



Research on the Dilemmas and Solutions of College Students' AI-Assisted Writing Competence

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Abstract: The rapid development of generative artificial intelligence (AI) has boosted the efficiency of college students' academic writing, yet it also brings profound risks of alienation. Currently, college students are confronted with three major dilemmas in AI-assisted writing: flattened language expression, outsourced thinking activities, and instrumentalized academic practice, which gradually erode their critical and creative thinking. These dilemmas stem from multiple factors: the lag of university writing education systems in responding to technological changes, the insufficient academic literacy and loss of subjectivity among students, as well as the excessive prevalence of technological rationality in society. To address these issues, joint efforts from universities, students and the whole society are required. We need to build an education system centered on critical thinking and AI literacy, consolidate students' dominant role in human-AI collaboration, and foster a social environment advocating "technology for good". In this way, we can safeguard human spiritual emancipation and all-round development amid the technological wave.

Keywords: AI-assisted writing; college students; academic writing; alienation

1. Introduction

The report to the 20th National Congress of the Communist Party of China states that artificial intelligence serves as a crucial strategic pillar for advancing digital education and building a learning society and a learning country featuring lifelong learning for all.[1] With generative AI deeply integrated into learning scenarios, its functions have gone beyond information retrieval and learning assistance. It now directly participates in core cognitive processes including knowledge comprehension, text generation and problem-solving, substantially reshaping college students' learning behaviors and cognitive patterns.[2] This trend is particularly prominent in academic writing, where AI tools have evolved from novelties into daily necessities. AI can cover nearly all stages of academic writing: topic selection, literature review, paragraph drafting, language polishing, format adjustment and reference list compilation. While such technological intervention greatly improves work efficiency, higher efficiency does not equate to enhanced competence. On the contrary, when AI takes over core links that demand in-depth thinking, students' ability in language expression, logical construction and critical thinking is quietly declining. Writing is never a simple combination of words; essentially, it is a process of thinking training and an external manifestation of the writer's subjectivity. Therefore, the widespread application of AI writing tools involves more than a trade-off between technological convenience and potential risks. It is an in-depth issue concerning whether institutions of higher learning can fulfill the fundamental task of fostering virtue through education amid technological changes. Against the backdrop of AI's extensive involvement in academic writing, guiding students to use technology rationally, uphold academic integrity and cultivate critical thinking has become an unavoidable topic for ideological and political education and teaching reform in universities.

2. Generative AI and Its Application in Writing

Generative artificial intelligence refers to a type of technology that learns from massive datasets and creates new and plausible content such as texts, images and audios. Its core capability lies in content generation, rather than mere data analysis or recognition. Two categories of generative AI are widely adopted in college students' writing practices. The first is general large language models, such as ChatGPT, ERNIE Bot and Zhipu AI, which are capable of understanding human language, generating coherent texts, offering writing suggestions and even drafting complete paragraphs. The second is professional writing aids including Grammarly and Writesonic, which focus on grammar checking, text polishing and structural optimization.

These tools have thoroughly transformed traditional writing workflows. In the past, writing formed a complete closed loop consisting of problem identification, literature research, viewpoint formation, drafting and repeated revision, with every step relying on the writer's own cognitive input and thinking efforts. Today, however, AI can summarize core viewpoints of

theories, provide argumentation perspectives and produce first drafts or polished sentences within seconds. It saves students enormous time spent on mechanical and repetitive work. Nevertheless, behind the convenience lies a worrying trend: the boundary between "auxiliary tool" and "substitute" is increasingly blurred. Once students get accustomed to letting AI handle thinking work, writing will no longer be a process of thinking training, but a purely technical operation. This shift takes place imperceptibly through repeated reliance on AI for drafting and revision, and eventually deprives students of the most valuable part of writing — their unique thoughts and voices.

3. Core Dilemmas of College Students' Academic Writing under Generative AI

As AI technology advances, an increasing number of college students turn to generative AI to finish papers and assignments, especially during peak academic periods. The efficiency brought by AI is accompanied by the alienation of students' language expression, thinking modes and academic practices, which is reflected in the following three aspects.

3.1 Flattened Language Expression

Language is not merely a communication tool, but also a carrier of thoughts, a medium for emotion expression and a representation of individuality. One's writing and speaking styles always mirror their ways of thinking and perceiving the world. However, the large-scale use of AI writing tools has led to the homogenization of college students' language expression. Trained on massive corpora, generative AI produces highly stylized content. The outputs of large language models are statistical imitations of common expressions in training data, rather than genuine creative writing. Even if students do not copy AI-generated content directly, long-term exposure to such texts will subtly reshape their writing styles, just like people unconsciously picking up a local dialect after living in a new environment. Language thus ceases to be the natural expression of personal thoughts, and becomes a replica of algorithmic patterns. Individual linguistic characteristics are gradually dissolved amid algorithm-driven homogenization.

The flattening of language is not merely a problem of writing ability; it also weakens young people's capacity to express values. As the direct embodiment of thoughts, language serves as a vital carrier for externalizing values. When students' expressions converge with the "standard answers" generated by algorithms, they will struggle to form their own discourse for value judgment, and fail to present diverse, independent and thoughtful standpoints in public expression.

3.2 Outsourced Thinking Activities

Writing is essentially the externalization of thinking. It requires writers to sort out scattered ideas and organize them into coherent texts through logical reasoning, a process that hones their analytical and creative abilities.

Nevertheless, the one-click generation function of AI is gradually replacing independent thinking. When receiving a writing task, many students no longer start with analyzing the topic, consulting materials and forming personal judgments, but turn directly to AI for ready-made answers. In this case, writing is reduced to a simple process of receiving information rather than training the mind. Scholars have pointed out that contemporary college students generally suffer from insufficient reading accumulation and lack of real-life experience. When their internal knowledge reserves cannot support independent thinking, they will lose the ability to distinguish and resist flawed content while confronted with fluent and complete AI-generated answers.

Critical thinking, independent judgment and value discernment are essential qualities for young people in the new era. If students habitually entrust problem analysis, argumentation and value judgment to AI, their subjective thinking and ability to distinguish right from wrong will inevitably deteriorate. The phenomenon of "outsourced thinking" is particularly alarming in humanities and social sciences, whose research focuses on exploring the human spiritual world, social relations and value issues. Excessive reliance on AI may lead to the "hollowing out of ideas" in academic research. In the long run, students will lose their critical competence and tend to accept mainstream and conservative viewpoints shaped by algorithms, becoming indifferent to diverse values. This undesirable outcome results from improper use of technology rather than technological progress itself.

3.3 Instrumentalized Academic Practice

Academic writing is a rigorous activity for students to refine thinking, express academic viewpoints and pursue values. A high-quality academic paper reflects the writer's depth of thought, logical competence, academic attainment and personal integrity. Regrettably, under the impact of AI tools, many students have turned academic writing into a purely instrumental activity. For them, writing papers is no longer for exploring questions, expressing ideas or improving abilities, but merely for obtaining credits, grade point averages and academic degrees. AI tools further exacerbate such utilitarian attitudes. A large number of AI ghostwriting services covering papers, reports and reading notes are openly available on e-commerce

platforms with booming sales. These services not only violate academic norms, but also undermine the fundamental goals of higher education. When qualified papers can be easily obtained through AI or paid services, academic writing is no longer a proof of personal competence, but an outsourced technical task.

With AI playing a dominant role in completing academic assignments, students gradually transform from knowledge constructors and critics into simple information transporters. No matter how fluent and well-structured an AI-generated paper is, it lacks soul without the writer's genuine thinking input, and is nothing more than grammatically correct word combinations. The instrumentalization of academic writing damages academic ethics and weakens the educational function of universities.[3] The purpose of assigning writing tasks is to enable students to temper their thinking, integrate knowledge and improve capabilities during the writing process. Once core procedures are taken over by AI, assignments will lose their educational value.

4. Causes of Dilemmas in College Students' AI-Assisted Academic Writing

4.1 Lagging Response of Education Systems to Technological Changes

On the one hand, most university writing courses still focus on traditional writing skills. Developed before the AI era, these courses fail to fully anticipate the integration of AI into writing activities. They lack targeted guidance and standardized regulations on the use of AI tools, leaving students confused about the boundaries between legitimate use and academic misconduct, as well as the limitations and potential risks of AI.

On the other hand, many teachers are deficient in digital literacy to cope with AI-driven educational changes. As the leaders of teaching activities, teachers play a decisive role in educational outcomes. However, quite a number of teachers have limited understanding of AI tools, making it difficult for them to guide students to use AI properly and avoid related risks. In addition, the traditional paper evaluation system overemphasizes final written works while neglecting the inspection of writing processes. This makes it hard for teachers to identify AI-generated content and motivate students to think independently via evaluation mechanisms.

4.2 Deficient Academic Literacy and Loss of Subjectivity among Students

Affected by the environment of fragmented information, most students have shifted from in-depth reading to superficial browsing. They prefer short videos, social media posts and news headlines, and rarely concentrate on reading complete academic works or high-quality papers. This reading habit results in inadequate linguistic and knowledge reserves. When faced with writing tasks, students lack original viewpoints and expressive language, making AI-generated content extremely appealing. AI can produce seemingly decent works in a short time, yet it deprives students of valuable learning experiences brought by repeated revision, as well as opportunities to discover new problems, gain inspirations and build resilience.[4]

From the perspective of instrumental rationality, using AI to boost efficiency seems like a reasonable choice. However, students only notice improved efficiency and higher grades, but ignore the long-term consequences including declining capabilities. Fundamentally, the loss of subjective consciousness is the root cause. Many students regard themselves as passive knowledge recipients rather than active knowledge constructors. They tend to follow teachers' arrangements passively, without realizing their dominant position in learning, their responsibility for personal academic development, and the right to express independent thoughts through writing.

4.3 Excessive Prevail of Technological Rationality in Society

There is a widespread misconception in society that AI can replace human work in all fields, ignoring the irreplaceable value of human thinking and creativity. Some AI enterprises adopt misleading marketing slogans such as "paper artifact", "one-click assignment completion" and "instant high-score reports". These promotions downplay the auxiliary positioning of AI and exaggerate its capacity for independent writing, catering to students' desire to finish tasks effortlessly. Moreover, some AI products are embedded with functions including full-text generation, paragraph rewriting and content paraphrasing for plagiarism avoidance, which easily induce academic misconduct, intensify students' inertia and turn AI from an auxiliary tool into a substitute for human creators.

Meanwhile, inadequate supervision creates regulatory blind spots. Due to the absence of clear legal provisions, relevant authorities struggle to crack down on AI ghostwriting services on e-commerce platforms, even though such behaviors seriously violate academic integrity. The vague regulations and insufficient governance indirectly encourage the spread of academic misconduct. Technology should serve human freedom and all-round development instead of restricting human beings. The deification of AI in society fuels students' irrational worship of technology.

5. Solutions to Break the Dilemmas of AI-Assisted Academic Writing

Neither rejecting technology outright nor allowing its unregulated development is a viable solution. Colleges and universities, students and the whole society need to make joint efforts to leverage technological advantages while safeguarding independent thinking and free expression.

5.1 Universities: Establish a Comprehensive AI Literacy Education System

As the main venue for talent cultivation, universities should take the initiative to guide students to use AI rationally and maintain independent thinking. First of all, universities shall formulate clear rules for AI application in writing, define the reasonable scope of AI use in assignments, and set standards for identifying academic misconduct such as AI ghostwriting and over-reliance on AI, so as to prevent lazy thinking and academic irregularities from the institutional level. Secondly, AI literacy education should be incorporated into talent training plans and curriculum-based ideological and political education. Relevant courses should not only teach technical skills, but also deliver value guidance. Courses such as AI-Assisted Writing and Academic Norms can be offered to teach students how to use AI tools, critically analyze AI-generated content and abide by academic writing requirements, so as to foster rational awareness of AI application.

Teachers are key practitioners of the mission to foster virtue through education. Faced with educational transformations brought by AI, teachers of ideological and political courses and professional courses should take the lead in improving digital literacy. They need to master AI tools and understand algorithmic logic and potential risks. In teaching practice, teachers shall integrate AI ethics and academic norms into daily teaching, and prioritize the cultivation of critical thinking. For instance, teachers can organize students to compare AI-generated answers with arguments in classic literature, so as to reveal the defects of AI in logical depth and content authenticity. In addition, teachers can design open and creative assignments such as research reports combining social realities, which require students to engage in personal thinking and emotions rather than relying on stereotyped AI outputs. [5] In this way, AI can return to its proper role as an auxiliary tool for literature sorting and grammar checking.

5.2 College Students: Uphold the Principle of Subjective Practice

While universities provide institutional and educational support, restoring students' subjectivity is the fundamental solution to the dilemmas. Upholding subjectivity in AI-assisted writing embodies the contemporary practice of Marxism regarding human all-round and free development. Marx pointed out that human beings confirm their essential power through conscious and voluntary labor, and academic writing is exactly such a kind of intellectual labor. Writing is never mechanical reproduction of ideas, but the tempering, reconstruction and creation of cognition. [6] Outsourcing core thinking links to AI means giving up opportunities to exert personal capabilities, and degenerating from active creators into passive consumers.

Students must adhere to the principle of putting people first and making the best use of tools. Essentially, AI tools are extensions of human practical capabilities, designed to improve academic efficiency rather than replace human creative thinking. Students need to distinguish between the auxiliary value of instrumental rationality and the core status of value rationality, and resist lazy thinking and homogeneous expression caused by algorithm dependence. In daily academic work, AI can be applied to auxiliary work including literature sorting, language polishing and format adjustment. However, students must stick to independent thinking in core procedures such as viewpoint formation, logical construction and value judgment, and draw conclusions through extensive reading and in-depth research. It is essential to stay alert to algorithms, refrain from blind reliance, continuously hone critical and creative thinking, and maintain personal subjectivity to avoid being manipulated by technology.

5.3 Society: Build an Ecosystem of "Technology for Good"

Addressing the dilemmas of AI-assisted writing requires efforts beyond universities and students. The whole society should work together to build an environment where technology serves public good. The ultimate goal of AI writing technology is to boost academic innovation, not to replace human thinking.

From the perspective of technological research and development, AI enterprises should take promoting human well-being and knowledge innovation as the core value. They need to optimize auxiliary functions of AI and weaken its full-text generation capacity, develop targeted academic research tools, and add identifiable marks to AI-generated content to facilitate academic review. In terms of supervision, market regulation and education authorities shall strengthen joint law enforcement, crack down on AI ghostwriting and paper trading on e-commerce platforms, shut down illegal stores and impose harsher penalties for academic misconduct to maintain a sound academic atmosphere. In addition, the industry should accelerate the formulation of unified codes of conduct for AI writing, clarify the boundaries of technological research and application, and guide AI to play a positive role in solving academic problems, promoting interdisciplinary integration

and accelerating the transformation of research achievements, while guarding against the negative effects of technological alienation.

6. Conclusion

The alienation caused by AI-assisted writing poses new challenges to universities' fundamental task of fostering virtue through education. What higher education aims to cultivate are young talents with critical thinking, innovative capabilities and firm ideals and beliefs, who are capable of shouldering the mission of national rejuvenation. Guiding college students to uphold thinking subjectivity in the AI era is not only an issue of academic competence, but also a major political proposition concerning what kind of talents we should cultivate.

The development of AI is supposed to create opportunities for human emancipation. Nevertheless, once AI evolves from a liberating tool into a controlling force, college students will be trapped in the predicament of flattened language and homogenized thinking under algorithms. We must clearly recognize that genuine social progress lies not only in material prosperity and technological advancement, but also in human spiritual emancipation and all-round development.

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