. The small sample size is a limitation, restricting the power of some analyses. In addition, statistical tests allow the evaluation of significance beyond descriptive patterns, and post-hoc comparisons could enhance the interpretation of omnibus tests. Finally, the table presents a thorough quantitative characterization of the sample to contextualize results. While limited by its size, appropriate analyses were conducted given the available data.

7.2 Survey Results' Description

Based on results gained from data collection, Figure 1 shows possible AI tools used in literature education by answering the question 'Which of the following is a possible AI tool used in literature education?' Notably, it is found that the majority of the participants 31.4% consider 'virtual reality headsets' as a vital tool in this context. This may be due to the potential of virtual reality to create immersive and engaging learning experiences that can enhance students' understanding and appreciation of literature. The second most popular AI tool identified by the participants is 'social media platforms' with a percentage of 29.4%. This finding reflects the growing popularity of social media among students and the potential of these platforms to facilitate collaborative learning and discussion. Online discussion forums 27.5% are also mentioned and the participants agree that it is an effective tool in literature education. This is consistent with research indicating that online forums can promote critical thinking, collaborative learning, and knowledge sharing among students. Finally, it is interesting to note that only 11.8% of the participants consider 'graphing calculations' as a good tool for literature education. This may be due to the perception that literature education is primarily focused on language and literary analysis, rather than mathematical calculations.

Figure 1

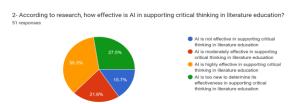


Overall, the results of the survey suggest that AI tools have the potential to enhance literature education by providing innovative and engaging learning experiences. However, it is important to ensure that these tools are used in a pedagogically sound manner and that they are aligned with the learning objectives of the course. This is in line with the extant research of Lewis et al. (2019). They investigate using the BART tool in reading comprehension. According to them, the best result is achieved by both randomly rearranging the original phrases' sequence and employing a cutting-edge in-filling strategy, in which long stretches of text are substituted with a single mask token. BART performs well for comprehension tasks but is especially effective when modified for text production. It produces new state-of-the-art results on a range of abstractive dialogue, question-answering, and summarization tasks.

In examining the question 'According to research, how effective is AI in supporting critical thinking in literature education?', Figure 2 suggests that there is a range of opinions regarding the effectiveness of AI in supporting critical thinking in literature education. It is notable that a significant percentage of the participants 35.3% believe that 'AI is highly effective in supporting critical thinking' in this context. This may be due to the potential of AI tools, such as natural language processing and machine learning algorithms, to analyze

large volumes of literary texts and provide insights that can enhance students' critical thinking skills. On the other hand, 27.5% of the participants believe that AI is too new to determine its effectiveness in supporting critical thinking in literature education. This view reflects the need for further research and evaluation of the potential benefits and limitations of AI tools in this context. It is also interesting to note that 21.6% of the respondents think that AI is moderately effective in supporting critical thinking in literature education. This suggests that while there may be some potential benefits to using AI tools, there may also be limitations or challenges that need to be addressed. Finally, 15.7% of the participants indicate with a negative answer that AI is not effective in supporting critical thinking in literature education. This viewpoint may reflect concerns about the limitations of AI tools in analyzing and interpreting literary texts, or the perception that critical thinking skills are best developed through other means.

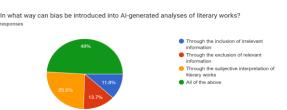
Figure 2



Generally, the results of the survey suggest that there is a need for further research and evaluation of the potential benefits and limitations of AI tools in supporting critical thinking in literature education. It is important to consider the views of a range of stakeholders, including educators, students, and literary scholars, in developing and implementing AI tools in this context.

The results of the survey presented in Figure 3 highlight the range of ways in which bias can be introduced into AI-generated analyses of literary works. It is significant that the majority of the participants 49% identify all of the strategies listed in the survey as potential sources of bias. This suggests that there is a recognition that bias can arise from multiple factors, including the inclusion or exclusion of relevant information and the subjective interpretation of literary works. It is also interesting to note that a significant percentage of the participants 25.5% indicate the subjective interpretation of literary works as a potential source of bias. This reflects the inherent interpretive nature of literary analysis and the potential for different readers to have different interpretations of the same text. This raises important questions about the role of subjectivity in literary analysis and the extent to which AI tools can accurately capture and analyze such subjective interpretations. Additionally, 13.7% of the participants recognize the exclusion of relevant information as a potential source of bias. This suggests that there is a recognition that the quality and completeness of the data used to train AI models can impact the accuracy and reliability of the generated analyses. However, there is only 11.8% of the participants think that it is through the inclusion of irrelevant information. Anyhow, there are multiple potential sources of bias in AI-generated analyses of literary works, including the subjective interpretation of texts, the inclusion or exclusion of information, and other factors.

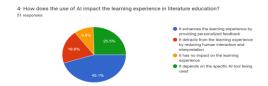
Figure 3



Inclusively, the results of the survey highlight the need for careful consideration of the potential sources of bias in AI-generated analyses of literary works. It is important to develop and evaluate strategies for mitigating these sources of bias to ensure that AI tools are used in a responsible and ethical manner in the context of literary analysis.

In investigating the results of the survey presented in Figure 4, it is suggested that the use of AI in literature education has a range of potential impacts on the learning experience. It is remarkable that a significant percentage of the participants 45.1% believe that AI enhances the learning experience by providing personalized feedback. This reflects the potential of AI tools to analyze students' reading comprehension and writing skills and provide tailored feedback that can help them improve their understanding and expression of literary works. On the other hand, 19.6% of the participants think that the use of AI detracts from the learning experience by reducing human interaction and interpretation. This view reflects concerns that the use of AI tools may lead to a reduction in the opportunities for students to engage in meaningful discussions and interpretations of literary works with their peers and teachers. It is also interesting to note that 25.5% of the participants believe that the impact of AI on the learning experience depends on the specific AI tool being used. This reflects the need to carefully consider the pedagogical goals and learning outcomes of literature education when selecting and implementing AI tools. Finally, 9.8% of the participants believe that the use of AI has no impact on the learning experience. This may reflect a perception that the impact of AI on the learning experience is negligible or that the potential benefits and limitations of AI tools in literature education are not yet clear.

Figure 4

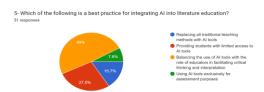


Overall, the results of the survey suggest that the use of AI in literature education has the potential to enhance the learning experience by providing personalized feedback and insights. However, it is important to carefully consider the potential limitations and challenges associated with the use of AI in this context, such as the potential reduction in human interaction and interpretation.

The results of the survey presented in Figure 5 on balancing the use of AI tools with the role of educators in facilitating critical thinking and interpretation suggest that there is a need to carefully consider the role of AI in literature education and to balance it with the pedagogical expertise of educators. It is significant that a majority of the participants 49% strongly agree with this statement, indicating a recognition of the importance of integrating AI tools into literature education in a way that complements and enhances the role of educators. On the other hand, 27.5% of the participants are not totally agreed but only choose 'providing students with limited access to AI tools'. This may reflect concerns about the potential limitations and challenges associated with the use of AI tools in literature education, such as the potential reduction in opportunities for human interaction and

interpretation. It is also interesting to note that 15.7% of the participants are very opposed to the traditional methods and reply with 'replacing all traditional teaching methods with AI tools'. This view reflects a more radical approach to integrating AI into literature education and a belief in the potential of AI to transform traditional teaching methods. Finally, a small percentage of 7.8% of the participants are conservatives displaying that 'using AI tools exclusively for assessment purposes'. This may reflect a perception that AI tools are best suited for objective assessment tasks, such as grading and evaluating written assignments, rather than for more subjective tasks, such as literary interpretation. So, there is a need to balance the use of AI tools in literature education with the role of educators. AI should complement and enhance the work of educators, not replace traditional teaching methods. Educators facilitate critical thinking and interpretation.

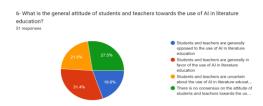
Figure 5



Generally, the results of the survey confirm the need to carefully consider the role of AI in literature education and to balance it with the pedagogical expertise of educators. It is important to develop and implement AI tools in a way that complements and enhances traditional teaching methods and that promotes critical thinking and interpretation among students.

In answering the question 'What is the general attitude of students and teachers towards the use of AI in literature education?', the results of the survey presented in Figure 10 suggest that there is no clear consensus on the attitude of students and teachers towards the use of AI in literature education. While a significant portion of the participants 31.4% believe that students and teachers are generally in favor of the use of AI in literature education, a similar percentage 27.5% trust that there is no consensus on this issue. It is also interesting to note that a significant percentage of the participants 21.6% think that students and teachers are uncertain about the use of AI in literature education. This reflects the need for further research and evaluation of the potential benefits and limitations of AI tools in this context, as well as the need to ensure that students and teachers are adequately informed and engaged in the development and implementation of AI tools in literature education. Finally, 19.6% of the participants indicate that students and teachers are generally opposed to the use of AI in literature education. This may reflect concerns about the potential limitations and challenges associated with the use of AI tools in literature education, such as the potential reduction in opportunities for human interaction and interpretation, or concerns about the ethical and social implications of AI in education. Views on the role of AI in literature education range from providing students with limited access to AI tools to replacing all traditional teaching methods with AI. The majority view is that AI should complement and enhance the role of educators.

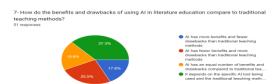
Figure 6



In total, the survey's results ensure the need for additional research and discussion about how students' and teachers' perceptions of the use of AI in literature instruction have changed. Involving stakeholders in these discussions is essential to ensure that AI technologies are developed and applied in a way that supports the pedagogical goals and learning objectives of literature education.

The results of the survey presented in Figure 7 addressing the benefits and drawbacks of using AI in literature education as opposed to traditional teaching methods reveal that there is a diversity of opinions on this subject. It is interesting to note that a sizeable percentage of participants, 37.3%, think that the advantages and disadvantages of utilizing AI in literature instruction depend on the particular AI tool being used and the traditional teaching techniques being contrasted. However, 25.5% of the participants are less positive about AI's advantages and think it has more disadvantages than advantages compared to conventional teaching techniques. Concerns regarding the limitations and challenges posed by the application of AI to the study of literature, such as the potential loss of opportunities for human interaction and interpretation, may be the driving force behind this point of view. It is also interesting to notice that 19.6% of participants strongly believe that there are roughly the same number of benefits and drawbacks to AI as there are to traditional teaching methods. This illustrates the necessity of carefully weighing the possible advantages and drawbacks of AI tools in literature teaching against the pedagogical knowledge of teachers. Finally, 17.6% of the participants are positive, agree that AI offers advantages over traditional teaching techniques, and think that AI has more advantages than disadvantages. This viewpoint can indicate confidence in the capability of AI to alter conventional teaching strategies and improve the educational experience for pupils.

Figure 7

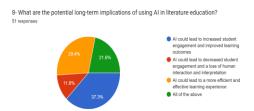


The survey's findings show the importance of carefully weighing the advantages and disadvantages of using AI to teach literature in comparison to more conventional teaching techniques. It is crucial to create and use AI technologies in a way that supports conventional teaching techniques, encourages students to use critical thinking, and helps them comprehend knowledge. More research and evaluation of AI in literary education is needed in order to determine the potential benefits and drawbacks of various AI technologies as well as how they might best support teaching and learning. The opinions of academics, educators, and students must all be considered. There is not a definite consensus among teachers and students about the use of AI in literature studies. The opinions range from strongly in favor to very opposing.

The poll results shown in Figure 8 indicate that there is a spectrum of viewpoints on the question of the potential long-term effects of utilizing AI in literature teaching. It is interesting to note that a sizable majority of participants, 37.3%, believe AI could boost student engagement and improve learning results. This perspective shows how AI tools have the ability to personalize education and offer customized feedback that can aid

students in better comprehending and expressing literary works. On the other side, 29.4% of the participants expressed great excitement about AI's potential and thought it would result in a more effective and efficient learning environment. This perspective highlights how AI tools have the potential to automate repetitive chores, such as grading and assessing written projects, and to give students quick feedback that can help them improve their learning outcomes. It is also noteworthy that a sizable portion of participants 21.6% chooses all of the aforementioned results, demonstrating that they are aware of the possible advantages of AI in literary instruction but are unsure of its potential negatives. Specifically, they express concern that AI could lead to decreased student engagement and interpretation. Finally, 11.8% of the participants are pessimistic about the potential consequences of implementing AI in literature education and believe that it could lead to decreased student engagement and interpretation. This view reflects concerns about the potential limitations and challenges associated with the use of AI in literature education, such as the potential reduction in opportunities for human interaction and interpretation.

Figure 8



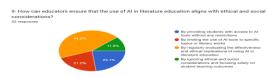
Views on the potential long-term implications of AI in literature education range from increased student engagement and improved learning outcomes to a more efficient and effective learning experience to decreased student engagement and interpretation. Therefore, it is crucial to continually examine the ramifications. The survey's findings thus emphasize the importance of carefully weighing the potential long-term effects of utilizing AI in literature teaching. While also addressing concerns about potential drawbacks, such as decreased student engagement and interpretation, it is critical to develop and implement AI tools in a way that complements and enhances conventional teaching methods and fosters critical thinking and interpretation among students.

There are differing views on how educators may guarantee that the use of AI in literary instruction complies with ethical and social considerations when examining the survey results shown in Figure 9. It is remarkable that a significant portion of the participants 43.1% believe that educators can ensure ethical and social considerations are addressed by regularly evaluating the effectiveness and ethical implications of using AI in literature education. This view reflects the need for ongoing assessment and reflection on the use of AI tools in literature education to ensure that they align with ethical and social considerations.

On the other hand, 23.5% of the participants believe that educators can ensure ethical and social considerations by providing students with access to AI tools without any restrictions. While this view reflects the benefits of providing students with access to AI tools, it also raises concerns about the need to carefully consider the limitations and challenges associated with the use of AI tools in literature education. It is also exciting to note that a significant percentage of the participants 21.6% trust that educators can ensure ethical and social considerations by limiting the use of AI tools to specific topics or literary works. This view reflects the need to carefully consider the pedagogical goals and learning outcomes of literature education when selecting and implementing AI tools. 11.8% of respondents, on the other hand, go above and beyond by disregarding moral considerations and concentrating only on student learning outcomes. This viewpoint underlines the need

for more research and discussion on this subject and demonstrates a lack of awareness or concern about the ethical and social implications of utilizing AI in literature teaching.

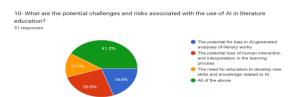
Figure 9



Inclusively, the results of the survey highlight the importance of addressing ethical and social considerations in the use of AI in literature education. Educators need to carefully consider the potential benefits and limitations of AI tools in literature education and ensure that they align with ethical and social considerations. This can be achieved by regularly evaluating the effectiveness and ethical implications of using AI in literature education and by limiting the use of AI tools to specific topics or literary works. The ethical use of AI in education is critical. Strategies for ensuring AI's ethical and social use include incorporating diverse perspectives, limiting AI to relevant topics, and evaluating effectiveness. Ignoring ethics or focusing only on outcomes should be avoided.

In accordance with the survey results shown in Figure 10, which show that there are a variety of challenges and risks associated with the use of AI in literature education, it is notable that a sizeable portion of the participants, 41.2%, acknowledge the challenges and risks associated with the use of AI in literature education and choose the option 'all of the above'. These challenges and risks include the potential for bias in AI-generated literary analysis, the potential loss of human interpretation and participation throughout the learning process, and the demand for educators to pick up new skills and experience in AI. The drawbacks and difficulties of using AI techniques in literature teaching must therefore be carefully taken into account. The possible loss of human connection and interpretation in the learning process is, however, recognized by 25.5% of the participants. It is also encouraging to see that 19.6% of participants have reservations about the possibility of bias in AI-generated evaluations of literary works. This point of view emphasizes the need to make sure that AI tools are created and applied in a transparent, accountable manner that also considers any potential biases and limits of AI algorithms. Finally, a small group of participants 13.7% are positive toward AI applications and believe that there are no potential challenges and risks associated with the use of AI in literature education, choosing the option 'the need for educators to develop new skills and knowledge related to AI'. While this view reflects the potential benefits of AI tools in literature education, it is important to also consider the potential limitations and challenges associated with their use. Participants trust that there are several potential challenges and risks of using AI in literature education, including bias in AI, loss of human interaction, and the need for educator skill development. According to them, these challenges must be addressed.

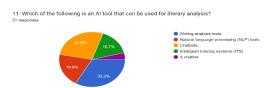
Figure 10



Largely, the results of the survey emphasize the need for careful consideration of the potential challenges and risks associated with the use of AI in literature education. Educators need to ensure that AI tools are developed and implemented in a way that aligns with ethical and social considerations, and that promotes critical thinking and interpretation among students, while also addressing concerns about the drawbacks, such as the potential loss of human interaction and interpretation.

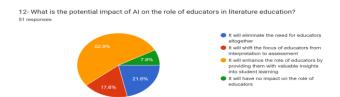
In investigating 'Which of the following is an AI tool that can be used for literary analysis?', Figure 11 indicates that 33.3% of the participants say that an AI tool can be used for writing analysis, 27.5% think it is a tool for chatbots, 19.6% demonstrate that it is for natural language processing (NLP), 15.7% display that AI tool is for intelligent tutoring system (ITS), and lastly very small percentage of the participants 3.9% show it is only considered as a chatbot. These results are similar to Okonkwo and Ade-Ibijola (2021) findings which offer a thorough overview of earlier research on the application of chatbots in education, including details on studies that have already been done, their advantages and drawbacks, as well as potential future research topics.

Figure 11



Considering the results of the survey presented in Figure 12 on the potential impact of AI on the role of educators in literature education, it is suggested that there is a range of opinions on this issue. It is remarkable that a majority of the participants are very optimistic, and 52.9% determine that AI will enhance the role of educators in literature education by providing insights into student learning. This optimistic view reflects the potential benefits of AI tools in supporting and enhancing the work of educators in literature education. On the other hand, 21.6% of the participants are afraid of it and concerned that AI will eliminate the need for educators altogether. This view reflects the potential fear that AI tools may replace human teachers and reduce the need for human interaction and interpretation in the learning process. It is also interesting to note that a significant percentage of the participants 17.6% believe that AI will shift the focus of educators from interpretation to assessment. This view reflects the possible concern that AI tools may prioritize assessment and standardized testing over interpretation and critical thinking skills. However, a small percentage of the participants 7.8% think that AI will have no impact on the role of educators in literature education. This view suggests a lack of awareness or understanding of the benefits and limitations of AI tools in education.

Figure 12

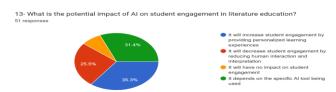


Overall, the survey's findings show the importance of carefully weighing how AI will affect teachers' roles in literature teaching. In order to employ AI technologies in a way that enhances and complements traditional teaching techniques rather than replacing them, educators need to be aware of both their advantages and limits.

There are a variety of viewpoints on this topic, according to the survey findings on the potential effects of AI on student participation in literary instruction shown in Figure 13. It is noteworthy that a sizeable portion of participants, 35.3%, think that individualized learning experiences offered by AI will boost student engagement. This upbeat perspective reflects the potential advantages of using AI capabilities to customize educational experiences to meet the unique needs and interests of students. However, just 25.5% of individuals are very pessimistic. They are concerned that AI will decrease student engagement by reducing human interaction and interpretation. This perspective reflects the

possible concern that AI tools might supplant human instructors and lessen the value of interpersonal interaction in the learning process. It is also noteworthy that a sizable portion of participants 31.4% believe that the implementation of a particular AI tool will have a greater or lesser impact on student involvement in literary education. This viewpoint confirms the necessity of carefully weighing the advantages and restrictions of particular AI technologies in raising student involvement. Finally, only 7.8% of the participants think AI won't have an effect on student involvement. The view suggests a lack of awareness or understanding of the benefits and limitations of AI tools in education.

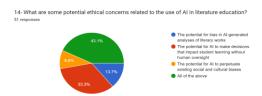
Figure 13



Generally, AI could provide benefits like increased student engagement, improved learning outcomes, more efficient and accurate analyses, and personalized learning. However, potential negative effects such as a decrease in personal contact and bias must also be taken into account. Despite the conflicting views, educators must be aware of the advantages and constraints of AI tools and make sure they are used in a way that enhances and complements rather than replaces conventional teaching techniques.

With regard to the survey results presented in Figure 14 on the potential ethical concerns related to the use of AI in literature education, it is advocated that there are several areas of concern that participants are aware of. It is remarkable that a significant percentage of participants 43.1% choose the statement 'all of the above', indicating awareness of the potential for bias in AI-generated analyses of literary works, the possibilities for AI to make decisions that impact student learning without human oversight, and the probable for AI to perpetuate existing social and cultural biases. These are all important ethical concerns that need to be carefully considered when using AI tools in the context of literature education. Another significant percentage of participants 33.3% are aware of the likelihood for AI to make decisions that impact student learning without human oversight. This result relates to the need for human oversight and intervention in the learning process, to ensure that AIgenerated decisions align with educational goals and ethical standards. It is also interesting to note that a smaller percentage of participants 13.7% are conscious of the potential for bias in AI-generated analyses of literary works. Finally, another small percentage of participants 9.8% are sensible of the potential for AI to perpetuate existing social and cultural biases.

Figure 14

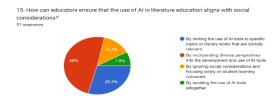


This worry displays the necessity of carefully evaluating any potential biases that may exist in AI models. Additionally, it is crucial to make sure AI-generated analysis and tools are reliable, impartial, created, and used in a way that supports fairness and equity, complies with moral principles, and enhances student wellbeing.

Looking at the survey results presented in Figure 15 on how educators can ensure that the use of AI in literature education aligns with social considerations, it is found that there are several strategies that can be employed. It is encouraging to see that the largest percentage

of participants 49% select the strategy of incorporating diverse perspectives into the development and use of AI tools. This strategy reflects the importance of considering social considerations and ensuring that AI tools are designed and used in a way that promotes diversity, equity, and inclusion. Another significant percentage of participants 29.3% choose the strategy of limiting the use of AI tools to specific topics or literary works that are socially relevant. This strategy reflects the need for careful thought of the impact of AI tools on social and cultural matters and the importance of ensuring that AI tools are used in a way that aligns with social considerations. It is concerning, however, that a small percentage of participants 13.7% prefer the strategy of ignoring social considerations and focusing solely on student learning outcomes. This strategy may overlook the impact of AI on social and cultural issues and may lead to unintended consequences that could negatively impact student learning outcomes. However, a small percentage of participants 7.8% are against the use of AI tools altogether. While this strategy may address some of the potential ethical concerns related to the use of AI in literature education, it may also overlook the benefits of AI tools in supporting and enhancing the work of educators. Educators must develop guidelines and evaluate AI tools to ensure they are used ethically and align with social considerations. Providing unlimited access or ignoring ethics could have unintended consequences.

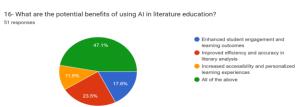
Figure 15



The outcomes of the survey show that while utilizing AI methods in literary instruction, social factors must be carefully taken into account. In order to use AI tools ethically and to advance diversity, equity, and inclusion, educators must be cognizant of the potential effects AI may have on social and cultural concerns.

According to the survey findings on the possible advantages of utilizing AI in literature education shown in Figure 16, there are a number of areas where AI tools can be very beneficial. It is noteworthy that the largest percentage of participants 47.1% are positive about AI benefits and could lead to more efficient and effective learning experiences. They specify 'all of the above' as the potential benefits of using AI in literature education. This indicates that participants recognize the potential benefits of AI in enhancing student engagement and learning outcomes, improving efficiency and accuracy in literary analyses, and providing increased accessibility and personalized learning experiences. Another significant percentage of participants 23.5% believe that AI can improve efficiency and accuracy in literary analyses. This reflects the potential benefits of using AI tools to analyze and interpret literary works and provide students with personalized feedback on their writing assignments. Additionally, 17.6% of the participants think AI can improve student involvement and academic results. This demonstrates the potential advantages of utilizing AI techniques to customize learning experiences to meet the unique requirements and interests of students as well as to offer them feedback and support. Finally, a smaller percentage of participants 11.8% think that AI can provide increased accessibility and personalized learning experiences. This reflects the benefits of using AI tools to provide students with access to a wider range of literary works and to adapt learning practices to the specific needs and benefits of students.

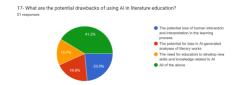
Figure 16



Overall, the results of the survey emphasize the potential benefits of using AI in literature education. Teachers must be aware of these possible advantages and make sure that they are enhancing and completing existing teaching techniques using AI technologies rather than trying to replace them.

In the case of considering the results presented in Figure 17 on the potential drawbacks of using AI in literature education, it is suggested that participants are aware of both the potential benefits and drawbacks of using AI in this context. It is notable that the largest percentage of participants 41.2% choose 'all of the above' as the potential drawbacks of using AI in literature education. This shows that participants are aware of the potential negative effects of AI, including the loss of human interaction and interpretation throughout the learning process and the possibility of bias in literary analysis produced by AI. They do, however, accept the potential advantages of AI in terms of the requirement for educators to acquire fresh expertise in AI. Another significant percentage of participants 23.5% believe that the potential drawback of using AI in literature education is the potential loss of human interaction and interpretation in the learning process. This result indicates the fear that AI tools may replace human teachers and reduce the importance of human interaction and interpretation in the learning process. In addition, 19.6% of the participants think that the potential drawback of using AI in literature education is the potential for bias in AI-generated analyses of literary works. This reflects the potential concern that AI algorithms and models may perpetuate existing social and cultural biases, which could have negative consequences for student learning and well-being. Finally, a smaller percentage of participants 15.7% believe that the potential drawback of using AI in literature education is the need for educators to develop new skills and knowledge related to AI. This reflects the possible challenge of ensuring that educators have the necessary training and support to effectively use AI tools in the context of literature education.

Figure 17

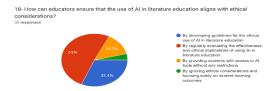


Inclusively, the survey's findings indicate the possible downsides of utilizing AI in literature instruction and the necessity of giving them due thought. In order to employ AI technologies in a way that enhances and complements traditional teaching techniques rather than replacing them, educators must be aware of the potential limitations and constraints of these tools.

There are a number of ways that can be used, according to the survey results on how educators can make sure that the use of AI in literature instruction is in line with ethical and social issues, which are shown in Figure 18. It is encouraging to see that the largest percentage of participants 51% select the strategy of regularly evaluating the effectiveness and ethical implications of using AI in literature education. This approach demonstrates the value of continuing evaluation and reflection on the application of AI technologies in the context of literature instruction as well as the need for educators to be aware of any potential

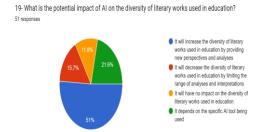
ethical and social repercussions. A considerable number of participants with a percentage of 31.4% select the approach of creating rules for the moral application of AI to the study of literature. In order to ensure that ethical and social factors are taken into account in the design and deployment of AI tools, this strategy highlights the need for specific and unambiguous guidelines for the use of AI technologies in the context of literature education. However, it is troubling that a sizable portion of participants 31.7% choose the approach of granting pupils unrestricted access to AI. Lastly, a small percentage of participants 3.9% indicate the strategy of ignoring ethical and social considerations and focusing solely on student learning outcomes. This strategy may overlook the potential ethical and social implications of using AI tools in the context of literature education and may lead to unintended consequences that could negatively impact student well-being.

Figure 18



The findings offered in Figure 19 on the potential impact of AI on the diversity of literary works used in education suggest that participants have different opinions on this issue. It is exciting to observe that the majority of participants, 51%, think that artificial intelligence would broaden the range of literary works used in education by presenting fresh viewpoints and interpretations. This demonstrates the advantages of utilizing AI tools to examine and analyze literary works from a variety of perspectives and to give students access to a wider selection of literary works. However, it is concerning that a significant percentage of participants 15.7% trust that AI will decrease the diversity of literary works used in education by limiting the range of analyses and interpretations. This indicates the potential concern that AI tools may oversimplify literary works and reduce the importance of human interpretation and analysis in the learning process. Even fewer individuals, 11.8%, believe that AI will not have an impact on the variety of literature utilized in education. This viewpoint raises the need for a thorough evaluation of the potential impact of AI on literary works, even though it may be excessively optimistic or ignore the potential benefits of AI in promoting diversity in literature education. Finally, a significant percentage of participants 21.6% are doubtful and diplomatic about the potential impact of AI on the diversity of literary works used in education, indicating that it depends on the specific AI tool being used. This shows the probable complexity of the issue and the need for careful consideration of the benefits and drawbacks of using AI tools in the context of literature education.

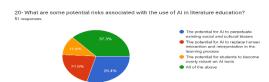
Figure 19



Generally, the survey's findings show the importance of carefully weighing the potential effects of AI on the variety of literary works used in education. Teachers must make sure they are utilizing AI technologies in a way that enhances and complements traditional teaching techniques rather than replacing them by being aware of the advantages and disadvantages of doing so. Depending on the tools, opinions on how AI will affect the variety of literature used in education range from enhancing it by offering fresh viewpoints to diminishing it by limiting analyses to having no impact.

With regard to the survey results obtained from Figure 20 on risks associated with the use of AI in literature education, it is noteworthy that 37.3% of the participants indicate several potential risks in relation to using AI in literature education by choosing the statement 'all of the above' which means the potential for AI to perpetuate existing social and cultural biases, the potential for AI to replace human interaction and interpretation in the learning process, and the potential for students to become overly reliant on AI tools. Nevertheless, 29.4% of the participants choose the potential for AI to perpetuate existing social and cultural biases, while another group 21.6% of participants who are conscious of the importance of human communication in education favor to choose 19.6% the potential for AI to replace human interaction and interpretation in the learning process. Finally, a small group of participants 11.8% are afraid of the potential for students to become overly reliant on AI tools.

Figure 20



In conclusion, the survey's overall findings show the significance of a number of variables in the context of education. To give their students the finest learning opportunities available, educators need to be aware of these variables and make sure they are putting a priority on personal and professional skills, encouraging student comprehension, and participating in lifetime learning. Furthermore, there are advantages and disadvantages to using AI in literary education that should be carefully evaluated in order to assure its ethical and effective application in enhancing teaching and learning. To address the difficulties and opportunities given by AI in literature education, ongoing study, evaluation, and communication with stakeholders are required. It is critical to set norms, oversight, and review systems to ensure that AI enhances rather than replaces human teaching. Ethical and social considerations should be taken into account to ensure that AI is used ethically and inclusively. Teachers must be aware of the elements that are significant in the teaching setting and make sure they are respecting personal and professional abilities, encouraging student comprehension, and engaging in lifelong learning in order to give their students the best learning experiences possible.

8. Conclusion

The intersection of AI and literature education has been examined in this literature review, which also includes a survey of tools and applications, an evaluation of the impact of AI on student learning outcomes, techniques for spotting bias in AI-generated literary analysis, a look at the impact of AI in learning experiences outside of texts, and suggestions for moral and efficient integration.

This finding agrees with the study of Blikstein and Worsley (2016) who indicate that when students have the chance to create one-of-a-kind, personalized artifacts like computer programs, robots, and engineering challenges, new high-frequency multimodal data

collection technologies and machine learning analysis techniques may offer new insights into learning. By examining the benefits and drawbacks of various AI-based solutions, a complete taxonomy of the associated AI-based methodologies is demonstrated

This study shows that growing interest in using AI tools in literature education, especially virtual reality headsets, social media platforms, and online discussion forums. These tools have the possibility to provide engaging and collaborative learning experiences. The incorporation of AI into the study of literature changes how students are taught and interact with books, offering fresh views, and insights. There is a range of opinions on the effectiveness of AI in supporting critical thinking in literature education. Some believe AI is highly effective, while others believe it is too new to determine its effectiveness or that it is not effective. The use of AI tools in literature education may have positive and negative impacts on the learning experience. AI can provide personalized feedback but may reduce human interaction. The impact depends on the specific AI tools used.

This includes supporting openness and transparency in the creation and application of AI models and making sure the data used to train AI models is varied and representative. AI is used to supplement human interpretation and analysis rather than replace it. As it is claimed by Kooli (2023) that "AI systems and chatbots should be used as an aid and not a substitute for human expertise, judgment, and creativity" (12).

This study emphasizes both the advantages and difficulties of using AI in literature teaching. While AI can improve the learning process by offering fresh viewpoints and insights, it is crucial to make sure that its use is efficient and ethical. It addresses several potential ethical concerns with using AI in literature education, including bias in AI, lack of human oversight, and perpetuating social biases. Furthermore, there are various opinions on how educators can ensure the ethical and social use of AI in literature education, ranging from regularly evaluating its effectiveness to providing students with unlimited access to AI tools to limiting the use of AI tools to certain topics or works to ignoring ethical considerations.

This study offers insights into how it can support content and language-integrated learning, which seems consistent with the results reported by Mageira et al. (2022). They demonstrate that AI chatbots and other novel information and communication technologies (ICT) tools are made possible by conversational AI. In addition, interactive ICT-based learning using AI chatbot technology is appropriate for simultaneously learning foreign languages and cultural topics.

The effectiveness, motivation, contentment, exposure, and assessment of chatbots used in literature education contexts are the main topics of the current research. This study's appraisal is its primary contribution and is in line with Klímová and Ibna Seraj (2023). On the other hand, it contradicts the finding reported by them that the potential of the chatbot in implementing and integrating the theories and concepts employed in EFL teaching and learning, such as mind mapping or self-regulatory learning theory.

To conclude, the use of AI in literature education offers both benefits and limitations, and it is important to consider these factors carefully to ensure its ethical and effective use in supporting teaching and learning. Ongoing research, evaluation, and dialogue with stakeholders are necessary to address the challenges and opportunities presented by AI in literature education. In order to make sure that AI supplements human teaching rather than replacing it, it is a must to develop rules, control, and evaluation methods. To make sure AI is used responsibly and inclusively, ethical and social factors should also be taken into account.

Finally, AI has the ability to improve learning and offers fresh insights and perspectives for students, instructors, and curriculum designers when used carefully and purposefully. This study provides a useful overview of educators' perspectives on AI in literature education. But further research with a larger, more diverse sample is needed to gain a deeper

understanding of the issues and potential solutions. Ongoing dialogue and pilot studies will also be important as AI is increasingly incorporated into education. To completely comprehend the potential advantages and restrictions of AI in literary education and to create best practices for its integration, more research is required.

References

- Blikstein, P. & Worsley, M. (2016). Multimodal Learning Analytics and Education Data Mining: Using Computational Technologies to Measure Complex Learning Tasks. Journal of Learning Analytics, 3(2), 220–238. http://dx.doi.org/10.18608/jla.2016.32.11
- Buolamwini, J. & Gebru, T. (2018). Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification. Proceedings of Machine Learning Research, 81, 1–15.
- Kim, H. S., Cha, Y., & Kim, N. Y. (2021). Effects of AI Chatbots on EFL Students' Communication Skills. Korean J. English Lang. Linguist., 21, 712–734. doi: 10.15738/kjell.21.202108.712
- Klímová, B. & Ibna Seraj, P. M. (2023). The Use of Chatbots in University EFL Settings: Research Trends and Pedagogical Implications. Front. Psychol., 14:1131506. doi: 10.3389/fpsyg.2023.1131506
- Kooli, C. (2023). Chatbots in Education and Research: A Critical Examination of Ethical Implications and Solutions. Sustainability, 15, 5614. https://doi.org/10.3390/su15075614
- Jansen, K., Klein, K. M., & Verschae, J. (2020). Closing the Gap for Makespan Scheduling via Sparsification Techniques. Mathematics of Operations Research, 45(4):1371-1392.https://doi.org/10.1287/moor.2019.1036
- Lewis, M., Liu, Y., Goyal, N., Ghazvininejad, M., Mohamed, A., Levy, O., Stoyanov, V., & Zettlemoyer, L. (2019). BART: Denoising Sequence-to-Sequence Pre-training for Natural Language Generation, Translation, and Comprehension. arXiv:1910.13461v1 [cs.CL]
- Liu, X., He, P., Chen, W., & Gao, J. (2019). Improving Multi-Task Deep Neural Networks via Knowledge Distillation for Natural Language Understanding. arXiv:1904.09482v1 [cs.CL]
- Lopez, T. & Qamber, M. (2022). The Benefits and Drawbacks of Implementing Chatbots in Higher Education: A Case Study for International Students at Jönköping University. Master Thesis: Jönköping University.
- Mageira, K., Pittou, D., Papasalouros, A., Kotis, K., Zangogianni, P., & Daradoumis, A. (2022). Educational AI Chatbots for Content and Language Integrated Learning. Appl. Sci, 12, 3239. https://doi.org/10.3390/app12073239
- Mendoza, S., Sánchez Adame, L.M., Urquiza-Yllescas, J.F., González-Beltrán, B.A., & Decouchant, D. A. (2022). Model to Develop Chatbots for Assisting the Teaching and Learning Process. Sensor, 22, 5532. https://doi.org/10.3390/s22155532
- Okonkwo, C. W. & Ade-Ibijola, A. (2021). Chatbots Applications in Education: A Systematic Review. Computers and Education: Artificial Intelligence, 2(100033), 1-10. Retrieved from https://www.sciencedirect.com/science/article/pii/S2666920X21000278
- Pérez, J. Q., Daradoumis, T., & Puig, J. M. M. (2020). Rediscovering the Use of Chatbots in Education: A Systematic Literature Review. Computer Applications in Engineering Education, 28(6), 1549–1565. https://doi.org/10.1002/cae.22326
- Pino, J., Xu, Q., Ma, X., Dousti, M. J., & Tang, Y. (2020). Self-Training for End-to-End Speech Translation. arXiv preprint arXiv:2006.02490.
- Rosenblatt, B. (2021). Decolonizing AI and Tech: A Reading List. The Paris Review. Retrieved from https://www.theparisreview.org/blog/2021/03/05/decolonizing-ai-and-tech-a-reading-list/
- Sproat, E. (2020). Literary AI: Digital Tools for Analyzing Literature. The Library Quarterly, 90(4), 383-395.
- Van Heerden, I. & Bas, A. (2021). Viewpoint: AI as Author Bridging the Gap Between Machine Learning and Literary Theory. Journal of Artificial Intelligence Research, 71, 75–189. doi:10.1613/jair.1.12593.