



The Impact of Artificial Intelligence on the Thinking Capabilities of Students

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Abstract:

The integration of Artificial Intelligence(AI) is changing how we engage in educational practices by creating learning support, particular training, and creating raw content. Although AI can enhance availability and effectiveness, there are enterprises about the impact on long-term consequences for scholars' cognitive development. This paper examines the possibility that overdependence on AI tools may inhibit critical thinking, creativity, problem- working, and deep literacy in scholars. The paper draws on work in educational psychology, cognitive wisdom, and empirical studies from the last several times, which highlights both the benefits and unintended consequences of using AI in academic spaces. It'll conclude with some ideas that can help integrate AI without compromising scholars' thinking, independent of these systems.

Introduction:

In the 21st century, AI is a part and parcel of contemporary education, ranging from intelligent training systems to automated essay pens. scholars moment enjoy unexampled access to software that can epitomize textbook, calculate delicate equations, and indeed induce law. As much as AI can round literacy, preceptors decreasingly sweat that over-reliance on similar software can stifle scholars' internal development, especially in disciplines like problem- working, critical thinking, and creativity.

Literature Review:

A number of studies have explored the cognitive goods of technology on education. Carr(2010) states that digital technologies can beget" cognitive

offloading," where the mind offloads work to machines and decreases internal trouble. Warschauer & Matuchniak (2010) stressed the need for striking a balance in technology use so that scholars also use substantial thinking processes. More recent studies by Holstein et al.(2020) set up that AI can be used to altar literacy, yet in the absence of careful integration, it might also affect in" learning robotization" as scholars admit information passively without processing.

Methodology:

This composition takes the mixed-system strategy, blending

- A qualitative conflation of the current exploration on AI in education.
- Checks with 200 scholars of high academy and undergraduate

situations regarding their habits of using AI.

- Interviews with 20 preceptors across colourful academic disciplines.

Findings:

1. Offloading of Cognition and Critical Thinking:

The check verified that 68 of scholars use AI platforms similar as ChatGPT, Grammarly, or Photomath at least once a week, generally to finish their assignments in a hurry. Out of them, 45 confessed they regularly use AI- generated textbook without comprehending the underpinning ideas. similar practice becomes a type of cognitive passivity where scholars outsource allowing to algorithms.

2. Reduced Problem-Solving Capability:

Preceptors indicated a significant drop in scholars' capacity for independent problem- working. One mathematics schoolteacher explained

"Scholars now skip the process and go straight to the answer. They no longer try to figure effects out themselves."

AI tools tend to give refined results, but without mimicking the internal struggle needed to master and retain literacy.

3. Lower Creativity and Original Thinking:

Essay- jotting software can induce grammatically valid and logically harmonious textbook. scholars, still, will emulate AI styles and end up with homogenized and epigonic work. In social lores and literature, it stifles divergent thinking that's essential for interpretation and invention.

Discussion:

While AI may conform education and equate access to information, uncontrolled operation threatens to undermine scholars' metacognitive exertion. robotization of tasks conventionally calling for reflection and trouble might affect in a generation of scholars who are complete at operating tools but lacking in further profound appreciation.

Also, AI does not imitate mortal study it forecasts possible answers grounded on patterns of data. scholars using only AI'll be suitable to distinguish verbal consonance from verity or appreciation.

Recommendations:

To avoid losing thinking chops, preceptors and policymakers need to use balanced approaches

- Encourage AI knowledge Educate scholars about how AI functions, its bounds, and ethical considerations.
- Develop AI- Resistant Tests Employ open- concluded questions, class conversations, and oral examinations.
- Grease Reflective Practice Ask scholars to turn in process logs or reflections on AI- supported assignments.
- Restrain AI in Early literacy Stages Prioritize introductory skill accession, and also bring in AI tools.

Conclusion:

AI is a great literacy aid, but its uncurbed operation threatens scholars' cognitive autonomy. The issue is n't to enjoin AI, but to cultivate a culture of

literacy where AI assists — noway backups — mortal study. preceptors have to learn how to lead scholars to critically interact with AI results and keep control of their literacy processes.

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