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**RESEARCH ARTICLE**

## Navigating Critical Thinking in the Digital Era: An Informative Exploration

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**ABSTRACT**

In the digital era characterized by the pervasive influence of technology, the intersection of critical thinking (CT) and artificial intelligence (AI) has become a topic of paramount importance. This informative article delves into the evolving relationship between these two realms, probing whether AI tools have the potential to either enhance or hinder students' critical thinking capacities. As we navigate the intricate terrain of critical thinking and technology, compelling questions surface. First, how does the amalgamation of AI and digital platforms influence the acquisition of essential critical thinking skills among learners? Delving deeper, the inquiry extends to whether AI-driven tools can offer valuable support in dissecting complex information while preserving the depth and nuance intrinsic to critical thinking. Furthermore, the examination probes into the challenges that emerge when individuals heavily rely on AI-curated information and the potential repercussions on the quality of critical analysis. In addressing the symbiosis of education and technology, educators find themselves at a crossroads. This article contemplates how educators can adapt their strategies to nurture robust critical thinking skills within technology-rich learning environments. A pivotal aspect of this involves empowering students to question, validate, and critically scrutinize information generated by AI, fostering a sense of discernment and independence in their intellectual pursuits. Beyond the pedagogical realm, the discourse extends to ethical considerations. The centrality of technology in shaping cognitive processes brings forth ethical dilemmas that warrant examination. This exploration aims to unravel the intricacies of these ethical considerations when technology becomes a pivotal influencer of our cognitive landscape, emphasizing the importance of ethical awareness in the integration of AI into educational frameworks. Ultimately, this study holds significance in shaping educational practices, fostering societal resilience in the face of information abundance, and promoting ethical considerations in the integration of digital tools. It contributes to a comprehensive understanding of critical thinking in the digital era, ultimately empowering individuals to navigate the intellectual landscape with acumen and ethical responsibility.

**KEYWORDS**

Artificial Intelligence (AI), Critical Thinking (CT), Human Intelligence (HI).

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### 1. Introduction

The advent of the digital era has brought about unprecedented transformations across various aspects of society. This wave of change is largely driven by the rapid integration of artificial intelligence (AI) into daily life. As AI's capabilities expand, it prompts a crucial question: What impact will this technological evolution have on our critical thinking abilities?

This article embarks on an informative journey to explore the evolving relationship between these two realms, inviting readers to navigate the nuanced terrain of critical thinking in the digital era.

As we set out on this informative journey of exploration, our aim is to navigate the realms of cognitive science, technology, and human potential. Through introspection, inquiry, and examination, we illuminate the intricate interplay between the cognitive faculties intrinsic to us and the digital tools that have become our companions. By the journey's end, we hope to equip readers with a profound understanding of the nuanced relationship between critical thinking and AI in the digital age.

## **2. Literature Review**

In recent years, the world has undergone exponential change across all sectors, placing significant emphasis on scientific innovation and the development of human skills in order to keep pace with and align alongside technology. Humans have become prisoners of technology, which has evolved into a companion in every aspect of their lives and activities undertaken. It is in this context that demands in the workplace have surpassed limits. In other words, individuals are expected to possess skills that exceed what machines can achieve, particularly in reasoning and critical thinking.

In the midst of the growing fascination with artificial intelligence (AI), a concurrent resurgence of interest in human intelligence (HI) is becoming evident across various spheres and at multiple tiers (Spector & Ma, 2019).

While much funding and support goes to the development of artificial intelligence, this should not happen at the expense of human intelligence (Spector et al., 2019)

Undoubtedly, critical thinking is a realm that has been discussed since ancient times, with the Socratic method of questioning, Plato's philosophical thoughts, and contributions from other thinkers. Even today, the interest in this concept remains unparalleled. However, unfortunately, numerous challenges confront the implementation of critical thinking in learning and teaching.

Critical thinking, historically a cornerstone of informed decision-making, has been championed throughout history as a vital skill for individuals to navigate complex situations (Paul & Elder, 2006). Rooted in analysis, evaluation, interpretation, and reasoning, critical thinking has traditionally been cultivated through education and practice (Ennis, 1985). However, the digital era presents new challenges and opportunities that warrant a reevaluation of how critical thinking is fostered.

It is worth mentioning that human intelligence and critical thinking are intertwined facets of cognitive prowess that play fundamental roles in shaping our understanding of the world and guiding our decision-making processes.

While Human intelligence encompasses a spectrum of mental abilities, from problem-solving to emotional intelligence, providing the foundational elements, Critical thinking, on the other hand, acts as the refining force, encouraging individuals to question, analyze, and synthesize information systematically. Together, this unified cognitive entity empowers individuals to comprehend complex information, make informed decisions, and navigate the dynamic challenges of the modern era with adaptability and discernment. These challenges have become more pronounced with the advent of artificial intelligence. According to Winston (1992), in his book "Artificial Intelligence," the field has been defined as the study of the computations that enable perception, reasoning, and action.

In Nilsson's perspective (1998), Artificial Intelligence is conceptualized as the design and development of autonomous agents. These agents possess the capability to sense their environment, engage in logical reasoning, and carry out actions autonomously to achieve specific objectives. Simply put, AI involves the creation of intelligent systems that can independently perceive their surroundings, process information through logical reasoning, and take actions aligned with particular goals. This characterization underscores the idea that AI seeks to emulate human-like cognitive functions in machines, enabling them to operate intelligently and purposefully.

Safeguarding and elevating human intelligence, particularly in the realm of critical thinking, becomes paramount amidst the surging prominence of AI and its emulation of human-like cognitive functions. This imperative takes center stage as we navigate the ever-changing landscape of intelligence evolution, underlining the necessity for a conscientious and strategic approach to secure the sustained vigor and progression of human cognitive abilities.

While AI exhibits remarkable capabilities in tasks related to perception, reasoning, and action, it is crucial to acknowledge the unique qualities of human intelligence, especially in areas that demand complex and nuanced decision-making, ethical reasoning, and creativity—elements that are integral to critical thinking. Human intelligence brings a depth of understanding, emotional intelligence, and ethical discernment that AI, despite its advancements, may struggle to fully emulate.

For instance, in the realm of brain-computer interface technology, Neuralink corp stands as a prominent player with substantial resources and heightened investor interest, spearheading research into establishing a bridge between neural signals and

computational systems, hence paving the way for potential breakthroughs in understanding and enhancing human cognition. This concentrated effort by Neuralinkcorp has garnered attention for its capacity to reshape the boundaries of human-machine interaction, ushering in a new era of possibilities at the intersection of technology and the human brain.

However, as researchers, the questions that need to be posed are:

To what extent can this advancement serve the field of education, and are there any limitations to its application?  
How can this technology enhance the realm of learning and teaching while also taking into consideration any potential constraints?

In other words, researchers and scholars need to delve deeper into how brain-computer interfaces could be harnessed within an educational context, all the while critically examining the boundaries of such utilization and the potential challenges that might arise.

## **2. Challenges Facing both Students and Educators in the Digital Era**

The digital landscape is rife with information overload, misinformation, and the echo chamber effect (Sunstein, 2018).

In other words, social media platforms use AI algorithms to personalize content for users; therefore, when users are exposed only to information that aligns with their existing beliefs. This can limit critical thinking by reducing exposure to diverse perspectives.

Along the same lines, in the education sector, students are bombarded with a deluge of data from various sources, making it increasingly difficult to discern credible information from misleading content. The rise of filter “ filter bubbles” (Pariser 2011) further exacerbates the problem by isolating individuals within self-reinforcing information silos.

Pariser argued that while online personalization can enhance user experience, it can also create a situation where users are exposed to a limited range of perspectives, potentially reinforcing existing biases and preventing them from encountering diverse viewpoints.

As a result, students' critical thinking abilities are put to the test in deciphering truth from fiction. In this same debate concerning the challenges faced by both teachers and students in the Digital Era, the question of how brain-computer interface technology can contribute to education while encouraging critical thinking and whether any limitations exist becomes even more pertinent. As educators and learners navigate the complexities of the digital landscape, exploring the potential benefits and constraints of integrating brain-computer interfaces within educational practices could provide valuable insights and foster critical thinking skills.

In this respect, we can't ignore how crucial critical thinking is. But with the rise of the Digital Era, there are new challenges we need to deal with to develop and use this skill. For teachers and students dealing with this tech-heavy time, it's super important to figure out good ways to help critical thinking grow while using technology. It's like finding a mix between old wisdom and new ideas – the key is to seamlessly blend them for maximum impact.

Keeping in step with this, the rise of artificial intelligence (AI) and automation poses questions about the future of work and the role of humans in a tech-driven landscape. As AI systems perform routine tasks, the emphasis shifts towards uniquely human skills, such as creativity, empathy, and critical thinking. Striking a balance between leveraging AI's capabilities and preserving the essential human trait of critical thinking presents a notable challenge.

One point of concern pertains to the present surpassing of human intelligence (HI) by AI. Further apprehensions revolve around the potential displacement of humans by AI in specific scenarios, along with the fear that AI could become unmanageable (Epstein 2016; Fang et al. 2018).

### **2.1 The Role of Artificial Intelligence and Its Impact on Critical Thinking**

AI, often touted for its data analysis capabilities, has infiltrated multiple domains, from healthcare to finance and education. AI can process vast amounts of data and identify patterns that human cognition might overlook. This potential to assist in decision-making begs the question:

Can AI become a valuable aid in nurturing critical thinking skills?

AI-driven tools are emerging to aid in information verification and analysis. These tools can help students sift through the avalanche of information, flagging potential biases and inaccuracies (Nguyen et al., 2015). Moreover, AI's ability to recognize patterns and trends provides students with a fresh perspective when approaching complex problems. Yet, a concern arises:

Could an overreliance on AI diminish the need for independent critical thinking?  
In simple terms, Can AI help us get better at thinking critically?

There are new tools powered by AI that are showing up to help check and understand information. These tools can be like helpers for students, sorting through a big bunch of info and pointing out things that might not be quite right (Nguyen et al., 2015). Moreover, AI can see patterns and trends that we might not catch, giving us a new way to think about tough problems.

But here's the thing: Could using AI too much mean we forget how to think on our own?

### ***2.2 Fostering Critical Thinking in the AI Era***

While AI offers promising tools for information analysis, it is essential to strike a balance between AI assistance and the cultivation of human cognitive skills. Educators and institutions must consider how to integrate AI technologies as aids rather than replacements. A holistic approach is necessary, where AI complements students' critical thinking by providing insights and perspectives while encouraging them to question, analyze, and evaluate things independently.

Furthermore, fostering critical thinking involves encouraging healthy skepticism and curiosity in students. AI should be presented as a resource that offers perspectives and insights, but students should be prompted to question the algorithms, biases, and assumptions that underlie the AI-generated results. This not only promotes a deeper understanding of the technology but also instills a sense of responsibility in using and interpreting AI-generated information.

The merger of AI and critical thinking might sound like a match made in heaven, but it also stirs up some serious ethical concerns. AI, clever as it is, sometimes picks up on biases that can taint the purity of our thinking, boxing us into old-school mindsets (Diakopoulos, 2016).

Now, hold on tight because here's the kicker: if we're serious about fairness and clarity, we need AI to come clean. It's not about mere technicality; it's about making AI spill the beans on its reasoning so that students aren't left in the dark. This is no minor matter – it's a monumental move that builds trust in what AI has to say. And let's face it: trust in our digital companion is the cornerstone of a future where AI and critical thinking thrive hand in hand.

As the synergy between AI and critical thinking continues to evolve, the future holds intriguing possibilities. AI-powered education platforms may adapt to individual learning styles, offering tailored exercises to enhance critical thinking capacities. However, striking a balance remains pivotal; an overreliance on AI might lead to intellectual complacency, stunting the growth of independent reasoning.

### ***2.3 Turning Artificial Intelligence into an Ally: Embracing its Strengths in Education***

In the realm of education, the pivotal question of our time is how to transform artificial intelligence (AI) from a perceived adversary to a valued ally, harnessing its strengths rather than viewing it as a threat to human thought. While apprehensions naturally accompany any adaptation process, the reality is that there is no alternative. It's essential to navigate this journey, recognizing the transformative potential of AI.

Consider a concrete approach: imagine students engaged in an essay writing class tasked with evaluating the credibility of information generated by AI systems. This exercise not only raises their awareness of AI capabilities but also provides a structured environment for their explicit utilization. Not only are we actively involving students in this assessment, but we are also empowering them to critically engage with AI-generated content. That is, through cultivating students' digital literacy, we nurture their skills of discernment and critical thinking.

This shift in perspective is not just a theoretical exploration; it's a pragmatic step towards integrating AI seamlessly into education. Instead of fearing the unknown, we invite students to become evaluators, decision-makers, and contributors in the realm of AI. This not only aligns with the requirements of our digitally driven future but also positions students as active participants in shaping the narrative of human-AI collaboration.

In the broader context, this approach exemplifies a proactive strategy. It acknowledges the concerns but transforms them into opportunities for growth. It aligns with the evolving landscape of education, where adaptability and digital fluency are becoming indispensable.

In his 2018 report, Tuomi advocates for a reevaluation of education's societal role and urges an ongoing dialogue on responsible AI use in the educational domain. Anticipating a potential departure from traditional testing, the report emphasizes a shift toward

broader evidence-based assessments. It highlights the need for educational institutions to adapt to the automation of productive processes by AI. Additionally, the report prompts contemplation on the evolving relationship between formal and informal learning, signaling a transition from education's instrumental to a more developmental role.

Therefore, considering AI as a partner in education, we are not only preparing students for the future but also fostering a generation that is not just passive consumers of technology but thoughtful navigators of the digital realm.

This paradigm shift requires a collective embrace of change, a willingness to experiment, and a commitment to evolving educational practices. The future of critical thinking hinges on our ability to leverage the strengths of AI, and in doing so, we empower the next generation with the tools they need to thrive in an increasingly complex and AI-infused world.

### **3. Exploring AI in Classroom Tests:**

#### **3.1 Fostering Responsible AI Use in the Modern Classroom**

Imagine bringing the excitement of open-book assessments into the digital age by integrating artificial intelligence (AI) into classroom tests. Similar to the liberating concept of open book exams, this innovative approach invites students to navigate AI tools under the guidance of their teachers.

The objective hereby is to examine how students can effectively utilize AI tools under the guidance of their teachers.

In this modern parallel, we see resources not as obstacles but as valuable aids. Whether it's traditional reference materials or cutting-edge AI, the goal is to empower students to enhance their understanding and craft comprehensive responses. The infusion of AI into classroom tests goes beyond testing memorization; it evaluates students' capacity to apply technology critically.

The core idea hereby is to make students not only aware of AI's strengths but also to instill ethical considerations in its use within the academic context. Just like in open book exams, where students are trusted to responsibly use resources, AI becomes a tool for responsible and informed learning. Educators play a pivotal role in guiding students on effectively utilizing AI tools during classroom tests, cultivating both technological proficiency and ethical awareness.

In essence, integrating AI tools into classroom tests is a modern evolution, reinvigorating the learning experience. It readies students for a future where collaboration with intelligent technologies is not just accepted but actively encouraged. This approach emphasizes the importance of embracing responsible AI use within the dynamic and engaging environment of the modern classroom.

#### **3.2 AI in the Contemporary Educational Landscape**

Fostering critical thinking in education with AI integration holds immense potential for cultivating and elevating students' critical thinking skills. This symbiotic relationship between technology and education empowers educators to go beyond traditional teaching methods, providing a dynamic platform for intellectual growth. According to Chan (2023), "Preparing students for an AI-driven workplace involves teaching them how to use AI responsibly, ethically, and effectively" (p. 17).

In short, embracing AI in contemporary education transcends the classroom, preparing students for the complexities of the digital era. The guidance of educators, coupled with interactive discussions and real-world applications, ensures that students not only understand AI but also develop the essential skills to thoughtfully engage with and shape the future of technology.

##### ➤ **Enhancing Analytical Skills**

The utilization of AI tools in education prompts students to analyze information with a discerning eye. Teachers can guide them in dissecting AI-generated content, enabling the development of analytical skills crucial for evaluating the reliability and relevance of information.

##### ➤ **Navigating AI Evaluation:**

Educators play a pivotal role in instructing students on how to assess AI's output. By imparting knowledge on the mechanisms behind AI algorithms, teachers empower students to question, validate, and critically examine the information generated. This process encourages a deeper understanding of AI's capabilities and limitations.

##### ➤ **Interactive Learning through Discussions:**

Fostering critical thinking is not a solitary endeavor. Engaging students in discussions, both with educators and peers, creates an interactive learning environment. Through dialogue, students can share perspectives, question assumptions, and collectively form a nuanced understanding of AI's role in various facets of life.

➤ **Real-World Application:**

Encouraging students to apply critical thinking to real-world scenarios involving AI instills practical problem-solving skills. Whether evaluating the use of AI in industries, healthcare, or daily life, students gain insights into the complexities and ethical considerations associated with embracing AI technologies. (Chan, 2023)

➤ **Adaptability and Lifelong Learning**

The integration of AI in education underscores the importance of adaptability and lifelong learning. As technology evolves, critical thinking becomes an essential skill for navigating the ever-changing landscape. Students equipped with strong critical thinking abilities are better prepared to embrace and contribute to advancements in AI and other emerging technologies.

**3.3 Funding AI: Shaping the Future of Modern Education**

Numerous funds have been allocated to the development of artificial intelligence (AI) worldwide, particularly in developed countries, leading to intense competition among them. Among the leaders in this sector are the United States and certain Asian countries. Statistics show that in the United States, for instance, funds dedicated to AI far exceed those reserved for other sectors. The investment in AI is not a random occurrence but is part of a futuristic vision, enabling societies that grasped this early on to explore new horizons in modern education.

In 2017, the United States Department of Defense invested 2.5 billion US dollars. Following a similar trajectory, the European Commission has decided to escalate investments in AI, as reported by Tuomi, I. (2018) in "The Impact of Artificial Intelligence on Learning, Teaching, and Education" (EUR 29442 EN). This strategic approach mirrors a forward-looking vision, paving the way for new prospects in modern education.

What the statistics reveal is a significant financial commitment to AI, surpassing the funds dedicated to other strategic sectors in certain cases. Rather than being a happenstance trend, this surge in AI investment aligns with a forward-looking vision, enabling early adopters to chart new horizons in modern education.

Therefore, the discourse should shift from apprehensions about the impact of AI on traditional education to strategic conversations about how to capitalize on its capabilities for the betterment of learning and teaching experiences. In essence, it's high time to view AI as a friend, not a foe, and engage in discussions focused on optimizing its potential for educational progress.

**4. Conclusion**

The dynamic interplay between critical thinking and artificial intelligence is shaping the educational landscape of the digital era. While AI tools provide opportunities to streamline information analysis and pattern recognition, they also pose risks of undermining human cognitive engagement. The answer to whether AI will bolster or diminish critical thinking capacities lies in our approach. By harnessing AI as a supplement rather than a replacement, we can empower students to cultivate nuanced critical thinking skills that adapt to the complexities of our ever-evolving world. The infusion of AI into critical thinking raises ethical concerns. Biases embedded in AI algorithms can inadvertently reinforce existing prejudices and hinder the development of unbiased, critical thinking (Diakopoulos, 2016). Ensuring transparency and explainability in AI algorithms is paramount, enabling students to understand the basis of AI-generated recommendations and make informed decisions.

In addition, ethical considerations should continue to be an integral part of the discourse on AI and critical thinking. For instance, future studies could focus on developing educational frameworks that actively engage students in exploring the ethical implications of AI applications, addressing issues such as privacy, bias, and accountability.

Moreover, future research can delve deeper into exploring the long-term impact of AI integration on critical thinking skills, conducting longitudinal studies to understand how students exposed to AI-supported education evolve in their cognitive abilities over time. Comparative analyses can also be valuable, assessing the effectiveness of different AI tools in promoting nuanced critical thinking.

While this informative article lays the groundwork by outlining theoretical frameworks and conceptual considerations, it beckons researchers to embark on empirical studies. Through systematic investigations, future research can validate, refine, and extend the insights presented here, ultimately contributing to a more evidence-based understanding of the intricate relationship between critical thinking and technology in the educational landscape.

In summary, the strategic use of AI as a complementary tool, coupled with a proactive approach to addressing ethical considerations, positions us to harness the advantages of technology while preserving the fundamental human aspects of critical thinking. This balanced integration not only optimizes the benefits of AI but also ensures that students are well-equipped to navigate the challenges and seize opportunities within the ever-evolving landscape of education in the digital age.

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**References**

- [1] Chan, C.K.Y. (2023). A comprehensive AI policy education framework for university teaching and learning. *International Journal of Educational Technology in Higher Education*, 20(1), 38. <https://doi.org/10.1186/s41239-023-00408-3>
- [2] Ennis, R. H. (1985). A Logical Basis for Measuring Critical Thinking Skills. *Educational Leadership*, 43 (2), 44-48.
- [3] Epstein, Z. (2016). Has artificial intelligence already surpassed the human brain? Retrieved from <https://bgr.com/2016/03/10/alphago-beats-lee-sedol-again/>
- [4] J. Fang, H. Su, Y. Xiao, Will Artificial Intelligence Surpass Human Intelligence? (2018) <https://doi.org/10.2139/ssrn.3173876>.
- [5] Nilsson, N. J. (1998). *Artificial Intelligence: A New Synthesis*. Morgan Kaufmann.
- [6] Paul, R.W., & Elder, L. (2006). *Critical Thinking: The Nature of Critical and Creative Thought*. *Journal of developmental education*, 30, 34.
- [7] Pariser, E. (2011). *The Filter Bubble: What the Internet is Hiding from You*. London: Penguin
- [8] UKNghia, T. (2017). Developing generic skills for students via extra-curricular activities in Vietnamese Universities: Practices and influential factors. *Journal of Teaching and Learning for Graduate Employability* 8(1), 22-39. DOI: <https://doi.org/10.21153/jtlge2017vol8no1art624>
- [9] Spector, J.M., Ma, S. (2019). Inquiry and critical thinking skills for the next generation: from artificial intelligence back to human intelligence. *Smart Learn. Environ.* 6, 8. <https://doi.org/10.1186/s40561-019-0088-z>
- [10] Sunstein, C. (2018). *Republic: Divided democracy in the age of social media*. Princeton University Press <https://doi.org/10.2307/j.ctv8xnhtd>
- [11] . Tuomi, I. (2018). *The Impact of Artificial Intelligence on Learning, Teaching, and Education*. In M. Cabrera Giraldez, R. Vuorikari, & Y. Punie (Eds.), EUR 29442 EN. Publications Office of the European Union. Luxembourg. doi:10.2760/12297, JRC113226. ISBN 978-92-79-97257-7. <https://publications.jrc.ec.europa.eu/repository/handle/JRC113226>
- [12] Winston, P. H. (1992). *Artificial Intelligence* (3rd Ed.).

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