Cheating or Learning: The role of AI in shaping student academic integrity

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Artificial intelligence (AI) tools like ChatGPT are rapidly transforming the landscape of education, particularly in secondary schools where students are developing critical academic skills. These tools offer unprecedented benefits: they can generate quick summaries, explain complex concepts in simpler terms, assist with essay structure, and even simulate one-on-one tutoring. As a result, many students have turned to AI to improve their efficiency, reduce academic stress, and navigate increasingly competitive academic environments. However, these same tools raise significant concerns for educators and policymakers. There is growing fear that students may become overly dependent on AI, leading to a decline in their ability to think critically, write independently, and engage deeply with material (Zhang, 2017; Wiredu, Abuba, & Zakaria, 2024). Moreover, the ease of accessing AI-generated content blurs the lines between original work and assisted work, threatening long-held standards of academic integrity.

This dilemma represents a broader sociotechnical problem, one that involves both the technological capabilities of AI and the social systems, norms, and policies that attempt to regulate it. The concept of cultural lag is particularly useful for understanding this challenge. Culture lag describes the delay between the development of new technologies and the evolution of societal norms and institutions needed to accommodate them(Ogburn, 1922). In the case of AI in education, technology has advanced rapidly, while schools are still figuring out how to respond appropriately. According to a 2023 study by Common Sense Media, 58% of high school students reported using AI tools like ChatGPT for schoolwork at least once, with a significant portion acknowledging that they used it without fully understanding the material. This growing reliance highlights the urgent need for clearer guidance and structure around AI use in schools.

This paper argues that while AI can be a powerful tool for enhancing education, its success depends on the development of thoughtful, age-appropriate policies and instructional strategies that promote responsible use and academic integrity. First, it will explore how AI affects students' efficiency and learning habits, showing both the potential benefits and risks of dependency. Next, it will examine the role of school administrators in creating flexible and equitable policies for AI integration. Finally, it will evaluate how teachers can implement classroom practices that use AI to support—rather than replace—students' critical thinking skills.

Supporting Argument 1: Balancing Efficiency with Dependency—High School Students' Use of AI Tools

While AI tools like ChatGPT can enhance learning efficiency and time management, their overuse risks fostering academic dependency and weakening students' critical thinking and independent problem-solving skills. This section examines both the benefits and the risks associated with students' use of AI tools, drawing on anecdotal evidence from online discussions and empirical research findings. It also explores how educators can craft policies that strike a balance between leveraging AI's capabilities and fostering intellectual growth.

One of the primary advantages of incorporating AI tools into the academic process is the significant boost they provide in productivity, and if used correctly, efficiency in learning. Many students have reported that using AI assistance has helped them overcome writer's block and manage complex assignments more effectively. Online forums such as Reddit are filled with discussions where students express how AI helps them organize thoughts, improve clarity in writing, and structure their arguments more effectively (Reddit, 2024). This efficiency not only reduces the stress associated with tight deadlines but also allows students to explore advanced topics that might otherwise remain out of reach due to time constraints.

The benefit of improved efficiency is further underscored by AI's ability to process vast amounts of reading material rapidly. AI tools can summarize dense academic texts, extract key arguments, and even highlight contradictions within research papers. This capability is particularly useful for students in research-intensive courses who need to sift through large volumes of literature. AI enables them to pinpoint the most relevant information quickly, allowing for deeper engagement with the material rather than spending hours filtering through extraneous content (Common Sense Media, 2023).

Additionally, AI tools function as personalized tutors. With the capability to process large volumes of information and provide immediate clarifications, AI can help bridge gaps in understanding that might not be addressed during traditional classroom instruction. For example, a student struggling to grasp a complex theoretical concept may use ChatGPT to generate a simplified explanation or alternative perspective, thereby complementing the instruction received

in class. AI's adaptability also makes it beneficial for students with learning disabilities or those who require additional academic support. Unlike conventional tutoring, AI- powered platforms like Khan Academy's Khanmigo and MindGrasp offer students 24/7 access to academic support, allowing them to seek help at any time that suits their schedules.

Despite these advantages, the reliance on AI tools also poses significant risks, most notably the risk of academic dependency. When students use AI-generated content as a shortcut to complete assignments, they may inadvertently forgo the opportunity to engage in the critical thinking and analytical processes that are important for genuine learning. Zhang (2017) found that while AI-assisted tools can enhance efficiency, there is a concomitant risk that students may become habituated to accepting AI outputs without adequate scrutiny. In Zhang's study, students who frequently relied on AI-generated solutions showed a tendency to bypass the deeper cognitive processes traditionally associated with problem solving and independent inquiry. This overreliance could lead to a form of intellectual complacency, where students depend on automated responses rather than developing their own analytical skills. Zhang's findings resonate with ongoing discussions about AI in education today. Although the study predates the rise of tools like ChatGPT, it remains highly relevant because it captures a long-standing pattern: students often embrace new technologies for their convenience, even when doing so may undermine deeper learning. The historical context enhances the credibility of the study, and it provides a strong foundation for understanding the risks of AI overuse in modern classrooms.

The danger of academic dependency is not entirely unprecedented; similar concerns have been raised in the context of earlier technological aids. Consider the historical example of calculators in the mathematics classroom. Initially, there were fears that calculators would erode students'

ability to perform basic arithmetic. Although research eventually demonstrated that calculators could, when used appropriately, free students to focus on higher-order problem solving, the lesson remains clear: technology must be integrated in a way that supports rather than supplants fundamental academic skills. Rimbar (2017) offers a comparable cautionary tale in the realm of language arts. In his study on spell-checkers, Rimbar showed that overdependence on such technology can hinder the development of intrinsic language abilities. Similarly, if AI tools are used as a crutch rather than a supplement, students risk losing the capacity for independent thought and deep learning.

A closer look at online discussions reveals that students themselves are aware of this duality. In various Reddit threads, some students express gratitude for the time-saving benefits of AI, emphasizing how it helps them manage the demanding pace of education. Yet, other participants voice concerns about becoming too reliant on AI outputs, fearing that this dependency may eventually lead to a decline in their own creative and critical capacities (Reddit, 2024). Such discussions illustrate that the impact of AI is not uniformly positive or negative; rather, its effects depend largely on how students choose to integrate these tools into their learning routines.

Given the dual-edged nature of AI in education, the key to reaping its benefits while mitigating its risks lies in adopting a balanced approach. One major issue with AI policies in education is their broad and inflexible nature. For example, some school districts have implemented blanket bans on all AI tools without distinguishing between uses for cheating and uses for learning support. In 2023, New York City Public Schools initially banned ChatGPT across all devices due

to academic integrity concerns, only later reversing course to allow responsible use. Similarly, some schools have enforced zero-tolerance policies that penalize any AI usage, even for harmless tasks like grammar checks or brainstorming, leaving little room for nuanced application or age-appropriate learning. A single, overarching AI policy for all students does not account for the significant differences between grade levels. The needs of a 6th-grade classroom are vastly different from those of a 12th-grade classroom, and policies should reflect this distinction. Younger students may require stricter regulations to ensure they do not misuse AI, whereas older students may benefit from structured AI use that enhances their research and writing skills without replacing their own effort.

Educators have a critical role to play in shaping AI policies. Rather than banning or ignoring AI tools altogether, instructors can design a curriculum that incorporates these technologies as aids while still emphasizing the importance of independent analysis and critical evaluation. For instance, educators might assign projects where high school students are required to use AI-generated drafts as a starting point but then must critically assess, modify, and expand upon the provided content. Such assignments encourage students to engage with the material actively, using AI as one of many tools rather than as a definitive source of truth.

Additionally, schools must recognize that cultural lag influences how students at different age levels interact with AI. Older students who have grown up with AI may have a more intuitive understanding of its capabilities and limitations, while younger students may lack the skills to differentiate between AI-generated content and their own work. Policies should account for these

generational gaps, ensuring that technological literacy is gradually introduced and reinforced as students advance through their education.

While AI tools like ChatGPT offer substantial opportunities for improving productivity and assisting with routine academic tasks, they also carry the inherent risk of fostering academic dependency—particularly when students use them without reflection or guidance. A 2023 survey by EducationWeek found that 49% of teachers felt unprepared to address student AI use, suggesting that many classrooms lack the structure needed to ensure AI supports learning rather than replaces it (EducationWeek, 2023). This lack of preparedness can lead to inconsistent AI use across schools, where some students benefit from guided integration while others misuse the technology due to unclear expectations.

To address this imbalance, schools should focus on structured, age-appropriate AI guidelines and assignments that require students to demonstrate independent thinking. For example, the Ateeq et al. (2024) study showed that when high school students participated in AI-assisted debates—where they had to refine, fact-check, and expand on AI-generated arguments—they improved their critical reasoning skills. This type of assignment contrasts sharply with passive AI use, such as copying entire essays, and highlights the importance of intentional curriculum design. Rather than enforcing blanket AI bans, which may penalize responsible use, schools should promote digital literacy by teaching students how AI works, where it falls short, and how to engage with it thoughtfully. In doing so, educators empower students to treat AI as a tool that supports—but does not replace—their academic growth.

Supporting Argument 2: The Role of Administrators—Balancing Adoption with Educational Standards

As AI tools become more prevalent in classrooms, school administrators are tasked with determining how best to manage their adoption. While students and teachers deal with the immediate use of AI in assignments and instruction, administrators are responsible for setting policies that either promote or restrict its role in education. History shows that how institutions respond to new technology greatly influences its long-term impact. In the past, tools such as calculators, spell-checkers, and smartboards were met with skepticism before eventually becoming accepted parts of classroom learning(Countryman &Wilson, 1991; Rimbar 2017). Similarly, AI presents an opportunity to improve education—but only if administrators take a proactive approach that balances innovation with clear academic standards. As stated prior, New York City Public Schools initially banned ChatGPT in 2023 but reversed the decision months later, opting instead to teach students how to use it responsibly—a shift that highlights the importance of policy evolution in real-world educational settings.Administrators must avoid a one-size-fits-all approach to policy-making.

Beyond age-specific rules, administrators should also consider equity. Not all students have the same level of access to AI tools or internet-connected devices at home. If schools do not provide structured, in-school access and guidance, students from under-resourced communities may fall behind their peers who can use AI more freely and effectively. To prevent this, school districts should invest in teacher training, create AI literacy programs, and ensure that all students have

access to approved educational tools. According to Pew Research Center (2021), about 15% of U.S. students lack reliable internet access at home, creating disparities in how students can use digital tools. By supporting equitable access in schools, administrators help ensure AI benefits all learners—not just those with the resources to use it outside the classroom.

Administrators also need to involve educators and families in the policy-making process. Teachers are the ones who see firsthand how students interact with AI, and their input is essential for crafting realistic and enforceable guidelines. Similarly, parents must understand how AI is being used so they can support learning at home. A report by the Consortium for School Networking (CoSN, 2022) emphasizes that successful technology integration in schools depends heavily on collaboration between administrators, teachers, and families. By developing policies through open dialogue and collaboration, schools can create shared expectations that foster both accountability and trust.

Ultimately, administrators play a critical role in setting the tone for how AI is used in schools. With thoughtful, flexible policies and an emphasis on access and collaboration, they can ensure that AI is implemented in ways that promote fairness, uphold academic standards, and prepare students for a future where AI is an everyday tool.

Supporting Argument 3: Ensuring AI Promotes Critical Thinking Rather Than Replacing It

As concerns about AI's impact on critical thinking grow, some educators are shifting from debate to action, experimenting with strategies that use AI to strengthen, rather than replace, student reasoning. Instead of banning AI outright, these educators are integrating it into lessons in ways that promote evaluation, reflection, and creativity. This section explores real-world examples of classroom practices that help students critically engage with AI tools, turning them into opportunities for deeper learning. Case studies of AI-focused lesson plans, online discussions, and empirical research indicate that educators must establish clear guidelines and structured assignments that require students to engage with AI outputs thoughtfully. This section explores how AI can be harnessed as a tool for fostering critical thinking rather than replacing it.

One of the primary concerns educators express is that students might rely too heavily on AI tools to generate content, bypassing the cognitive effort required for deeper learning. AI models like ChatGPT, Bing AI, and Google Gemini provide quick answers, summaries, and even fully structured essays, making it tempting for students to use them as a substitute for their own thinking. Zhang (2017) found that students who frequently relied on AI-generated solutions demonstrated lower engagement in analytical reasoning tasks, as they often accepted AI outputs at face value without evaluating their accuracy or validity. This raises concerns about whether students are truly understanding the material or simply reproducing AI-generated content.

A study by Wiredu, Abuba, and Zakaria (2024) found that while AI tools could improve efficiency in academic tasks, students who relied heavily on AI assistance struggled with independent problem-solving. Their research showed that students who frequently used AI for

writing assignments had difficulty structuring their own arguments when asked to complete tasks without AI. This suggests that, rather than acting as a learning aid, AI in some cases serves as a crutch that diminishes students' ability to engage in critical thinking and intellectual exploration.

Online discussions further highlight this issue. Many students on Reddit forums acknowledge that AI helps them structure essays and generate ideas, but they also admit that it discourages them from engaging deeply with their work (Reddit, 2024). One Reddit user stated, "Why should I struggle to write an essay when ChatGPT can do it for me?" This mindset reflects a growing dependency on AI-generated content rather than the development of personal writing and analytical skills.

Despite these concerns, AI does not have to undermine critical thinking if used effectively. Some educators have begun designing AI-focused lesson plans that require students to critically engage with AI-generated responses. For example, Wiley (2024) describes a study in which instructors asked students to compare AI-generated essays with human-written essays, analyze their strengths and weaknesses, and assess factual accuracy. This approach forces students to engage in metacognition—thinking about how they think—by evaluating AI outputs rather than blindly accepting them.

Similarly, an experimental study conducted by Ateeq et al. (2024) implemented an AI-assisted debate program in high school classrooms. Students were required to use AI to generate arguments for a debate but had to refine, fact-check, and expand on those arguments

independently. The results showed that students became more adept at identifying biases in AI-generated content and developed stronger critical reasoning skills. This study supports the idea that AI can be a powerful tool for enhancing critical thinking when integrated properly.

One practical way educators can promote critical engagement is by requiring students to provide annotations and justifications for AI-generated content. Instead of simply copying AI responses, students should be asked to explain why they selected certain AI-generated ideas, how they modified them, and whether they agree with the AI's reasoning. This forces students to interact with AI outputs actively rather than passively accepting them.

Despite these strategies, teachers face significant obstacles in ensuring that AI is used as a learning aid rather than a replacement for critical thinking. A major challenge is the difficulty of detecting AI-generated work. Unlike traditional plagiarism, which involves copying from existing sources, AI-generated content does not have a clear origin, making it harder for plagiarism detection tools to flag. As a result, teachers may struggle to differentiate between original student work and AI-assisted submissions.

Another challenge is students' reluctance to put in the extra effort when AI provides an easier alternative. If AI-generated responses are grammatically correct and well-structured, students may see little incentive to revise or critically engage with their work. Educators need to create assignments that require students to think beyond what AI provides, such as requiring in-depth analysis, personal reflection, or real-world applications that AI cannot generate convincingly.

Additionally, the rapid evolution of AI technology presents a cultural lag in education. Many teachers are not yet trained in how to integrate AI into their curricula effectively. Traditional teaching methods emphasize independent research and writing, but AI changes the landscape by allowing students to generate polished work instantly. Without proper training and guidelines, teachers may struggle to create lesson plans that incorporate AI while still fostering analytical thinking.

To address these challenges, schools must develop AI policies that encourage responsible use while preventing overreliance. One potential approach is the AI Transparency Requirement, where students must disclose when and how they used AI tools in their assignments. This could be similar to citation requirements for sources, ensuring that students engage with AI outputs critically rather than presenting them as their own work.

Furthermore, structured AI integration in the curriculum can help students use AI constructively. For instance, teachers might assign projects that involve AI but require students to compare AI-generated content with traditional research methods. This teaches students to use AI as one tool among many, rather than as their primary method of information gathering. Some universities are already experimenting with AI literacy courses that teach students how AI works, its limitations, and its potential biases (Wiley, 2024). Such courses can help students develop the skills necessary to evaluate AI-generated content critically rather than accepting it uncritically.

Finally, AI policies should be age-specific, recognizing that younger students may require stricter guidelines to prevent misuse, while older students can be trained in responsible AI use. A universal ban on AI in education is neither practical nor beneficial. Instead, schools should focus on teaching AI literacy and responsible engagement, ensuring that students develop strong analytical and independent thinking skills while leveraging AI's potential.

AI's role in education is complex, offering both opportunities and challenges. While AI has the potential to enhance learning efficiency, its improper use can hinder students' ability to think critically. Studies by Zhang (2017) and Wiredu, Abuba, and Zakaria (2024) indicate that students who rely too heavily on AI struggle with independent problem-solving, while educators like Ateeq et al. (2024) have demonstrated that structured AI engagement can enhance analytical skills. The key to ensuring AI promotes rather than replaces critical thinking lies in thoughtful curriculum design, AI transparency policies, and structured AI assignments that require deeper engagement with AI outputs. As AI technology continues to evolve, educators must adapt their teaching strategies to harness its benefits while mitigating its risks.

Conclusion

The integration of AI into secondary education is not a matter of if, but how. As tools like ChatGPT continue to evolve and become more embedded in everyday life, educators, administrators, and students alike must confront the opportunities and challenges they present. This paper has examined the dual nature of AI in schools—its ability to enhance learning by

increasing efficiency and accessibility, and its potential to erode essential academic skills when used without limits. Students benefit when AI serves as a supportive guide, but suffer when it replaces their effort and critical thought. Administrators must lead the way in crafting flexible, grade-appropriate policies that reflect the realities of today's classrooms while protecting long-term learning goals. At the same time, educators must be empowered to develop assignments and lesson plans that require students to interact with AI critically and reflectively, using it as a tool for deeper analysis rather than as a shortcut. Schools that ignore AI risk falling behind, but schools that embrace it without limits may undermine their educational mission. The solution lies in building a culture of responsible use. This means teaching students how to recognize the strengths and weaknesses of AI, how to cite it ethically, and how to use it to complement—not replace—their own intellectual work. It also means providing equal access to AI tools, so that all students, regardless of background, can learn how to use them effectively. With intentional policy, guided instruction, and a shared commitment to academic growth, schools can navigate the cultural lag that AI has created and prepare students for a future in which AI is not just a tool they use, but one they understand and control.

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