

**RESEARCH PAPER****The Role of ChatGPT as an AI English Writing Assistant: A Study of Students' Perceptions, Experiences, and Satisfaction Level****¹Zamzam Bibi*, and ² Dr. Aqsa Atta**

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***Corresponding Author** misschugtai015@gmail.com**ABSTRACT**

The purpose of this study is to look into the subtle aspects of students' involvement with ChatGPT, an AI-powered English Writing Assistant, with an emphasis on their views, experiences, and general satisfaction. As developments in Artificial Intelligence (AI) keep evolving the educational environment, the use of AI as an English Writing Assistant has received attention for its capability to improve students' writing skills. Through a mixed-method approach, including surveys, interviews, and usability testing, this research aims to unveil the intricate factors that shape students' attitudes toward ChatGPT. By exploring the user interface, adaptability to individual writing styles, and the perceived impact on writing proficiency, the study seeks to provide a comprehensive understanding of the tool's effectiveness. The findings of the study reveal that students have an overall favorable opinion of ChatGPT, and many of them are happy with the help it provides with different parts of creating content in English. In future studies, researchers should investigate the cumulative impact of ChatGPT use on students' autonomous ability to write, taking into account a variety of learning environments and possible ethical considerations such as plagiarism.

Keywords: Artificial Intelligence (AI), ChatGPT, Students' Perceptions**Introduction**

Technology's role in molding the learning process has received greater interest in the ever-changing environment of artificial intelligence (AI) and its incorporation into educational frameworks. Writing is typically considered a method for conveying thoughts or emotions in most writing classes. On the other hand, writing is employed in certain writing programs to demonstrate that pupils have learned particular grammatical rules rather than possessing a solid understanding of conveying ideas (Sokolik, 2003). The writing process, according to Chaffee, McMahon, and Stout (2005: 19), contains six key aspects. They develop ideas, identify a focus, organize thoughts into diverse thinking patterns, draft, revise, edit, proofread, and collaborate. They remind us that when others examine drafts of our writing, we frequently find new insights (Yang, 2007).

English Writing can be difficult, particularly for students who have just begun to study English or have had minimal exposure to the language. To assist students in strengthening their English writing skills, writing instruction involves specific feedback and assistance from instructors. This can be laborious and time-consuming, particularly for larger groups or with a varied group of students. English writing can be difficult and often esoteric for students to acquire, therefore engaging and motivating learners with this skill can be complicated. Students may become dissatisfied or bored with their writing practice as a result, impeding their growth and progression. One of the most difficult aspects of teaching English writing is helping students improve their language skills (Hidayati, 2018).

ChatGPT, as an AI-powered English writing tool, is a solution for all authors, both novice and experienced, who want to engage in literary writing. ChatGPT, a language model invented by OpenAI, has proven as an effective means for supplementing linguistic-related tasks amid the various applications of AI in education. Using it as an AI English writing helper, in particular, adds an exciting aspect to the traditional writing and language learning processes. This study paper conducts a thorough analysis of the varied relationship between students and ChatGPT, to unravel the complex relationship of perceptions, experiences, and overall satisfaction in terms of English writing support. Many new technologies have been developed in this modern period to aid students in their studies. As a result, the availability of this technology becomes a utilization of things that are quite important and cannot be avoided by students, particularly in English. Mastering English, particularly for EFL students, is challenging, in terms of writing as Maharani says writing is a difficult task (2018).

It is impossible to overestimate the importance of strong communication through writing in both professional and educational achievement. Language variations and the capacity to explain concepts eloquently are essential elements of an effective education. While traditional kinds of writing aid, such as peer reviews and instructor comments, are essential, the introduction of AI-driven tools such as ChatGPT brings in an entirely new era in how students participate in the task of writing. This study also looks into the broader spectrum of satisfaction that pupils have with ChatGPT as an English writing aid. It hopes to provide significant insights into the potential advantages and problems of incorporating AI into the academic writing scene by measuring the general impact of the application on their writing ability, confidence, and productivity.

This study intends to provide scientifically driven knowledge to the extending debate on AI in education as we explore a new region where technology gets over pedagogy. It aims to inform educators, researchers, and developers about the potential benefits and consequences of integrating AI writing instruments via an in-depth investigation of students' perceptions, experiences, and satisfaction levels, with the ultimate objective of optimizing these instruments in order to respond to the various requirements of the pupils at the higher education level. Essentially, the goal of this research is to improve our knowledge of how ChatGPT, as an AI English writing assistance, impacts the learning process, opening the way for smart and planned developments at the nexus of AI and language acquisition.

A Brief History of AI and Emergence of ChatGPT

The development of AI is linked back to the 1940s and 1950s, when the initial computer scientists, notably Alan Turing, investigated the idea of robots that might imitate human intelligence. Turing's work provided the theoretical basis for understanding machines. The term "artificial intelligence" was first used at the Dartmouth Conference in 1956. Scientists, notably John McCarthy and Marvin Minsky, met to debate the possibility of developing computers able to possess human-like intelligence. The research on AI started after World War 2 (Russell & Norvig, 2003). In the beginning, experts in the discipline were optimistic, building programs capable of symbolic reasoning and solving simple issues. However, development was slower than expected, resulting in the "AI winter" of the 1970s and 1980s. Throughout the AI winter, specialist systems arose, emphasizing specialized knowledge and rule-driven logic.

These systems found uses in medicine and finance but were restricted in their ability to handle uncertainty. Developments in machine learning, neural networks, and processing capacity fueled a boom in studies on artificial intelligence during the 1990s and 2000s. Support vector machines and Bayesian networks became popular tools, and AI applications began to influence sectors. The return of neural networks and deep learning marked a key milestone in the 2010s. Picture and audio identification, processing languages, and game-

playing AI have all seen amazing success. AI technologies are now incorporated into daily routines, ranging from AI-powered assistants like Siri and Alexa to internet-based recommendation systems. AI-powered apps are revolutionizing areas such as healthcare, banking, and self-driving vehicles.

ChatGPT is an artificial intelligence based on OpenAI's core large-scale language models (LLMs), such as GPT-4 and previous versions. This chatbot has pushed the boundaries of artificial intelligence, demonstrating that computers are capable of learning the complicated nature of human speech and communication. Starting with GPT in 2018 and proceeding via GPT-2 to the massive GPT-3 in 2020, this sequence created the groundwork for ChatGPT. ChatGPT, which launched in 2021, is a specialized system designed for engaging and contextually rich talks. It has improved skills in processing input from users, providing logical feedback, and adjusting to various conversational circumstances. ChatGPT shows OpenAI's dedication to extending language model frontiers, providing a strong and adaptable instrument for natural language processing and creation.

Literature Review

Sumakul et al. (2021) researched to Investigate the viewpoints of students who employed AI software in their writing class. The study intends to provide significant insights into the continuing discussion about the efficacy of AI in improving the ways students write. The study opens by recognizing AI's expanding impact on teaching and learning methodologies. Instructors are taking advantage of AI's potential to improve their teaching methodology as it evolves. However, the discussion over the pros and cons of artificial intelligence in education continues. To address this issue, the research focuses on students' perspectives, recognizing them as vital contributors to the learning process. Semi-structured interviews with eight EFL students in an Indonesian university are conducted to prove the hypothesis. The research indicates the students' positive attitudes about their utilization of the AI app via qualitative analysis of the acquired data.

Fitria (2023) researched to present an in-depth analysis of ChatGPT's potential in writing essays, taking insights from a descriptive qualitative analysis of the tool's effectiveness. The approach used in this study included accessing the ChatGPT interface, which is reachable via openai.com or chat.openai.com via a web browser. After login the user can put questions and statements into the chat column. The results show the structural components of the essays produced by ChatGPT, with a focus on incident ordering and writing organization. To improve cohesiveness, the program uses main and explanatory sentences, as well as a conclusion. Furthermore, ChatGPT demonstrates expertise in using both active and passive voice, demonstrating a deep knowledge of linguistic diversity. ChatGPT's relevance goes above student-centric English writing activities, and it is becoming more widely recognized for its possible applications to scientific writing. ChatGPT can be a beneficial tool for researchers, scientists, and professionals in the field of scientific communication, where clarity, coherence, and precision are essential.

In this regard, Huang & Tan (2023) stated that ChatGPT serves as an engine for improving different areas of scientific writing, such as accelerating the writing process, creating thorough outlines, adding significant information, and polishing writing styles to satisfy the requirements of powerful scientific communication. The use of AI tools, notably ChatGPT, gives an intriguing possibility for scientists looking to improve the outcome of their study. They concluded that ChatGPT allows researchers to create scientific information more quickly, creation of outlines, addition of important details, and make cohesion. On the other hand, they emphasized the necessity of understanding ChatGPT's limitations and recommended using the tool effectively to avoid plagiarism.

AI is as popular among teachers as among students, in this regard Khabib (2022) argued that Technologies powered by AI have had an important role in defining several

elements of education, and there has been a recent surge in interest in AI-based digital writing aids, particularly among instructors used a sequential explanatory mixed methods strategy, integrating both qualitative and quantitative information-gathering methods, to thoroughly investigate instructors' employing AI-based digital writing helpers when writing scientific research papers. He also used descriptive analysis for quantitative data, and thematic analysis for qualitative data collected through surveys, comprising before and post surveys. His findings revealed a significant disparity in teachers' acquaintance with digital writing helpers. A lot of participants didn't have previous knowledge or had limited exposure to AI-powered writing instruments. The finding emphasizes the importance of increasing educator knowledge and training to fully utilize AI's capabilities in the scientific writing process. The study emphasizes the need to introduce instructors to AI technology, which can dramatically improve writing speed as well as efficacy.

ChatGPT is an AI-powered English Writing Assistant that can produce human-like content. It has numerous benefits and challenges as well. Where ChatGPT can provide you with structured, well-organized, and creative written content, it may also pose risks of biased, deceptive and unauthentic data. Baskara (2023) explored the possible advantages and issues related to using ChatGPT in EFL writing teaching, employing a survey of relevant research to present ideas for teachers negotiating the relationship of technology and language pedagogy. He provided a complete analysis of the possible benefits and limitations of incorporating ChatGPT into EFL writing training. While acknowledging the instrument's capacity to improve language learning experiences, it emphasizes the significance of considering design, implementation, and ethical concerns.

Maurya (2023) stated Role-playing is a core teaching strategy in counseling education, allowing counselors-in-training (CITs) to acquire and practice fundamental coaching skills. In the past few years, AI tools, such as Chat Generative Pre-Trained Transformer (ChatGPT), have developed as possible tools for mimicking interactions with client counseling and role-playing. He used qualitative analysis of content to assess ChatGPT's efficacy when imitating a client during counseling role-playing activities. Ten case scenarios were used to carry out simulated role-plays, with ChatGPT portraying the client and the author playing the counselor. The evaluation addressed essential aspects such as reliability, uniformity, emotional expressiveness, cultural sensitivity, empathy, and self-awareness, which ChatGPT displayed in its depiction of the customer. The study's findings identified many advantages of ChatGPT's functionality as a simulated client. The AI chatbot displayed reliability, uniformity, proper emotional expressiveness, understanding of culture, empathy, and awareness of oneself during the role-playing activities. However, the study discovered a few limits in ChatGPT's responses. At times, the chatbot's responses to the counselor's inquiries seemed unduly idealized, lacking the genuineness seen in conversations with human clients.

Material and Methods

This study used a mixed-method approach to determine how effective an AI-Writing Assistant (ChatGPT) is in assisting students in writing English. The data presented in this study is based on qualitative analysis of students' perceptions, experiences, and satisfaction using ChatGPT. The information for this research was collected via a questionnaire delivered to respondents. Random sampling technique is used along with quota sampling. In academic research, random sampling is a commonly employed method to collect data. When research participants are chosen at random from highly homogeneous populations (Bhardwaj, 2019).

The research is carried out using 150 active university students to complete a questionnaire that has been distributed to respondents and comprises questions asked by the researcher. The core of this research is an investigation into undergraduates' early impressions of ChatGPT as an AI writing assistance. Analyzing the preexisting notions and

standards that pupils bring to their interactions with this technology offers a fundamental comprehension of where they are in their engagement with AI-driven writing support. The researcher also studied their perceptions of the application's negative and positive effects. The researcher's inquiries also highlighted the pros and cons of ChatGPT in light of their experience with it.

A questionnaire was created with ten statements to gauge how satisfied university students are with ChatGPT. A five-point Likert scale is used to get the students' perceptions, with 1 denoting Strongly Disagree, 2 denoting Disagree, 3 denoting Neutral, 4 denoting Agree and 5 denoting Strongly Agree. The primary analytical tool for finding, examining, and summarizing themes and patterns in qualitative data will be thematic analysis. Using this strategy, data must be carefully categorized and classified to identify recurrent themes and patterns. Through theme analysis, the study aims to uncover the various aspects of students' perspectives, experiences, and satisfaction when utilizing ChatGPT as an English writing support.

Results and Discussion

The information gathered for this study came from an analysis of the student respondents' responses to the questionnaires and interviews. The study's findings illustrate how students view ChatGPT as an AI-English writing assistant. The data findings obtained by calculating the proportion of all student answers are displayed in Table 1. Based on the answers given by the pupils, the data findings are split into five categories, and the sections are then sorted according to the values presented. The following categories are created from these answers: strongly disagree (1), disagree (2), agree (4), and strongly agree (5).

Table 1
Student's Perception and Experience of ChatGPT vs. Traditional Writing Support Tools

No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1-	ChatGPT is easy to use.	0%	0%	0%	3,3%	96,6%
2-	ChatGPT is very effective for use by anyone	0%	0%	0%	66,6%	33,3%
3-	ChatGPT is easily accessible anywhere and anytime	0%	23,3%	20%	53,3%	3,3%
4-	ChatGPT is more convenient to use than similar AI apps.	0%	0%	0%	73,3%	40%
5-	You are sometimes worried about the authenticity of the results provided by ChatGPT.	0%	30%	0%	66,6%	3,3%
6-	ChatGPT has limitations in helping us write.	60%	13,3%	6,6%	26,6%	0%
7-	You also use other AI writing assistant tools for writing your English assignments.	0%	20%	0%	80%	0%
8-	You frequently use ChatGPT for your English writing tasks.	0%	31,2	0%	68,7%	0%

9-	ChatGPT has the potential to strengthen my general writing skills in English.	0%	0%	40%	52,6%	7,4%
10-	In my opinion, ChatGPT and other AI writing aides are useful in educational settings.	0%	0%	13,3%	26,6%	46,6%
11-	AI writing aides have the potential to greatly improve my writing skills.	0%	6,6%	26,8%	60%	6,6%
12-	Using ChatGPT during my writing tasks is a pleasant experience.	0%	0%	0%	90%	10%
13-	ChatGPT assists me in producing original and organized written content.	0%	3,9%	2%	67,5%	26,6%
14-	ChatGPT comprehends and responds to my writing requirements.	0%	0%	3,1%	51,9%	45%
15-	I feel satisfied with ChatGPT's support in enhancing my English writing ability.	0%	0%	0%	80%	20%
16-	I would suggest ChatGPT to my friends for English writing assignments.	0%	0%	0%	70%	30%
17-	Employing ChatGPT has given me more confidence in my English writing.	0%	13,8%	7%	34,2%	45%
18-	ChatGPT has increased my writing efficiency.	0%	0%	4,3%	60%	35,7%
19-	ChatGPT is a valuable resource for overcoming writer's block or generating ideas.	0%	0%	2,8%	89,3%	8,2%
20-	I believe AI writing assistants will play a significant role in education in the coming years.	0%	0%	10%	48,4%	41,6%

The purpose of the survey was to gauge users' opinions and satisfaction with ChatGPT, an AI-powered writing software created by OpenAI. Twenty statements made up the questionnaire, which evaluated ChatGPT's usefulness, efficacy, accessibility, convenience, reliability, and satisfaction. The survey's findings demonstrated that participants had positive things to say about ChatGPT as an AI-English writing instrument. With option of the statements with the lowest mean scores, for which the majority of the participants selected "strongly disagree" or "disagree," the frequency distribution of the answers revealed that most participants selected "strongly agree" or "agree" for the majority of the statements.

According to the survey's findings, ChatGPT was a credible and trustworthy tool for assisting participants in writing more quickly, effectively, and artistically. The participants stated that ChatGPT enhanced their writing productivity, provided them with greater confidence in their ability to write in English, and assisted them in developing their basic English writing skills. Additionally, participants thought that ChatGPT and similar AI writing tools were helpful in educational contexts and that these tools would become increasingly prevalent in education in the years to come.

Participants said they were happy with ChatGPT's assistance in improving their English writing skills and that they would recommend it to their peers for English writing tasks. The findings also showed that a few participants employed alternative AI writing assistance tools to help them with their English tasks and that some participants had doubts regarding the reliability, validity, and authenticity of the results offered by ChatGPT. The findings also revealed certain shortcomings in ChatGPT's ability to assist respondents with writing, including a deficiency in feedback, customization choices, and usage instructions.

The interview technique is used alongside Questioners to ask multiple questions concerning the pros and cons that students get from using ChatGPT. To get straightforward responses, face-to-face interviews are conducted with the participants. The results of the interview are compiled in Table.2.

Table 2
Students' Interviews about the Varied Satisfaction Level

No.	Themes	Transcription of Students' interviews
1-	ChatGPT is comfortable to use	<p>S:1 ChatGPT is very helpful for me and I'm very comfortable for English writing task they generate which I actually need.</p> <p>S:2 Using AI writing assistants for my English writing is more comfortable these days. It is really helpful in creating positive improvements and finding errors.</p> <p>S:3 I am very comfortable using AI tools and specially the non-paid ones. They are greatly helpful in generating good English content. I will rate them 10 out of 10 on their performance. Quality wise ChatGPT is way better than self-writing.</p> <p>S:4 It's very useful for me to complete the tasks. It is very convenient.</p>
2-	ChatGPT helps you generate creative and well-structured written content.	<p>S:1 ChatGPT assists in generating creative and well-structured content to a significant extent.</p> <p>S:2 Of course ChatGPT helps us to come up with new ideas, enhance our thinking ability, and come up with organized and well-structured content.</p> <p>S:3 Yes, it does help me in getting structured content. But I like GPT-4 version because it is more decent in generating English content than GPT-3.</p> <p>S:4 AI provide me to better understanding of Structured content and Help me to generate new idea.</p>

3- ChatGPT positively impacts your writing productivity	S:1 ChatGPT has positively impacted my writing productivity by providing me with quick and helpful suggestions.
	S:2 It has a positive impact on my writing productivity, making the drafting process more efficient.
	S:3 ChatGPT has a positive influence on my writing skills because it helps me to generate more productive ideas in all the ways and makes me more focused with my work.
	S:4 Yes, it has positively impacted my writing skills but depends how much I effort I put to make my writing better. If I use it just for copy pasting, it will have negative impact and will not be beneficial for me.
4- ChatGPT overcomes writer's block or generate ideas	S:1 ChatGPT is valuable for helping me generate ideas on a regular basis. It helps me when my mind couldn't generate sufficient ideas. It enhances my thinking process and eventually I start thinking more creatively.
	S:2 Yes I find ChatGPT is such a valuable resource for overcoming writer's block or generating ideas because it helps Whenever I feel any difficulty in writing I just turn to ChatGPT for more opinions. It also helps me to think differently from a new perspective to provide more clarity.
	S:3 Yes, it helps. But I think GPT-3 has more options in this regard if you want to increase length in your writing and it also gives new and unique suggestions to improve your writing.
	S:4 I think its most valuable tool for students for us I mean when I want to write something I face many difficulties but now it helps me to create better ideas.
5- ChatGPT will play a significant role in education	S:1 I believe it contributes greatly to education, assisting students in learning and refining their writing skills.
	S:2 Yes I believe AI writing assistants will play a significant role in education because it has the ability to broaden the ways for students to learn and enhance writing skills. With the help of AI students can get feedback, support, and guidance which help them in improving their writing abilities.
	S:3 It has benefits for students in educational field. But according to my experience it is not as beneficial for IT, Math or Business students as it is for social science students. Because sometimes it gives unauthentic and wrong data and results.
	S:4 It plays significant role in education or learning system because it helps students to comprehend their work easily.

The analysis of interviews presents a variety of viewpoints and key themes on the usage of ChatGPT and AI writing aides for English writing. According to interviews, some of them believe ChatGPT provides significant benefits. However, some students have identified vulnerabilities in ChatGPT. ChatGPT's content may not always make sense, unauthentic and

unreliable, requiring cross-checking. This effect is frequent across several technologies. Due to computer limitations, humans must perform cross-checking. Where ChatGPT has a positive impact on students' English writing abilities, it also has some negative influences. Some students stated that if it is not effectively and honestly used it can affect your writing ability. Some students stated that where ChatGPT has strengths, it also has some weaknesses. It can generate authentic and credible material for social science subjects, but for the programs like IT, Math and business it doesn't not show accurate results every time.

Notable differences in the revision and editing stages of ChatGPT vs. traditional self-editing methods

Traditional self-editing is based on the author's personal expertise, abilities, and understanding of syntax, style, and writing concerns. Authors might have trouble keeping an entirely new viewpoint on their writing and may overlook contextual flaws or misunderstandings. Writers create their material during the editing process, tackling concerns like lucidity, brevity, and general flow. To discover and fix problems writers may need to examine their work several times or seek other feedback. In most cases, writers make the ultimate decisions in the editing process. Authors depend on their awareness of nonverbal clues like tone, focus, and intent to improve their writing. Writers must have a thorough command of syntax, style standards, and linguistic complexities.

ChatGPT provides self-governing editing options according to developed language models. It offers artificial input on grammar, spelling, and language syntax, which may discover flaws that an author would otherwise overlook. ChatGPT uses contextual information to deliver enhanced feedback. It can make recommendations depending on the context of the full content, assisting writers with uniformity and coherence difficulties. ChatGPT can help generate novel phrases or rephrase ideas, providing a fresh viewpoint during the rewriting process. This is particularly pertinent for authors trying to improve the range and style of their writing. ChatGPT delivers immediate, progressive feedback, enabling writers to make immediate changes. This can result in an improved editing process, especially for shorter parts or individual sentences.

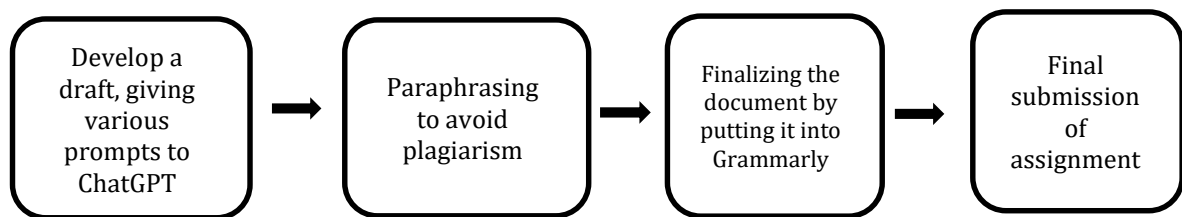


Figure 1. Usability Testing and the Process of Writing Observed

University students go through a series of steps to accomplish their English writing assignments, ensuring that their works reflect their voices and thoughts. ChatGPT is an effective tool for generating unique ideas and drafting. It can produce ideas, and syntax, and even help you overcome obstacles to writing. Students give various prompts and generate ideas, which improves their first draft's overall quality. The suggestions lead them to new insights and innovative ideas, and improve their writing. Paraphrasing is a vital phase in ensuring academic credibility and averting plagiarism. Students rewrite and reorganize information created by ChatGPT, to make sure the task accurately conveys their knowledge and perspective. It promotes creativity because students must understand and reinterpret the data. Grammarly is an effective tool for finding and fixing grammar errors, hence improving overall writing quality. It offers knowledge of syntax, vocabulary, and style, allowing pupils to improve their language skills. Students put their paraphrased documents

in Grammarly to make sure the document follows grammatical rules, which improves readability.

Conclusion

To sum up, this study clarifies the substantial influence that ChatGPT has on students' writing procedures. The results show that students have an overall favorable opinion of ChatGPT, and many of them are happy with the help it provides with different parts of creating content in English. The study also emphasizes the variety of student experiences with ChatGPT, demonstrating how flexible it is to suit different writing choices and styles. In light of the findings and limitations of the study, the paper makes several recommendations for further research or action in the years to come. First, more investigation is required to compare ChatGPT's performance and results with those generated by human writers, as well as to assess the usefulness and efficacy of other AI writing helpers for various writing tasks, audiences, and styles. Second, further work is required to guarantee that ChatGPT and other AI writing aids meet the demands and expectations of consumers while also enhancing the content's originality and variety. Third, to ensure that users get the most out of ChatGPT and other AI writing aids and to prevent copyright infringement, bias, or mishandling of the content that they produce, further support and training are required.

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